

## Chapter 2

## Building up the Country and Regions in a Society Amidst a Serious Population Decline

Chapter 2 will be divided into the two sections: the flow of people and goods that contribute to the vitalization of the community (Activity), and the regional structure (Structure) that provides support to that Activity. In the first section “The Flow of People, Goods, Money and Information”, we will analyze the causes and tendencies of Relocation to the Rural Areas and attempt to quantify the attractiveness of a region. We will also introduce the efforts being made towards community vitalization through tourism, distribution of goods and regional economic circulation.

In the section 2 “Structured Community Development Tailored to the Needs of the Times”, we will expound on how “compact” and “networked” is an important aspect in thinking about regional structure (Structure) for working towards the creation of a country generating diverse synergies among regions by introducing the effects and actual efforts of “compact” and “networked”—the basic concept of “Grand Design of National Spatial Development towards 2050”.

## Section 1 The Flow of People, Goods, Money and Information

In Section 1, we will focus on the flow that vitalizes the district (Activity). We will start by looking at and analyzing the current “Flow of People (residential population) to the Rural Areas” situation, such as Relocation to Rural Areas, an important aspect in thinking about how to remedy the concentration of everything in Tokyo. Next, as part of the flow of “People (interacting population), Goods, Money and Information” which supports the district, we will introduce the effects on regional economy and actual cases of efforts involving these factors for each of the following categories: tourism, distribution of goods, information and district economic circulation.

First, in “1. The Flow of People (Residential Population) to Rural Areas such as Relocation to Rural Areas”, “(1) The Current State of Rural Relocation and Rural Return” will clarify the current situation regarding Rural Relocation and Rural Return based on survey results that show a recent increase in awareness of “Rural Return” among residents of metropolitan areas. And, in “(2) Analysis of Public Awareness Based on Survey Results”, the causes and background will be analyzed using MLIT’s own survey results.

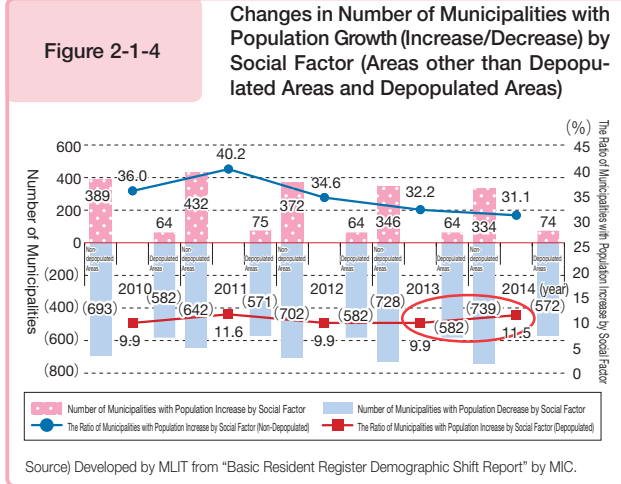
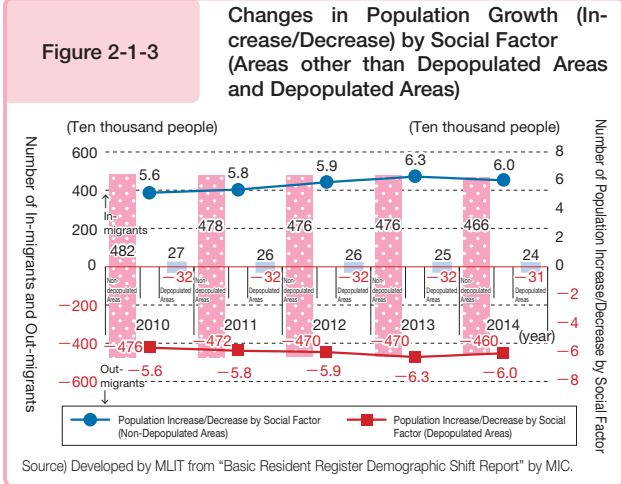
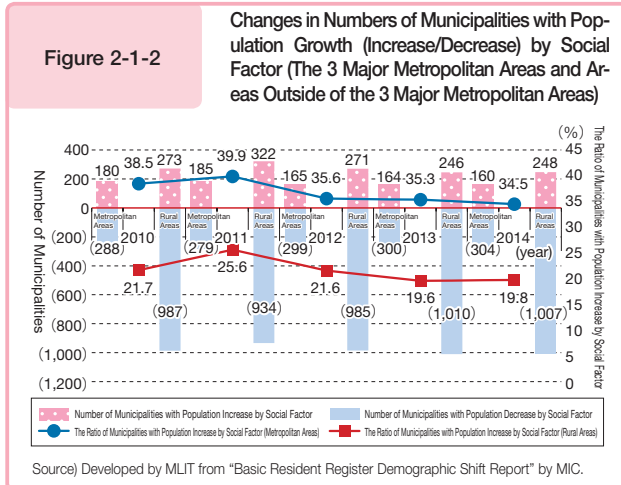
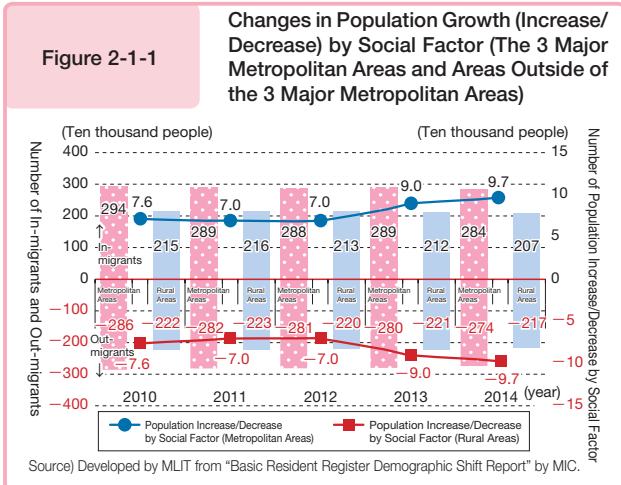
Next, while keeping in mind that aspects of “non-monetary values” such as a rich natural environment has a significant influence on Rural Migration, in “(3) Analysis of “The District Attractiveness” that Creates the Flow of Rural Migration” we will compare the cost of living and the income level in the Metropolitan Areas to those in the Rural Areas, and try to quantitatively rate which factors provide what level of attraction in the “attractiveness of a district” that triggers relocation.

Further, in “(4) Movement Towards Living in Two Districts”, we will introduce the “Two District Residence” which, although may not result in relocation, could become the catalyst to relocation through a proactive involvement in a district, and will be important in promoting the flow of people to the rural areas.

# 1 The Flow of People to Rural Areas (Residential Population) such as Migration to Rural Areas

## (1) The Current State of Rural Migration and Rural Return (Statistical View of the Rural Return)

As seen in Chapter 1, in recent years the tendency for population drain from the Rural Areas <sup>Note 18</sup> to the Metropolitan Areas is on the rise again <sup>Note 19</sup>. The information from Basic Resident Register Demographic Shift <sup>Note 20</sup> for the five-year period from 2010 to 2014 shows that the demographic shift to the urban areas is continuing (Figure 2-1-1, Figure 2-1-2). Shifting the focus a little to compare the municipalities of the Depopulated Areas <sup>Note 21</sup> and the municipalities of the other areas, the tendency towards population shift to the Metropolitan Areas is unchanged (Figure 2-1-3). However, looking at the ratio of municipalities that have achieved a population increase by social factor, it can be interpreted that there is a slightly increasing trend of municipalities that have achieved a population increase by social factor in the Depopulated Areas (Figure 2-1-4).



**Note 18** In this section, the 3 Major Metropolitan Areas will be referred to as Metropolitan Areas and the other areas will be referred to as Rural Areas.

**Note 19** Refer to Figure 1-1-5 in Chapter 1, Section 1 (1).

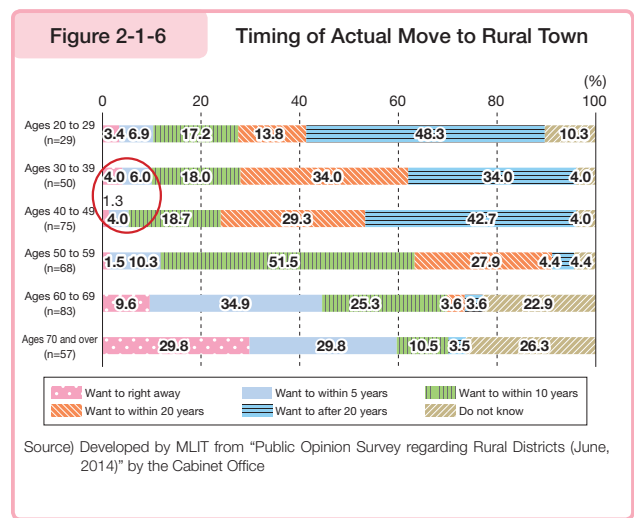
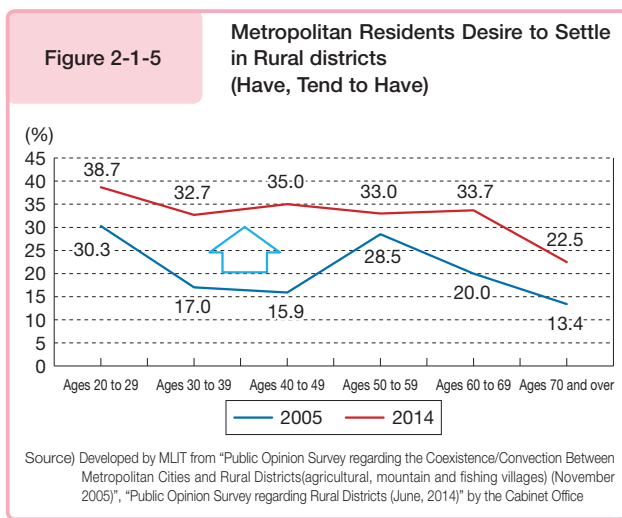
**Note 20** - Yamatsuri-machi (Fukushima Prefecture) is not connected to the Basic Resident Registration Network System so there are no numbers of Out-migrants and Excess In-migrants that are listed in the Basic Resident Register Demographic Shift Report but for this summary, the numbers listed as In-migrants were applied to Excess In-migrant numbers.  
 - Kunitachi City (Tokyo) is not connected to the Basic Resident Registration Network System so there are no numbers of Out-migrants and Excess In-migrants that are listed in the Basic Resident Register Demographic Shift Report (2010 and 2011) but for this summary, the numbers listed as In-migrants were applied to Excess In-migrants numbers.  
 - Kunitachi City (Tokyo) has been connected to the Basic Resident Registration Network System since February, 2012. Therefore, the number of In-migrants are the results from February 1, 2012 to December 31, 2012. The number of Excess In-migrants is not listed because the periods for In-migrants and Out-migrants are different, but in this summary, the above-mentioned In-migrants and Out-migrants were included in the Excess In-migrants numbers (2012).

**Note 21** Depopulated Areas refers to the municipal regions that are considered depopulated areas as defined in Article 2 Paragraph 1 and Article 33 Paragraph 1 of Act on Special Measures for Promotion for Independence for Underpopulated Areas.

(Rural Return in Immediate Vicinity)

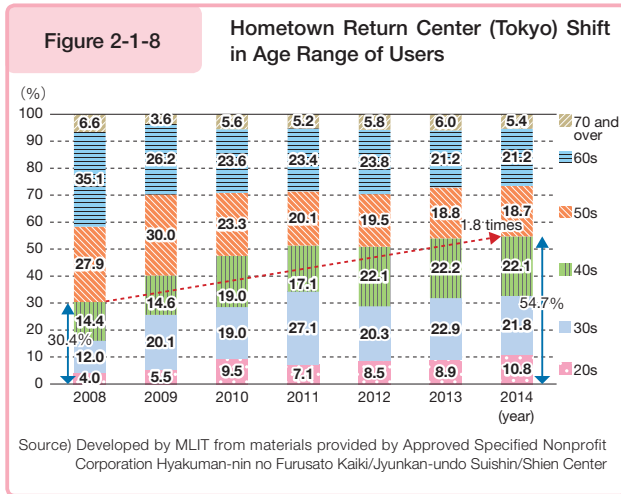
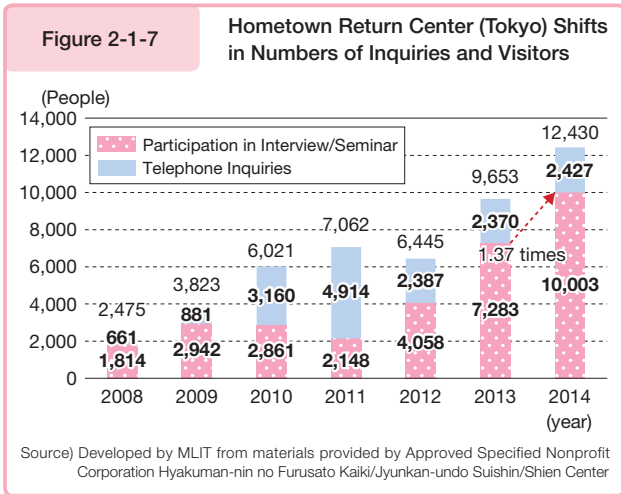
It is difficult to determine the tendency of the flow of people to the Rural Areas on a national level by looking at statistical data. However, it has been pointed out that there is an increasing number of young people who aspire to and value rural areas from a desire for a lifestyle that values interaction with the regional community and nature, called “Return to the Countryside”, rather than seeking only economic prosperity.

In the public opinion survey conducted by the Cabinet Office, it is clear that there is a higher level of awareness among young people about the “Return to the Countryside”. Comparing the 2005 and the 2014 surveys regarding the metropolitan residents’ desire to settle in rural areas, this desire increased from 17.0% to 32.7% for those in their 30s and from 15.9% to 35.0% for those in their 40s (Figure 2-1-5). However, in said 2014 survey, of those who responded that they “have” or “tend to have” a desire to settle in rural districts, although there is a high number of those in their 60s and over 70s who want to move to rural areas almost immediately, only 4.0% in their 30s and 1.3% in their 40s want to move to rural areas almost immediately. Even including those in their 30s and 40s who want to move to rural areas within 5 years, the numbers are 10.0% and 5.3% respectively, which indicates that it is not a pressing desire (Figure 2-1-6).



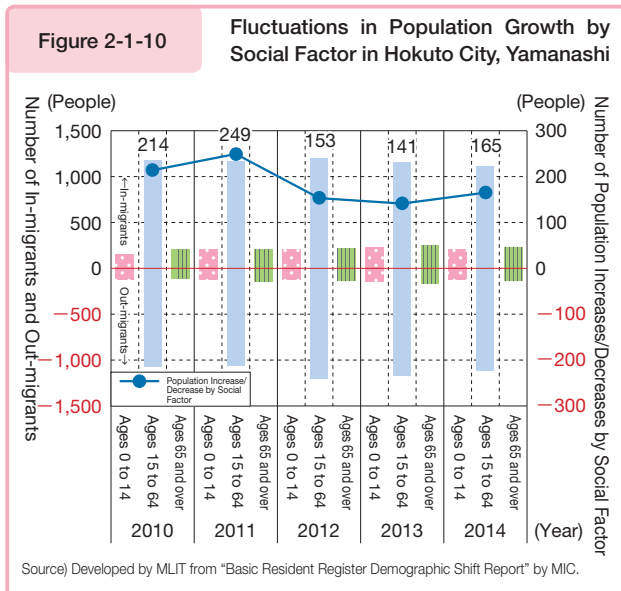
Authorized NPO Furusato Kaiki (Hometown Return) Center <sup>Note 22</sup> matches metropolitan residents who wish to live in rural areas with approximately 800 municipalities that support interaction and relocation. This Center conducts a survey of the number of inquiries and the age of their users. Looking at the user records for 2014, it is evident that the number of visitors was approximately 1.4 times that of 2013 (Figure 2-1-7). Although the heightened visibility of the Center must be taken into consideration for the increase in inquiries, considering the services of this Center, it can be inferred that there is a certain population of those who are seriously thinking about or beginning to think about relocating to a rural area and are using this Center. Also, here again the increase in users of the younger generation up to their 40s is notable (Figure 2-1-8) and matches the public survey results mentioned before.

**Note 22** Official name is “Approved Specified Nonprofit Corporation Hyakuman-nin no Furusato Kaiki/Jyunkan-undo Suishin/Shien Center” (Hometown Return/ Circulation Movement for 1,000,000 People Support Center)



■ The Case of Hokuto City, Yamanashi Prefecture

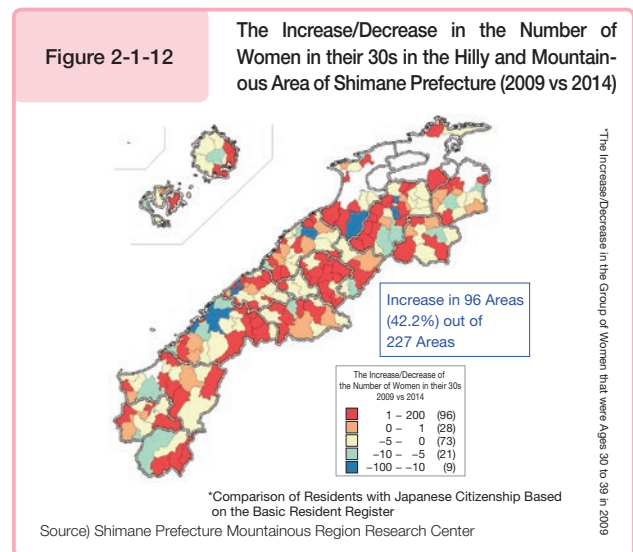
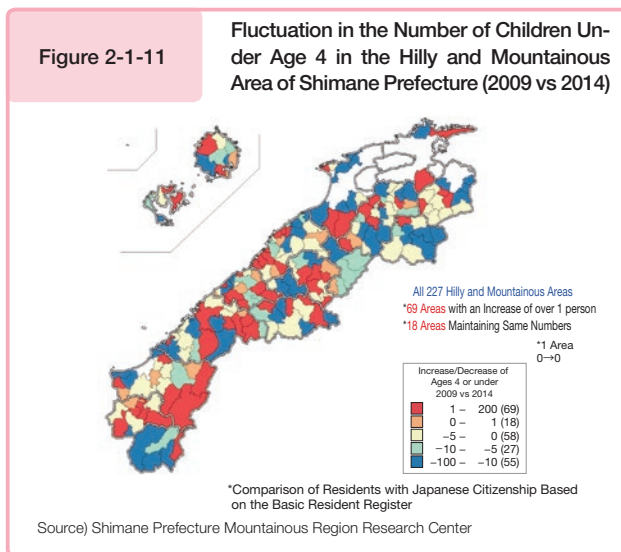
There are specific examples such as Hokuto City in Yamanashi Prefecture (Figure 2-1-9) that have achieved a continuous population increase by social factor (Figure 2-1-10). 70% of those moving into Hokuto City come from outside of Yamanashi Prefecture, with the commonality that many are coming from metropolitan areas, attracted by the rich local resources like the beautiful mountains such as Mount Yatsugatake, and the longest daylight hours in Japan. The background for this trend, in addition to being relatively close to the metropolitan area with easy access such as Chuo Interchange, is that there is a successful system in place that works to do things like secure employment opportunities through the attraction of enterprises and eliminate deserted arable land, in order to support those wanting to live in rural areas.





## ■ Countryside Return Happening in the Hilly and Mountainous Area of Shimane Prefecture

According to the research by Shimane Prefecture Mountainous Region Research Center, in looking at the hilly and mountainous area of Shimane Prefecture <sup>Note 23</sup> more closely by checking the basic community unit (primary living area equivalent, average of 1,370 people) such as elementary school district or community centers, rather than the municipal unit of the Basic Residents Register, there are notable districts that show an increase in the number of children and of women in their 30s (Figure 2-1-11, Figure 2-1-12). Dividing the hilly and mountainous areas of Shimane Prefecture into 227 areas and comparing 2009 to 2014, it is evident that there is an increase in the number of children under age 4 in 69 areas (approximately 30% of the areas) and the number of women in their 30s in 96 areas (approximately 42% of the areas). The Center has been conducting interviews in the communities and has concluded that many of those moving into the hilly and mountainous areas are not looking for convenience or financial gain but rather an environment to raise children and to connect with traditions, people, and nature.



## (2) Analysis of Awareness of Rural Return Based on Questionnaire

As is known, there are the U-Turners that move back to their hometown and the I/J-Turners <sup>Note 24</sup>, those that move to an area different from their hometown. According to the “Market Intelligence & Forecast” <sup>Note 25</sup> conducted by Mitsubishi Research Institute, Inc. using citizen monitors in annual surveys, approximately 36% of those moving to the metropolitan areas and approximately 21% of those moving to rural areas are people coming from other prefectures, indicating that it is a relatively larger ratio for the metropolitan areas (Figure 2-1-13). Additionally, in the survey conducted by MLIT (hereafter “Public Awareness Survey”) <sup>Note 26</sup>, a more detailed breakdown has been done for the residents of Rural Areas, which showed that approximately 23% were permanent residents, approximately 55% were U-Turners and approximately 14% were I/J-Turners <sup>Note 27</sup>, making it evident that there are very few people who have never lived in another place (Figure 2-1-14).

**Note 23** The Hilly and Mountainous Area is the combination of the Hilly Agricultural Area and the Mountainous Agricultural Area classifications used for agricultural statistics.

Of this area, the ratio of forest for the hilly agricultural area is mainly 50 to 80% with cultivated fields indicating municipalities with a lot of sloped land, while mountainous agricultural area is over 80% forest where municipalities are less than 10% cultivated land.

**Note 24** I/J-Turner: I-Turner is a person born and raised in a Metropolitan Areas migrating to a Rural Area, J-Turner is a person born and raised in a Rural Area that moves to a Metropolitan Area and then migrates to a rural area different than where he/she grew up.

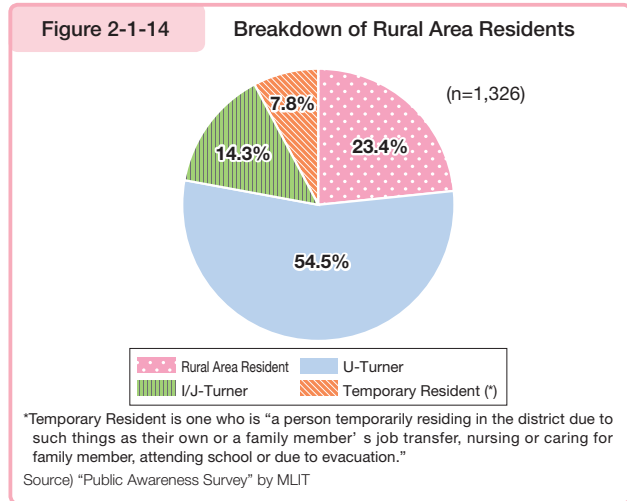
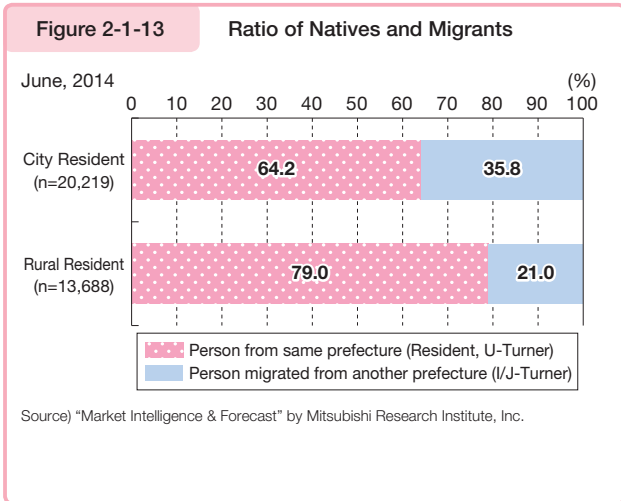
**Note 25** An internet survey conducted annually since 2011 by Mitsubishi Research Institute, Inc. (Number of responses in 2011 was 30,000 for ages 20 to 69, and in 2014 was 34,183 responses including responses from people over age 70. Moreover, for the inter-annual comparison, 2014 is also shown as 30,000 for ages 20 to 69)

**Note 26** In February 2015, conducted by internet with all individuals in Japan as target population (3,000 responses).

**Note 27** “Public Awareness Survey” uses the following definitions.

- Rural Area Permanent Resident: A person currently residing outside the 3 Major Metropolitan Areas and is living in the same prefecture as their prefecture of origin and has never resided elsewhere.
- U-Turner: A person currently residing outside the 3 Major Metropolitan Areas and is living in the same prefecture as their prefecture of origin but has lived in other municipalities in the past.
- I/J-Turner: A person currently residing outside the 3 Major Metropolitan Areas and living in a prefecture that is not their prefecture of origin.

Furthermore, intra-prefectural migrants moving within municipalities of the same prefecture are included in the U-Turners.



Next, we would like to analyze the awareness of citizens by attributes such as permanent resident or migrant, generation, and region.

(Those "with" connections to rural areas have more desire to move to rural areas than those "without".)

In studying the desire to move to rural areas in the "Public Awareness Survey", it became clear that of the people living in metropolitan areas, those with a connection to the rural areas have more of a desire to move to rural areas than those without a connection to rural areas. Specifically, people who came from rural areas to live in the metropolitan areas, and people who came from the metropolitan areas and are currently temporarily living in rural areas for reasons like job transfers, caring for family members, further education, etc. show a greater tendency to want to move to rural areas (Figure 2-1-15, Figure 2-1-16). Furthermore, it is clear that the residents of metropolitan areas who originally came from rural areas have the most pride in their place of origin (Figure 2-1-17).

It can be inferred from this that there is a certain number of people who find the rural areas more attractive than the metropolitan areas, based on their experience of living (or temporarily living) in the rural areas.

These factors indicate that the expansion of the interacting population—those that have experience of living in more than one area—can be a catalyst for moving to rural areas.

Further, though there are less people who want to live where they were born and raised compared to three years ago (Figure 2-1-18), there is a relatively high number of those who do have that desire across the various age groups, especially among those living in rural areas (Figure 2-1-19).

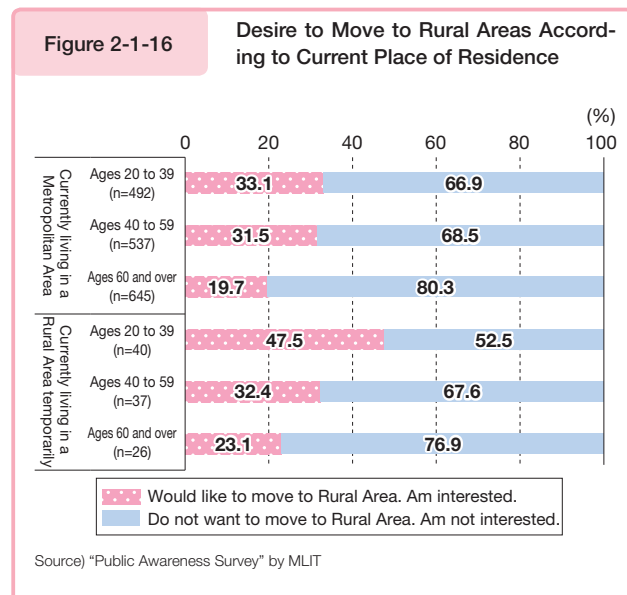
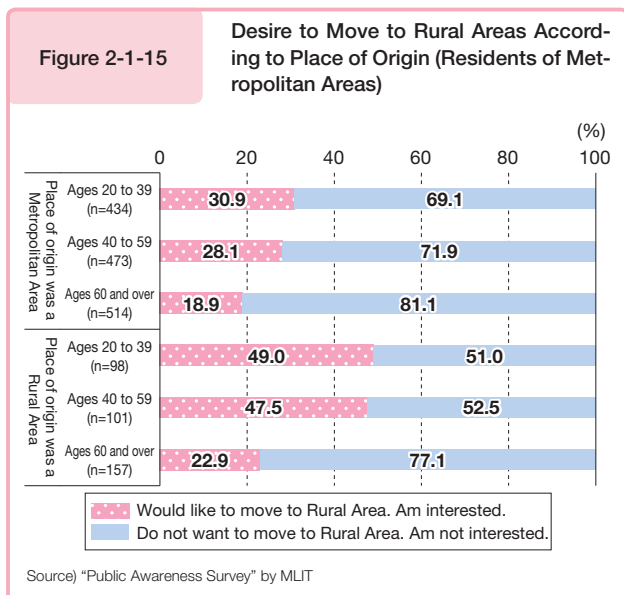
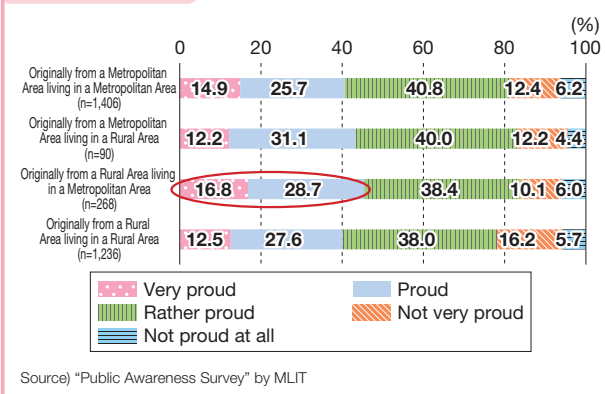
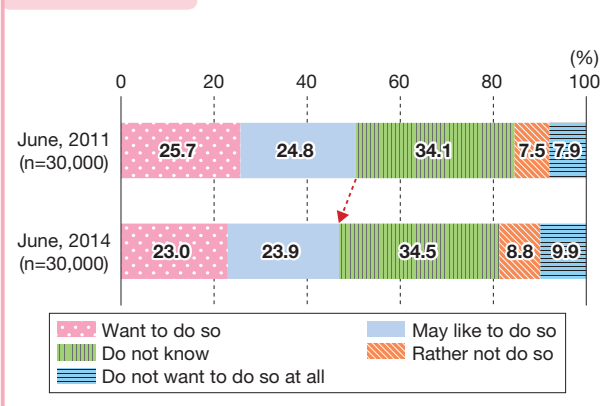


Figure 2-1-17 Pride in Place of Origin (According to Place of Origin and Place of Residence)



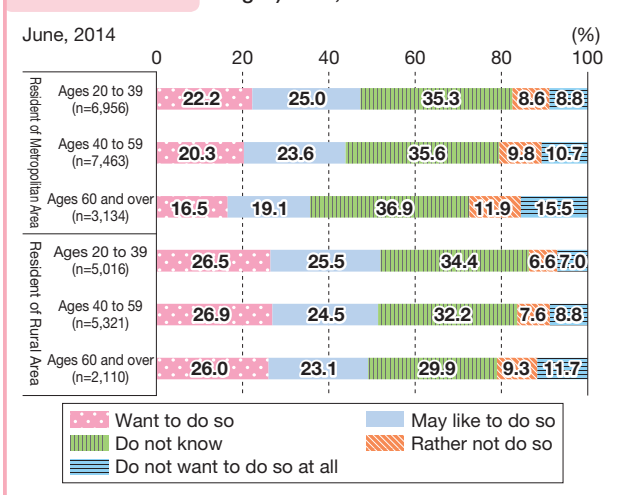
Source) "Public Awareness Survey" by MLIT

Figure 2-1-18 Want to Live Where Born and Raised



Source) "Market Intelligence & Forecast" by Mitsubishi Research Institute, Inc.

Figure 2-1-19 Want to Live Where Born and Raised (According to Metropolitan/Rural Areas, Ages) June, 2014



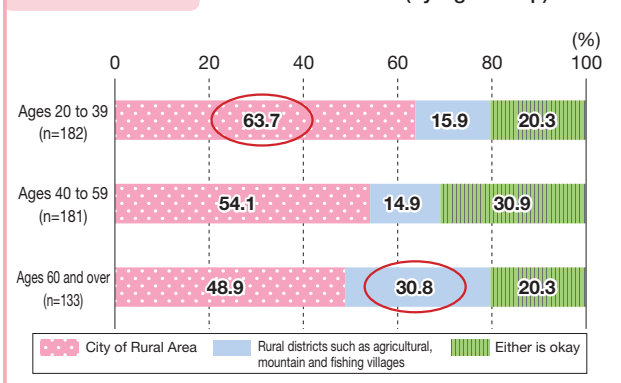
Source) "Market Intelligence & Forecast" by Mitsubishi Research Institute, Inc.

(Most often the people who want to migrate to the Rural Areas want to move to the cities within the rural areas)

Those of the younger generation with a desire to migrate to the rural areas have a strong tendency to want to move to the cities of the rural areas. Also, although many of the people aged 60 and over wish to move to the rural cities, compared to the younger generation, more of them wish to migrate to the rural districts or villages (Figure 2-1-20). When speaking of "return to rural areas", key phrases such as "return to the countryside" and "living the slow life" are often used, but of those who seek to relocate there seems to be two major currents of people: those who seek to migrate to rural cities and those who seek to migrate to rural districts or villages, with a tendency of there being a greater ratio of the former.

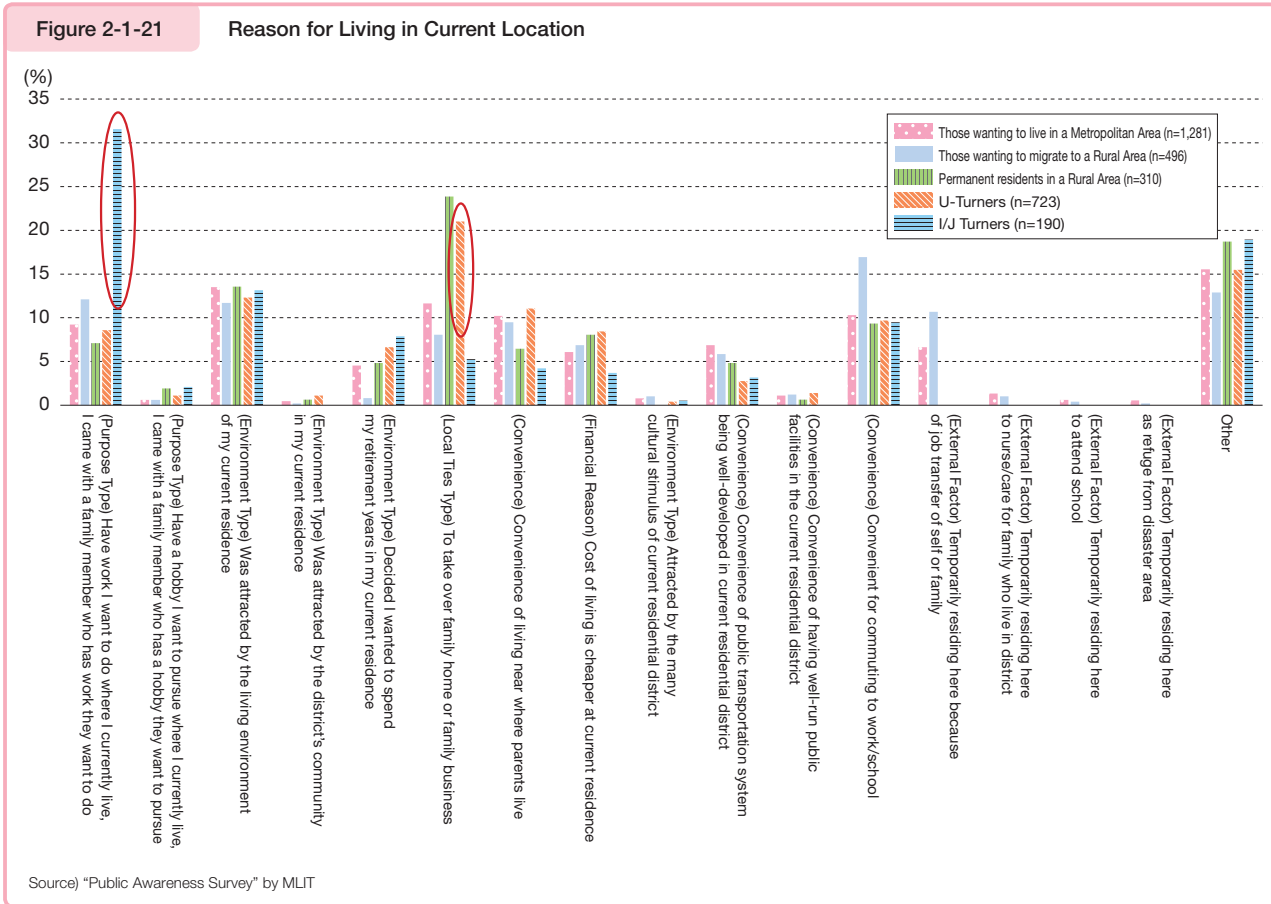
Further, when asked the reason for living in the area they are currently located, there is a higher ratio of U-Turners who respond that they are there to take over family homes or business compared to other reasons, whereas the most frequent answer from I/J-Turners is that there is work there that they want to do (Figure 2-1-21). From this we can conjecture that I/J Turners tend to choose working in rural areas of their own volition. Either way it shows that there is

Figure 2-1-20 Areas Where Rural Area Migration Aspirants want to Live (by Age Group)



Source) "Public Awareness Survey" by MLIT

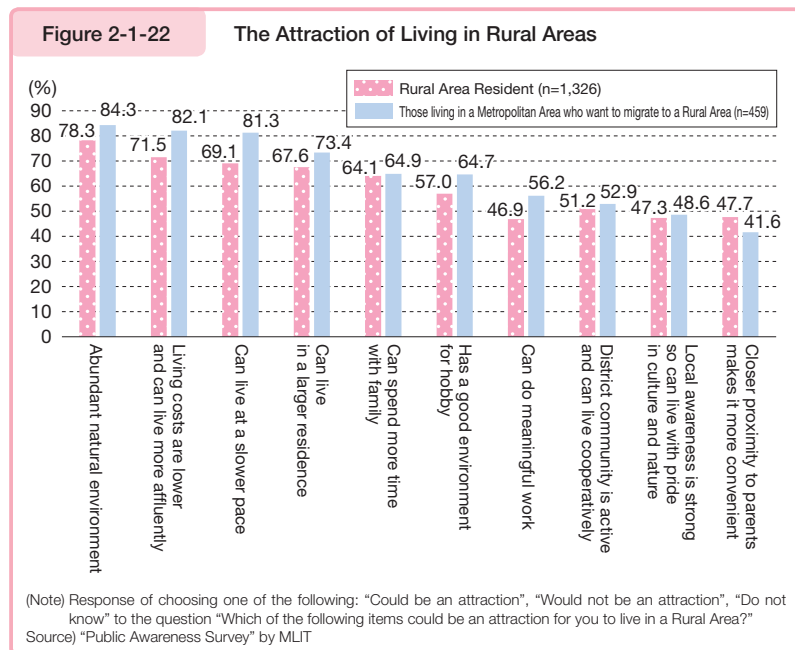
a very close connection between “migration to rural areas” and work.



**(Biggest Attraction for Living in Rural Areas is the Abundance of Natural Environment)**

When asked in the Public Awareness Survey about the attractiveness of living in rural areas, it became clear that for almost all items, people wishing to migrate to rural areas feel a stronger attraction to the rural areas than the permanent residents of the rural areas (Figure 2-1-22). It can be inferred that there is a sort of “longing” for rural areas by those who wish to migrate. Also, the thing that most attracts the people wanting to migrate is the abundance of the natural environment. At over 80%, the primary attraction chosen is the abundance of natural environment, followed by the attractions of low cost of living, having more free time, spacious living environment, etc.

Based on the fact that many of the people wanting to migrate to rural areas actually want to move to the cities within rural areas, we can infer that the ease of access to nature which is possible from the rural cities is considered ‘abundance of natural environment’, rather than it being limited to the rural districts or villages. Those who aspire to living in rural cities seem to be seeking a good balance of a relaxed lifestyle, with the convenience of city living combined with excellent accessibility to nature. This is the flip-side



of those living in rural districts or villages who, for example, go to visit a rural city that is about an hour away by car to enjoy city life.

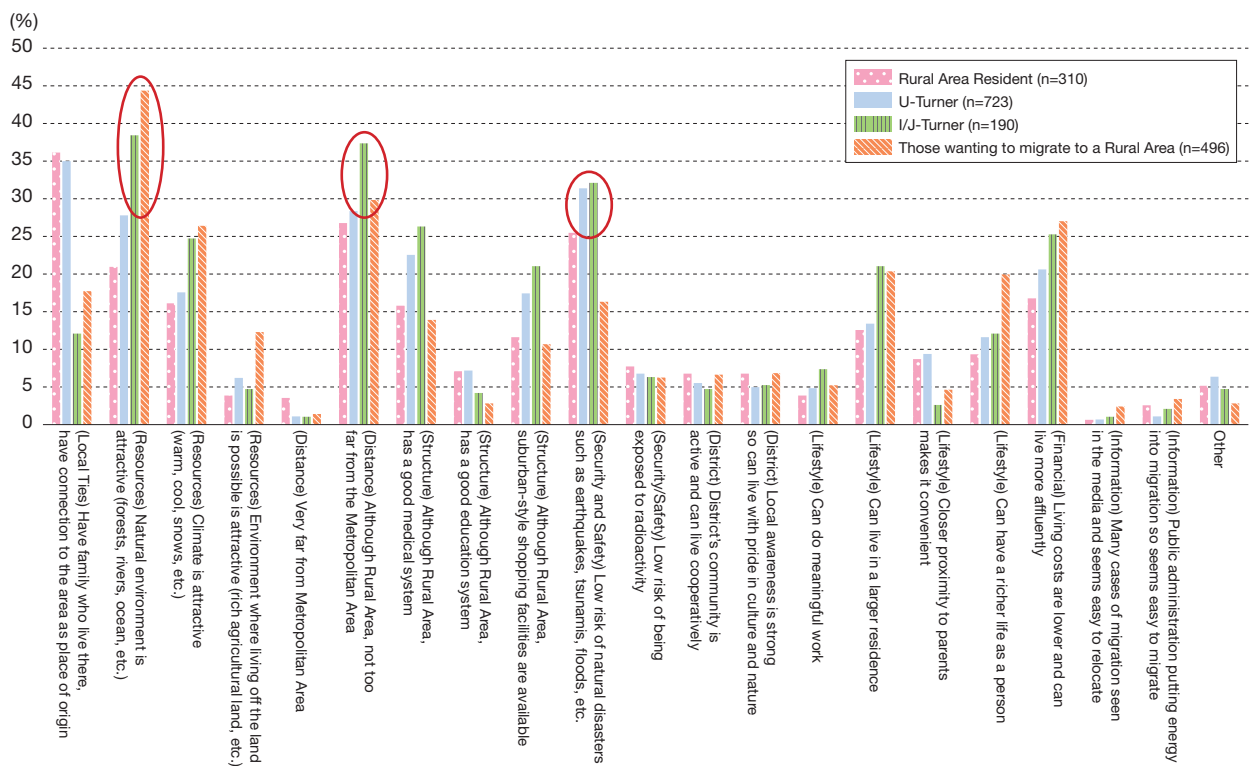
(I/J-Turners are attracted to Rural Areas that are not too distant from the Metropolitan Areas)

In choosing an area for relocation, close proximity to the Metropolitan Areas seems to be a point of attraction for I/J-Turners (Figure 2-1-23). We can infer that they plan on regularly visiting the area where they lived before migrating, especially if they have family and friends in that area, and so they can conveniently enjoy city life.

(For migrants, the lower risk of natural disasters is an attraction of Rural Areas)

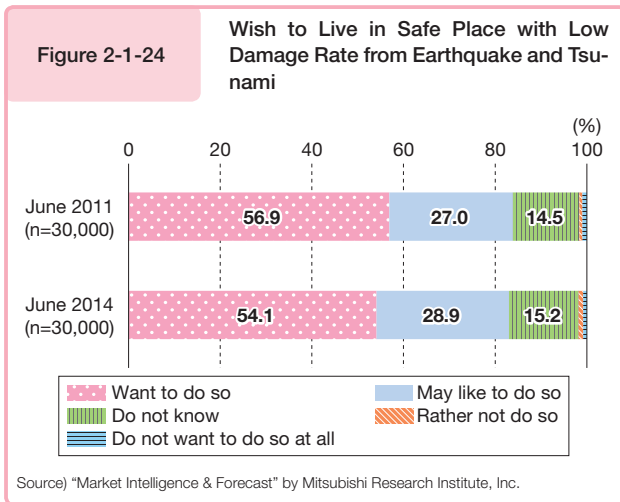
People who actually migrated by U-Turning or I/J-Turning indicate that the lower risk of natural disasters is a point of attraction of their current area of residence (Figure 2-1-23). Although the consciousness of safety seems to have lessened a little as over four years have passed since the Great East Japan Earthquake, even in 2014 over 80% have the desire to live in a safe areas with fewer earthquakes and tsunamis (Figure 2-1-24). The underlying need to be safe and secure still runs high and can be a specific reason for actually migrating to Rural Areas.

Figure 2-1-23 The Attraction of Current Area of Residence (Desired Rural Area for Migration) (Up to 5 responses allowed)



Source) "Public Awareness Survey" by MLIT





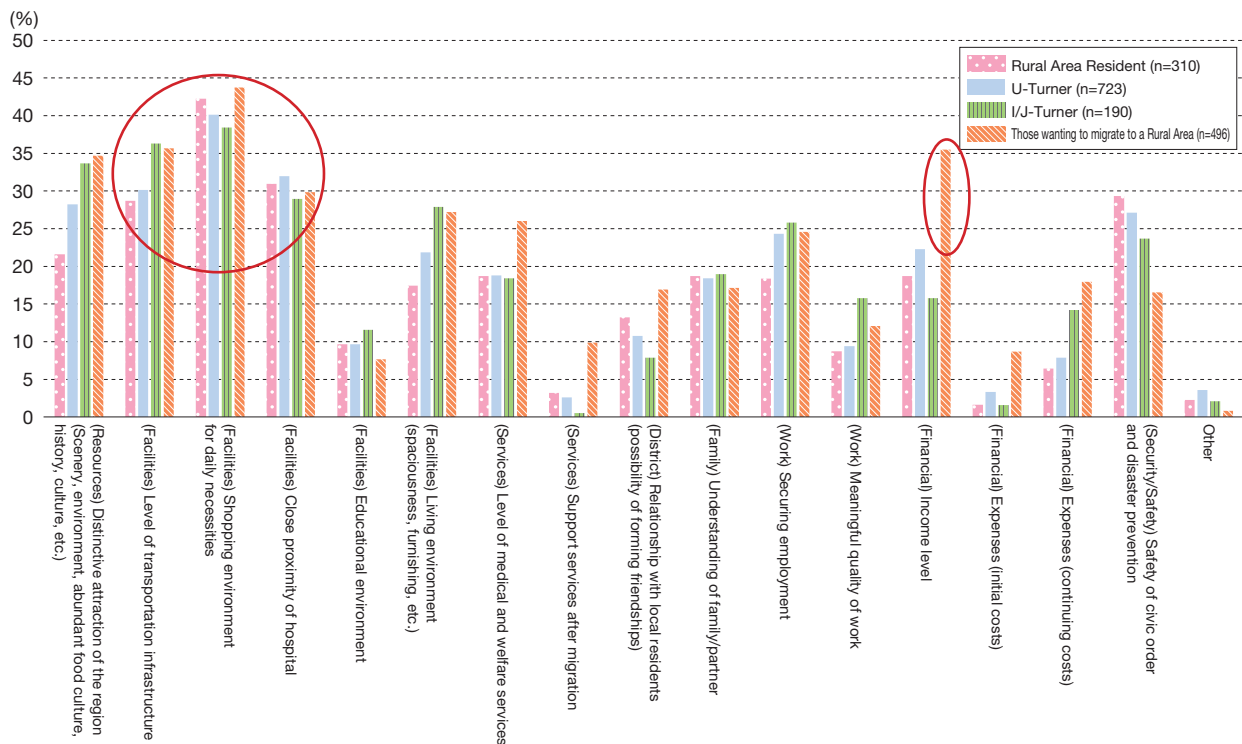
(Infrastructure is considered important by all groups)

All groups place value on infrastructure, such as a good shopping environment and transportation system, as well as proximity to hospitals (Figure 2-1-25). It seems that those who live in the rural cities as well as those who want to migrate to rural cities are both groups that consider infrastructure to be very important. Many of those wanting to migrate to Rural Areas especially value the shopping environment for daily necessities and following that, they value a well-developed transportation system. The fact that, compared to permanent residents and U-Turners, those wanting to migrate to Rural Areas and I/J-Turners place more value on good transportation may be because in choosing between multiple candidate areas for migration, most people want the benefits of convenience.

(Those wanting to migrate to Rural Areas value income but those who have actually migrated do not value it as much)

Of those wanting to migrate to Rural Areas, a very large number of people emphasize income level (Figure 2-1-25), and we can infer that there is a concern that quitting their current job to migrate to a rural area will result in lower their income level. As seen in Figure 2-1-6, this concern regarding income level seems to be the reason behind the low numbers of people who want to migrate immediately or within 5 years.

Figure 2-1-25 Conditions Considered (Considering) Crucial for Migration



Source) "Public Awareness Survey" by MLIT

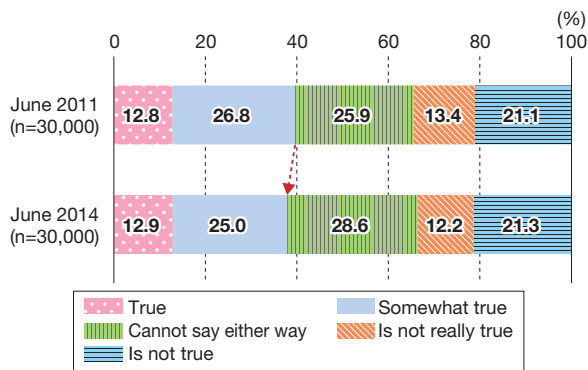
Next we will analyze the value system regarding work, as it seems to have a very close relationship to migrating to rural areas.

(The sense of excitement towards work is decreasing for the younger generation)

Compared to 3 years ago, along with a slight decrease in those who say they have time to spend with their families on weekdays (Figure 2-1-26, Figure 2-1-27), there is also a decrease in those who say they find satisfaction or fulfillment in their work, especially among the younger generation in their 20s (Figure 22-1-28, Figure 2-1-20). In concert with this, the ratio of those who think they want to continually work for improvement (promotion) is decreasing (Figure 2-1-30). In particular, among the younger generation in their 20s, those who “want to do so” or “May like to do so” exceeded the total of those who “Rather not to so” or “Do not want to do so at all” (29.9% : 27.6%) in 2011. By contrast, in 2014 the results were reversed (24.4% <sup>Note 28</sup> : 31.7%) (Figure 2-1-31). This decrease in a sense of expectancy regarding work could be interpreted as a sign of the diversification in values, and may be serving as one of the triggers for migrating to rural areas.

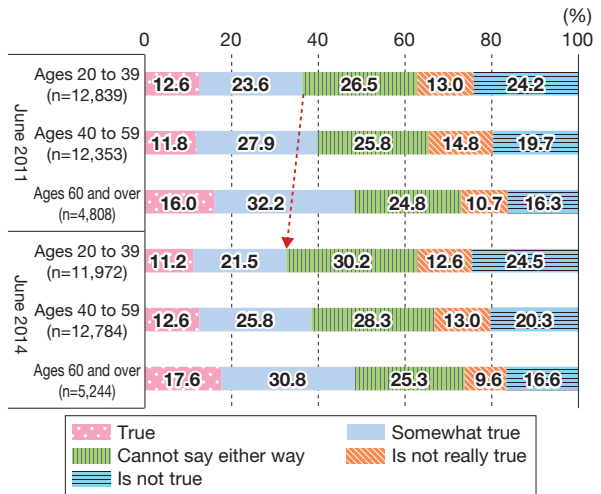
Note 28 Due to number of digits after decimal point, does not match the total number in chart.

Figures 2-1-26 Have Family Time on Weekdays



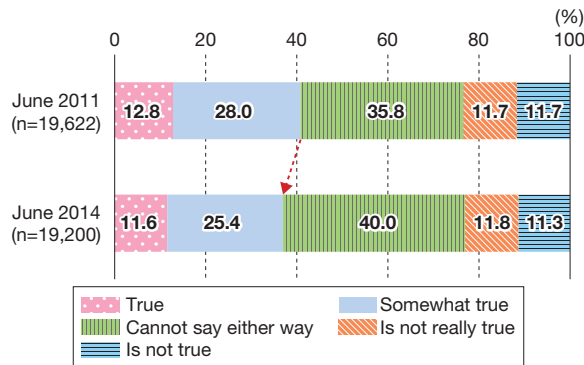
Source) "Market Intelligence & Forecast" by Mitsubishi Research Institute, Inc.

Figure 2-1-27 Have Family Time on Weekdays (by Age Group)



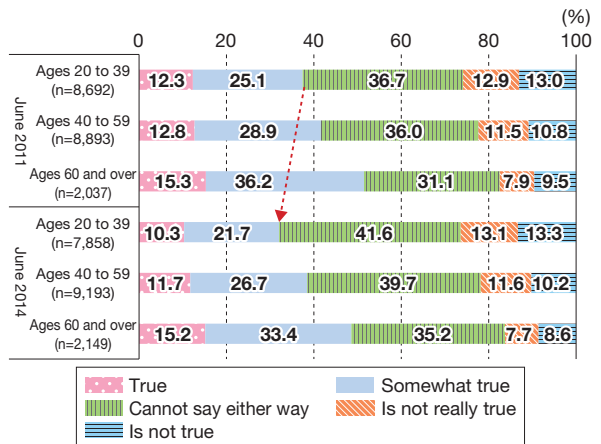
Source) "Market Intelligence & Forecast" by Mitsubishi Research Institute, Inc.

Figure 2-1-28 Work is Satisfying or Fulfilling



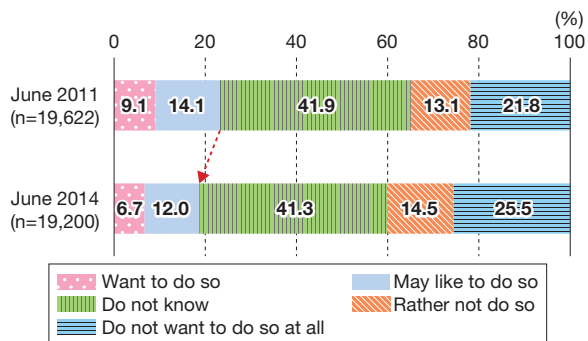
Source) "Market Intelligence & Forecast" by Mitsubishi Research Institute, Inc.

Figure 2-1-29 Work is Satisfying or Fulfilling (by Age Group)



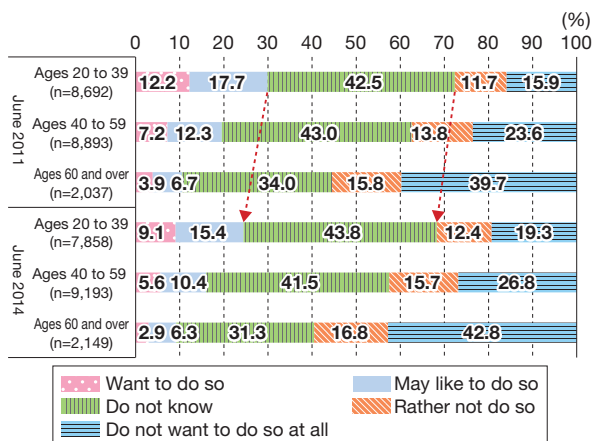
Source) "Market Intelligence & Forecast" by Mitsubishi Research Institute, Inc.

Figure 2-1-30 Want to Continually Aim to Improve Position (Promotion) in Company



Source) "Market Intelligence & Forecast" by Mitsubishi Research Institute, Inc.

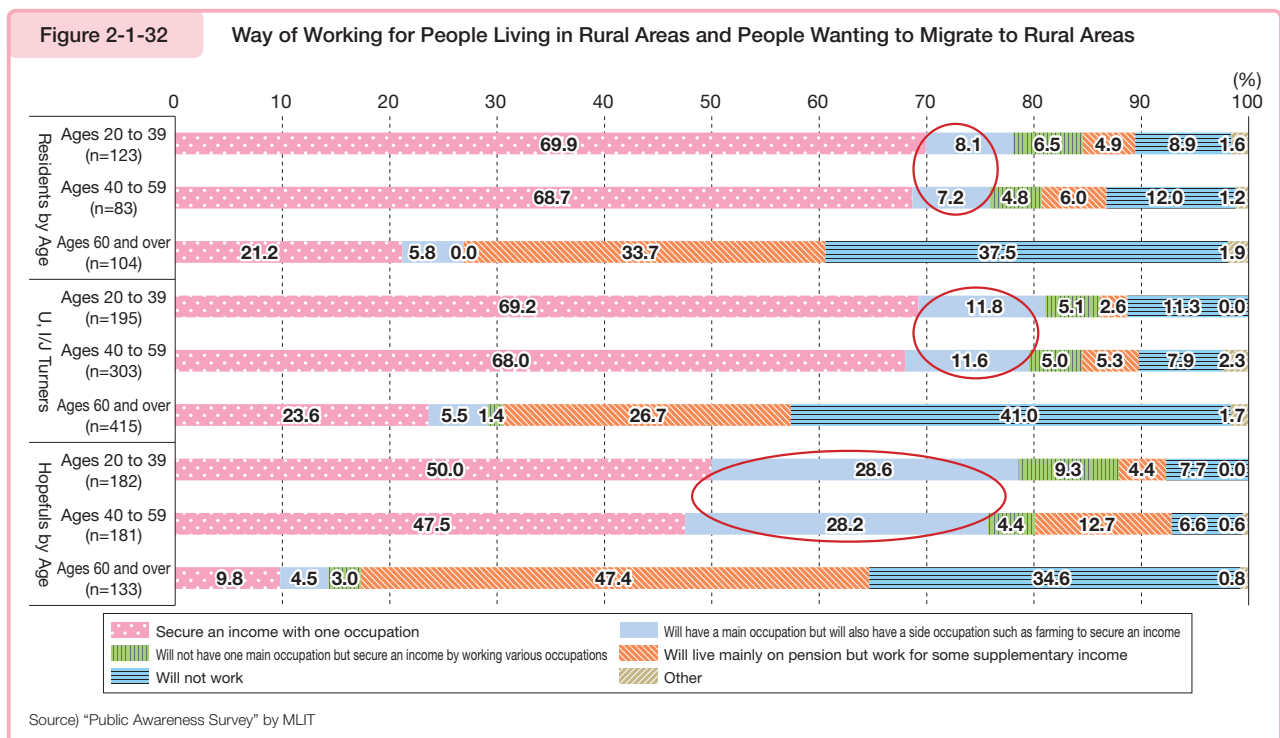
Figure 2-1-31 Want to Continually Aim to Improve Position (Promotion) in Company (by Age Group)



Source) "Market Intelligence & Forecast" by Mitsubishi Research Institute, Inc.

(Many people wanting to migrate to Rural Areas would like to earn a living by having a primary occupation along with an avocation such as farming)

Many of the working generation who actually live in Rural Areas earn their income from one occupation, and many of those wanting to migrate to the Rural Areas would like to earn their income from one occupation. However, it has become clear that compared to those who actually live in Rural Areas, there are more of those wanting to migrate to Rural Areas who want to earn an income by having an avocation such as farming along with their main occupation (Figure 2-1-32). This seems to be proof that there are a certain number of people who are seeking the so-called “slow life”. Although it is true that compared to the permanent residents, there are more U- and I/J-Turners who earn a living by having an avocation like farming along with their main vocation, it is not as large a ratio as hoped for by those who want to migrate to Rural Areas. In order to bridge this gap, it may become necessary to prepare many small employment opportunities so that people can juggle multiple jobs (such as farming in a neighboring village, temporary jobs in welfare, sixth industry, etc.) in Rural Areas.



Next, by looking at the differences experienced before and after migration by the people who migrated, we would like to find the issues involved in their continuing to live in the new area.

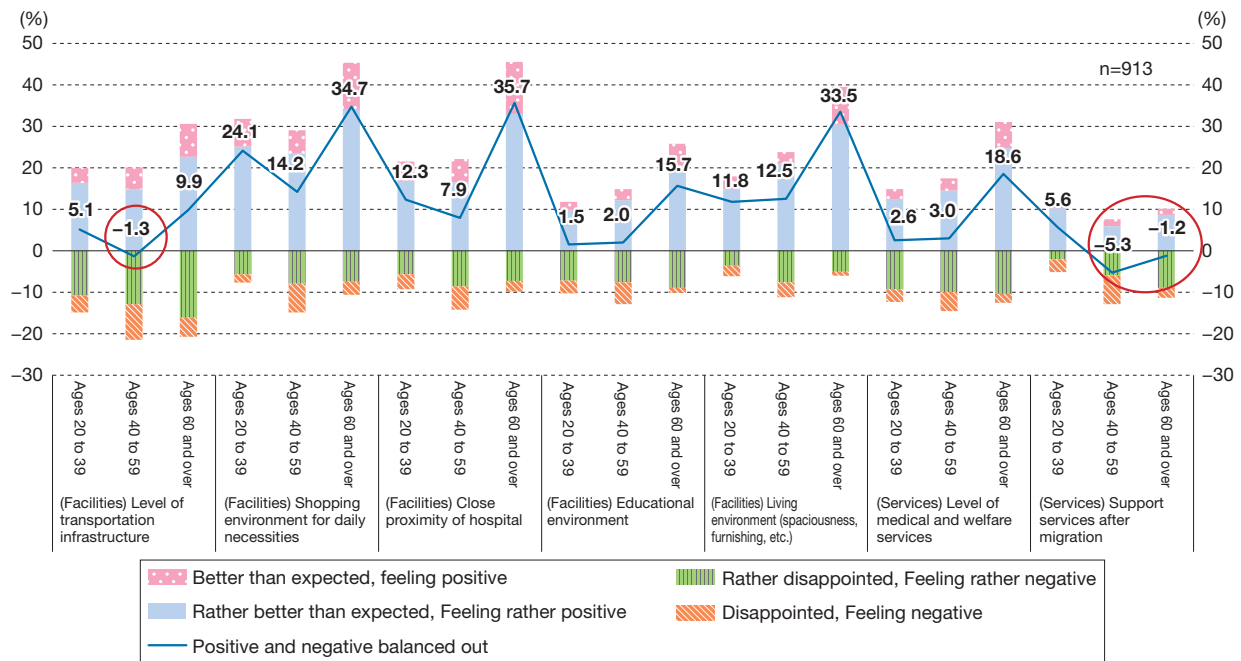
(Many people experience positive differences in the living environment after their Migration)

While many people experienced more positive differences than expected in the shopping environment, proximity of hospitals and the housing environment, in terms of the educational environment and level of medical and welfare services, most—particularly the younger generation—replied that they were as expected (Figure 2-1-33). The convenience in shopping and proximity to hospitals are things that become clear after actually trying it out, while education systems, medical and welfare services that are not used by every person. Therefore, it is to be expected that those who need the services will do some advance research before migrating, which accounts for the fact that for those services there are less differences in what is experienced from what was expected.

On the other hand, there were more people who experienced negative differences in the transportation infrastructure (ages 40 to 59) and the support systems (ages 40 to 59, over 60) after their migration than the number of people who experienced positive differences. These services are issues that need to be looked at in order for people to continue to live in the areas to which they migrate.

Furthermore, there are more people in the higher age groups than in the younger generation who experienced positive differences.

Figure 2-1-33 Differences Experienced by U-Turners, I/J-Turners After Migration (Living Environment) n=913



Source) "Public Awareness Survey" by MLIT

(Many people experience positive differences after migrating in the local characteristics of the areas to which they migrated)

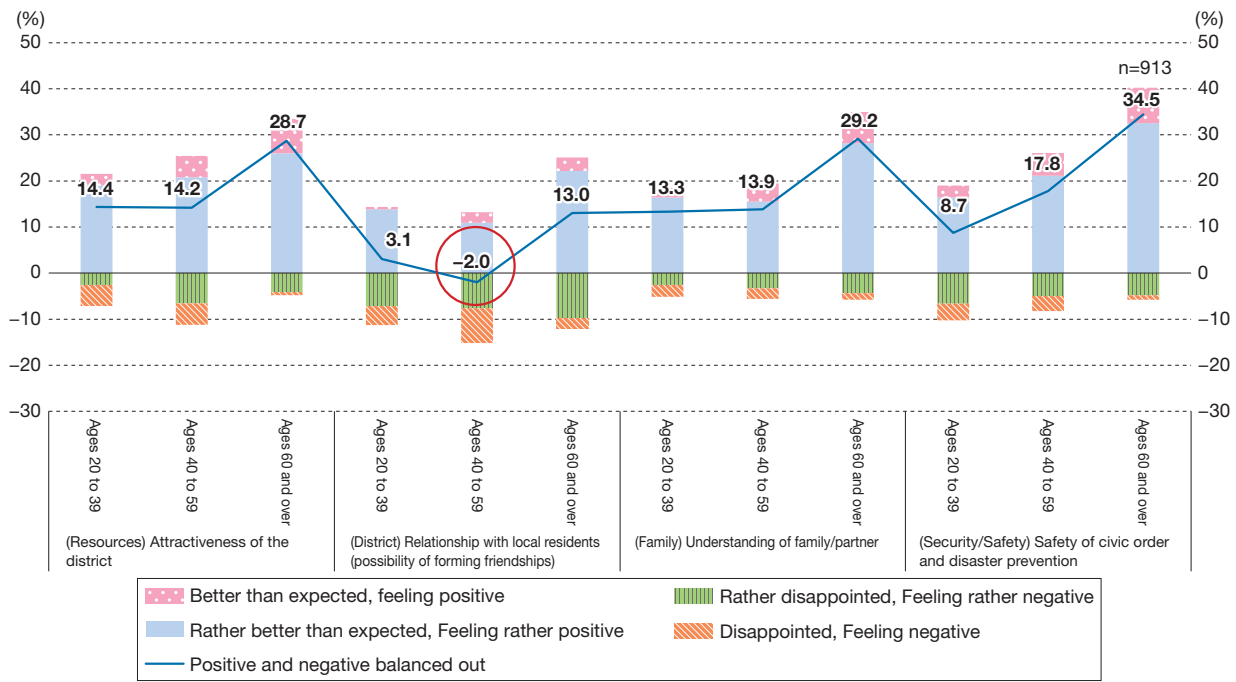
Many people felt that the attractiveness of the area as well as the safety level of public security and disaster prevention was better than expected (Figure 2-1-34). The fact that there are many people who said that there was an increased level of understanding from their partner or family after migration means that there was an increased satisfaction level among those who migrated as a dependent of a partner or family member, and that they were able to experience the attractiveness of the new location by actually living there.

On the other hand, on whether it seemed possible to become friends with the local people (ages 40 to 59), there are more who experienced a negative difference rather than a positive difference than what was expected, making it clear that there is room for improvement in the preparation of the people migrating, as well as the acceptance framework of the local areas.

Here again, many of the older age groups experienced positive differences.



Figure 2-1-34 Differences Experienced by U-Turners, I/J-Turners After Migration (Local Characteristics, Etc.)



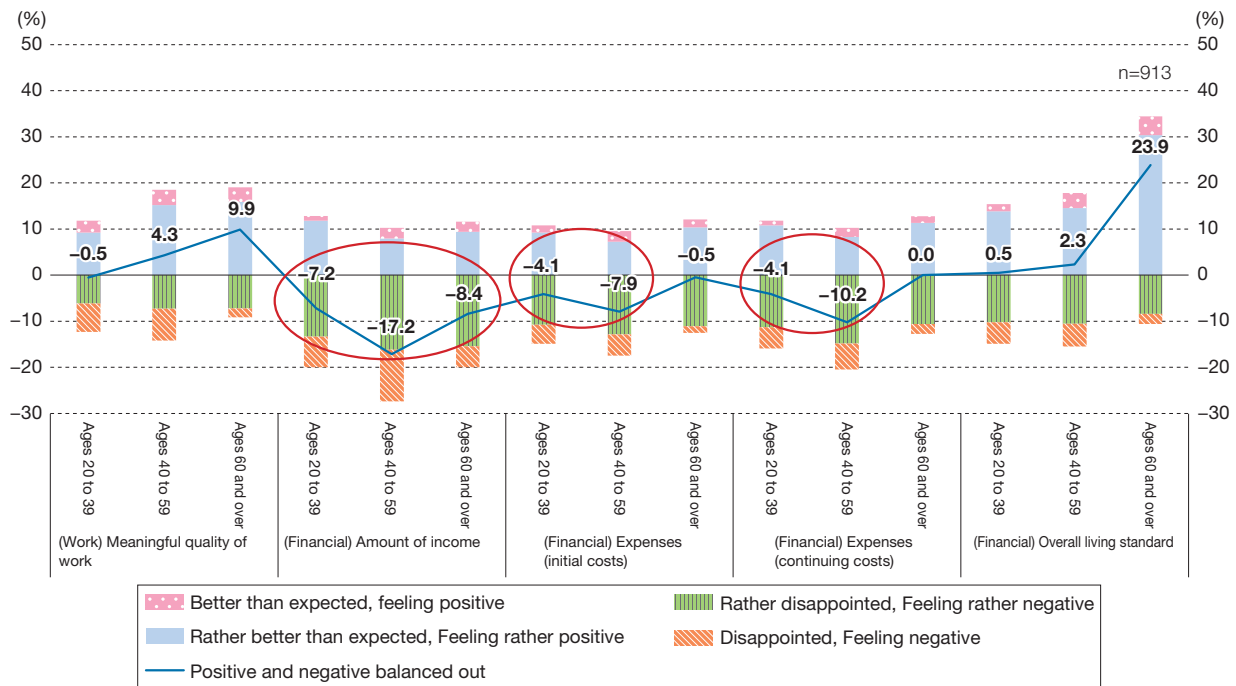
Source) "Public Awareness Survey" by MLIT

(Many of the younger generation experienced a negative difference in the economic environment after migration)

It is clear that there are many among the U-Turners and I/J-Turners of the younger generation who have experienced negative differences in the economic environment (Figure 2-1-35). Many of them especially felt that their income level was worse than expected and expenses had not decreased as much as anticipated. On the other hand, they have not felt much of a difference in overall living conditions, and the differences can be considered to be within expectations. However if, for example, their children pursue higher education elsewhere, school expenses and allowances would be incurred, which could lead to an increase in living expenses. As mentioned before, many people have a mostly good impression of the living environment and the local characteristics overall. Therefore, we can see that making improvements in the income and expense factors will be key in getting the younger generation to continue living in the rural areas.

Furthermore, here again it is clear that the older age groups feel the positive differences more than the younger generation, and the satisfaction level for migration is higher overall for the older generation.

Figure 2-1-35 Differences Experienced by U-Turners, I/J-Turners After Migration (Economic Environment)



Source) "Public Awareness Survey" by MLIT

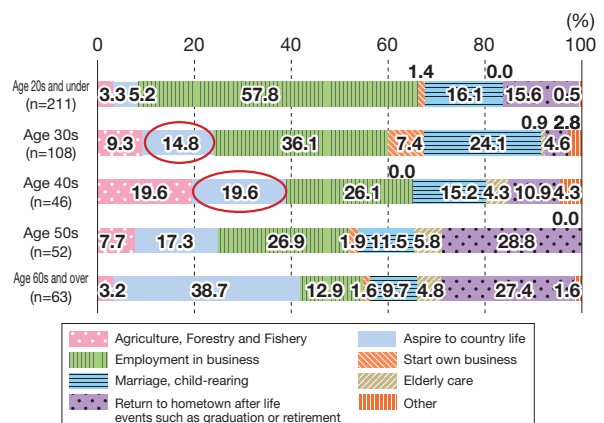
As stated before, since there are various reasons and motivations for migrating to rural areas, it is necessary to construct attractive qualities for various rural areas for various groups. Not all the younger generation want to migrate to the rural cities that offer a high degree of convenience, nor do all the older generation want to move to rural districts for the slow life. In actuality, there are some young people who want to live in rural districts (agricultural, mountain and fishing villages), while there are some older people who want to live in rural cities.

For example, in the "Working in the Countryside Troop" system which the MAFF has been conducting since 2009, 1,100 of mainly young people aged 20 to 30 have been sent to rural districts. More than half of these people have stayed to live in the local areas after their service term ended and are involved in activities such as agriculture, forestry, fishery and building up the local community. Approximately 80% of the members of the "Local Community Building Troop" system operated by the MIC since 2009 are aged 20 to 30, and 3,865 people have been dispatched to under-populated regions up through 2014. Of those members, approximately 60% (according to June 2013 survey) have settled in the same areas after their term of service was completed.

In Tottori Prefecture, a questionnaire survey for people known to have migrated to the area has been conducted since 2011, with the cooperation of the municipalities. Looking at the situation in 2013, many of those between the ages of 20 to 40 have migrated for reasons of employment, marriage and child-rearing, and those over 50 mainly migrated to return to their hometowns after retirement or because they wanted to live in the countryside. However, it is evident that there are a certain number of the younger generation who migrate because they aspire to country living (Figure 2-1-36).

In order to reverse the flow of people who left for Metropolitan Areas to return to the Rural Areas, fulfilling the widest possible range of aspirations of those wanting to migrate to rural cities can be effective, as seen in Figure 2-1-20. In other words, providing a level of urban

Figure 2-1-36 Number of Migrated Families According to Age and Reason for Migration (Tottori Prefecture, 2013)



Source) Developed by MLIT from Tottori Prefecture's materials

convenience such as more places for employment, improving the shopping environment and the transportation infrastructure may possibly increase the flow of people wanting to U-Turn back to the Rural Areas. Now that we know many of the people wanting to migrate to Rural Areas are attracted by the abundance of nature while also being attracted by the rural cities, there may be a certain effectiveness in increasing the access to nature from the urban districts of the Rural Areas by building networks between the rural cities and the rural districts.

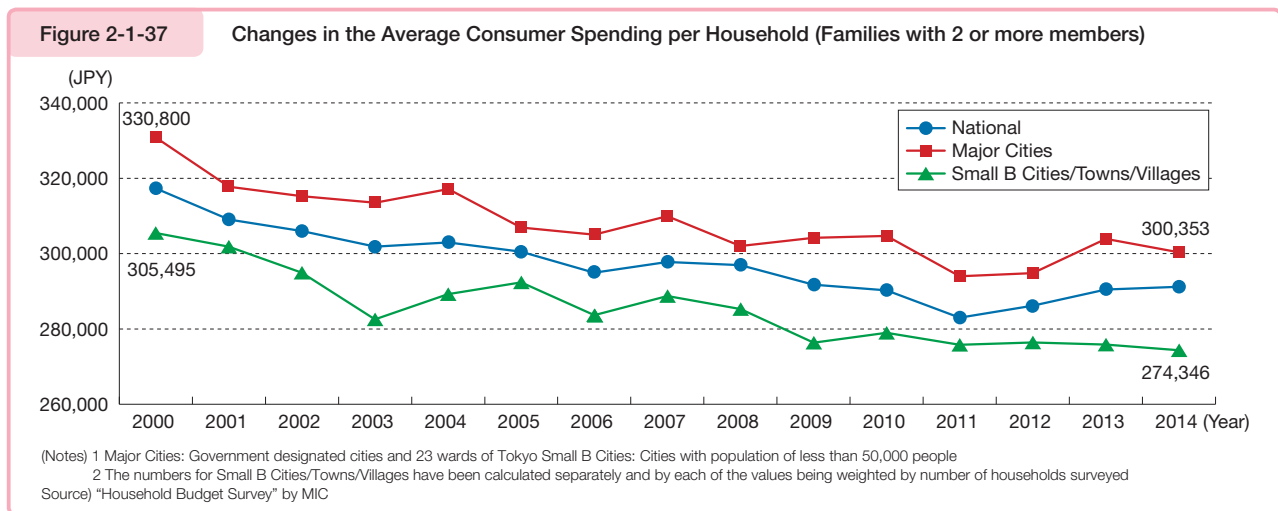
Building up the attractiveness of the Rural Areas to match the various groups' aspirations and increasing the interacting population to publicize this attractiveness will be vital in promoting the return to Rural Areas.

### (3) Analysis of “Attractiveness of Region” to Create the Flow of Migration to Rural Areas

As can be seen from Figure 2-1-25 of Section 1, while people wanting to migrate place importance on the financial aspects such as securing income and employment, they also greatly value convenience and natural environment, aspects that cannot be evaluated in monetary terms. Here we will look at the monetary changes that result from migration, and the “attractiveness of a region” experienced by individuals.

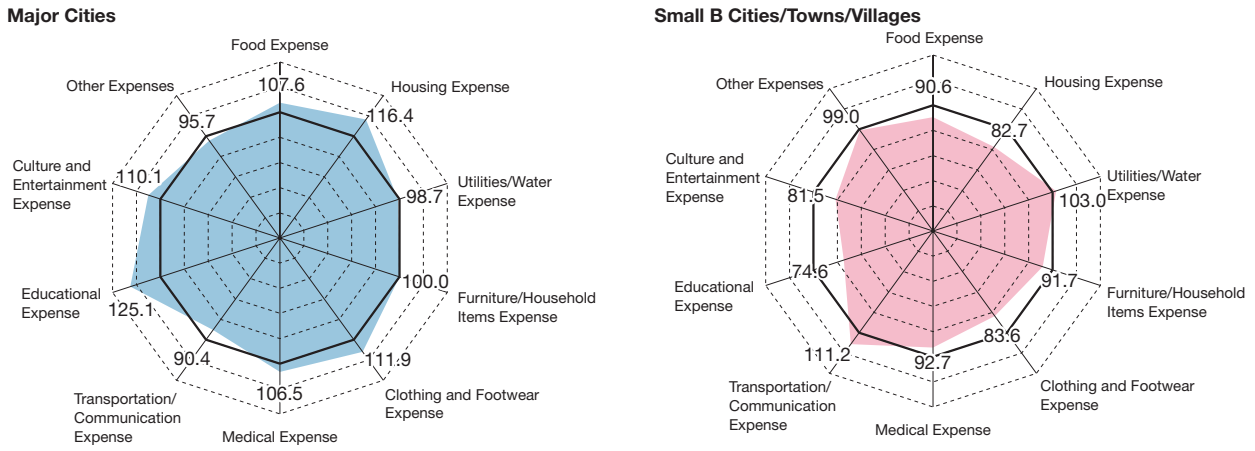
#### (Comparison of Consumer Spending between Large Cities and Small Municipalities)

Looking at the changes in the average monthly consumer spending as found in the “Household Budget Survey” of MIC, after 2000, consumer spending showed a decreasing tendency in various sized cities, but after 2011 each one shows a unique trend. In the major cities, consumer spending started to increase, then more recently has been decreasing, while on the national level there is a continued increasing trend, with a gradual decreasing trend in the small B cities (cities with a population of less than 50,000 people) as well as the towns and villages. The consumer spending in the small B cities as well as the towns and villages continues to be about JPY 15,000 to 30,000 less than larger cities (Figure 2-1-37).



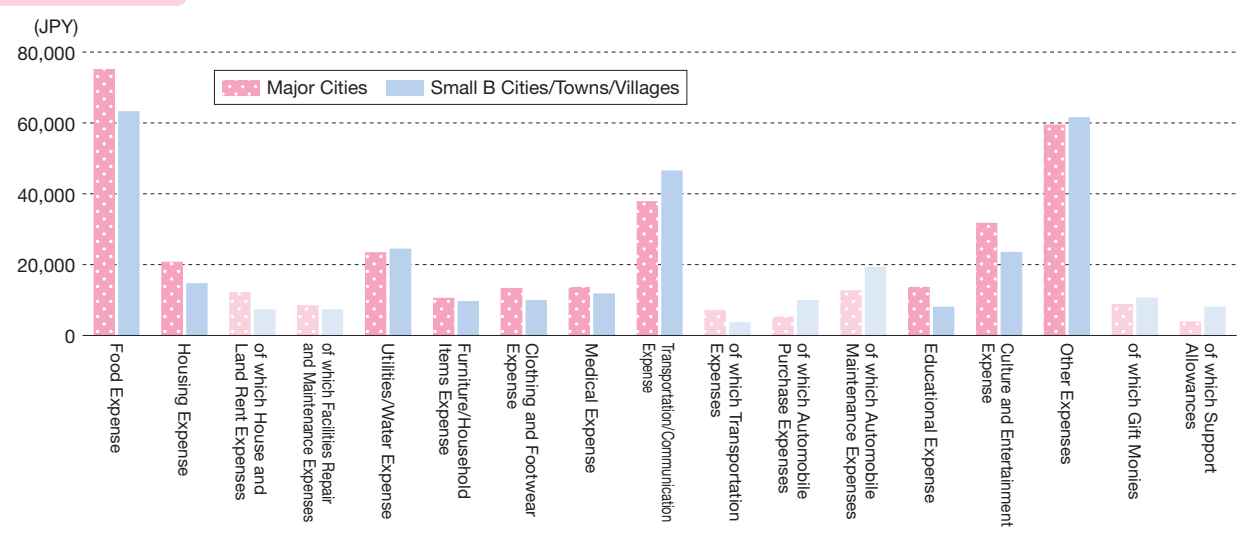
Next, we will look at an itemized breakdown of the average monthly consumer spending per household by the ratio of major cities and small B cities/towns/villages where the national average is considered to be 100. In the large cities, food, housing, education, entertainment and clothing costs are above average, while in small B cities/towns/villages, energy, water, transportation and communications are all above average (Figure 2-1-38). In comparing the consumer spending for the small scale municipalities to the major cities, it becomes evident that although the total expenditure—starting with food, housing and clothing items—is low, spending for utilities/water—starting with electricity and heating fuel—as well as automobile related expenses (purchase cost, maintenance expense, fuel expense) included in transportation/communication expenses tend to be high (Figure 2-1-39).

**Figure 2-1-38** Itemized Breakdown of the Average Monthly Consumer Spending per Household (2014, Families with 2 or more members)



(Note) Ratio based on the National Itemized Expenditures as 100  
 (Source) Developed by MLIT from "Household Budget Survey" by MIC

**Figure 2-1-39** Average Monthly Consumer Spending Per Household (2014, Families with 2 or more members)



(Source) "Household Budget Survey" by MIC

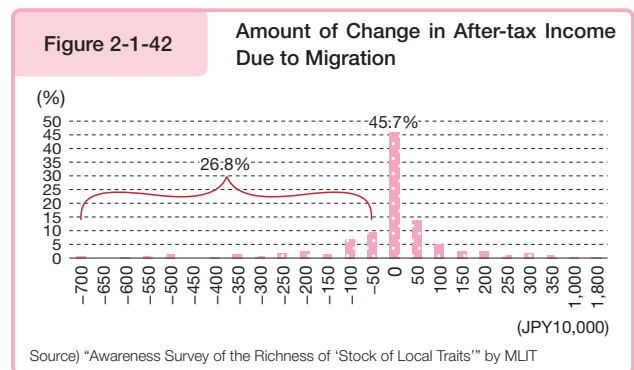
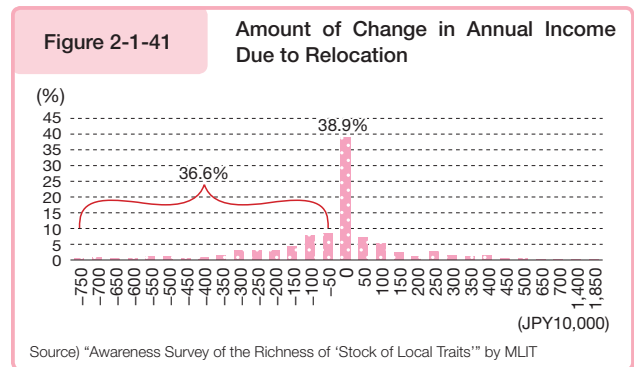
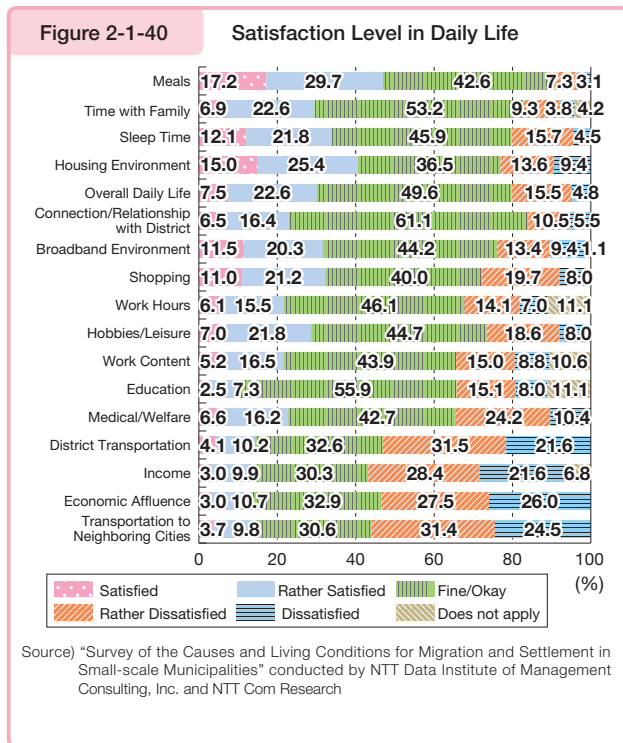
**(Daily Life Experience of People Living in Small-scale Municipalities)**

In the previous paragraph, the consumer spending of major cities and small-scale municipalities were compared, but what is the evaluation of the qualitative factors that cannot be given monetary value in the daily life of small-scale municipalities? According to the "Survey of the Causes and Living Conditions for Migration and Settlement in Small-scale Municipalities" <sup>Note 29</sup> conducted by NTT Data Institute of Management Consulting, Inc. and NTT Com Research, the satisfaction level of life in small-scale municipalities is high in "Meals", "Residence Environment" and "Sleep Time" categories, followed by "Shopping" and "Broadband Environment", which were also rated high.

On the other hand, dissatisfaction is high in financial aspects such as "income" and "economic affluence", as well as transportation aspects such as "transportation to neighboring cities" and "transportation within district" (Figure 2-1-40). In regards to income, according to the "Household Budget Survey" by MIC, compared to the average annual income <sup>Note 30</sup> of JPY6,440,000 in Major Cities, for Small B Cities/Towns/Villages it is JPY5,710,000 which shows a tendency of approximately 10% less.

**Note 29** Survey conducted in July 2014 targeting residents of municipalities with a population of less than 40,000 people (n=1050).  
**Note 30** 2014 survey of the annual income of households with 2 or more members.

According to the “Awareness Survey of the Richness of ‘Stock of Local Traits’”<sup>Note 31</sup> which studied the actual change in income before and after migration for 350 people who migrated to Rural Areas<sup>Note 32</sup>, approximately 76% of the total answered that their income remained unchanged or decreased. Also, in terms of after-tax income, approximately 73% of the total responded that it remained unchanged or decreased. Therefore it can be said that comparatively few people improve their income or after-tax income by migration (Figure 2-1-41, Figure 2-1-42).

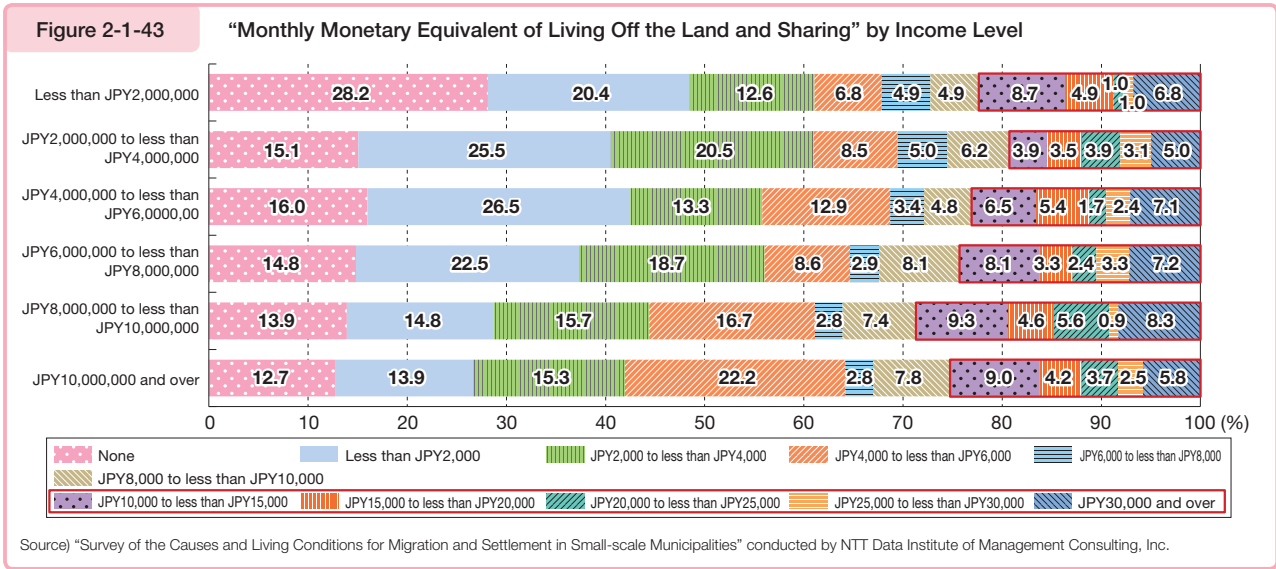


As seen above, since it is difficult to say that the financial aspect is favorable to the residents or people migrating to Rural Areas, it is supposed that there are “Attractive Traits of the Region” which cannot be evaluated by monetary measures that influence relocation to Rural Areas. Here we want to mention living off the land and sharing as examples of “Attractive Traits of the Region” which cannot be evaluated by monetary measures that indirectly affect the cost of daily living. Looking at the monthly monetary amount that equates to the value of living off the land and sharing, the ratio of those actually living off the land or sharing at the rate of approximately JPY 10,000 a month is about 20% for all income levels, showing that in small-scale municipalities, there is an aspect of living off the land and sharing which supplements the food expense (Figure 2-1-43).

**Note 31** Conducted via internet in April 2015, targeting all individuals living in Japan.

**Note 32** People who moved away from the 3 Major Metropolitan Areas to areas outside of the 3 Major Metropolitan Areas of their own accord.

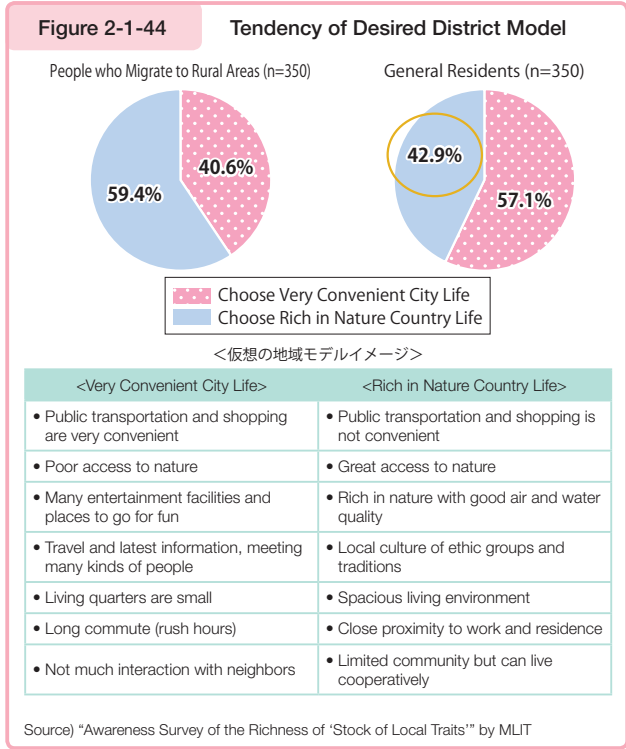




(Monetary Valuation of “District Attractions”)

Here, in order to quantify the “Attractive Traits of the Region” which has a major influence on the flow of people migrating to rural areas, we will study the assessed value people place on the “Attractive Traits of Region” <sup>Note 33</sup> by conducting the “Awareness Survey of the Richness of ‘Stock of Local Traits’” to make monetary valuations.

If we establish two imaginary district models (“Very Convenient City Life”, “Rich in Nature Country Life”) and study which district model people would want to live in, there is a difference in tendency between the responses from general residents and from those who migrated to Rural Areas. Many of those who migrated to Rural Areas chose “Rich in Nature Country Life (hereafter “Country Life”)” while many of the general residents chose “Very Convenient City Life (hereafter “City Life”)” (Figure 2-1-44). However, if you think of the general residents as a microcosm of the population distribution in Japan, we can surmise that approximately 40% of the citizens aspire to “Country Life”.



Next, in order to analyze the “Attractive Traits of the Region” underlying the motivation to migrate to Rural Areas, we will focus on how much value is placed on which factors

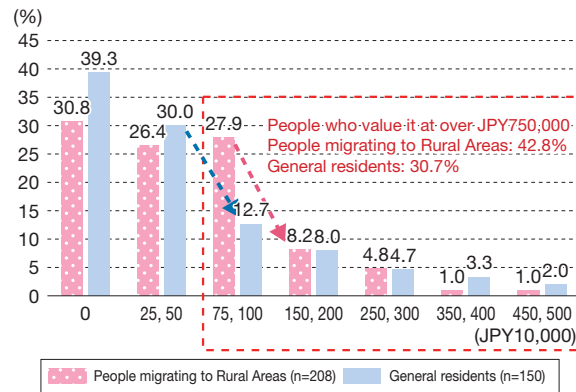
**Note 33** Subjects: 350 general residents (selected from nation-wide sample, according to population distribution), 350 people who migrated to Rural Areas  
 Question: (1) Which of the two imaginary district models: “Very Convenient City Life” or “Rich in Nature Country Life” would you choose for a place to live? (2) What is the permissible amount of decrease in annual income when moving from a lifestyle not of your choice to a lifestyle of your choice (JPY250,000 intervals for less than JPY1,000,000 and JPY500,000 intervals for over JPY1,000,000)? (3) What is the reason for choosing the lifestyle selected in (1) (Respond so that the total of the 5 factors equals 100%)  
 \* Under premise that things such as the cost of moving, daily living expenses, housing maintenance costs, the quality and accessibility of neighboring medical facilities will not change by migrating.  
 \* Monetary value by factor for the “Attractive Traits of the District” will be calculated by cross tabulating (2) and (3) above.

by people who selected “Country Life”.

In studying the “Awareness Survey of the Richness of ‘Stock of Local Traits’” by considering the permissible amount of decrease in annual income due to migration (Permissible Decrease Amount) as the monetary valuation of a district, of those who chose “Country Life”, approximately 43% of the people migrating to Rural Areas and approximately 31% of the general residents would give a valuation of over JPY750,000/year (approximately JPY60,000/month). Further, of the people migrating to Rural Areas, when the Permissible Decrease Amount reached JPY1,500,000, there is a sudden drop in the number of people who want a “Country Life”, while for general residents there is a sudden drop in numbers at JPY750,000, indicating that the people migrating to Rural Areas place a higher valuation on the attractiveness of a district. However, it is evident that although small in numbers, there are general residents who place a high monetary value on “Country Life” (Figure 2-1-45).

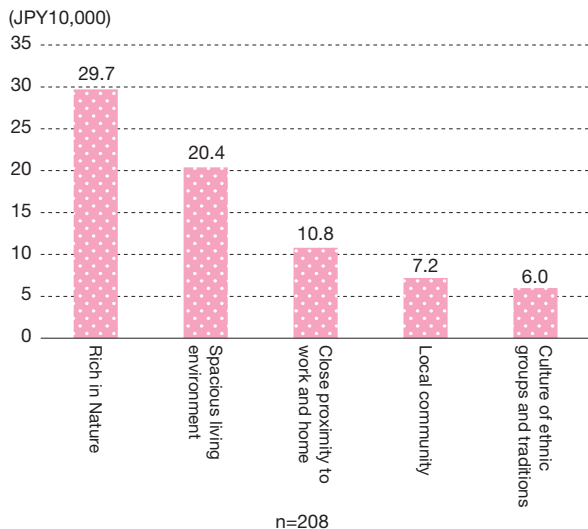
Figure 2-1-46 and Figure 2-1-47 show the average monetary value according to factors, and both those migrating to Rural Areas and general residents value “Country Life” and “Rich in Nature” most highly, followed by “spacious living quarters”. From the fact that “Rich in Nature” was valued higher by general residents rather than the people migrating to Rural Areas, we can infer that there are some among the general residents who place a high value on “Country Life” based on their “longing” for nature.

Figure 2-1-45 The Monetary Value of a “Rich in Nature Country Life”



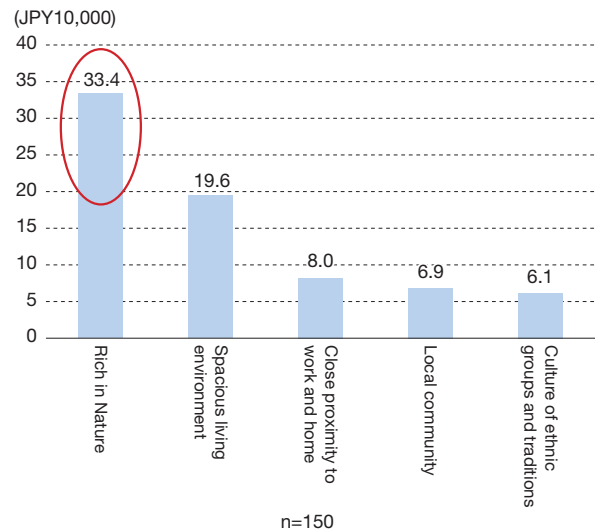
Source) “Awareness Survey of the Richness of ‘Stock of Local Traits’” by MLIT

Figure 2-1-46 Monetary Value of Each Factor for “Rich in Nature Country Life” (People Migrating to Rural Areas)



Source) “Awareness Survey of the Richness of ‘Stock of Local Traits’” by MLIT

Figure 2-1-47 Monetary Value of Each Factor for “Rich in Nature Country Life” (General Residents)



Source) “Awareness Survey of the Richness of ‘Stock of Local Traits’” by MLIT

In this way, for people who place a high value on “Rich in Nature Country Life”, there is a greater possibility that they will find more value in living in the country rather than living in the city. For example, general residents who aspire to

“Rich in Nature Country Life” place the monetary value of such a lifestyle at JPY740,000 (average of 150 people), which means that its value is approximately 13% of the average annual income of the 150 general residents who participated in the questionnaire. In other words, for people who find greater value in Country Life, choosing to live in the country seems reasonable, even in an economic sense.

This means that there is a variety in the value people place on the local traits, so it is not necessarily appropriate to come up with city and district policies with only certain individuals of a particular set of values in mind.

For example, if collective economy is the presupposition, living in a certain size of city would be more rational, but there are both people who value the countryside for its stock of local traits and people who value the city, and should the economic conditions change for some reason such as a decrease in income, for some people it may be more reasonable to choose the countryside based on their own value system. In this situation, it seems that what becomes important is the flexibility and variety of choices in places to live.

In order to achieve this, it would be effective to raise the level of freedom in changing residence by things like revitalizing the circulation of existing houses for Japan—which is at a lower level than the countries of Europe and America—as well as the smooth circulation and matching of available housing, so that existing housing of good quality can be bought and sold with confidence.

Furthermore, it is important to increase the mobility of people who place high value on the “Attractive Traits of the Region” which the Rural Areas have to offer that are currently still living in cities. For example, for people who are feeling a vague attraction to the Rural Areas, it is important to provide information regarding migration, promote matching services with Rural Areas, and create opportunities for them to experience the attractive traits of the local districts through activities like trial migration. Then to extend that even further by working on revitalizing the local economy itself by things like creating employment opportunities to minimize the changes in economical environment due to migration.

## Column

### Women Who Migrate

## Column

In the past, the reason women migrated was mainly due to getting married. However, in recent years, there is an increasing number of single women who decide to migrate as a result of being attracted by a local district and its residents after participating in various programs in the area such as volunteer work, internships, and tours to experience nature.

Young women are relocating to districts other than the place where they grew up or became familiar with during their student years. What was their parents’ reaction when these young women started talking to them about migrating to another district? They probably advised the young women to rethink this plan at least once.

These are the “Women Who Migrate”, women who make the decision to migrate with a strong “conviction” in their hearts. They are from different hometowns, moving at diverse times and to various places. They did not know of each other’s existence and they overcame their fear and anxiety with their own “conviction” and with the help of those who supported them. It is not hard to imagine that wherever they move to, the conditions each one faced were much the same.

Four of these “Women Who Migrate” who had moved to the hilly and mountainous areas around Niigata Prefecture and shared the desire to “let others know about the life in the hilly and mountainous areas”, made use of the “FAAVO” District Support Ground Founding Site to publish the booklet “ChuClu” <sup>Note</sup> in August, 2013.

This booklet provides information on various things including the actual daily life of “Women Who Migrate”, a comparison of how they spend money before and after migration, love-life conditions, and things they know only after having lived in that area, the good things and the challenges, all from a very “womanly” point of view.

**Note** Quarterly Publication Free Paper. Distributed in Niigata Prefecture, Nagano Prefecture and antennae shops in Tokyo.

Last year, Kanako Sakashita, one of the four women, married a man she met at Ikeya Village to where she had migrated. From the ‘Chapter One’ in which this “Woman Who Migrated” came to the hilly and mountainous areas, now a ‘Chapter Two’ is beginning as they start a family.

Figure 2-1-48 The “Women Who Migrate” Who Edit and Publish “ChuClu”



Source) ChuClu Editors Office

Quarterly Publication Free Paper “ChuClu”



Source) ChuClu Editors Office

#### (4) The Move Towards Living in Two Districts

Amidst a decline in the total population of Japan, it is not possible to increase the “residential population” of all areas. Even for people who have an interest in living in Rural Areas, when thinking about the risk of finding actual conditions to be quite different from what they are looking for, it is not an easy thing to “migrate” in one quick step.

Even if it does not end up in “migration”, it is important to promote the flow of people to Rural Areas by getting the existing interacting population in community building, in order to expand the “cooperative population” and spread the lifestyle of being proactively involved in the community.

In this sense, it is important to promote the lifestyle of “Living in Two Districts” which has been promoted from before.

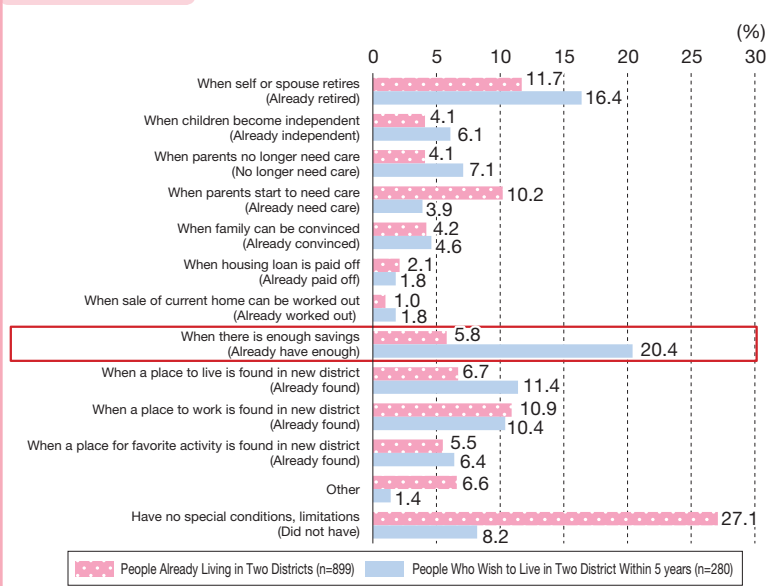
#### (The Lifestyle of Living in Two Districts)

With an increase in the population of people living in two districts, the consumer demands and housing demand will increase and the creation of new employment opportunities can be expected. Also, as shown in the awareness survey results in Section 1, since people with a connection to the Rural Areas have a greater desire to migrate, a certain ratio of the city residents who are living in two districts can be expected to become part of the regular residential population by actually experiencing the attractive traits of local districts. Furthermore, living in two districts serves to act as having a safety net against natural disasters and can be one of the choices for emergency evacuation, especially in disasters such as earthquakes.

In recent years, with the shortening of time and distance through the development of public transportation and highway networks, the sophistication and diversification of communication methods with the development of ICT (Information Communication Technology) equipment such as the wide spread use of social media and smart phones as well as the installation of high speed cable/wireless communication networks, the limitations of time, distance, and location are lessening.

Figure 2-1-49

Results of Survey on the Conditions and Limits Involved in Living in Two Districts



Source) “2012 Study of the Measure to Promote Living in Two Districts in Response to the Change in Social Conditions” by MLIT

On the other hand, the cost of things like transportation and lodging are incurred in actually living in two districts, such that there are people who give up due to the extra expense, even though they have a desire to live in two districts. In looking at the survey regarding living in two districts <sup>Note 34</sup>, people who wish to live in two districts mention the obstacle of “funds” more often than the people who actually live in two districts (Figure 2-1-49). For this reason, it is important to promote various programs to lighten the burden of cost, such as making use of empty housing and public rental housing as well as the promotion of participation in LCC.

Also, from now on, it is important to expand the “Living and Working in Two Districts” lifestyle which deals with not only housing, but connects two districts in a more proactive way of living and working.

#### (Trial Living)

As mentioned before, actually living in two districts involves a certain cost. Because of this, even if the actual situation differs from the environment and conditions that had originally been sought, it is not easy to move to a new place.

In order to migrate or live in two districts, it is necessary to first look for the migration site or living area. Especially for people who have no connection to the countryside such as those born and raised in cities, in order for them to look for migration sites and housing without obstacles, it is necessary to actively distribute necessary information by cooperation among various entities, not only the public administration but also public and non-profit organizations. And then, in order to make it easier to look for migration sites and housing in the actual district, it would be necessary to promote extended stay type tourism by the proactive use of long vacations.

Therefore, as a step towards making migration and living in two districts actually happen, several local public organizations have “Trial Living” programs where people can actually stay in a district for a certain amount of time to try residing there.

#### ■ Hokkaido Migration Experience “Living a Little While”

In Hokkaido, there is a program in place to promote various migration/interaction in cooperation with the municipalities and non-profit organizations which is called “Hokkaido Migration Experience ‘Living a Little While’ (Hereafter “Living a Little While”)”.

With “Living a Little While”, people who want to migrate to Hokkaido or live in two districts live for a period of time in housing fitted with furniture and appliances necessary for daily living in order to experience daily life in that district. The housing provided uses existing housing such as empty houses, staff housing no longer in use due to the local school being closed.

In 2013, 2,264 people used “Living a Little While”, which was an increase of 14.6% over the previous year and set the highest record of over 2,000 people for the first time since tallying began in 2006. There are many people who use this program for extended periods, so that the average length of stay continues to exceed 20 days, making it clear that an interacting population—people building more connections to the local community rather than just visiting for tourism purposes—is increasing (Figure 2-1-50).

Looking at the number of users by the ratio of their residence location, 42% are from the Capitol Area, 28% from the Kinki Area and 10% are from the Chukyo Area, which shows that people from the 3 Major Metropolitan Areas make up 80% of the total, indicating the high level of interest which the metropolitan area residents have a high interest toward life in Hokkaido (Figure 2-1-51).

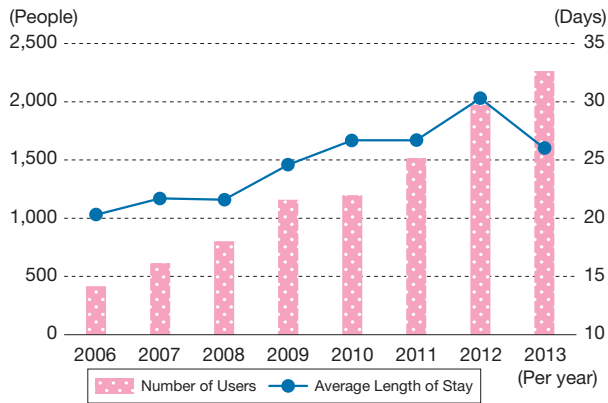
Looking the results of the user survey, approximately half of the total give seasonal stay as their purpose, but there are many users who cite looking for candidate sites for migration or two district living as their purpose (Figure 2-1-52). It is hoped that the use of “Live a Little While” to actually experience life in the local area will connect to actual migration or living in two districts in Hokkaido in the near future.

**Note 34** Conducted by MLIT in January 2013. In this questionnaire, “living in two districts” is defined as “establishing a base for living (including hotels), other than the current base for daily life, in a specified district where one spends a period of about one month or more over the course of one year, aside from temporary stays such as travel, business trips, and hometown visits during new years holidays.”



Figure 2-1-50

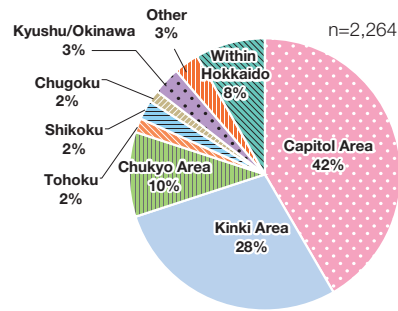
Changes in Number of Users and the Average Length of Stay



Source) Developed by MLIT from 2013 Results of Hokkaido Relocation Experience "Live a Little While"

Figure 2-1-51

Number of Users by Ratio of Residence Location

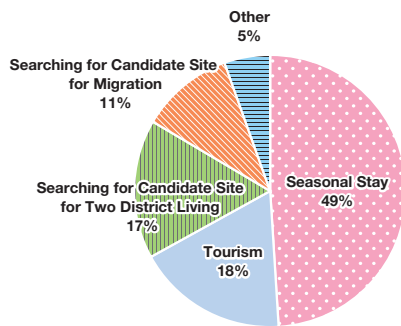


Source) Developed by MLIT from 2013 Results of Hokkaido Relocation Experience "Live a Little While"

Figure 2-1-52

Results of Questionnaire for Users of "Live a Little While"

What was the purpose this time of using "Live a Little While" ? (n=551)



(Note) Multiple Answers

Source) Developed by MLIT from 2013 Results of Hokkaido Relocation Experience "Live a Little While"

## Column

### Regional Development Through Interaction Between Urban and Rural Areas ~ Connection Agreement Between Kawaba Village in Gunma and Setagaya Ward in Tokyo ~

Kawaba Village in the Gunma Prefecture is located in the northern area of the prefecture on the southern base of Mount Hotaka and is a mountain village rich in nature with approximately 80% of the village's total area being forest. It has a total population of 3,445 people (as of February, 2015) with agriculture and forestry being the main industries. However, since 1975, due to the aging of people working in agriculture and an increase in the ratio of part-time farmers, the amount of idle farmland has been increasing and there were concerns regarding the deterioration of the beautiful scenery.

On the other hand, in the Setagaya Ward of Tokyo, there was a search for a "second hometown" in order to strengthen the interaction between the city and the mountain villages by mutual cooperation with people in the Rural Areas while experiencing the riches of abundant nature which could no longer be found in the city. From these conditions, in 1981 the "Agreement of Mutual Cooperation for Ward Citizens Health Village (Connection Agreement)" was formed based on the concept of partnering with Kawaba Village, which had been working to revitalize the village based on the concept of "agriculture plus tourism" to take advantage of its rich natural environment and beautiful scenery.

In 1986, Kawaba Village established two Ward Citizens Health Villages (Nakano Village, Fujiyama Village) and started accepting visiting classes from each elementary school of Setagaya Ward every year, organizing events like village tours and mountain climbing for experiential learning about nature and activities of the village. Further, with the activity base of the Ward Citizens Health Villages, many Setagaya Ward citizens visit to participate in the forest conservation activities and farming experiences at the local farms such as “RentApple” <sup>Note</sup>, and currently about 50,000 people a year are making use of the Ward Citizens Health Villages.

Furthermore, villagers from Kawaba Village have visited Setagaya Ward as well, like taiko drum performance groups from Kawaba Village participating in festivals or events in Setagaya Ward, holding a farmer’s market with produce from Kawaba Village, and other such activities.

In addition, at “Kawaba Denen Plaza”, the roadside station—the construction of which was inspired by the interaction with Setagaya Ward—efforts are being made to use local resources to provide interaction opportunities for the villages and visitors, such as farmer’s markets selling local produce, fruit picking, pottery, and other such events and experiences.

With such “agriculture plus tourism” programs, the number of tourists visiting Kawaba Village shows a rising trend, and with the “Kawaba Denen Plaza” gaining recognition in 2013, the number of tourists that have visited has reached approximately 1.5 million people. The success of the Denen Plaza has led to an expansion in sale of agricultural products, as well as the revitalization of the village through things such as stable farm management, expansion of employment opportunities, etc.

Figure 2-1-53 The Location of Kawaba Village



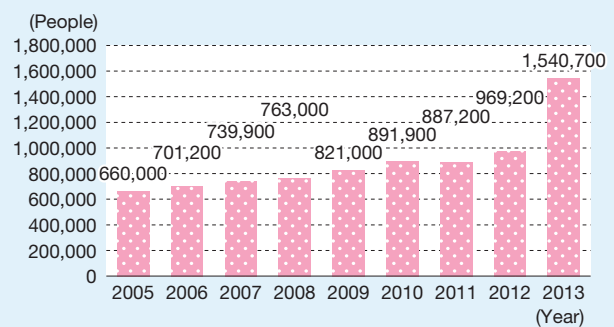
Source) MLIT

Figure 2-1-54 Views of Kodomo Satoyama Shizen Gakko (Children’s Nature School)



Source) Setagaya Ward Citizens Health Village website

Figure 2-1-55 Changes in the Number of Tourists to Kawaba Village



Source) Developed by MLIT from “(Estimated) Results of Number of Tourists, Amount of Consumption Survey” by Gunma Prefecture

**Note** A system of renting a tree from an apple farm in Kawaba Village to become its owner for one year.

## 2 The Flow of People (Interacting Population), Goods, Money and Information to Support the Local Districts

In Subsection 2 of Section 1, as part of the flow of people—other than the “residential population” discussed in Subsection 1—, people, goods, money and information for each of the following categories: tourism (interacting population), logistics, information, and district economic circulation, we will discuss the effects on the local districts’

economy and introduce actual cases of efforts involving these factors.

First, for “(1) Tourism (Interacting Population)”, we will introduce and analyze the effects of visiting foreigners and Japanese tourists on the local economy, with factors like the change in the number of consumption-tax free shops in Rural Areas, as well as the income and expenses of consumption amounts for domestic travel and lodging by district. We will then introduce examples like the “Akita Marugoto Market”, which for the first time obtained permission as a consumption tax-free shop with capital from within the prefecture to sell mainly local products, and Aomori Harbor, which is getting results as a port of call for cruise ships.

Next, in “(2) Logistics and Information”, we will review the spread of internet usage and its influence on the logistics. Then as examples of how logistics is contributing to the local society, we will introduce how locating a large-scale logistics center in Ishikawa Prefecture resulted in creating jobs, and how establishing a logistics business operation base at a roadside station in Yamaguchi Prefecture resulted in supporting the local district. We will also introduce an example of the spread of telework and satellite offices (Kamiyama-cho) as a new way of working made possible by the spread of ICT (Information Communication Technology).

Finally, in “(3) Circulation of the Local Economy and Community Building”, we will introduce the concept and structure of circulation of the local economy as community building from the “flow of funds”, and consider measures for improvement from the four aspects of: “acquiring funds from outside the local district”, “containing consumption drain to outside of the local district”, “diversifying investment methods inside the local district”, and “investing by using real estate in the local district”. We will also introduce the local district revitalization program going on in Minamata City in Kumamoto Prefecture as a program based on analysis of the economic circulation of the local district.

### (1) Tourism (Foreign Visitors to Japan) (Trend of Foreign Visitors to Japan)

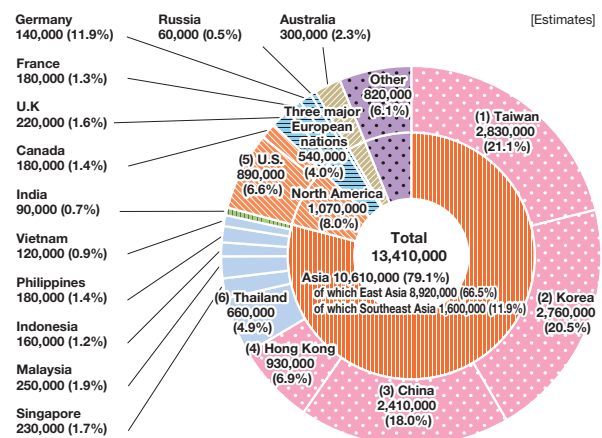
The yearly number of foreign visitors to Japan in 2014 increased by 29.4% from the previous year, with a total of 13.41 million visitors, which is the highest total recorded thus far (Figure 2-1-56). Looking at the visitors by their country/region of origin, there were approximately 2.83 million visitors from Taiwan, followed by approximately 2.76 million visitors from Korea, and approximately 2.41 visitors from China, in that order. There was also an all time high of approximately 1.6 million visitors coming from the six Southeast Asian countries <sup>Note 35</sup>. The ratio of the total number of foreign visitors to Japan was as follows: 66.5% from East Asia and 11.9% from Southeast Asia, with 79.1% of the total being from Asia (Figure 2-1-57).

Figure 2-1-56 Changes in Foreign Visitors to Japan



(Note) The number for 2014 are estimated numbers.  
Source) Japan National Tourism Organization (JNTO) materials

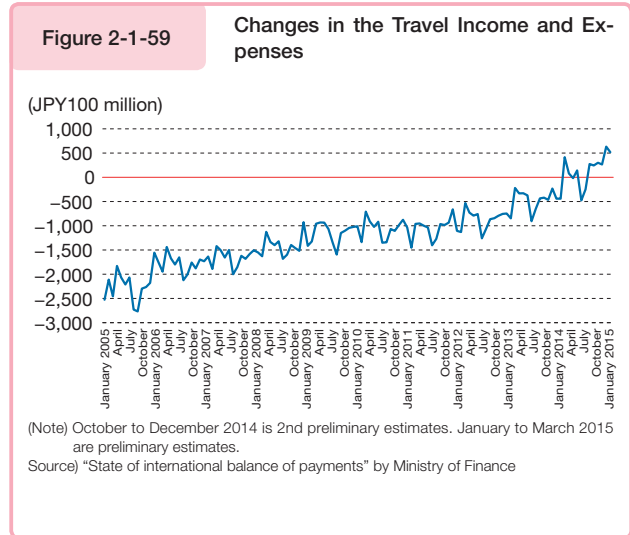
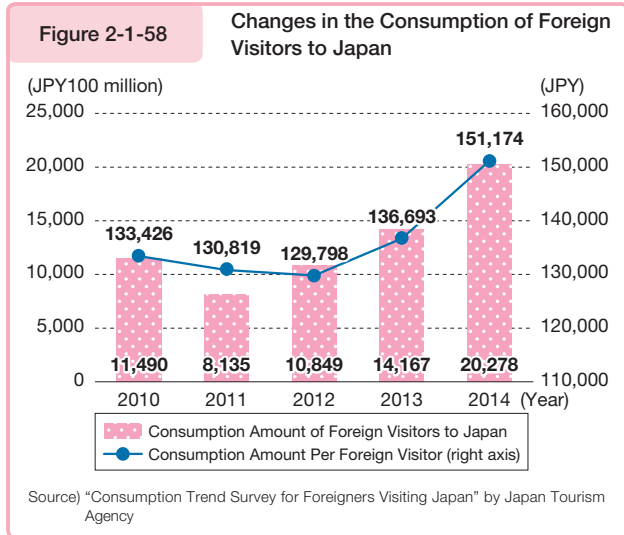
Figure 2-1-57 Ratios of the Number of Inbound Foreign Tourists in 2014 (by nation and region)



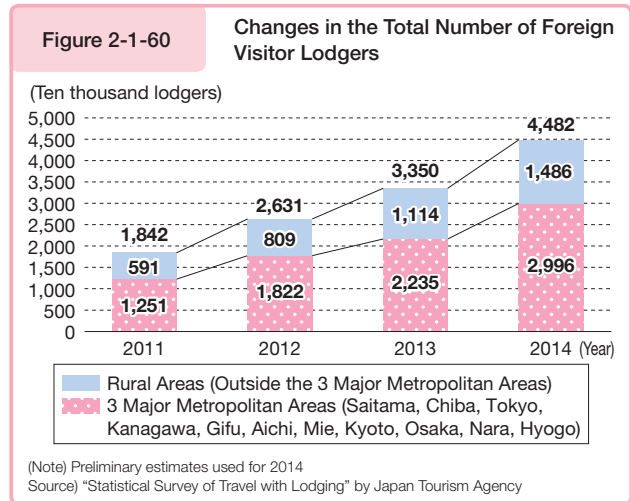
(Notes) 1 Parentheses enclose the percentage shares of the total number of inbound foreign tourists.  
2 “Others” includes unaccounted-for nations and regions from Asia, Europe and elsewhere.  
3 Values may not add up to totals because their fractions are rounded.  
Source) Prepared by the Japan Tourism Agency from data available from the Japan National Tourist Organization (JNTO)

Note 35 Thailand, Singapore, Malaysia, Indonesia, Philippines, Vietnam

Next, looking at the consumption amounts by foreign visitors to Japan in 2014, there was a 43.1% increase over the previous year, amounting to JPY2.0278 trillion, with each foreign visitor to Japan’s consumption amount increasing by 10.6% over the previous year, amounting to JPY151,174 per visitor, the highest record thus far (Figure 2-1-58). Furthermore, the travel income and expense—which shows the difference in the amount of money spent by foreign visitors to Japan and the amount of money spent by Japanese visiting other countries—has shown a recovery trend, with the travel income and expenses for April 2014 recording a positive balance for the first time since July 1970 during the Osaka Expo (Figure 2-1-59).



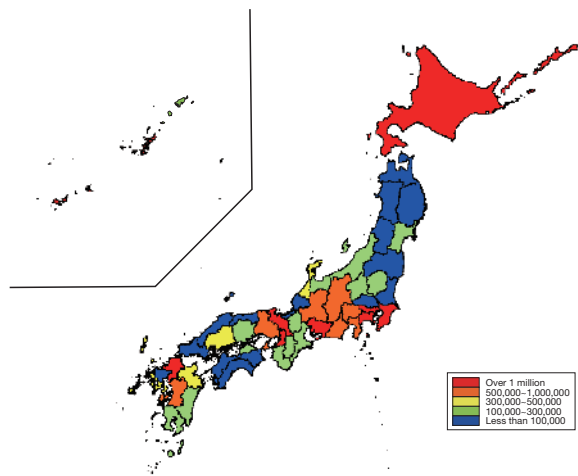
This increase in the number of foreign visitors to Japan and the travel consumption amount is caused by—in addition to traveling to and shopping in Japan becoming cheaper due to the weakening of the JPY exchange rate—improving the consumption tax free system for foreign visitors, easing the issuing requirements for visas, expanding the arrival and departure slots at the airports in the Tokyo metropolitan area, as well as increasing the number of flights. In particular, for the LCC international flights, the number of flights to countries and regions of East Asia and Southeast Asia have increased rapidly since 2010.



Looking at the change in the total number of foreign visitor lodgers, the number of lodgers has been increasing in both the 3 Major Metropolitan Areas and the Rural Areas since 2011 (Figure 2-1-60). Looking at the total number of foreigner lodgers in 2014 by prefecture, although the lodgers tend to be mainly concentrated in the metropolitan areas of Tokyo, Aichi, and Osaka, and also Hokkaido, in the growth rate comparison with the previous year of the number of foreigner lodgers by prefecture, the Rural Areas are showing some increase (Figure 2-1-61, Figure 2-1-62). In particular, Yamanashi Prefecture had an increase of 91.3%, and Shiga Prefecture had an increase of 77.0%, showing major growth compared to the other regions.

Figure 2-1-61

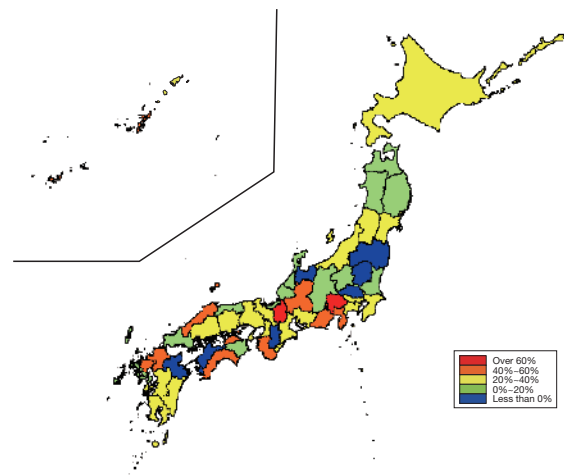
Total Number of Foreign Visitor Lodgers by Prefecture (2014)



(Note) Preliminary estimates used for 2014  
Source) "Statistical Survey of Travel with Lodging" by Japan Tourism Agency

Figure 2-1-62

Growth Rate of the Total Number of Foreign Visitor Lodgers by Prefecture Compared to Previous Year (2014)



(Note) Preliminary estimates used for 2014  
Source) "Statistical Survey of Travel with Lodging" by Japan Tourism Agency

(The Effect of Increase in Foreign Visitors to Japan on the Local Economy)

a. The Effect of Improving the Consumption Tax Exemption System for Foreign Visitors on the Local Economy

From October 1, 2014, the product categories subject to tax exemption were expanded so that food products, beverages, prescription drugs, and consumable goods such as cosmetics that had previously been excluded from tax exemption status became subject to tax exemption, with the prerequisite of having certain fraud prevention measures being put in place (Figure 2-1-63). Due to this change, the number of point of sales locations for export products in Japan became 9,361 stores (as of October 1, 2014), an increase of 3,584 stores within half a year as compared to April 1 of the same year (Figure 2-1-67).

Out of the total consumption amount of travel by the foreign visitors to Japan, shopping costs are approximately one-third of the total (Figure 2-1-64) and—in looking at the items purchased in Japan by the foreign visitors to Japan—the purchase ratio is growing for items which have become tax exempt for the first time, such as “confectionary”, “other food products, beverages, alcohol, cigarettes” and “cosmetics, perfumes” (Figure 2-1-65). Additionally, there seems to be a tendency that people who used the tax exemption procedures made higher priced unit purchases than people who did not use the tax exemption procedures (Figure 2-1-66).

Figure 2-1-63

Overview of the Improvements to the Consumption Tax Exemption System for Foreign Visitors

**Improvements to the Consumption Tax Exemption System**


<First Installment of Improvement>  
(Effective October 1, 2014)

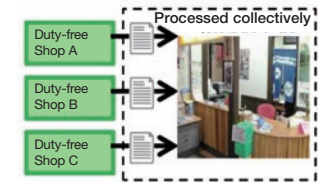
- All product categories became subject to consumption tax exemption and the local specialty products of the Rural Areas subject to this exemption were increased.

[FY2015 Taxation System Revision]  
<Second Installment of Improvement>  
(Effective April 1, 2015)

- Establishment of the permit system in which all tax exemption procedure to be delegated to designated business that will install tax exemption counter and handle the procedure.
- Establishment of notification system dealing with the export product sales points in the harbors that are ports of call for cruise ships.

• Food Products • Beverages • Prescription Drugs  
• Consumable Goods such as Cosmetics

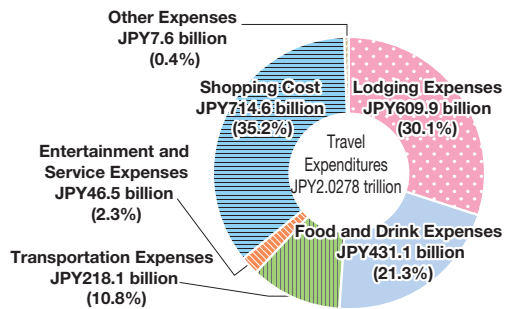




Source) MLIT



Figure 2-1-64 2014 Travel Consumption Amount of Foreign Visitors to Japan (by Item)



Source) "Consumption Trend Survey for Foreigners Visiting Japan" by Japan Tourism Agency

Figure 2-1-65 Items Purchased in Japan by Foreign Visitors (2014)

## Breakdown of Shopping Costs

Expense item	Rate of Purchase	Unit Price per Purchaser
Confectionary	63.6%	9,779
Other Food Products, Beverages, Alcohol, Cigarettes	51.7%	11,464
Clothing (excluding Kimono), Bags, Shoes	37.2%	32,343
Cosmetics, Perfume	31.9%	22,312
Medicine, Health goods, Toiletries	31.8%	18,341
Japanese Clothing (kimono), Folk Crafts	14.0%	12,538
Electronic Products	13.5%	40,942
Manga comics, anime merchandise, Character-related Products	12.0%	10,967
Books, Picture Postcards, CDs, DVDs	11.0%	6,370
Other Shopping Costs	9.9%	25,011
Cameras, Video Cameras, Watches	9.4%	65,626

Source) "Consumption Trend Survey for Foreigners Visiting Japan" by Japan Tourism Agency

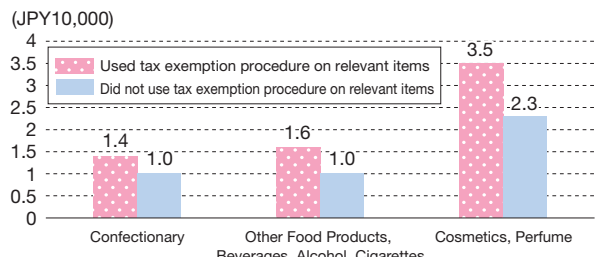
Looking at the regional ratio of the number of duty-free shops, approximately 70% are in the 3 Major Metropolitan Areas (Figure 2-1-67). From now on, proactively increasing the number of duty-free shops in the shopping districts of the Rural Areas will be necessary in order to induce the travel consumption of the foreign visitors. From April 1, 2015, it has become possible to consign the tax exemption procedure to a third party, so that places like local shopping districts and local product sale centers can set up Tax Exemption Processing Counters where the duty-free sales can be handled collectively (Figure 2-1-68). This will eliminate the worries about having to deal with foreign languages and the cumbersome tax exemption procedures,

so that it is anticipated that there will be an increase in duty-free shops in the local shopping malls of the Rural Areas. It is hoped that the travel consumption amount will also increase, as the troublesome tax exemption procedures will be made easier for the foreign visitors, allowing them to be able to judge the purchase limit on the duty-free sales by combining their purchases from various stores at the tax exemption processing counter.

In addition, a notification system dealing with the export product sales points in the harbors that are ports of call for ocean-going cruise ships has been established. As a result, it has become easier to set up a temporary duty-free shop at the cruise pier (such as the docking pier of cruise ships and passenger ship terminals). This promotes the selling of local specialty products to foreign travellers at the cruise ship's pier, where the duty-free items can be taken onboard straight after purchase.

Furthermore, in March 2015 the common logo was decided for indicating service points for "Hands-Free Travel", a service available to foreign visitors to have items they purchased at duty-free shops to be temporarily held or be shipped. From now on, by promoting the displaying of the common logo at a places like the one-step counter to spread the recognition rate of "Hands-Free Travel" among the foreign travellers visiting Japan, it is expected that a further demand for shopping will be stimulated.

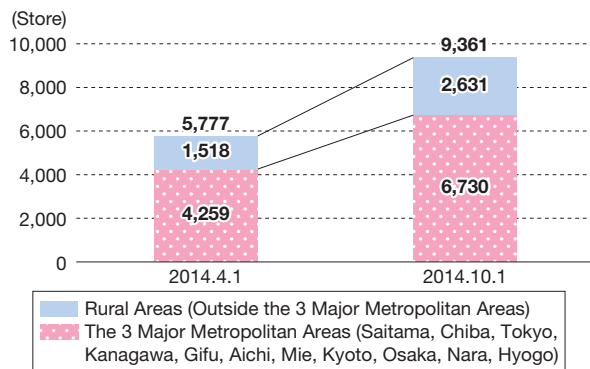
Figure 2-1-66 Purchaser Unit Price Based on Using or Not Using Consumption Tax Exemption Procedure



(Note) Counted the responses of tourists for the period October to December of 2014.  
Source) "Consumption Trend Survey for Foreigners Visiting Japan (Topic Analysis)" by Japan Tourism Agency

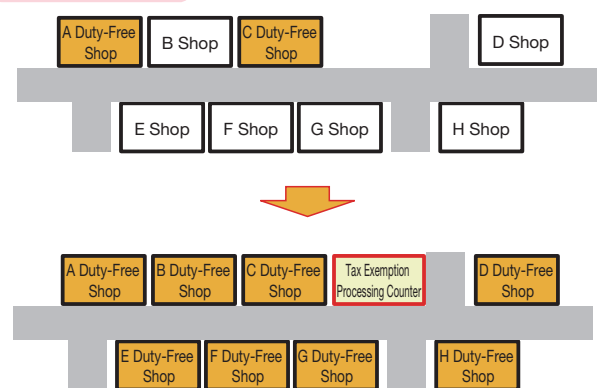


Figure 2-1-67 Changes in the Ratio of Duty-Free Shops in Each Region



Source) Developed by MLIT from the Aggregate Results of the National Tax Agency

Figure 2-1-68 Image of Tax Exemption Processing Counters Set Up in Local Shopping District



Source) MLIT

### ■ Example of Duty Free Shop in Rural Area ~Akita Marugoto (whole) Market~

“Akita Marugoto Market” in Oroshimachi, Akita City, Akita Prefecture (Figure 2-1-69) received the permit to be a duty-free shop in December 2014 and started duty-free sales from late January of 2015. On October 1, 2014, when the tax exemption system was revised and exempt items were greatly increased, there were only 7 duty-free shops in Akita, in places like the international terminal at Akita Airport, department stores in Akita City, and large-scale discount stores, all of which were owned by businesses funded from outside the prefecture. “Akita Marugoto Market” became the first duty-free shop to be funded by a business within Akita Prefecture.

“Akita Marugoto Market” is located close to Akita Airport and Akita Harbor, with easy access from the express highway (Figure 2-1-70). It has a large parking lot where large buses can park, and a food court, so that in the past over 1,000 foreign tourists have visited each year from places such as Taiwan, China and Korea. While consumer spending is sluggish within Akita Prefecture, due to the influence of the JPY becoming cheaper, the number of foreign tourists visiting Akita Prefecture has been increasing. “Akita Marugoto Market” sells local products from the prefecture, such as famous Akita confectionery, local specialty products, and fresh produce. Since many visiting foreign travellers buy fruit and food products, it is expected that the consumer spending on such regional products by foreign tourists will increase further with the newly obtained duty-free shop permit.

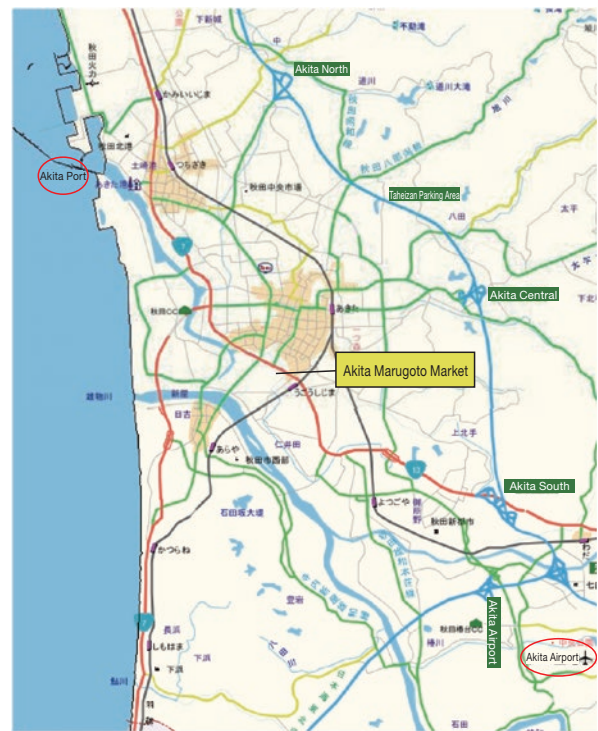
In addition, in 2015, it was included in the optional tour for cruise ships, so even further positive results are anticipated.

Figure 2-1-69 Akita Marugoto Market (Akita City, Akita Prefecture)



Source) Akita Marugoto Market

Figure 2-1-70 The Location of Akita Marugoto Market

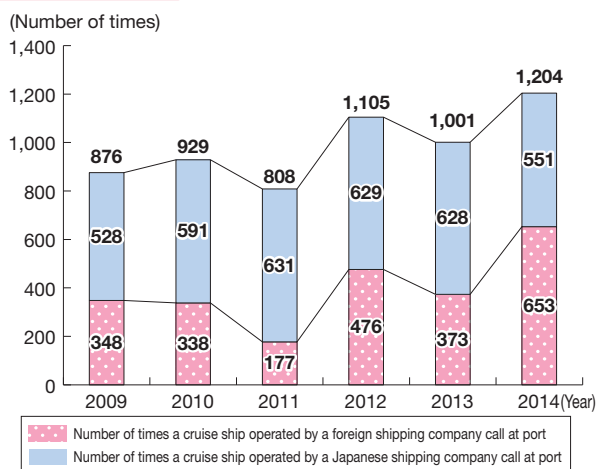


Source) MLIT

b. The Effect of Cruise Ships Coming to Port on the Local Economy

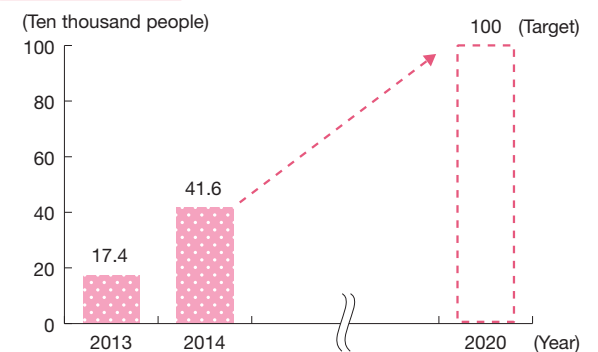
Cruise ships call at over 100 ports including the Rural Areas and of those, foreign cruise ships call at over 50 ports. The number of times that cruise ships call at ports in Japan has increased in recent years, with an all time record of 1,204 times in 2014 (Figure 2-1-71), and the number of foreign travellers entering the country from a cruise ship reached 416,000 people (Figure 2-1-72). According to a study conducted by Fukuoka City and Kobe City, the economic effect for a port of call of large-scale cruise ships is JPY30,000 to JPY40,000 per person, and for one ship's visit has been calculated at around JPY 100 to 200 million and for the home port (arrival and departure port) especially, the effect is even greater.

Figure 2-1-71 Changes in the Number of Times Cruise Ships Call at a Port in Japan



Source) MLIT

Figure 2-1-72 Number of Foreigners Who Enter Japan From a Cruise Ship (Approximate Figure)



(Notes) 1 Number of foreigners who enter Japan, according to the data collected by the Immigration Bureau of the Ministry of Justice in approximate numbers (ship crew not included).  
 2 For the foreign travellers on cruise ships that call at many ports on one cruise, (rather than counting them again at each port) they are counted as one entry per person.

Source) MLIT

### ■ The Effect of Cruise Ships Calling at Aomori Port

The number of times cruise ships called at Aomori Port in 2014 is the highest in the Tohoku Area with 20 ships calling, and the number of times a foreign shipping company's vessel calls at port is rapidly increasing, especially in recent years (Figure 2-1-73). In 2014, the number of ship passengers was 26,617 people, with 11,039 foreign passengers and 15,578 Japanese passengers.

According to the survey of cruise ship tourists conducted in 2014 by Aomori City, the amount of consumer spending was JPY6,840 per person for Japanese tourists and JPY8,100 per person for foreign tourists, showing that foreign tourists spent more than the Japanese tourists.

Looking at the ratio of items purchased according to each category, 36.6% of purchases by foreigner tourists was traditional craftwork, making it the largest percentage, while for Japanese tourists, 31.0% was products related to apples and 28.8% was seafood. As the percentage of purchases were highest for Aomori Prefecture's regional specialties for both foreign and Japanese tourists, it seems that a certain level of contribution is being made to the local economy (Figure 2-1-74).

Although not included in the amount of consumer spending in the aforementioned survey conducted by Aomori City, optional tours (local tourism) are provided when cruise ships call at port, taking advantage of the tourism resources in Aomori Prefecture such as Lake Towada and Shirokami-sanchi. Therefore it is supposed that the actual amount of consumer spending is higher, and that if the indirect effect of consumer spending on the tours is counted, the economic effects of a cruise ship coming into port is suspected to be even greater.

In this way, with the port at the center of activity, cruise ships contribute to the vitalization of the local district because of the large number of tourists visiting the area.

In order to accelerate the revitalization of the region even more through the promotion of cruises while making good use of the currently available facilities, MLIT is working on things like enhancing the functionality of passenger ship terminals, improving websites to send out harbor facilities and sightseeing information regarding the area around the port to people within and outside Japan, and using "Minato (harbor) Oasis" as a place to provide foreign cruise passengers with sightseeing information of the region.

While continuing to work on attaining the "Age of 1 Million Cruise Ship Passengers" in 2020, MLIT will continue to promote proactive programs from both non-structural and structural aspects to build up the Rural Areas through the promotion of cruises.

#### (The Effect of Japanese Tourists on the Local Economy)

Of the JPY4.5 trillion domestic consumer spending on travel in 2014, which included spending by foreigners, consumer spending by Japanese on domestic travel with overnight stays was JPY14.3 trillion, and consumer spending by Japanese on domestic day travel was JPY4.5 trillion, which means over 80% of consumer spending on domestic travel was accounted for by Japanese tourists (Figure 2-1-75).

In looking at the changes in the number of overnight stays in Japan, though the total number of overnight stays for both Japanese and foreigner travellers shows a growing trend, the number of nights lodged by Japanese tourists is still the greater share than the number of nights lodged by foreigners (Figure 2-1-76). Therefore, for the local economy, it is

Figure 2-1-73

Changes in the Number of Cruise Ships Coming into Aomori Port

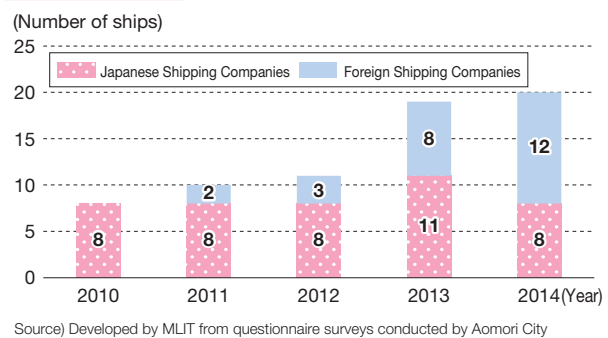
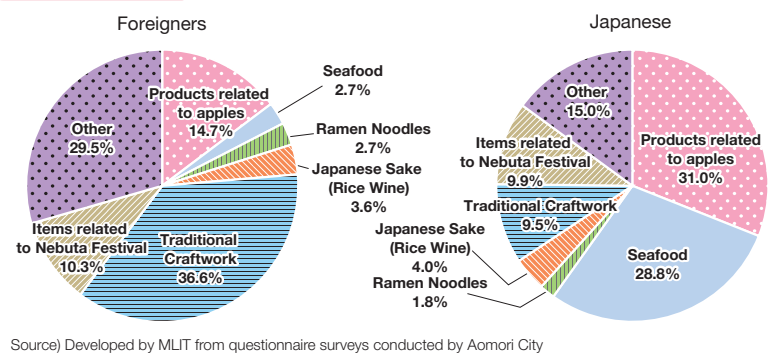


Figure 2-1-74

Ratio of Purchased Items by Category (Number of Items)



important to continue to attract not only foreign tourists but also Japanese tourists.

In 2014, the number of domestic sightseeing trips that included lodging per person was 1.29 times, with the number of nights stayed on these trips per person at 2.12 nights (Figure 2-1-77). The total number of people taking day trips decreased 7.2% from the year before to 191.58 million people/times, and the total number of people taking trips with overnight stays was down from the previous year by 7.0% to 164.05 million people/times. Both types of trips shows a recovery from the lowest point in 2011, but in 2014 there was a down turn (Figure 2-1-78).

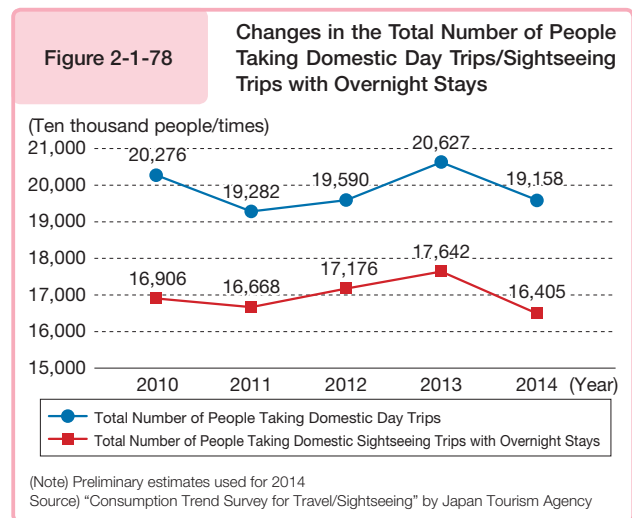
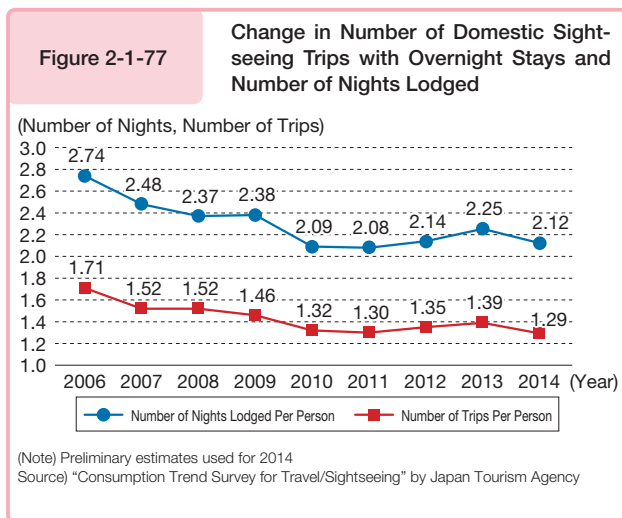
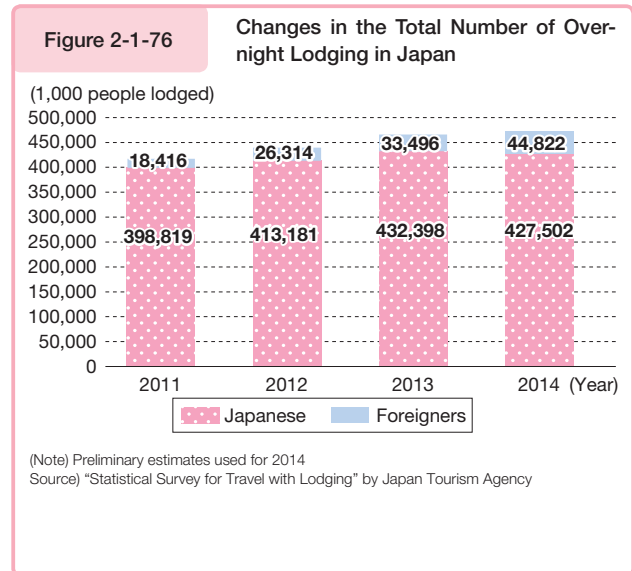
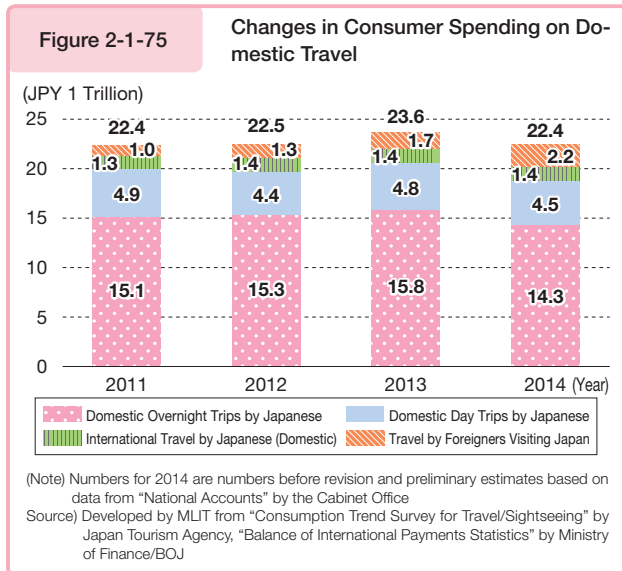


Figure 2-1-79 shows the income and expense of the consumer spending on domestic trips with overnight stays by region. However if, for example, a person living in Hokkaido spends a night in Tokyo for the purpose of sightseeing and spends JPY10,000, for the category of "Sightseeing/Recreation", the consumer spending of JPY10,000 would be allocated both to the residential location of Hokkaido and to the destination location of Kanto ("All Domestic Travel" is a total of "Sightseeing/Recreation", "Visit to Hometown/Visit Friends", "Business Trip/Work" and the regional income and expense has been shown as a bar graph). In light of this, it is evident that there is a tendency for the money to flow from Kanto, Chubu, and Kinki—the so-called 3 Major Metropolitan Areas—to the Rural Areas.

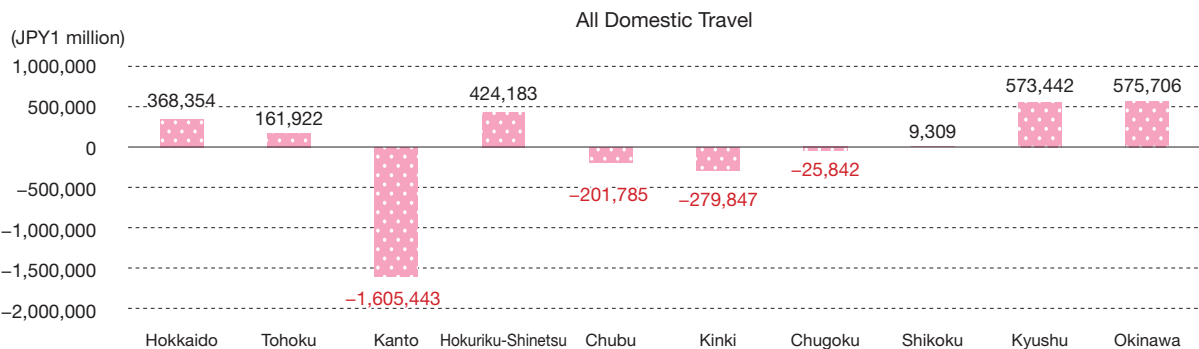
Domestic travel with overnight stays—which is the bulk of consumer spending on travel—has a major influence on regional economy, but the three districts of Hokkaido, Hokuriku-Shinetsu, and Okinawa have an especially large amount of overnight stays for the purpose of "Sightseeing/Recreation", which skews the overall income and expenses of travel with overnight stays to show a surplus.

Figure 2-1-79 Income and Expense of Consumer Spending on Domestic Travel with Overnight Stays by Region (2014)

Sightseeing/Recreation (JPY1 million)				Business Trip/Work (JPY1 million)			
	Location of Resident	Destination	Income and Expense		Location of Resident	Destination	Income and Expense
Hokkaido	358,444	636,841	278,397	Hokkaido	137,209	152,057	14,848
Tohoku	560,577	632,611	72,033	Tohoku	224,102	186,084	-38,018
Kanto	3,302,539	2,242,944	-1,059,595	Kanto	717,034	794,286	77,252
Hokuriku-Shinetsu	474,479	841,093	366,614	Hokuriku-Shinetsu	151,770	128,999	-22,772
Chubu	1,129,539	1,080,707	-48,832	Chubu	185,898	149,719	-36,180
Kinki	1,371,421	1,178,494	-192,927	Kinki	481,963	346,856	-135,107
Chugoku	441,207	379,824	-61,383	Chugoku	91,850	75,685	-16,166
Shikoku	194,500	192,287	-2,214	Shikoku	91,313	56,666	-34,647
Kyushu	703,481	857,523	154,042	Kyushu	209,556	354,857	145,300
Okinawa	89,330	583,196	493,866	Okinawa	28,022	73,510	45,488
All of Japan	8,625,518	8,625,518	-	All of Japan	2,318,717	2,318,717	-

Visit to Hometown/Visit Friends (JPY1 million)				All Domestic Travel (JPY1 million)			
	Location of Resident	Destination	Income and Expense		Location of Resident	Destination	Income and Expense
Hokkaido	221,494	296,540	75,046	Hokkaido	717,146	1,085,501	368,354
Tohoku	215,037	342,446	127,409	Tohoku	999,716	1,161,639	161,922
Kanto	1,277,876	654,098	-623,778	Kanto	5,297,449	3,692,006	-1,605,443
Hokuriku-Shinetsu	151,326	232,702	81,376	Hokuriku-Shinetsu	777,575	1,201,758	424,183
Chubu	394,840	279,588	-115,252	Chubu	1,710,278	1,508,493	-201,785
Kinki	441,282	489,092	47,810	Kinki	2,294,666	2,014,819	-279,847
Chugoku	172,801	224,405	51,603	Chugoku	705,859	680,017	-25,842
Shikoku	84,471	130,391	45,920	Shikoku	370,284	379,594	9,309
Kyushu	291,870	564,167	272,297	Kyushu	1,204,907	1,778,349	573,442
Okinawa	21,323	58,892	37,569	Okinawa	138,675	714,382	575,706
All of Japan	3,272,321	3,272,321	-	All of Japan	14,216,557	14,216,557	-



(Notes) 1 As the total of consumer spending in residential location and the total of consumer spending in destination in the original data do not match, the consumer spending at destination in the above figure has been calculated by multiplying the ratio of the total of consumer spending in residential location and the total of consumer spending at destination from the original data to the total consumer spending at destination (As a result, the total consumer spending for residence location and destination match in the above figure.)

2 Location of Residence: Classification by the location of the traveller's residence.

Destination: Classified by the location of the traveller's destination.

3 Preliminary numbers.

(Source) "Consumption Trend Survey for Travel/Sightseeing" by Japan Tourism Agency

### (Creating Tourism Regions by Developing the Sightseeing Zones in the Rural Areas)

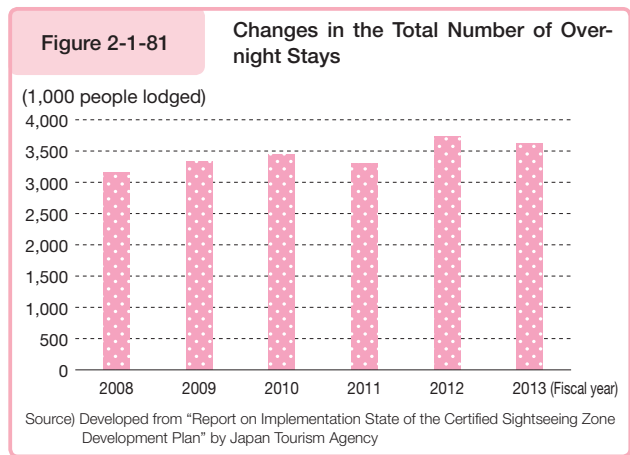
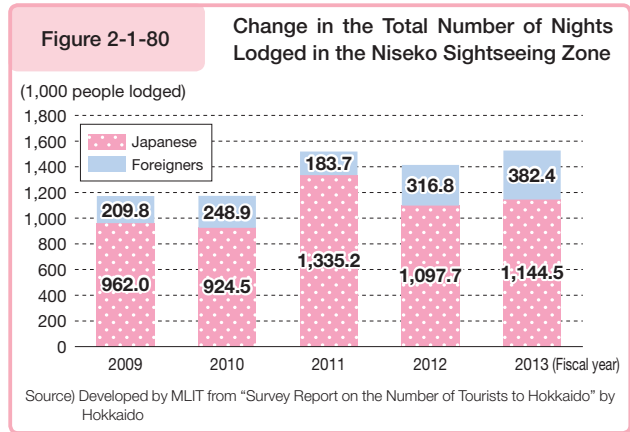
Based on the "Act on Promotion of Tourists' Visit and Stay Through Development of Tourism Areas (Sightseeing Zone Development Law)", the Japan Tourism Agency is promoting the development of "Sightseeing Zones" as districts that can handle interactive stay-type tourism. Through this, the Agency plans to use tourism to revitalize districts—particularly districts other than those in the Golden Route—by creating tourism regions with distinctive attractions with specific themes to appeal to both domestic and international travellers.

The "Niseko Sightseeing Zone,"—made up of the three towns of Rankoshi, Niseko and Kucchancho in Hokkaido—which received certification from the Sightseeing Zone Development Implementation Project in 2014, has not only domestic visitors but tourists from all over the world because of its world-leading powder snow and safety assurance activities for skiers/snow boarders, providing a growing trend for the total number of nights lodged by both Japanese and foreigners, with approximately 1.53 million people staying overnight in 2013 (Figure 2-1-80).



Furthermore, the seven municipalities of Uonuma City, Minami-Uonuma City, Yuzawamachi, Tokamachi and Tsunanmachi of Niigata Prefecture, Minakamimachi of Gunma Prefecture, and Sakaemura of Nagano Prefecture that have been certified as “Snowy Country Sightseeing Zone” under this same plan are all serviced by high speed transportation networks such as the JR Joetsu Shinkansen (with 2 stations for boarding) and the Kanetsu Express Way. With Echigo-Yuzawa Station as the center, this area is connected to the Tokyo Metropolitan Area by a travel time of little less than 2 hours, making day trips possible.

Working with the key principles of: “Development of International Tourism Through Snow”, “Formation of a New Tourism Industry Suited to the Snow Country”, “Promotion of Extended Stay Tourism” and “Promotion of People Building and Community Building”, the municipalities in this regional zone have shown a growing trend in the total number of overnight stays (Figure 2-1-81).



## Column

### The Expectations for the Opening of the Hokuriku Shinkansen (Bullet Train)

The building of the Hokuriku Shinkansen (connecting Nagano and Kanazawa) began with the authorization of the construction execution plan for connecting Nagano and Joetsu on March 12, 1998. Since then, construction has been moving forward to open a line that reaches Kanazawa, with authorization for the construction execution plan being given on April 25, 2001 for connecting Joetsu and Toyama, and on April 27, 2005 for connecting Toyama and Kanazawa.

As a result, on May 24, 2014, a Rail Connection Ceremony was held in the Toyama Station building, and the railway lines between Nagano and Kanazawa was connected into one line. Then, finally on March 14, 2015, the Hokuriku Shinkansen was opened for operation all the way to Kanazawa. On the opening day, Rail Line Opening Commemoration Ceremonies were held in various prefectures on the railway line, along with Train



Figure 2-1-82 New Train Car W7/E7 of the Hokuriku Shinkansen

Source) MLIT



Departure Ceremonies being held at every station on the line from Nagano Station to Kanazawa Station as well as at Tokyo Station. Along with Minister Ota of the MLIT attending the Train Departure Ceremony at Kanazawa Station and the Rail Line Opening Commemoration Ceremony in Toyama City, MLIT senior officials such as Vice Minister Kitagawa and Parliamentary Secretary Suzuki were present at each of the ceremonies. Every one of the ceremonies were attended by numerous officials connected to the project, and the opening of operations for the Hokuriku Shinkansen was lavishly celebrated.

With the opening of the Hokuriku Shinkansen line (connecting Nagano and Kanazawa), the travel time between Tokyo and Kanazawa has been shortened from the previous travel time of 3 hours 47 minutes to 2 hours 28 minutes, bringing the Hokuriku Area much closer to the Tokyo Metropolitan Area.

Along with the expectations that this will lead to the acceleration of business establishment and activity along the train line, as well as the promotion of local regions and the vitalization of its economy through the expansion of the living spheres along the line, it is anticipated that the region will be revitalized by more tourists visiting the Hokuriku Area through the formation of more sightseeing routes and the discovery of new resources for tourism.

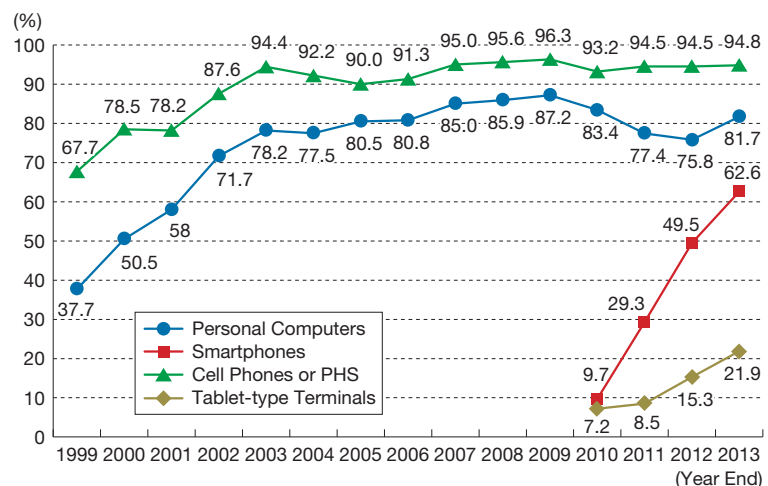
Furthermore, the actual use of the line from March 14<sup>th</sup> to 16<sup>th</sup>—the first 3 days of operation—was 185% compared to the previous year for the line between Takasaki and Kanazawa, and 306% compared to the previous year for the line between Joetsu-Myoko and Itoigawa, showing that the Hokuriku Shinkansen line is off to a good start. Along with this, it seems more tourists are actually visiting the Hokuriku Area now, with the number of people entering the Kanazawajo Park being 4 times the number of people that visited in March of past years within the 2 days after the opening of the train line.

City development has also been progressing from the expectations placed on the operation of the Shinkansen, with the number of empty stores in Kanazawa City being cut to half in the last 5 years and some places recording a commercial property appreciation rate that is highest in the nation in the 2015 official land value. In addition, there have been cases of businesses moving their main office to Ishikawa Prefecture and Toyama Prefecture.

**(2) Logistics and Information**  
**(The Internet Mail Order and Logistics)**

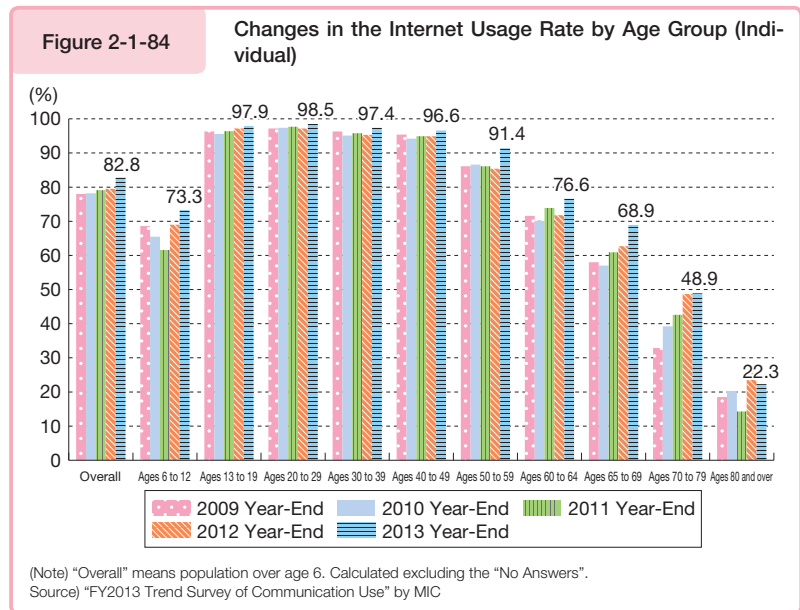
With the development of ICT (Internet Communication Technology), it has become possible to connect with people all over the world regardless of time, distance and location. In recent years, the spread of information and communication electronic equipment has progressed, and looking at the changes in the permeation conditions of such electronic equipment, it is evident that the use of personal computers and cell phones/PHS spread in the latter half of 1990s to the early 2000s, and that use of smartphones and tablet-type terminals have suddenly become widespread since 2010 (Figure 2-1-83).

**Figure 2-1-83** Changes in the Spread and Use of Information and Communication Electronic Equipment (by Household)



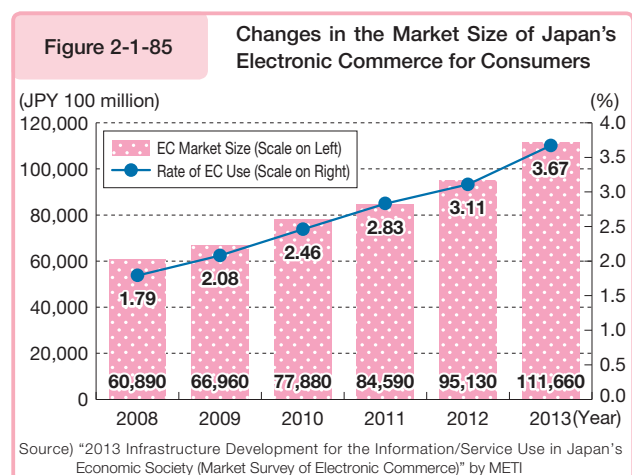
(Notes) 1 For "Cell Phones/PHS", from 2009 year-end to 2012 year-end Personal Digital Assistance (PDA) were included in the study, and from the 2010 year-end, smartphones were included in this number. Further, the rate of ownership excluding the smartphones was 76.5%.  
2 The "Smartphone" is a relisting of "Cell Phones/PHS".  
3 For inter-annual comparisons, data was gathered including those with no response.  
Source) Developed by MLIT from "FY2013 Trend Survey of Communication Use" by MIC

With the spread of information and communication electronic equipment, internet usage has also grown. Looking at the internet usage rate by age groups, at 2013 year-end, the internet usage rate for people aged 13 to 59 was over 90%, and even in the age group of people over age 60, the internet usage rate is on a growing trend (Figure 2-1-84).



With this spread of ICT and increased internet usage, the daily life of consumers has changed so they can shop without being limited by time and location. For this reason, the use of the internet for business transaction has also increased.

The market size of Japan's electronic business targeting consumers is growing steadily to approximately JPY11.2trillion in 2013, with an approximately 3.7% EC use rate<sup>Note 36</sup>, which is the indicator for the infiltration rate of the electronic commerce (Figure 2-1-85).

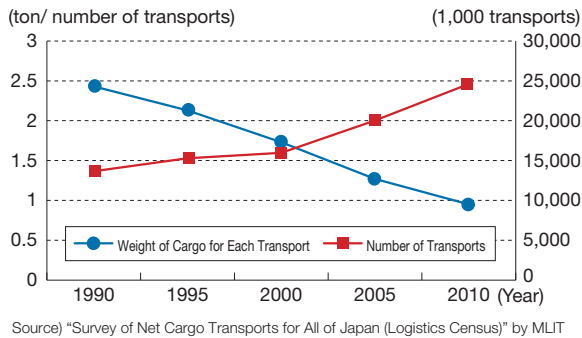


This kind of growth in the electronic commerce market and the diversification of consumer needs has influenced the field of logistics. Looking at the changes in the flow of cargo, the cargo weight of each transport has decreased but the number of transports has increased. Also, in looking at changes in the number of items handled by "Takuhaibin" (package delivery services)<sup>Note 37</sup>, from the fact that the number of items handled is increasing, it is evident that the units being transported are becoming smaller but increasing in frequency (Figure 2-1-86, Figure 2-1-87).

**Note 36** The ratio of the electronic business market size against the total of all business transactions (size of business transactions market). The EC use rate of electronic business targeting consumers indicated the number in the retail/service business.

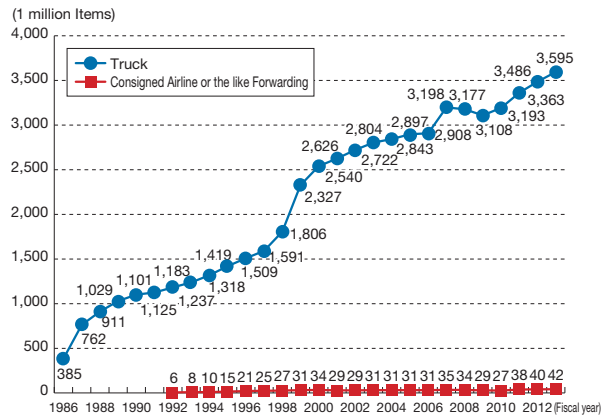
**Note 37** Indicates the special combined freight transport of the general motor truck transportation business or the transport of freight and use of transport businesses by one or a combination of railroad freight transport, coastal shipping, truck transport or air cargo which transports cargo of 30kg or less per item with a special name attached.

**Figure 2-1-86** Changes in Cargo Flow (Survey for period of 3 days)



Source) "Survey of Net Cargo Transports for All of Japan (Logistics Census)" by MLIT

**Figure 2-1-87** Changes in Number of Items Handled by Package Delivery Services

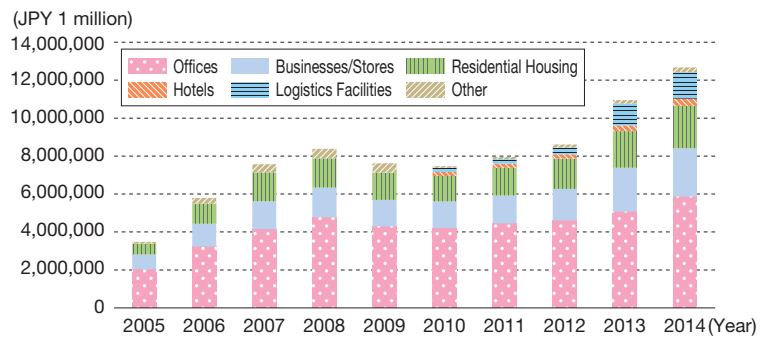


(Notes) 1 From FY2007, the performance of Yu-Pack (Japan Post Co., Ltd.) has become part of the survey subject.  
2 All transports by Japan Post Co., Ltd. has been counted as truck transport, including package delivery involving consigned airline or the like forwarding.  
Source) MLIT

Along with the above-mentioned changes, there has been an increase in redeliveries due to the receiver not being home. In order to improve the efficiency of cargo distribution by reducing redeliveries, package delivery companies, together with mail order companies, formed a “Committee to Promote the Diversification of Methods to Receive Package Deliveries to Reduce Redeliveries”. This Committee is working on understanding the current situation, analyzing the causes, investigating the various issues, and looking for solutions to reduce the number of redeliveries through things like promoting the diversification of methods for receiving packages.

In order to further streamline the cargo distribution work in light of these conditions, in recent years a reorganization and consolidation of logistics facilities has been taking place. Currently there is a trend of establishing large-scale logistics facilities which combine the various functions of not only storage but disposal of goods, distribution processing, and advanced information processing, in closer proximity to cities, close to the areas where the consumers live. As a result of the growing demand for these logistics facilities, their attraction as an investment target is also growing. Looking at assets

**Figure 2-1-88** J-REIT Changes in Asset Size of Investment Targets



(Notes) 1 "Other" is for investment targets other than "Office", "Businesses/Stores", "Residential Housing", "Hotels" and "Logistics Facilities".  
2 "Hotels" and "Logistics Facilities" were included in "Other" prior to January 2010.  
3 Each year as of the end of December.  
Source) Developed by MLIT from published data of the Investment Trust Association

acquired according to J-REIT <sup>Note 38</sup>, offices, houses, and businesses/stores used to be the main targets, but in recent years investment into logistics facilities has been showing some growth (Figure 2-1-88).

(The Contribution of Logistics to the Local Society)

a. Local Employment from Establishment of a Logistics Facility

In the past, logistics facilities were mainly a one level warehouse just for storing merchandise but, as mentioned before, the more recent logistics facilities handle processes like sorting and packing the cargo, as well as inventory management.

**Note 38** J-REIT: An abbreviation of Japan Real Estate Investment Trust. A product where multiple real estate properties such as office buildings, commercial facilities and apartment buildings are purchased with funds collected from many investors, then distributes the rent income and sale profits from those properties to the investors. (Cited from the website of the Investment Trust Association, Japan)

In recent years, such multifunctional, large-scale logistics facilities are being built quite frequently and are contributing to the creation of employment opportunities in the Rural Areas.

■ Being Holdings, Inc. “Hakusan No.3 SCM Center” ~Hakusan City, Ishikawa Prefecture~

In November 2014, Being Holdings, Inc.—a general logistics and transportation company in Kanazawa City, Ishikawa Prefecture—established Hakusan No.3 SCM (Supply Chain Management) Center, a large-scale logistics center with a 2,992 Tsubo (9,890.91m<sup>2</sup>) site area with a total floor space of approximately 3,940 Tsubo (13,024.79m<sup>2</sup>), in Hakusan City of Ishikawa prefecture.

Hakusan No.3 SCM Center has created many more employment opportunities than the conventional types of logistics facilities, and below is a comparison with the existing facilities owned by Being Holdings, Inc.

- Hakusan No.3 SCM Center ~ Inventory Stock-type Logistics Facility (2014)

→ This is a facility where the merchandize is stored temporarily to do the distributing processing, such as the unpacking, wrapping, and inspection, as well as the actual delivery. For this reason, compared to other logistics facilities, both the floor space and number of employees is greater in scale. 135 people are employed at Hakusan No.3 SCM Center, and of those employees 100 people were hired locally, thus contributing to the creation of employment opportunities in a Rural Area.

**Figure 2-1-89 Summary of Logistics Facilities Owned by Being Holdings, Inc.**

Name of Facility	Hakusan No.3 SMC Center	Kanazawa Case Center	Nagaoka Aoki TC
Uses	Storage, Distribution Processing, Cargo Handling, Delivery	Storage, Inventory Management	Cargo Handling, Delivery
Total Floor Space (Tsubo)	3,940	250	421
Employees (People)	135	1	10
of which Local Hires (People)	100	0	9

Source) Being Holdings, Inc.

- Kanazawa Case Center ~ Conventional-type Warehouse (2010 → move to new location in 2013)

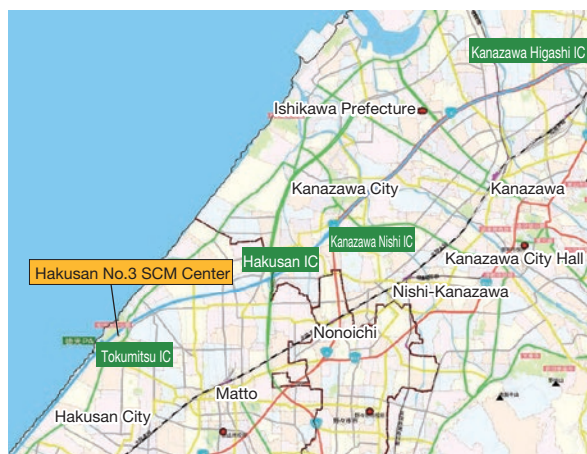
→ 1 employee based on the functions of storage and inventory management.

- Nagaoka Aoki TC (Transfer Center) ~ Transit-type Logistics Facility (2012)

→ A warehouse that holds no inventory but emphasises sorting functions. With 10 employees, there are more people employed than at the conventional-type warehouse.

In this way, the large-scale logistics facilities being built in recent years have been contributing to the creation of jobs in Rural Areas. With the expansion of internet mail order businesses and the increase in frequent small-lot deliveries, it is believed that the demand for large-scale logistics facilities will continue to increase, and there is a growing expectation of more jobs being created in Rural Areas by the building of such logistics facilities.

Figure 2-1-90 Location of Hakusan No.3 SCM Center



Source) MLIT

Figure 2-1-91 Exterior of Hakusan No.3 SCM



Source) Being Holdings, Inc.

## b. Local Support Efforts by Logistics Businesses

With the regional structure changing due to the aging population and the decrease in population and birth rate, it is becoming necessary to respond to the needs of people left in difficult situations. In Rural Areas especially, even shopping for groceries and other daily necessities is becoming difficult, and the maintenance of transportation networks is a concern. To deal with these issues, efforts are being made towards the maintenance and revitalization of these districts through cooperation between local public organizations—especially in districts with a large number of elderly people—by things like checking in and assisting the elderly with shopping, and creating sales opportunities for farmers and producers. Through such efforts, the flow of goods through new logistics channels is expected. For example, farm produce that did not get distributed to the market in the past—such as vegetables grown by elderly people in their garden—being sold at the “*Michi-no-Eki* (roadside stations)” or “outside the local area”. Even in a society with a serious population decline, if these new logistics channels open up in various places across the country, it could lead to the revitalization of local districts through the flow of goods and become the source of Japan’s vitality.

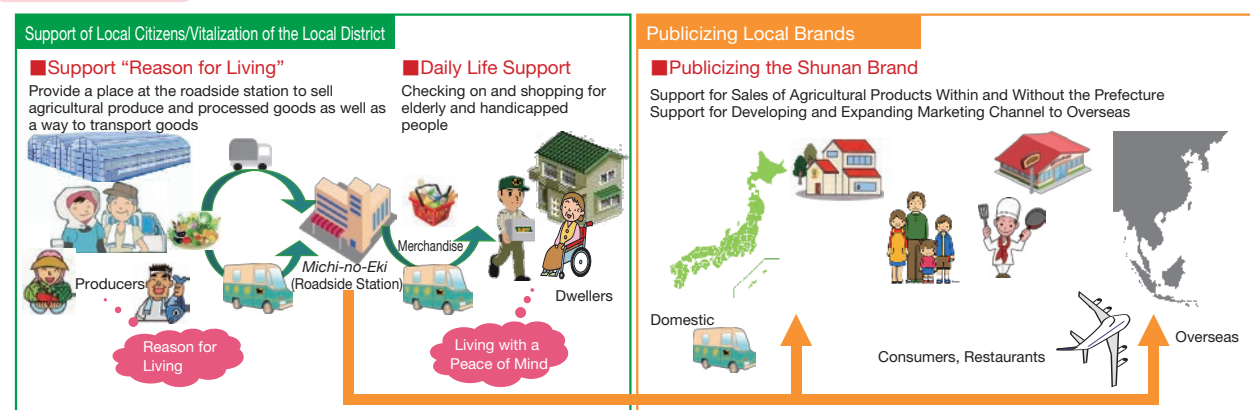
### ■ “Solene Shunan”, the Roadside Station that Cooperates with a Package Delivery Business. ~ Shunan City, Yamaguchi Prefecture

Shunan City of Yamaguchi Prefecture has a large area of farmland in the hilly and mountainous sections that cover approximately 68% of its district. In recent years, with the progressing depopulation and aging of its citizens, this city faced many of the problems common to various areas in Japan, such as an increase in deserted arable land, loss of sales opportunities and income due to the reduced production of agricultural products, and difficulty in mobility and shopping due to the decline in transportation infrastructure.

Under these conditions, with the opening of “Solene Shunan” on May 17, 2014, a roadside station along Route 2, efforts are being made to find solutions to the district’s problems based on the concept of “All of Shunan Publicizing the Shunan Brand 24/7” so that—in addition to the “Tourism Type” function of many other roadside stations—this station also provides “Welfare Type” functions to support the local citizens’ “reason for living” by making the roadside station a place of interaction/communication.

Furthermore, on November 17 of the same year, the three parties of Shonan City, Shonan Tourism Council—the company that manages “Solene Shonan”—and Yamato Transport Co., Ltd. entered into the “Comprehensive Cooperation Agreement for the Vitalization of the Local District” with the aim to vitalize the district and improve services for citizens, and to support the local residents “reason for living” as well as publicize the Shunan brand with the government and people working as one.

Figure 2-1-92 Overall Working Scheme of the “Comprehensive Cooperation Agreement for the Vitalization of the Local District”



The first of the “Comprehensive Cooperation Agreement for the Vitalization of the Local District” efforts is providing a place for elderly people to price and exhibit/sell—even if it is just one bag—vegetables and local agricultural product/processed goods produced on their own property which they were unable to put on the market in the past because of the small quantity. There is also a process in place for those that find it difficult to deliver their goods—such as farmers in the



hilly and mountainous areas without transport and food processing plants that want to concentrate on production—where a salesperson/driver of Yamato Transport Co., Ltd. goes out for collection, and by putting the merchandise for exhibit/sale directly into a collapsible container, the goods will be delivered to “Solene Shunan”.

The second effort planned is the support system for checking in and handling the shopping for elderly and handicapped people. Shopping support is provided for elderly and handicapped people who cannot get to the roadside station by making use of catalog mail order and internet supermarkets. Orders are received and merchandise is picked up/packed at “Solene Shonan”, then a salesperson/driver of Yamato Transport Co., Ltd. delivers the order to the people’s homes. It is planned that the check in support will be done at the same time, by confirming the safety of customers when making deliveries and communicating with the contact person for the city if there are any irregularities or problems.

The third effort planned is the selling of local products outside the region, publicizing and expanding the market channel of the Shunan brand, and supporting the efforts to become a sixth industry. Rather than limiting the sales of the specialty products, processed goods, and farm produce grown by elderly people to local people and tourist that come to the roadside station, plans are being made to construct a system for selling to consumers and restaurants all over the country, as well as creating a distinctive letter of transmittal (package delivery invoice) displaying the characteristics of Shunan City, in order to gain national publicity. In addition, Yamato Group will provide support for not only domestic transport but also for overseas transport, to strengthen the publicizing of the Shunan brand both within Japan and overseas.

As discussed above, logistics businesses are taking action in many ways to support and revitalize the local districts. Particularly in the Rural Areas where it is said that the decline and aging of the population will progress, such efforts to maintain and revitalize the local district is necessary. For this reason, in October 2014 MLIT held the “Council for Determining Ways of Having a Maintainable Logistics System to Support the Local District” with concerned parties, including academic experts, logistics businesses, local public agencies and non-profit organizations. The needs related to distribution of goods and other daily life support services in depopulated areas, current situation of transport, the state of new efforts being tried in different places, issues and the direction to take with solutions were considered at this council. By March 2015, the information and points discussed were organized into the “Report by the Council for Determining Ways of Having a Maintainable Logistics System to Support the Local District”. Also, based on the deliberations by this council, there are plans to start a model business to construct a maintainable logistics network in 2015.

## Column

### “Takuhei [Parckage Delivery] Mate (Sagawa Mama)” ~Work While Raising your Children!~

A new way of working is gaining attention where it is possible to set your work hours according to your convenience, with no commute necessary.

With the spread of internet shopping in recent years, the number of items to be delivered has increased markedly, but the packages themselves have become smaller and lighter, making it necessary to have more people who will handle the deliveries.

Sagawa Express, having made it their goal to increase the efficiency of deliveries in the morning hours, started recruiting delivery people in the district under the jurisdiction of the Chiba North Office (Chiba Prefecture, Hanamigawa Ward, Inage Ward and Yotsukaido City) in March 2012. In response, there were many applications from housewives who applied as, “Can only work in the morning hours” ~I can only work during the time my children are in kindergarten or school~. Based on these recruitment results, the delivery offices in Chiba Prefecture began operating with housewives as the main source of delivery personnel on a trial basis. This was received so well by not only workers but also by customers that from April 2014 this policy was launched all over the country as “Takuhei Mate”, and the goal now is to expand up to 5,000 people.

Not only can this type of work be done for “a small number of hours” and “in the vicinity of home”, it “allows for possibility of unplanned absences” that arise sudden sickness of a small child.

Furthermore, Takuhei Mate uses the employment method of “outsourcing contract to a sole proprietor”,



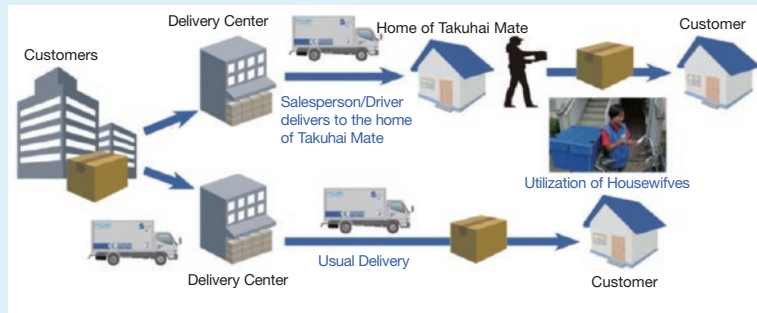
and once hired the employee learns the necessary information through training, and by actually going along with a salesperson/driver to understand the delivery flow. Follow up is also provided so that deliveries can be made alone without any apprehension.

The future development of this program will continue garner attention as a flexible way of working.

Figure 2-1-93 Job Description of "Takuwai Mate"

- In the morning, a driver brings the packages for delivery that day to the Takuwai Mate's home  
→Mainly small, light packages. Delivery address is within a 2 to 3 km radius from home.
- Delivery to destination address on foot or by bicycle.

○Flow Chart for Takuwai Mate



○Takuwai Mate



Source) Sagawa Express Co., Ltd.

## Column

### “Tora Girl” (Truck Girl)

#### ~Towards More Active Participation by Women Truck Drivers~

The entrance of women into the truck transport industry has been slower than in other lines of business, but in recent years the good work of women truck drivers is gaining attention for revitalizing the industry through the use of skills that women drivers provide, such as attentive service, good communication, and careful driving.

The Road Transport Bureau of MLIT has given women truck drivers the nickname “Tora Girl (Truck Girl)”, and is working on various plans to promote the active participation of women in the truck transport industry.

#### The Necessity of Efforts for the Promoting the Active Participation of Tora Girls

Currently, the ratio of women truck drivers remains at just about 2.4% (approximately 20,000 women) of the total number of truck drivers, but the number of women who have a license to drive large vehicles is over 134,000 women, so it seems there is a certain number of women who are potentially considering driving a truck as a career option. However, there have been complaints from the women truck drivers currently working that they have been refused employment for being a woman, and that there was no bathroom for women at the delivery destination. Changing management’s attitude towards hiring women, reforming the work environment to make it positive for women, and improving the image of the industry have all become pressing issues.

For this reason, MLIT has designated 2014 as the “First Year for Personnel Procurement/Development” for truck drivers, and started proactively putting out information and working with managers to promote the active participation of women in the truck transport industry.

### Creating the “Tora Girl Promotion Project Website”

In September 2014, The “Tora Girl Promotion Project Website” <sup>Note</sup> was created within MLIT’s Road Transport Bureau website to proactively send out information to improve the image of the industry. On this site, along with information about how to get a drivers licenses of various types and introducing events related to recruitment activities, there are postings of comments from currently working women drivers from all over the country and messages of encouragement from related business circles.

### Towards the Promotion of Active Participation by Women Truck Drivers

At the courtesy visit of the Tora Girls to the prime minister, Prime Minister Abe commented that he “wants the women to use their unique skills to work hard”. MLIT continues to work towards the promotion of active participation by women truck drivers for the revitalization of the industry through the use of skills unique to women.

Figure 2-1-94 Tora Girls Courtesy Visit to the Prime Minister (September 2014)



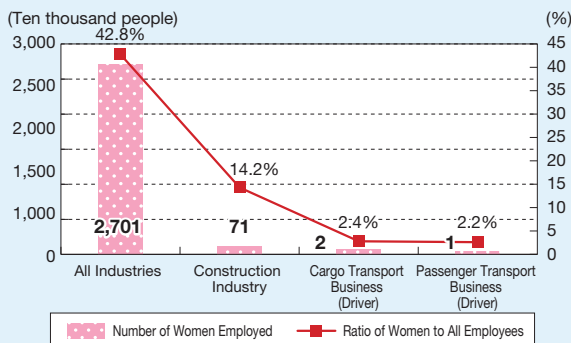
Source) MLIT

Figure 2-1-95 Tora Girls Logo



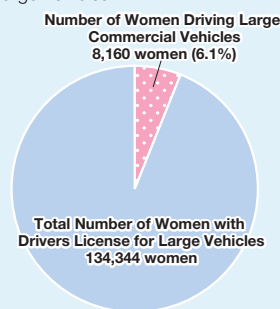
Source) MLIT

Figure 2-1-96 State of Women's Participation



Source) Developed by MLIT from “Study on Work Force” (2013) by MIC

Figure 2-1-97 State of Participation of Women with Drivers License for Large Vehicles



Source) Developed by MLIT from “Drivers License Statistics” (2013) by the National Police Agency and “Statistical Study of Basic Salary Structure” (2013) by MHLW

**Note** <http://www.mlit.go.jp/jidosha/tragirl/>

(Various Ways of Working Due to the Spread of ICT)

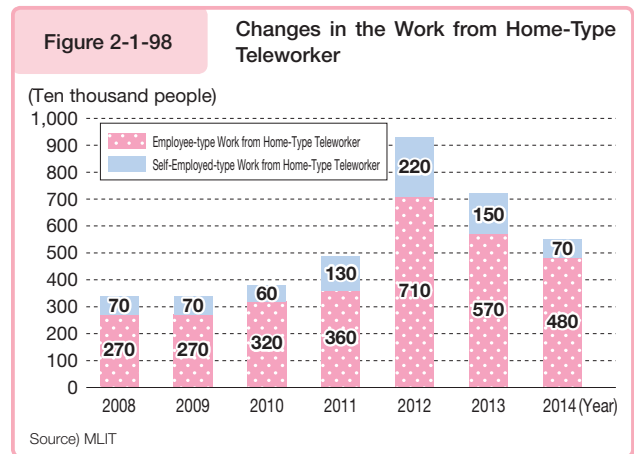
a. Promotion/Spread of Telework

Telework which is a flexible way of working without being limited by a work location with the use of ICT (Information Communication Technology), and is expected to have many positive effects such as securing a workforce by making it possible to balance work and home life, promoting employment of people responsible for child-rearing and caring for elderly/handicapped people, increasing employment opportunities in local districts to revitalize Rural Areas, increasing fulfillment in personal life due to the increase in leisure time, and reducing commuter congestion.

MLIT is working on the following plans for the spread/promotion of telework with the aim to “Resolve the Adverse Effects of Centralizing Population/Function in the Metropolitan Areas” and “Revitalize the Local Districts”.

■ Status Survey of Telework Population

A survey for the purpose of getting a grasp on the quantitative status of the rate of teleworking and the teleworking population, and publicizing the results for use in edification and dissemination.



■ Setting Up Telework Centers

As a facility for promoting telework, consideration is being given to setting up “Telework Centers” (shared use-type offices) that would provide an alternative space for people working from home or a base for mobile work. Until recently, the locations being considered for setting up these centers were mainly in large metropolitan cities. However, amidst the decreases in population and birth rates and the aging of the population, there is a need to create workplaces in rural cities and for stimulating activity in such cities by effectively using empty stores in the center of town. Therefore there are plans to continue expanding the efforts for spreading/promoting telework—with consideration being given to conducting a model demonstration experiment related to building up cities—for the purpose of revitalizing rural cities.

**Figure 2-1-99 Overview of Telework Center Social Experiment**

	FY2007	FY2008	FY2011
Location of Experiment	2 Locations (KohokuNT, Tsurugashima City)	1 Locations (Yokohama Azamino)	6 Locations in City Center (Shinagawa, Yaesu, Kasumigaseki), City Suburbs (Kannai, Tama, Makuhari)
Period of Experiment	Approximately 3 months	Approximately 3 months	Approximately 2 months
Total Number of Users	330 people	660 people	897 people

Source) MLIT

b. Satellite Office

When migrating to a Rural Area, it is normal to think you need to find work in the place to which you are migrating. However, now that use of ICT has spread, even if the main office is located in a place like a metropolitan city center, by calling the workplace in a district that is distant from the main office a satellite office, it has become possible to live without being limited by the location of the workplace.

In Kamiyamacho, a town with a population of about 6,000 people located in the hilly and mountainous areas approximately one hour’s drive from the center of Tokushima City in Tokushima Prefecture, the government and Green Valley—a local specified non-profit organization—are leading efforts to revitalize the district. In 2004 a fiber-optic network was laid for the entire town and, in spite of the town being in a hilly and mountainous area, a broadband

environment was established. When a migration interaction support center was to be established in 2007, Kamiyamacho consigned the work involved in migration interaction to Green Valley. Green Valley did not use the methods other municipalities were using to choose people to migrate, such as lottery and first-come-first-served method. Instead, they used a far-sighted strategy of having the people wanting to migrate propose what they would do in Kamiyamacho after migrating, and chose the people to migrate based on the content of their proposals. Also, in recent years, more than a dozen IT-related businesses have moved in to the area, making use of satellite offices.

Out of these offices, some have renovated old traditional houses that are about 90 years old with floor to ceiling windows. In spite of being offices for imaging companies, these “Engawa (patio) Offices” that have been modishly regenerated have become a place that attracts the gathering of various people, including local residents and visitors, and is a rare example of creating a bustling atmosphere.

Also, with the increase in satellite offices in recent years, the local region has been revitalized, with employment opportunities being created in the surrounding areas.

Going forward, the use of satellite offices for revitalizing a district is expected in other Rural Areas also.

Figure 2-1-100 Satellite Office Use of Old Traditional Homes Where Various People Gather



Source) Green Valley, a Specified Non-Profit Organization



Due to the broadband environment in place, working in this relaxed manner has become possible.



Source) Hour Tokushima, Prefectural Government Newspaper (November 2012 issue)

## Column

### Co-Working, the New Way of Working

“Co-Working”, differs from previous shared offices where merely the work space is shared, and has been developing in various places in recent years as a new way of working. Co-working is a way of working where individuals gather to share information and wisdom through communicating and cooperating depending on the situation, to create value.

“Co-Working Spaces”—places to conduct Co-Working—are currently located mostly in the Tokyo City Center but there are some established in various Rural Areas, and as of July 2014, it is projected that 365 spaces are in operation.

By having Co-Working spaces in rural cities instead of only in the large metropolitan cities, it is expected that this new way of working will lead to the revitalization of the economy in Rural Areas through co-workers of a district getting together to share their knowledge, to work together and to even start a community in the district.



Figure 2-1-101 Example of Co-Working Space



Source) Website of Hitsuji Incubation Square Inc. (Shibuya Ward, Tokyo: PoRTAL)



Source) Kamiyama Valley Satellite Office Complex (Kamiyamacho, Tokushima Prefecture: KVSOC)

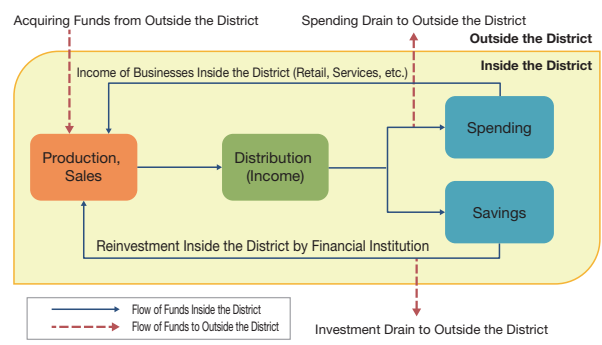
Reference Materials: Tomokazu Abe, Tadashi Uda, Kenta Hiramoto (2015) "State of Co-Working Space: 2014 Research Summary Report"  
Kenta Hiramoto, Tomokazu Abe, Tadashi Uda (2014) "Work Style and Vision for Local Community: Looking at Co-Working"

### (3) Regional Economic Circulation and Building Up the Local District (A Way to Think About Regional Economic Circulation)

Looking at the local economy from the “flow of funds”, the local economy can be vitalized by acquiring funds from outside the district by supplying goods and services that use of the strengths of the district to areas outside of the district, then constructing an economic circulation structure by creating new demand in the district by circulating those funds within the district. To be more specific, first the funds acquired from outside the district by a business will be spent within the district as the income of the district residents who are employees of the business. Then that spending will become income for the retail and service businesses within the district, and in turn becomes the income of the district residents employed by those businesses to be spent further to create a circulation. Additionally, funds that were not spent will be deposited into financial institutions, which will then be re-invested (loaned) within the district through those financial institutions to lead to further production (Figure 2-1-102). Through the working of such an economic circulation structure, employment and income will be created within the district and the district economy will be maintained.

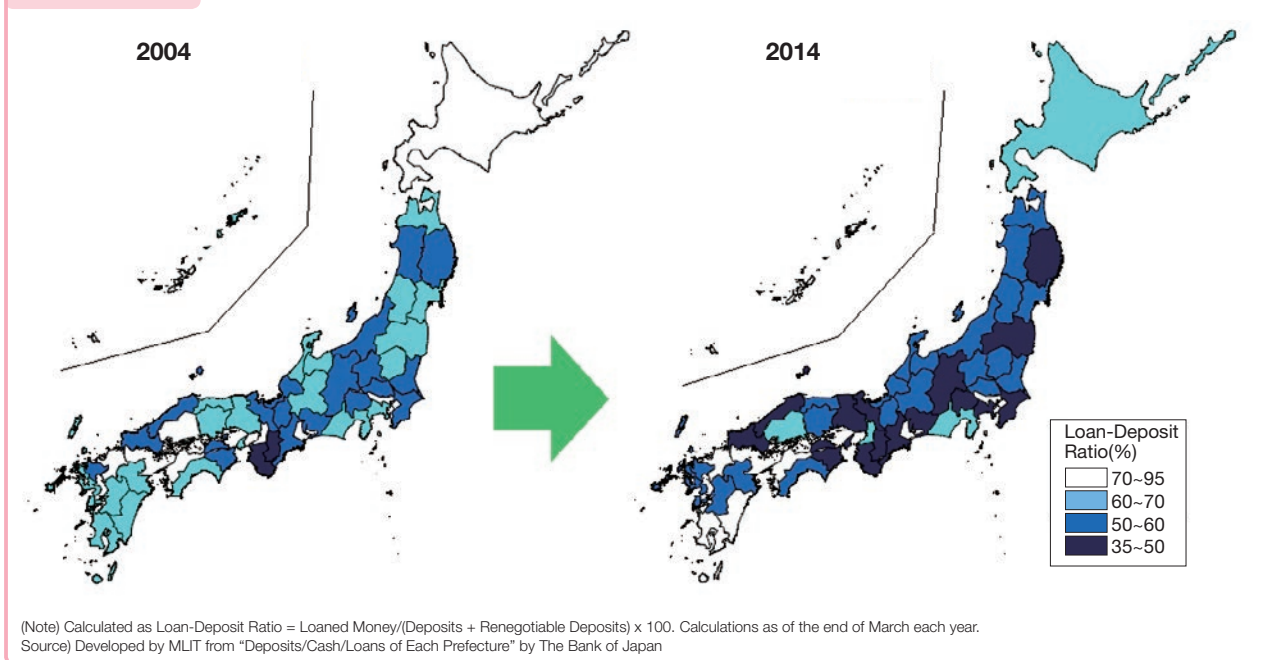
However, many of the municipalities in the Rural Areas are in a state where this circulation is not operating well. The foundational industries of the district are stagnating and are not able to acquire funds from outside the district as they had in the past. Even funds that are acquired tend to be spent outside the district, at places like large-scale shopping centers outside the district and on internet mail order businesses. Even with funds deposited into financial institutions in the district, reinvestment inside the district is decreasing, and when comparing the loan-deposit ratio according to each prefecture between 2004 and 2014, it is evident that in many of the prefectures the loan-deposit ratio is deteriorating (Figure 2-1-103). This decrease in spending and investing within the district leads to a decrease in employment opportunities and income, which in turn becomes a cause for the district to lose its vitality.

Figure 2-1-102 Flow of Regional Economic Circulation



Source) MLIT

Figure 2-1-103 Changes in the Loan-Deposit Ratio by Prefecture



### (Improvement Strategy for the District Economic Circulation Structure)

In order to correct the economic circulation structure of local districts and reform it into an effective circulation, first a quantitative analysis of the economic circulation of the districts must be done to make it “visible”. Next, a start can be made by getting a grasp on the features that vary by district, such as which businesses are acquiring funds from outside the district, and which areas have a great drain of funds. At the same time, in addition to grasping the economic circulation structure from the flow aspect, it is important to look at the stock aspect of district resources, including the natural environment, the infrastructure, and the culture/tradition.

Based on this kind of analysis of the present conditions, strategies that match each district’s actual situation will need to be implemented. Here we will discuss possible strategies for consideration from the four aspects of: “Acquisition of Funds from Outside the District”, “Curtailing Spending Drains to Outside the District”, “Diversification of Investment Methods Inside the District”, and “Investment that Uses the District’s Real Estate”.

#### a. Acquisition of Funds from Outside the District

The first strategy to consider for acquiring funds from outside the district is promoting the sales outside the district of those products and merchandise that maximizes the unique resources of the district. With this in mind, various places are proactively promoting work on sixth industry <sup>Note 39</sup>. By selling merchandise outside the district that has been value-added by processing primary articles such as agricultural and fishery products, not only can more funds be acquired, by handling the processing and product development within the district, employment and capital investment is created inside the district, which also leads to increasing fund circulation.

Next, promoting spending within the district by attracting people outside the district can be another method to consider for acquiring funds from outside the district. Tourism is said to be an industry with a broad base, where not only the travel and hotel businesses benefit, but its economic affect can spread to agriculture, forestry and fishery industries, as well to the retail industry and the transportation industry. Many districts are therefore promoting tourism, even as they work on sixth industry. In order to maximize on the effects of tourism, it is necessary to think about devising ways of lengthening the tourists’ duration of stays, instead of having merely daytrip/passing through-type tourism, as well as promoting gift items that have been made/processed in the district using materials from the district.

Furthermore, it is important to not only promote tourism, but to move forward in working to increase the interacting

**Note 39** The effort to create new added-value that makes use of district resources by promoting the combination and unification of agriculture, forestry and fishery industries as the primary industries, the manufacturing industry as the secondary industry, and the retail industry as the tertiary industry.



population, including promoting the interaction between metropolitan cities and agricultural communities, as well people living in two districts.

#### b. Curtailing Spending Drains to Outside the District

Curtailing the spending drain to outside of the district means to have more district residents shop locally and buy things that were made in the district. To think about this, it is necessary to first get a grasp on the current situation of the “place” where the residents do their shopping and the “production site” of the items purchased, in order to see which of the items produced outside of the district have a high purchase rate and whether there are items that can be substituted by products from within the district.

First, in terms of the spending “place”, it can be assumed that there is an increasing rate of shopping at the large-scale shopping centers in the suburbs and by Internet mail order. However, strategies can be planned to increase the number of shoppers coming into the district to expand consumer spending by improving access to the city center by concentrating the city functions and reconstructing the public transportation network (forming Compact Cities) to increase the convenience and attraction of the city center area.

Next, in terms of “production site” of the consumables, one of the strategies would be local production for local consumption, where agricultural, forestry and fishery products produced in the district is consumed within the district. Specifically, there are efforts such as local agricultural, forestry and fishery products being sold at produce stands and volume retailers, as well as using local agricultural, forestry and fishery products in school lunches and employee cafeterias. As a result, income opportunities are generated for the local producers which increases the fund circulation in the district, as well as having the merit of shrinking the distance between the producers and the consumer, which serves to bring down transportation cost, provide fresh quality produce and foster a fondness for local products.

Local production for local consumption should be considered not only for agricultural, forestry and fishery products but also for energy. Fossil fuel such as gasoline and heating fuel depend on imports, and has to be purchased from outside the district (overseas), making energy a leading item for the spending drain to outside of the district. However, if there are natural resources within the district that can be used as renewable energy, the energy supply within the district can be established by introducing renewable energy and the payments to the outside of the district for energy expenses will decrease, resulting in the circulation of funds within the district.

In addition, by promoting energy-saving efforts, the amount of energy consumption in the district will decrease and make it possible to curtail the drain of payments for energy (spending) to outside of the district. Some ideas for example are promotion of capital investment for energy conserving and decreasing the dependence on cars by forming compact cities.

#### c. Diversification of Investment Methods Inside the District

As mentioned above, the funds that do not get spent will be deposited to the financial institution as savings and be reinvested by said financial institutions. However, because investment decisions are entrusted to the financial institutions, even if there is a proposal that is necessary for the district or has business content that holds future possibilities, it may be difficult for the financial institution to take on certain investment opportunities due to problems like business performance and balance of income and expenditures.

In recent years, new investment methods which do not involve financial institutions are beginning to spread. Such methods make it possible to invest in, for example, social businesses <sup>Note 40</sup> which conventional financial institution had difficulty taking on, and has the possibility of contributing to stimulating reinvestment within the district by broadening the base for investment plans. Also, these methods take on the role of widely encouraging social investments by the private sector and donations from citizens to supplement portions that cannot be covered by public funds, for the sake of continued building up of the local community.

**Note 40** Refers to efforts by various entities such as residents, non-profit organization and businesses cooperating to make use of business methods in finding solutions to the wide variety of issues facing the local society including everything from environment protection, care/welfare of elderly/handicapped people, child-rearing support, community building, to tourism.

The two methods of Crowd Funding and Social Impact Bond (SIB) will be introduced here as examples of recent movements.

Crowd Funding is a term coined from combining “Crowd” and “Funding” and is an investment method of individuals and companies wanting to start a business gathering funds from many unspecified individual investors by posting their business plan on the website (platform) created on the Internet for Crowd Funding. Crowd Funding can be divided into the following types by the manner of compensation/return promised to investors: donation type, purchase of products/ services type, loan type, and business investment type (Figure 2-1-104).

Figure 2-1-104 Types of Crowd Funding

Types	Relationship to the Financial Instruments and Exchange Act	Compensation for Investment	Amount of Investment per Person	Fund Raising Scale
Donation Type	No compensation/ returns	None/Letter of Appreciation	From JPY1 per lot	Several tens of thousand yen to Several million yen
Purchase of Products/Services Type	No compensation/ returns	Products/Services	From about JPY1,000 per lot	Several tens of thousand yen to Several million yen
Loan Type Has compensation/returns	Has compensation/ returns	Profit Equivalent to Interest	From about JPY10,000 per lot	Several hundreds of thousand yen to Several tens of million yen
Business Investment Type	Has compensation/ returns	Business Profit	From about JPY10,000 per lot	Several million yen to Several tens of million yen

(Source) Developed by Small and Medium Enterprise Agency from information posted on fund development websites

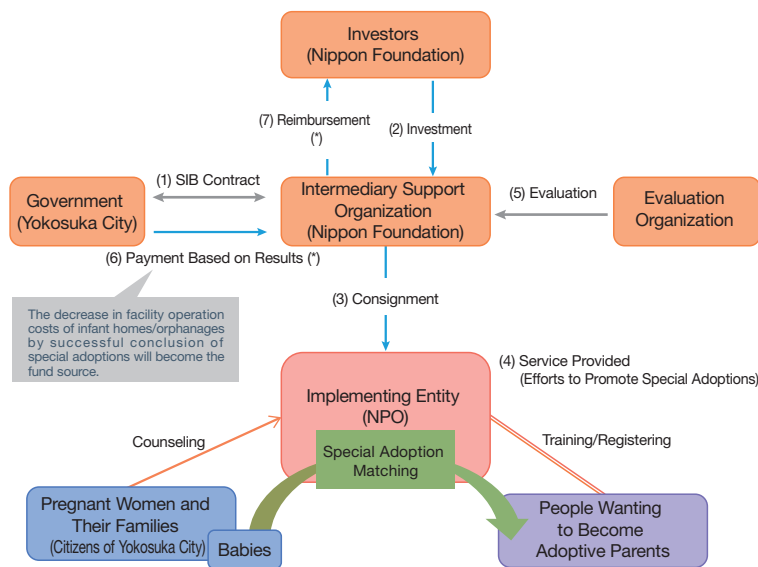
The general process flow for Crown Funding is as follows: posting a proposal on the website (platform), evaluation by the website management, creating an appeal for funds page, start of appeal for funds, project execution, compensation to investors (except for the donation type). Furthermore, in some cases there is a mechanism so that a target amount set for the appeal for funds, and if the target amount is not reached, the proposal is considered a failure and funds cannot be procured.

The compensation to the investors is not necessarily money, so that even for regional contribution activities which had a difficult time procuring funds from conventional financial services, it becomes possible to procure funds and gain support of investors if the business plan matches the needs of the district. As a result, new flows of reinvestment into the district are created and community contribution is facilitated. In addition, there are other resulting effects from announcing a the fund appeal, such as increasing the residents’ interest in the district and getting a grasp on the needs and issues of the district through seeing the number of investors, the amount of funds being collected, and the length of time it takes to collect the necessary funds.

Social Impact Bond (SIB) is an investment method whereby entities such as NPOs conduct business to solve social problems by receiving funding from private investors. If a business achieves a successful social performance (such as reducing government administration costs), a portion of the costs saved by the government will be paid as compensation to the investors. For businesses that were not able to achieve results, the government does not have an obligation to pay returns, which means invested funds will not be returned to the investors, making the invested amount a donation by default. SIB was implemented for the first time in the world in the U.K. in 2010, and since then this method has been used in places such as the United States and Australia to fund preventative programs such as repeat offense prevention for prisoners and child abuse prevention.

There has been no actual implementation

Figure 2-1-105 An SIB Scheme (Example of Yokosuka City)



\* As the Japan Foundation is funding this pilot business, there will be no payment (reimbursement) from Yokosuka City regardless of the project results.

(Source) Developed by MLIT from materials of Yokosuka City

of SIB in Japan to date, but there is some movement towards implementation. In cooperation with the pilot business which the Japan Foundation (public finance) is starting in order to introduce SIB, Yokosuka City of Kanagawa Prefecture began a promotion program for special adoptions <sup>Note 41</sup> in April 2015.

The specific business plan is for an intermediary support organization (in this instance the Japan Foundation) receiving funding from the Japan Foundation will subcontract the business to a public organization, and the public organization which took on the consignment will cooperate with the city to implement a program to promote the successful conclusions of special adoption processes (Figure 2-1-105). The results of successfully concluding special adoptions include not only an improvement of a child's home care environment at early stages, but reduction in facility management costs are predicted from the decrease in the number of entrants into infant homes/orphanages within the city and these results will be evaluated. Yokosuka City will consider the results from this business and, if the business is evaluated as successful, plans to implement an SIB in FY2016 to establish the business as a city function.

In this way, because the compensation amount to the investors in a SIB—in other words, the amount of returns paid by the government—will be determined in alignment with the social performance of the business, it will be important to determine if the social performance can be calculated in a quantitative and objective way. If such an evaluation model can be established for the social businesses in various fields, new investment proposals for social businesses can be created, and it can be anticipated that even as the government's budget becomes more limited, solutions to social problems can be found and the financial burden can be lightened.

#### d. Investment that Use the District's Real Estate

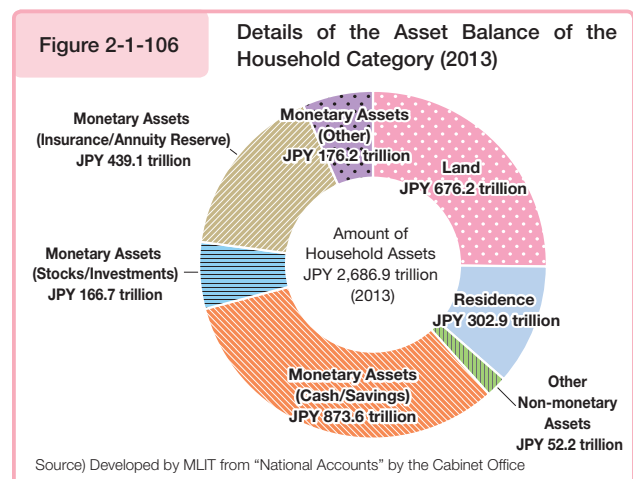
Investments that make use of real estate in the district has been suggested as an improvement measure which focuses on the “Stock” aspect of the district for the economic circulation structure of the local district.

The general flow for reinvestment with regards to the local district economic circulation involves capital investment by businesses leading to production of new goods and services. On the other hand, with investments that maximizes on the real estate existing in the district, there is a possibility of creating a new fund circulation that differs from the one mentioned above.

Looking at the real estate held by the household category of Japan according to the National Accounts, land is approximately JPY 676 trillion, residence is up to approximately JPY 303 trillion and—the major portion of household financial assets—cash/saving balance is at a level over approximately JPY 874 trillion (Figure 2-1-106).

In this way, Japan has large-scale real estate holdings, but for many properties the benefits that can be gained from them are decreasing as a result of declining use and dilapidation. There are also cases of real estate property with a certain economic value not being used effectively, which means its full value is not being realized.

Therefore, investments that make effective use of such real estate in the district can be one method of revitalizing the economic circulation of the district. The main examples of such investment can be divided into the following categories: those with the purpose of “Improving the Real Estate Value” and those with the purpose of “Converting Real Estate to Funds” (Figure 2-1-107). Currently the method of converting real estate to funds—such as reverse mortgage and real estate securitization—is mostly used in the Tokyo Metropolitan Area and has not spread to the Rural Areas, but efforts are being made to promote the use of this method in the rural cities.



**Note 41** Special Adoption is an adoption system whereby, mainly for the welfare of children 6 years of age and under, the legal relationship of parents and their child is dissolved where there is the necessity, and the Court of Domestic Relations establishes a stable foster parent relationship that conforms to the real parent relationship.

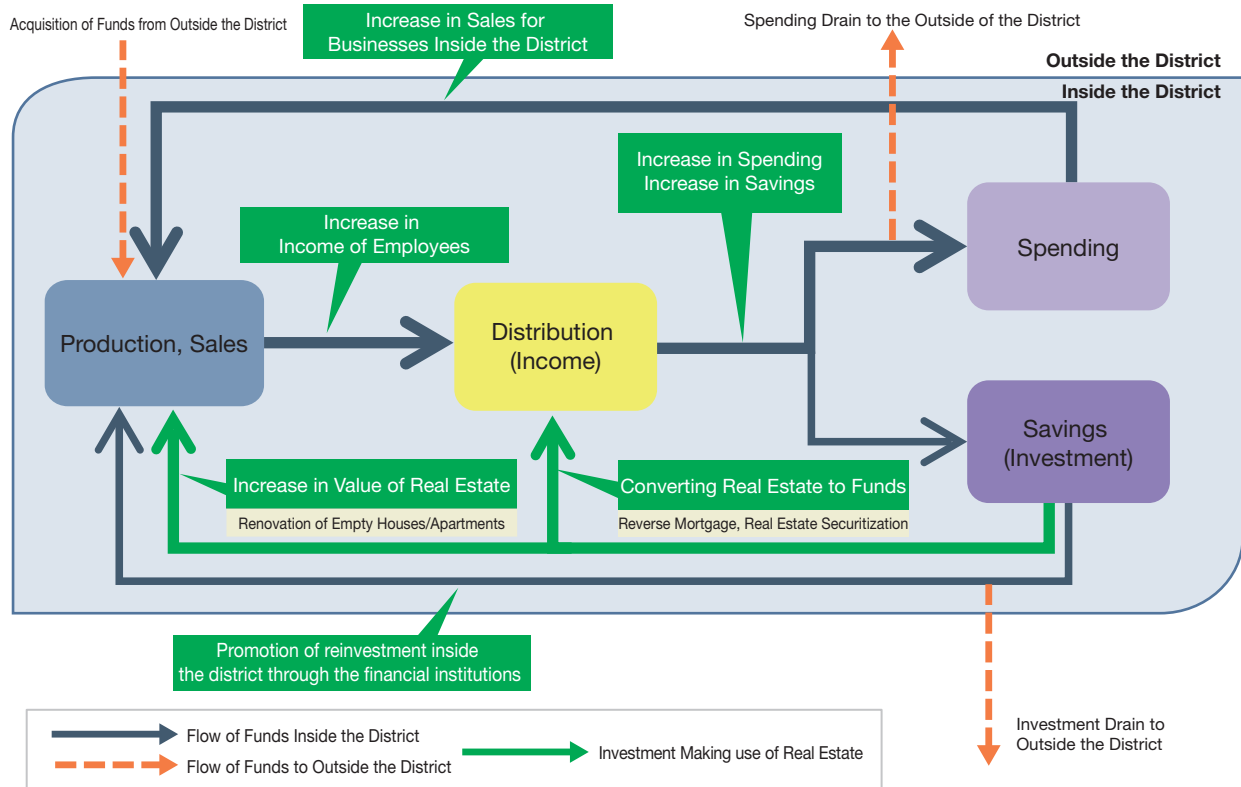
In terms of the influence of effectively using such real estate on the economic circulation of the local district, as shown the flow chart in Figure 2-1-102, it can be seen that the flow is differs between the classifications of “Improving the Real Estate Value” and “Converting Real Estate to Funds”. The methods classified as “Improving the Real Estate Value”—such as renovating houses/apartments—leads to an increase in production by generating rent income. On the other hand, because the method of “Converting Real Estate to Funds”—such as reverse mortgage and real estate securitization—does not increase production, it creates a flow that is characterized by distribution (income) rather than production, from the conversion to funds (Figure 2-1-108).

**Figure 2-1-107** Examples of Investments that Use Real Estate Effectively

Classification	Method	Overview
Improvement of the Value of the Real Estate	Renovating Empty Houses/Apartments	Renovate empty house and apartments so the property can be used to earn rent income.
	Use of Public Real Estate (PRE)	(Example) Construct a facility for combined public-private use and apply the rent income from the public division to the management and maintenance fee of the facility.
Converting Real Estate to Funds	Reverse Mortgage	Elderly people receive financing on the house they use as their residence and at the death of such an elderly person, the loan is paid off in one installment from the sale of the house.
	Real Estate Securitization	The method where one transfers real estate owned to a separate vehicle created for convenience sake that is independent in legal/accounting terms = Investment Vehicle (SPV) and obtain funds with that real estate as proof of economic value.

Source) MLIT

**Figure 2-1-108** Influence on the Regional Economic Circulation of Investments that Use Real Estate



Source) MLIT

By focusing on the Stock (resources) within the district and making investments that uses such resources, the value of the Stock will increase and the potential value will be realized, resulting in flow newly created by rent income and conversion to funds leading to an increase in spending and savings, thus activating the fund circulation within the district.

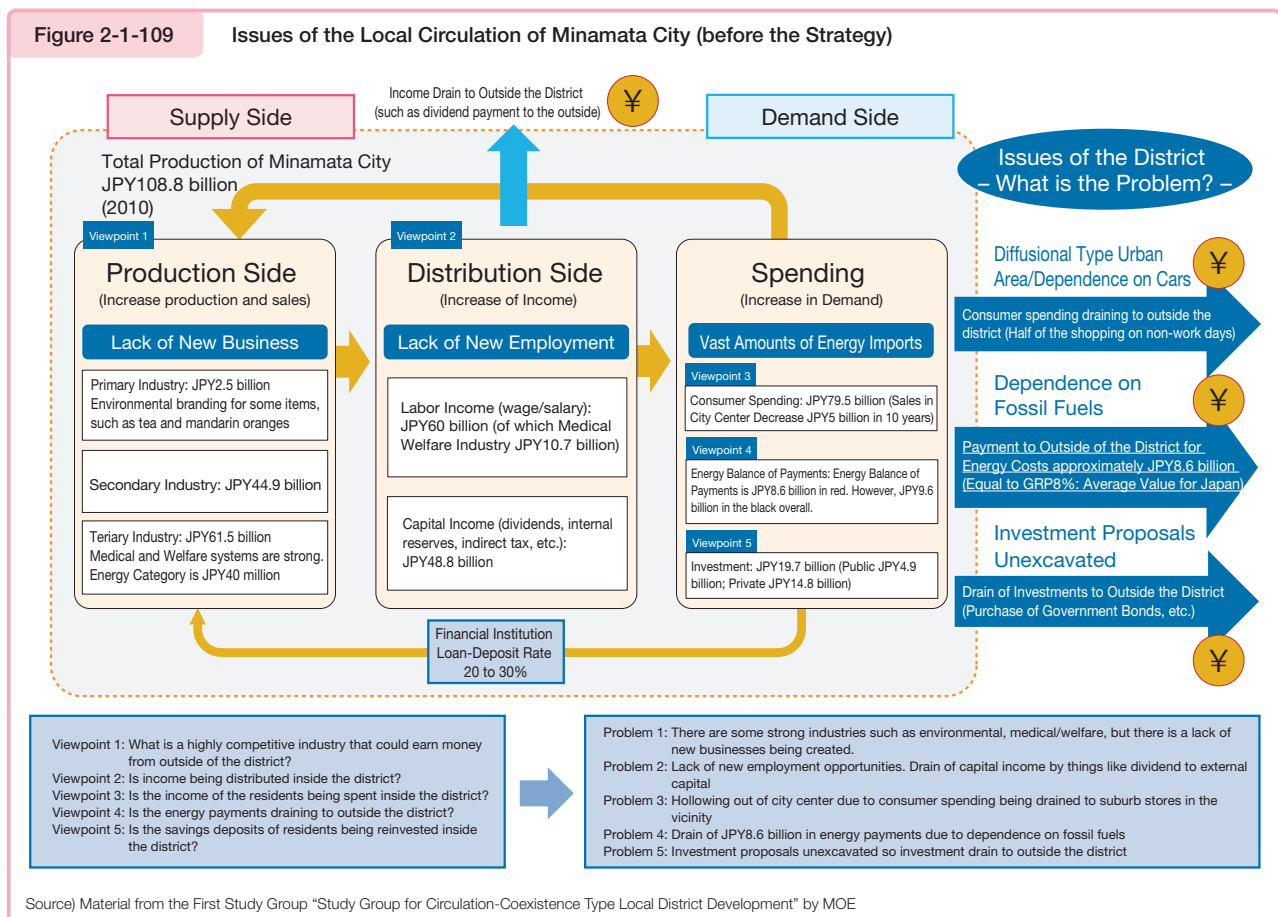
(Example of District Revitalization Based on an Analysis of the Regional Economic Circulation)

The project of Minamata City in Kumamoto Prefecture will be introduced as an example of a Rural Area Public Organization proposing strategies based on an analysis of the regional economic circulation that has been discussed thus far.

Minamata City has been working on innovative efforts towards “Environmental City Building” from the lessons

learned from the Minamata Disease as a starting point, but these efforts did not reach the point of revitalizing the local economy, and with the population decline and the economic slump of recent years, attrition of the local society was continuing. Therefore, in order to break through this situation and connect the environment-related strategies to the activation of the local economy, the “Minamata Environmental City Building Study Group” was started in 2010 to begin discussions regarding this matter. Based on the discussions of this study group, the strategy “2011 Minamata City Environmental City Building Promotion Project” was drawn up based on an analysis of the regional economic circulation. And, from 2012, “Environmental Capitol Minamata” was started as a business aiming to build a new form of district that will develop economically while reducing the environmental load.

By doing an analysis of the economic circulation of the local district, it became clear that for Minamata City, spending was draining out to the roadside stores in the suburbs mainly on the non-working days, with the amount of sales in the city center decreasing by approximately JPY5 billion in the last 10 years (1997 to 2007), and approximately JPY8.6 billion a year was draining out of the city for payment of energy costs. Also, on the investment side, against the amount of deposits within the city, the rate that went to loans inside the city (loan-deposit rate) was a low 20 to 30%, making it clear that funds deposited within the city were draining out of the city through investments outside the city and purchasing of government bonds (Figure 2-1-109).



Based on the issues that became clear from this analysis, strategies are being carried out in each sector to increase consumer spending and investments inside the city.

#### a. Project to Revitalize the City Center

To prevent consumer spending from draining to outside the city, and to promote the use of public transportation facilities, as well as to revitalize the shopping areas, a demonstration experiment of giving Eco-points to people who come to the shopping areas using the community bus was conducted for approximately 6 months from August 21, 2012 to January 31, 2013 by the “Creation of Environment Capital Minamata” project (subsidized by MOE).

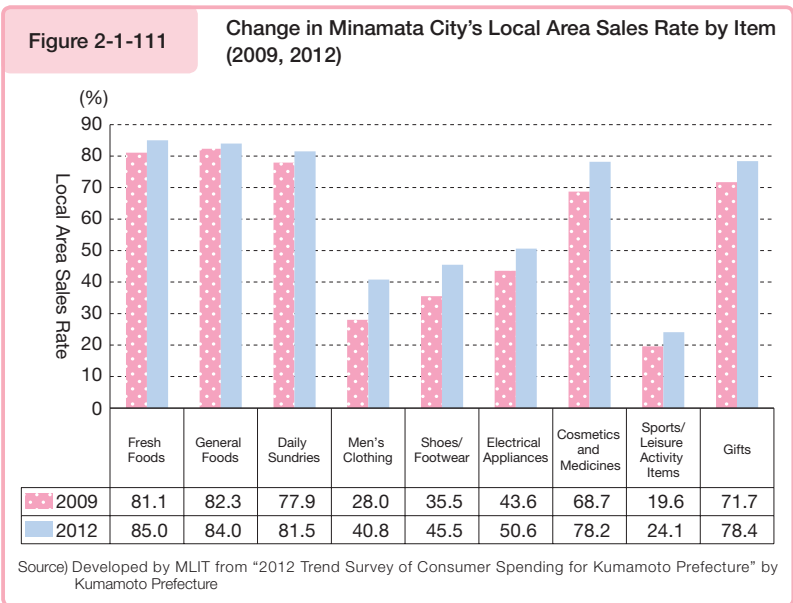
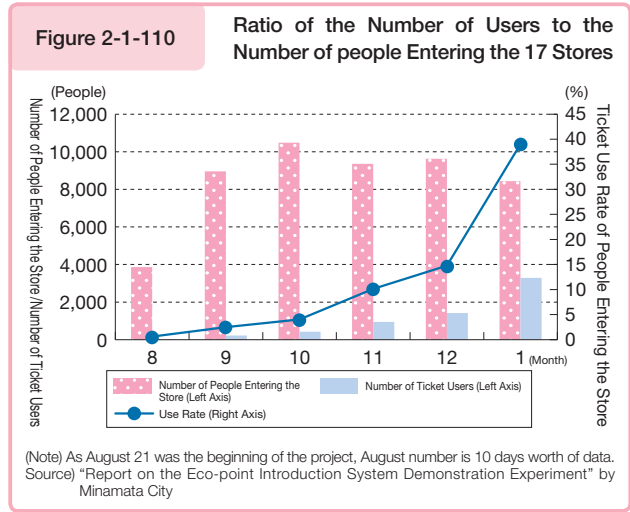
The Eco-points were given when a passenger showed the proof ticket (bus ticket) that was passed out at the bus stop



for riding the bus. Also, a system was put in place so that bus users with a large amount of shopping could have their shopping load delivered to their home for free. At first the project did not receive much publicity and the number of tickets distributed was rather low, but gradually, as people began to understand the merits of this system, the number of tickets being used increased and bus users started visiting stores they have never been to in the past, so this became an opportunity for the shopping areas to gain new customers. In the 17 stores in the shopping area for which store traffic was being tracked, the ratio of the number of ticket users to the number of people who came into the store was less than 1% at the beginning. However, by the sixth month, which was January, the ratio had increased to 39.0% (Figure 2-1-110).

The number of passengers for the Community Bus was on a declining trend in 2009 (October 2008 – September 2009), but a major review of the route was conducted in January 2012, and every bus route was changed to be routed through the center part (shopping area, medical center) of town. Since the change in routing, the drop in the number of bus passengers has stopped.

As a result of such projects, Minamata City’s 2012 local area sales rate by product item, when compared to 2009, had increased for all items, showing that consumer spending within the city had been revitalized (Figure 2-1-111).



**b. Promoting Tourism ~ Hisatsu Orange Railway “Orange Restaurant Express”**

In the 10 years since the peak period of 1994 to 1999 which saw around 700,000 people, the number of tourist visiting Minamata City has decrease to almost half. Now, as a strategy to increase consumer spending in the city, efforts to increase the number of tourists have been implemented. One such attempt, from March 2013, the tourist train “Orange Restaurant Express” was introduced as part of the Hisatsu Orange Railway by the “Environmental Capital Minamata” creation project (subsidized by MOE).

“Orange Restaurant Express” is a 2 car, 43 seater train, made by remodeling existing train cars according to the design of world famous industrial designer Eiji Mitooka. With the concept of a “Train for enjoying food and the slow life”, this train offers cuisine made from carefully selected seasonal foods that are locally produced for local consumption, all to be savoured while taking in the scenery from the train windows, and signature specialty products of the region are available for purchase at each stop. The train travels for 4 hours between Shin-Yatsushiro (Kumamoto Prefecture) and Sendai (Kagoshima Prefecture), a distance that takes about 30 minutes on the Shinkansen (bullet train) (Figure 2-1-112, Figure 2-1-113).

Figure 2-1-112

Exterior of the Orange Restaurant Express



Source) MLIT

Figure 2-1-113

Orange Restaurant Express Car Number 1

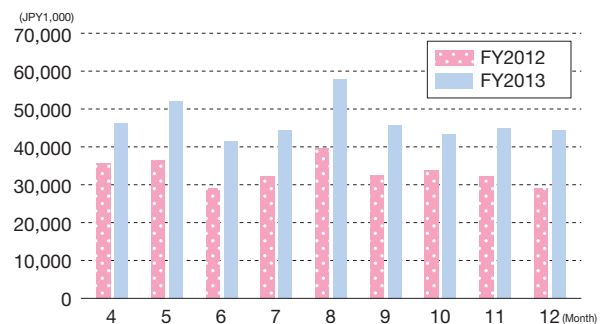


Source) MLIT

When it began operation, “Orange Restaurant Express” became a popular topic for television programs and magazines, and since it started running in 2004, the number of passengers on the Hisatsu Orange Railway—which had been declining fairly consistently—started growing in 2013, and along with that the sales numbers also started increasing (Figure 2-1-114). The increase in tourism income that maximizes on the natural resources and regional specialties of the local district seems to be an effective method for procuring funds from outside the city.

Figure 2-1-114

Sales Numbers of Hisatsu Orange Railroad (comparison of 2012 and 2013)



Source) Material from the First Study Group “Study Group for Circulation-Coexistence Type Local District Building” by MOE

### c. Introducing Renewable Energy

As a strategy to improve the balance of payment for energy within the city, there are plans to install woody biomass <sup>Note 42</sup> electricity generators and mega-watt solar panels.

The woody biomass electricity generator will generate electricity by burning fuel chips made by gathering forest trimmings from Minamata City and its surrounding districts, which are then shredded and sorted. With this business, it is expected that many jobs will be created in the city from the operation of the biomass electricity generation plant, as well as other forestry and lumber related work.

In terms of the mega-watt solar panels, the plan is to install solar panels in several of the places in the city where there is idle land for large-scale solar energy generation. Part of this endeavor has already been made into a business by local small and medium businesses.

### d. Introducing the Environmental Financial System

In order to promote investment within the city and apply low carbon emission standards, the “Minamata Green <sup>Note 43</sup>”—an Environmental Financial System that has one of the highest levels of standards in the country—was initiated from

**Note 42** “Biomass” is a word to describe the amount (mass) of biological resources (bio) and refers to “renewable organic resources of biological origin (excluding fossil fuels)”, and within that, biomass that is made up of wood is called “woody biomass”. Woody biomass is mainly forest surplus material such as branches and leaves from trimming trees and cutting lumber. Other types of woody biomass include tree bark and saw shavings from sawmills, materials from housing demolition, and clippings from pruning roadside trees.

**Note 43** The commonly used name for the Minamata City “Kumamoto Green Guarantee System” Profit Promotion Subsidy System.

2013. This initiative will provide the full amount of loan insurance and the entire amount of interest for three years on environment related financing/loans for local small and medium businesses.

This is the system whereby when small and medium businesses within the city receive financing from financial institutions within the city. Utilizing the “Kumamoto Green Guarantee System” implemented by the Kumamoto Prefecture Credit Guarantee

Association, the city will subsidize the full amount of “credit guarantee cost” and the “amount equivalent to the contract interest” paid for the three years from the date the loan was made (Figure 2-1-115).

During FY2013, “Minamata Green” had an investment promotion effect of approximately JPY160 million from 10 cases of financing for solar power generator installation, low-emission gas company car, recycle facilities, high efficiency air conditioning and LED installation. This kind of effort towards environmental financing system not only promotes investment within the city, it also has the effect of containing the drain of funds to outside the city by decreasing the consumption of fossil fuels from becoming more energy efficient.

In this way, by quantifying and getting a grasp of the flow of funds for the local district, it becomes possible to use the information for proposing measures to revitalize the community, as well as for evaluating the results of such efforts. It is expected that the use of this process will continue to grow in the future, and it is hoped that this use will become widespread not only by the government but also among all entities such as by businesses and by residents of the local district.

In addition to the strategies mentioned above, the aforementioned “Investments that Use the District’s Real Estate” is also considered effective. For example, the empty housing rate of Minamata City in 2013 was 17.1%, surpassing the national average of 13.5% and the Kumamoto Prefecture average of 14.3%. Based on this situation, by remodeling the empty houses within the city to increase their value then renting them to people who wish to migrate or change residence to the city, not only will rent income be generated, consumer spending within the local district will increase, and there would be the possibility of vitalizing the fund circulation.

In thinking about the fund circulation of the local district, when seeking to gain an understanding of the flow aspect it is also necessary to consider what sort of stock exists that can help create a new flow.

Money is not gone once it is spent; that money continues to circulate into someone else’s pocket. The awareness that the money you spend goes to “someone in the local district”, and continually acting on that awareness in the district as a whole will lead to protecting and prospering the local district in which you live.

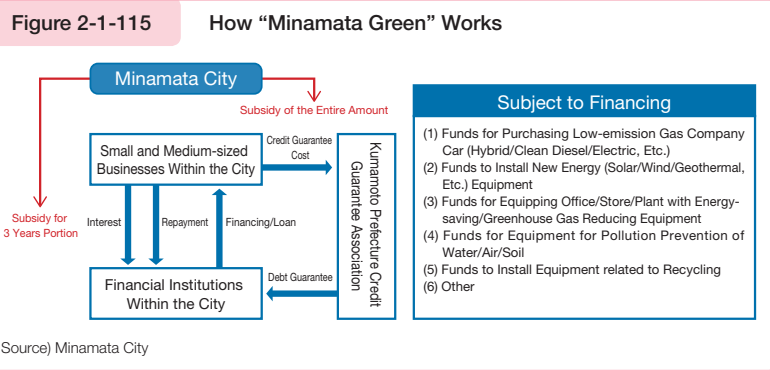
## Section 2 Structured Community Development Tailored to the Needs of the Times

Section 2 examines the directions in which Japan’s national land and transport administration should head to achieve the goals of national land community development tailored to the needs of the times in a sheer depopulating society, by highlighting the benefits of “compact” and “networked”, which is the basic concept of “Grand Design of National Spatial Development towards 2050”, citing examples of typical efforts and so on.

Subsection 1, “Compact” and “Networked”, reviews the present status and background of the issues and introduces the concept of “compact” and “networked”, then proceeds to share quantitative insights into the benefits of its implementation in the fields of livelihood convenience and lifestyles, economy, administration and environment. Further, it organizes discussions of the favorable effects of the concept upon regional economic circulation.

Subsection 2, “Case Studies of “Compact” and “Networked”,” and reviews ongoing approaches to building compact hubs and forging allied core metropolitan areas to illustrate how the concept of “compact” and “networked” can be implemented by regional characteristics.

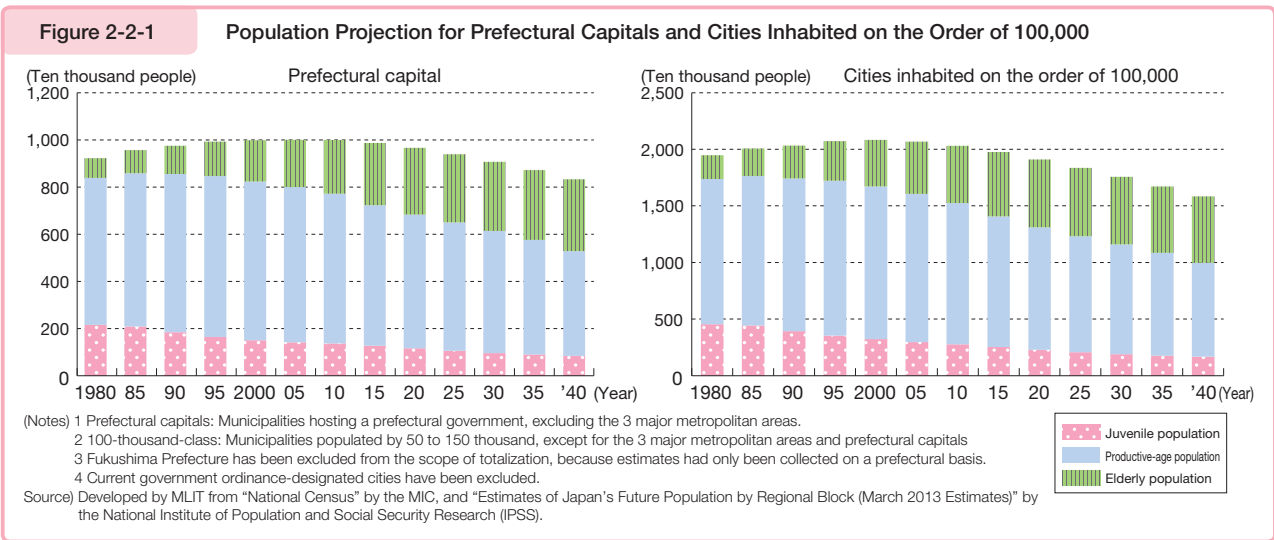
Subsection 3, “Creation of a Country Generating Diverse Synergies among Regions,” asserts the importance of the concept of “compact” and “networked” in a regional structure for the creation of a country generating diverse synergies



among regions, by citing case studies or the like in which the concept of “compact” and “networked” has possibly stirred the flow of people, goods and so on to lead to enhanced regional vitality and charms.

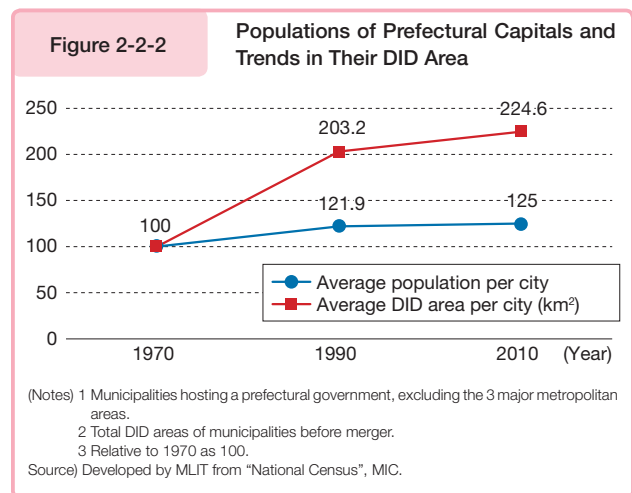
## 1 Benefits of “Compact” and “Networked”

As considered earlier (in Chapter 1), the nation’s population continues to shrink and get aged, predicting growing difficulties sustaining essential urban facilities particularly in regional cities in the future. Comparisons of the changes in the population of large cities and provincial cities foresee continuing inflow of population into large cities while provincial cities are depopulated rapidly. Since population had already peaked in 2005 for prefectural capitals and in 2000 for cities inhabited on the order of 100,000, the pace of increase in the elderly population is forecast to slow down, with drastic reductions in the productive-age population (Figure 2-2-1). This means that urban activities and economies need to be sustained with less productive-age population in the future.



Analyses of the trends in the population of provincial cities for the last 40 years or so indicate that the urban areas have expanded rapidly into suburbs keeping pace with population increases. Prefectural capitals have increased their population about 20% from 1970 to 2010, while the DID <sup>Note 44</sup> areas have expanded by more than two times (Figure 2-2-2).

At the present pace of depopulation, urban areas would be increasingly thinned out to make it difficult to sustain the urban facilities relevant to their citizens’ daily livelihood, which could result in a progressive decay of the cities.



**Note 44** “DID” is short for Densely Inhabited District in a National Census. Specifically, a DID refers to a district that is composed of a group of adjoining basic unit districts each having a population density of 4,000/km<sup>2</sup> or more to form a total population of 5,000 or more. Municipal population densities are not good enough to determine to what extent the population of a particular area within a given municipality is concentrated. DID population densities come more fit to this end, because they focus on particularly densely inhabited municipal areas and compare them in terms of their population density.



According to a public awareness survey conducted by the MLIT, fewer respondents mentioned “urban centers readily accessible by car” and “suburban areas” as appropriate location of urban facilities, including public facilities and commercial installations, whereas more answered “urban centers readily accessible by public transportation” as such. This may be suggestive of growing public demand for the consolidation of urban facilities and for public transportation networks that link these facilities together (Figure 2-2-3).

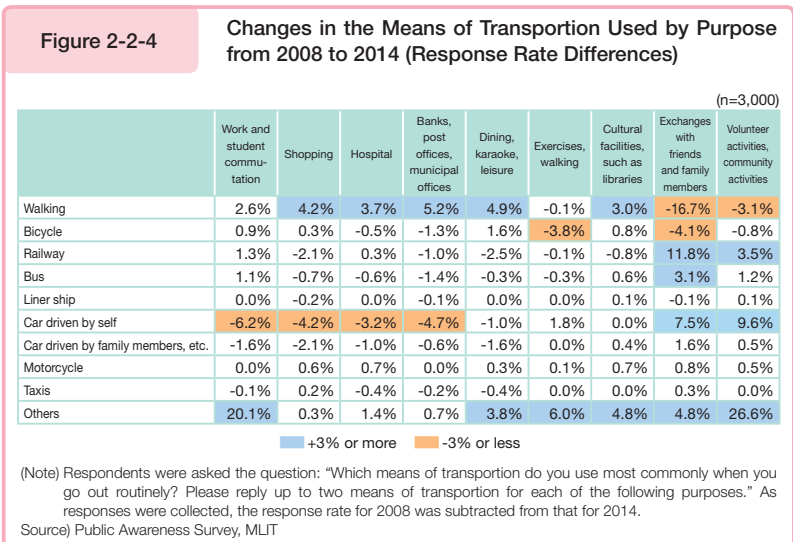
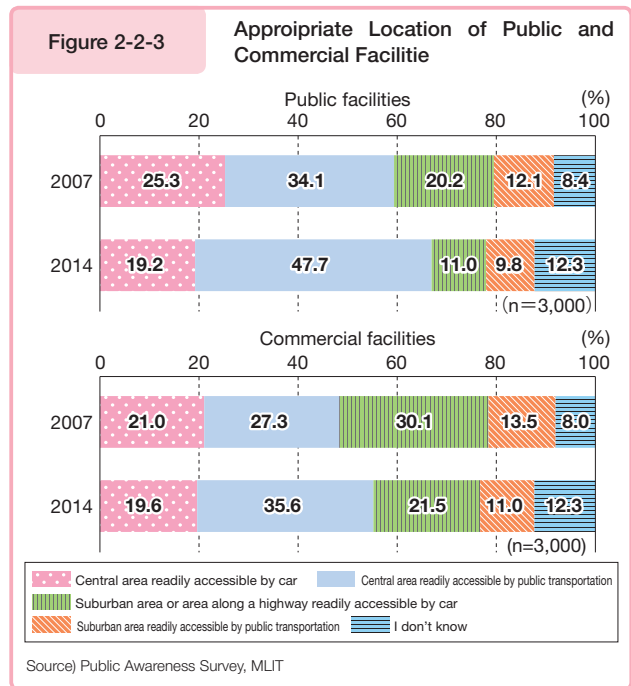
The means of transport actually used by people shows sign of change accordingly. Comparative studies of the means of transport by purpose used in 2008 and 2014 show that a growing number of people chose to stroll for many reasons, such as commuting to and from work and school, shopping, visiting hospitals, banks, post offices and municipal offices, whereas fewer chose to drive cars (Figure 2-2-4).

However, the status of public transportation varies greatly from one locality to another, with its significance declining relatively mainly in provincial cities. For example, passenger buses carried 35% fewer passengers in FY2010 than FY1990. Further, since a total bus line of approximately 6,463 km has closed over the past five years, the number of passengers carried continues to decline, with the service level lowering.

Under these circumstances, the concept of “compact” and “networked” has been set forth in the “Grand Design of National Spatial Development towards 2050.” In this context, “compact” means a state of being cohesive with an enhanced spatial density, and “networked” means an alliance with which localities are jointed together. Summing up, “compact” and “networked” means the act of concentrating a host of services needed for daily livelihood, such as public administration, medical and nursing care, commerce, banking and energy supply, into particular areas, which are linked together by traffic and information networking to provide coherent access to these services.

The progressively diminishing and aging population of Japan could give rise to a host of challenging tasks in the future, dictating responses from an urban structure’s perspectives. These responses might call, for example, for reviewing the structure of a community to keep a given district of the community inhabited at a certain density level while assembling medical care, welfare and commercial facilities, homes and the like in clusters or maintaining public transportation to give citizens, including the elderly, access to medical care, welfare and commercial facilities, etc., so the citizens will feel the services in daily need, including administrative, close at hand. What looms into significance is the concept of “compact” and “networked”.

A review of the benefits of “compact” and “networked” aided by data follows:





## (1) Quantitative effects of “compact” and “networked”

First, making an urban structure compact should help keep the core area, or a hub of necessities for daily livelihood, and the surrounding areas inhabited at certain density levels, resulting in enhanced sustainability of those daily livelihood service facilities, including medical care, welfare and commerce, that require a certain ambient population to survive. Given ready access to these services, either on foot or by means of a network of public transportation facilities, people would not only enjoy enhanced conveniences of their living but might be motivated to go out as part of their lifestyle to improve their health.

Other expected benefits might be financial, that is, cutting fiscal spending, as by streamlining the flow of offering public services, such as snowplowing and nursing caring, and relocating public facilities and also environmental, that is, reducing CO<sub>2</sub> emissions by encouraging a shift in the mode of transport from automobiles to public transportation.

Let us look at the relationship between the population densities in DID<sup>1</sup>s having a certain population density or higher and various indicators relevant to the urban facilities, based on the municipal data. Medical care, welfare and commercial facilities and public transportation facilities may be thought of as a minimum suite of functionalities needed for daily livelihood to enjoy the convenience of urban living. The ratio of the number of people living within their walking distances from all these facilities to the total population is noted as a ratio of fulfillment of daily livelihood services within walking distances. Analyses of the relationship between the ratio of fulfillment of daily livelihood services within walking distances and the population density indicate that the higher the population density of a DID is, the higher its ratio of fulfillment of daily livelihood services within walking distances gets, meaning that a more compact city has more of its people having access to these services within their walking distances to add to the convenience of their livelihood (Figure 2-2-5).

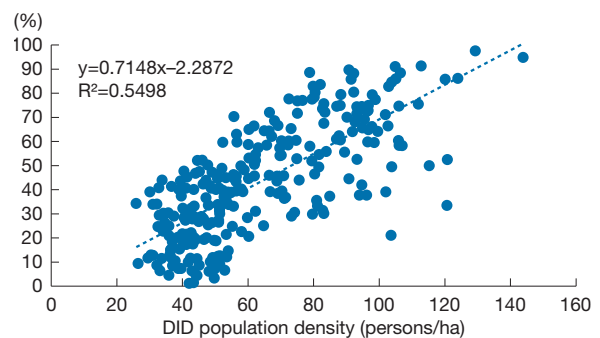
People having various facilities located within their walking distances are considered more likely to go out as part of their lifestyles. This could do good to the health of elderly people among else, because they would be more motivated to walk out of their homes when many of the facilities relevant to their daily livelihood are accessible within their walking distance in a compact city. Actually, a certain correlation is observed between the outing ratio of elderly people and the population density; more densely inhabited cities tend to have a higher outing ratio for their elderly citizens (Figure 2-2-6).

A Tsukuba University study conducted on elderly people has calculated a saving of JPY 0.061 in medical bills per step walked. If people have more opportunities to go out in a compact city, their medical bills might be slashed.

The preceding pages have reviewed the effects the idea of compacting may have upon people’s lifestyles. Its economic benefits are now considered.

Figure 2-2-5

## Ratio of Fulfillment of Livelihood Services within Walking Distances

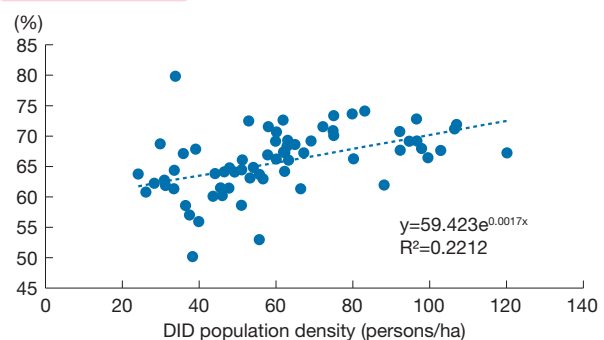


(Note) The ratio of fulfillment of daily livelihood services within walking distances is the ratio of the number of people living within their walking distances from the daily livelihood service facilities (medical care, welfare and commercial facilities) to the total population.

(Source) Developed by MLIT from the 2010 “National Census”, MIC, the “Nursing Service Information Disclosure System”, Ministry of Health, Labour and Welfare, and “Census of Commerce”, Ministry of Economy, Trade and Industry.

Figure 2-2-6

## Outing Ratios of Elderly People

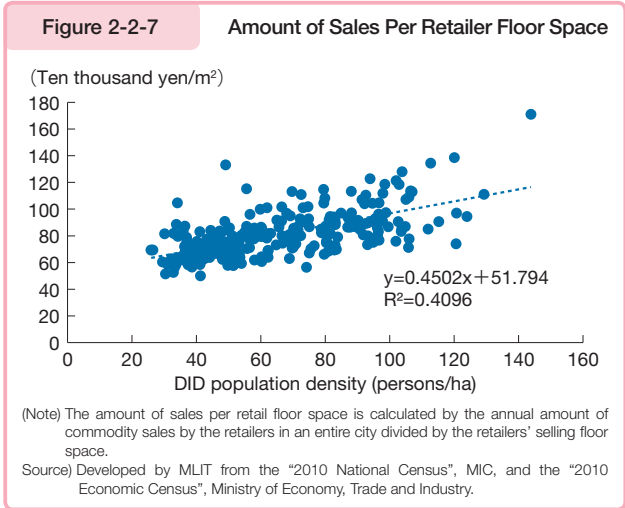


(Note) The outing ratio is calculated by the number of elderly people who have go out divided by the number of all the elderly people in the survey.

(Source) Developed by MLIT from the “2010 National Census”, MIC, and the “2010 Road Traffic Census”, MLIT.

In a densely inhabited compact city, more customers could potentially visit shops and stores to significantly boost sales mainly in the retail and service businesses. Particularly, the services business is considered to depend on the number of visiting customers for its sales, because its services are difficult to ship and store, unlike goods. Increased sales in a compact urban structure should in turn improve sales efficiency. In fact, a positive correlation holds between the population density and the amount of sales per retailer floor space (Figure 2-2-7).

Nursing insurance-based home-visit nursing care services providers who serve users living in the same building as the providers (limited to special nursing homes for the aged, low-cost nursing homes for the aged, pay nursing homes for the aged and serviced elderly housing) have their amounts of nursing-care rewards reduced, because they are relieved of labor, as for traveling, to provide their services. For example, if reduction-applied and reduction-exempt home-visit nursing care offices are compared, differences are noticeable in the traveling time spent by nursing care helpers and the number of visits paid by them (Figure 2-2-8). If many services users come to live in the vicinity of a nursing care office in a compact urban structure, the cost of traveling incurred for welfare purposes might be trimmed accordingly.



**Figure 2-2-8 Number of Visits Paid by Home-Visit Nursing Care Helpers and Their Traveling Times**

Number of visits paid by home visit nursing care helpers a day (depending on whether their facilities are reward reduction-applied or -exempt)

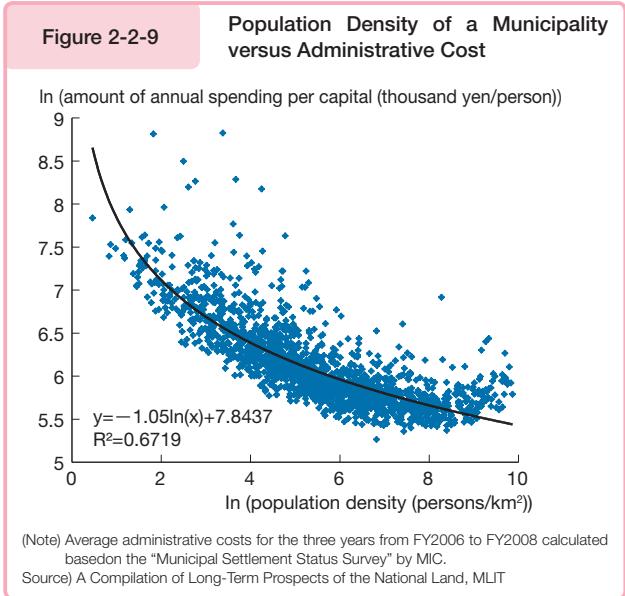
Office category	Number of visits paid
Reward reduction-applied offices	5.6
Reward reduction-exempt offices	3.5

Shortest and longest traveling times from offices to users' homes (by users' location)

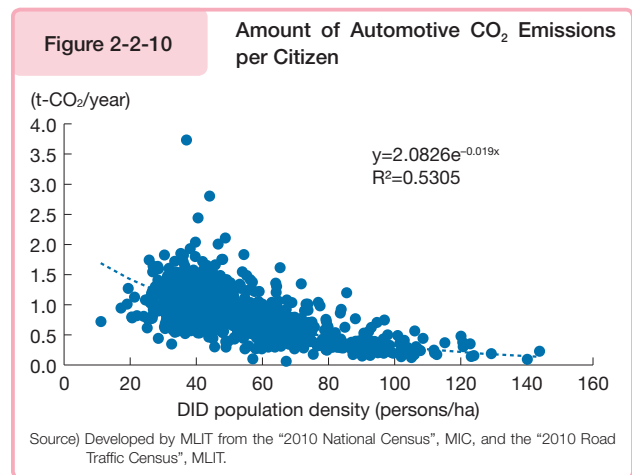
Ratio of the traveling time to the working time	Shortest	Longest
Building adjoining the office or located in the same premises or in a neighboring location across the street	2.9 minutes	5.3 minutes
Detached housing located elsewhere	5.8 minutes	28.4minutes

Source) "FY2012 Elderly Healthcare Programs: Survey and Studies on the Assessment of Home-Visit Nursing Care Services," Japan Research Institute, Ltd.

A compact urban structure, along with a heightened population density, will make it possible to provide administrative services more efficiently than before, which might help trim administrative costs. Spending needed to maintain and manage public facilities and urban infrastructures could also be cut, as they are made more efficient to maintain and manage. Furthermore, many of the administrative services made available to citizens, such as snowplowing and garbage collection, vary in their cost depending from one urban structure to another. Actually, a negative correlation is noticed between the population density of a municipality and its administrative cost per capita (Figure 2-2-9).

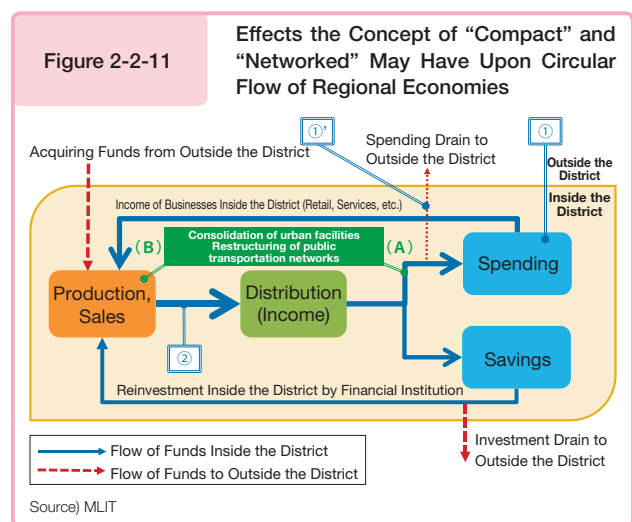


Further, if a compact urban structure drives a shift in the mode of human transport from automobiles to public transportation, bicycles, walking and so on, environmental benefits, such as reduced CO<sub>2</sub> emissions and less contamination from exhaust gases, might be expected. In fact, a negative correlation is confirmed between the population density and the amount of automotive CO<sub>2</sub> emissions (Figure 2-2-10).



## (2) "Compact" and "Networked" and regional economic circulation

Figure 2-2-11 shows the diagram of circular economic flow (Figure 2-1-102) given in Section 1 of Chapter 2 superimposed with the effects that the concept of "compact" and "networked" may have upon the circular flow of regional economies.



First, compacting could come up with the following benefits:

- Maintaining the population density of a given district, such as a central zone, makes it possible to sustain livelihood service facilities, such as medical care, welfare and commercial facilities, which could otherwise be lost if left unattended (A), upholding regional economies through assurance of these facilities (1);
- Boosting retail spending, etc. downtown and elsewhere with primary impetus from increase population densities in the areas around the facilities and also from improved access from homes to these facilities, coupled with restructuring of public transportation networks (1); and (1)
- Curbing the extra-regional outflow of spending for purchasing of gasoline, etc., as dependence on automobiles lessens in a compact city. (1')

Improved transport networks might in turn encourage business location and make corporate activities, such as logistics (B), more productive for enhanced output.

Thus, "compact" and "networked" may work synergistically to stir the circular flow of regional economies by boosting retail and other sales and by augmenting output, respectively, so intra-regional employees will be earning more (2) to spur spending, which could lead further to positive intra-regional economic circulation.

## 2 Case Studies of “Compact” and “Networked”

Preceding discussions have outlined the benefits of “compact” and “networked”. In a depopulating society, a certain size of in-sphere population can be maintained by consolidating essential livelihood facilities in each region in a compact manner and then linking the individual regions with one another on a network.

Because such facilities are diverse, ranging from those required for daily living to those that are used only on specific occasions, the size of the sphere needed to sustain them is determined accordingly. So, “compact” and “networked” is necessarily implemented in a multilayered structure (Figure 2-2-12).

This means that the implementation of the concept of “compact” and “networked” not only at the level of a single city but at a village level on a smaller scale or even at an interurban level on a larger scale takes on importance. Case studies in Toyama City, Toyama Prefecture and in Hachinohe City, Aomori Prefecture are cited below to demonstrate that the concept of “compact” and “networked” practically will work even at any level other than that of a provincial city, as on villages in a hilly or mountainous area or on an urban area that is composed of multiple cities.

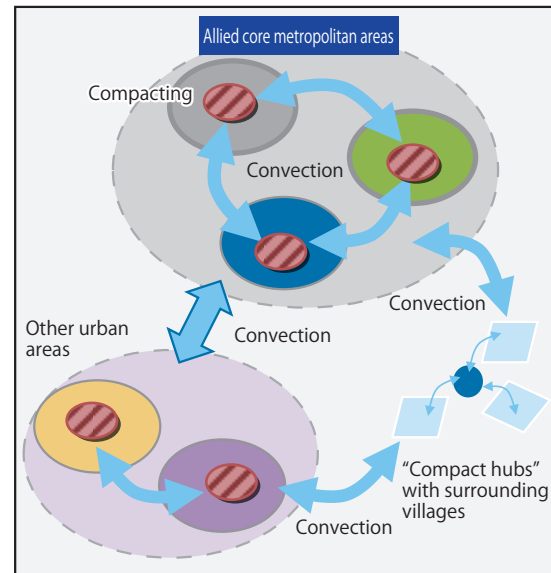
### (1) Compact City (“Compact” and “networked” at an urban level) (Toyama City)

Toyama City pioneered in tackling on a program to form a compact city ahead of other cities. The lifestyle of suburban residence has come to stay in Toyama on the support of a high ratio of road construction, a firm consumer propensity to seek detached housing and so on. Up until 2000, therefore, the DID area had expanded with population densities falling. In more recent years, however, the pace of suburbanization has stalled to some extent to move sideways (Figure 2-2-13).

Among existing public transportation networks in Toyama, all municipal railway tracks and transport routes in frequent service, such as fixed-route buses, have been designated public transportation axes. “Public Transport Line Residency Promotion Districts” have been marked off along these axes, in addition to a central urban area (urban district) to encourage dwelling in these districts by offering incentives, such as housing subsidization (Figure 2-2-14).

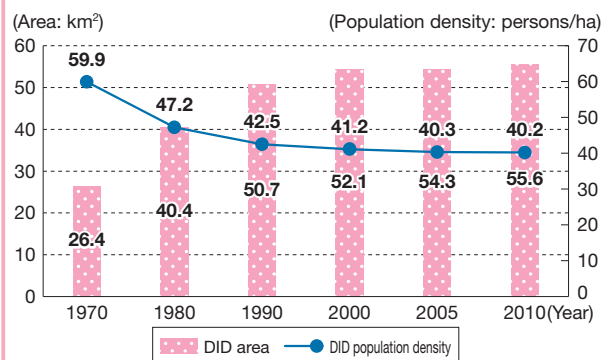
A look into developments in the population growth (increase/decrease) by social factor (in-migrating population less out-migrating population) in the central urban area and the Public Transport Line Dwelling Promotion Districts resulting from these efforts suggests that the excess of out-migration in the past has gradually narrowed to turn for an excess of in-migration in recent years (Figure 2-2-15).

Figure 2-2-12 Multilayered “Compact” and “Networked” Configuration



Source) MLIT

Figure 2-2-13 Changes in the DID Area and DID Population Density in Toyama City

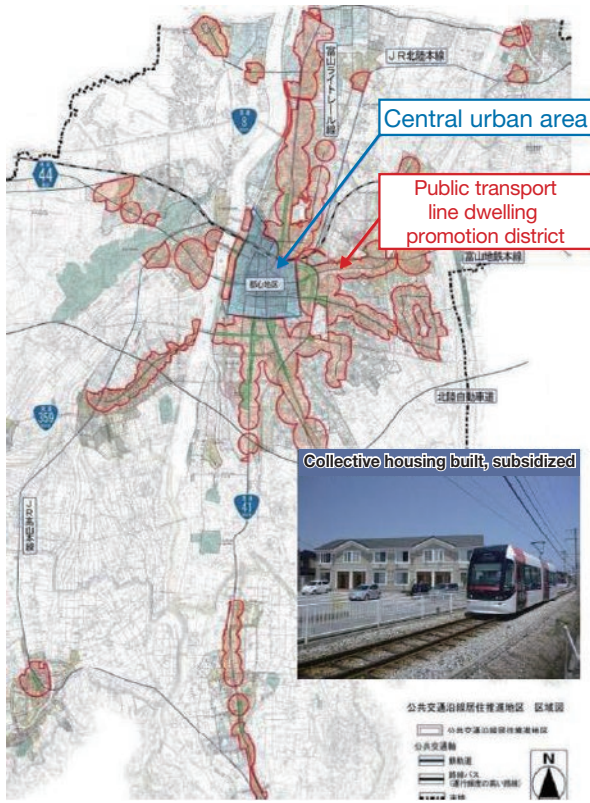


Source) Developed by MLIT from “National Census”, MIC.



Figure 2-2-14

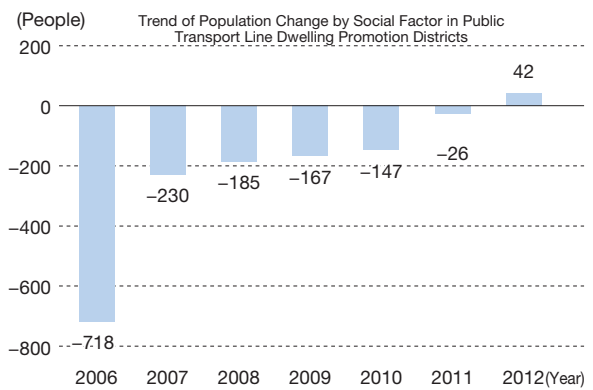
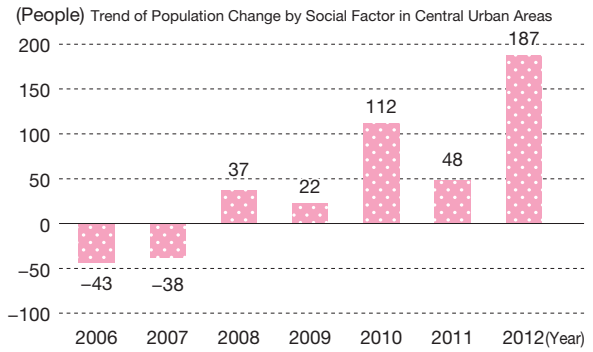
Central Urban Area and Public Transport Line Dwelling Promotion Districts



(Source) Toyama City

Figure 2-2-15

Trend of Population Change by Social Factor in Public Transport Line Dwelling Promotion District

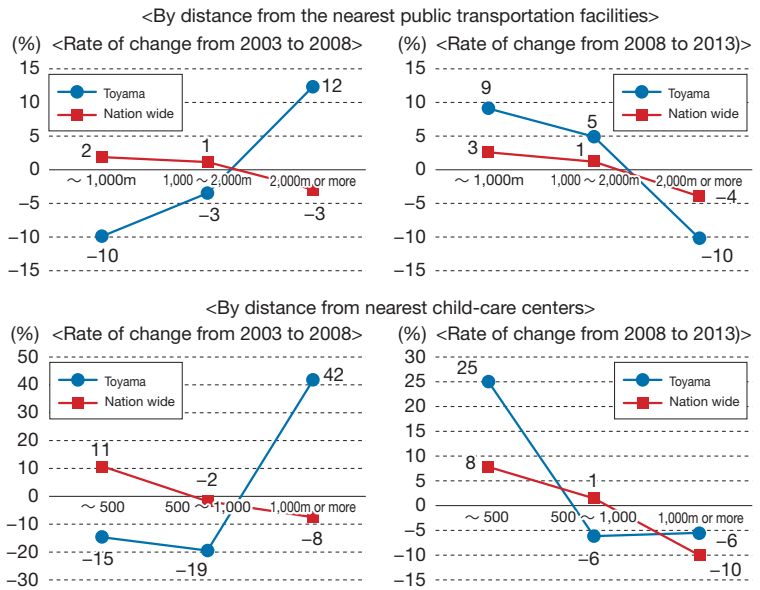


(Note) Population change by social factor is population increase or decrease derived from calculating in-immigrants minus out-immigrants.  
(Source) Toyama City

Focusing on housing locations, one should realize that major changes have taken place in the people's housing trends. Comparisons of the rate of change in the ratios of the number of homes by distance from public transportation facilities and child-care centers for the two periods of 2003 to 2008 and 2008 to 2013, some years on after commencement of the compact city initiative, reveal that the closer to facilities, the lower the rate of change falls in Toyama but the higher it gets nationwide. From 2008 to 2013, nationwide trends remained unchanged, while Toyama exhibited trends opposite to those from 2003 to 2008, with its rate of increase in the ratio of the number of homes located within 2 km from a station exceeding the nationwide average (Figure 2-2-16).

Figure 2-2-16

Rates of Change in the Ratios of the Number of homes (by Distance from the Nearest Public Transport Facilities (railroad stations and bus stops) and Child-Care Centers



(Note) Values indicate the rates of change in the ratio of the number of homes by distance from the nearest facilities to the total number of homes in a city from 2003 to 2008 and from 2008 to 2013.  
(Source) Developed by MLIT from the "Housing and Land Survey", MIC.



In addition to increased inhabitation around the means of public transportation, the number of passengers getting aboard Toyama Light Rail, an LRT <sup>Note 45</sup> system leveraging former JR railway facilities (Toyama-ko Line) has surged by about 2.1 times on weekdays and by about 3.5 times on holidays from its pre-LRT levels as a result of narrowing service intervals, opening new stations, installing barrier-free low-floor vehicles, improving the quality of train services and so on. By time zone, the number of passengers has expanded drastically during the daytime period of 9am to 5pm on weekdays, particularly among people aged 60 years or older. The number of younger passengers has also been rising (Figures 2-2-17, 2-2-18).

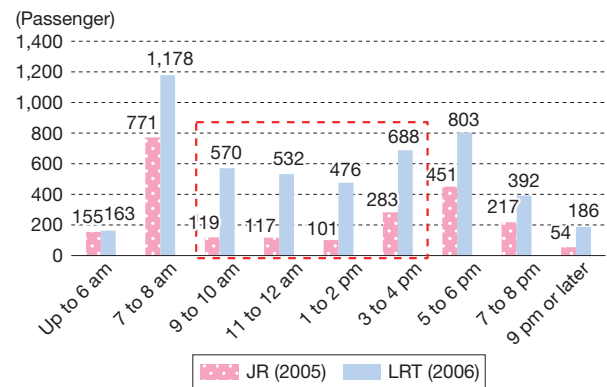
In addition to LRT, Toyama features a fixed-route bus network converging from various parts of the city into the central urban area. The city issues season tickets, called “Odekake Teikiken (Outing Season Tickets),” to the elderly people aged 65 years or older who use public transportation facilities, such as fixed-route buses and LRT. These tickets offer these elderly passengers a uniform fare of 100 yen for getting on and off in the central urban area (Figure 2-2-19). Given an Odekake Teikiken, seniors are more motivated to go out than before, as a survey conducted by the city revealed that elderly people who went out carrying the season ticket took more steps on the average than elderly people living in the prefecture and those nationwide and also that they took about 1,300 steps more on the average with an Odekake Teikiken in hand than without (Figure 2-2-20).

With the aforementioned saving in the medical bills resulting from more step taken by the elderly taken into account, a saving of 80 yen per capita per day is estimated, adding up to about a 75.60 million yen saving in the medical bills paid by all users a year.

Newly constructed networks or networks upgraded for convenience’s sake can spur concentration around them. In Toyama City, Toyama tramway routes operated by Toyama Chihou Tetsudou Inc. used to stretch from Toyama Station to colleges and to southern Toyama to carry commuters to and from work and schools along the way. But no routes were available that looped within the central urban area. Therefore, city authorities extended part of a municipal tramway route and built it as “City Tram Loop Line.” The result was enhanced ease of migration between Toyama Station and the central urban area, and animated private

Figure 2-2-17

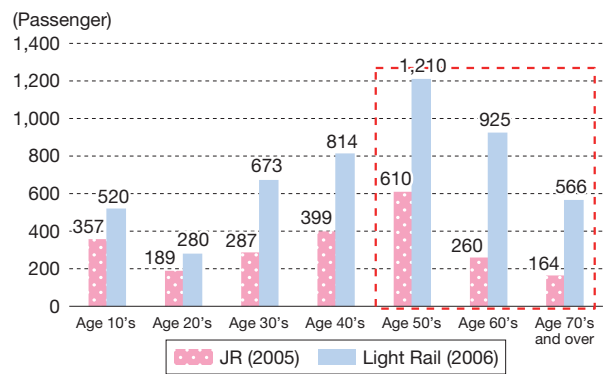
Changes in the Number of Toyama Light Rail Passengers by Time Zone (weekdays, per day)



Source) Toyama City

Figure 2-2-18

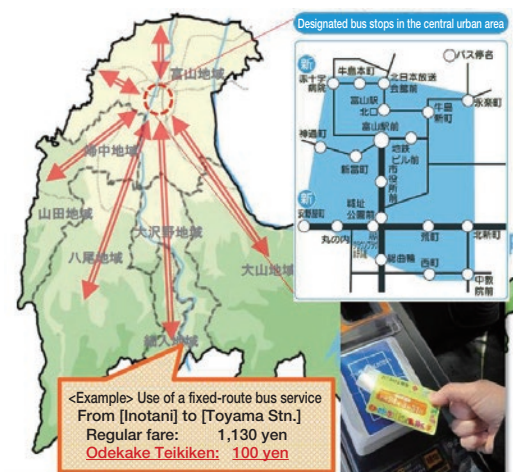
Changes in the Number of Toyama Light Rail Passengers by Age Group (weekdays, per day)



Source) Toyama City

Figure 2-2-19

Odekake Teikiken Service



Source) Toyama City

**Note 45** Short for Light Rail Transit, LRT is a new concept of streetcar system enhanced over its predecessors in terms of traveling space, vehicles and so on. It is a human- and environmentally-friendly urban public transportation system utilizing legacy infrastructures, such as road spaces and railbeds to combine speed, punctuality, transport capacity and so on. LRVs (light-rail vehicles) deployed and slopes constructed at tram stop to level steps to make barrier-free so it can be used by both elderly and physically challenging individuals at ease.

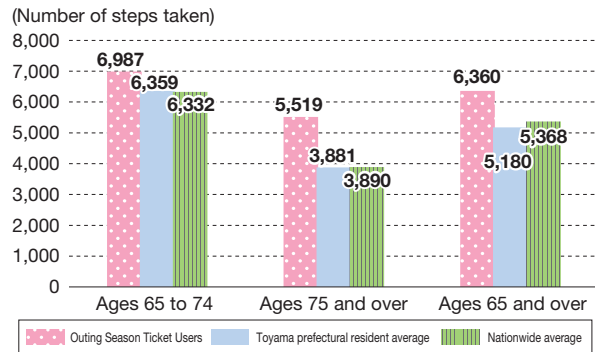
investment along the new section of the City Tram Loop Line (opened on December 23, 2009), fueling redevelopment projects, such as constructing condominiums, office buildings and commercial facilities, such as cinema complexes.

Residential land prices continued to fall downtown but followed a firm tone in the new line sections of the loop lines, such that their pace of decline seemed to slow down in the central urban area other than the new line sections (Figure 2-2-21).

Land prices progressing stabilized in this way should make for greater stability of the municipal financial climate. Fixed property and city planning taxes account for 45.1% of the municipal tax revenues, 22.0% of which are collected from the central urban area (Figures 2-2-22, 2-2-23). Intensive investment in the central urban area helps preserve property values while ensuring a stable supply of tax resources, tax revenues derived from which would finance the administrative spending required across the city, including other urban areas. A compact city implementation can thus lead to a more sustainable financial climate.

Figure 2-2-20

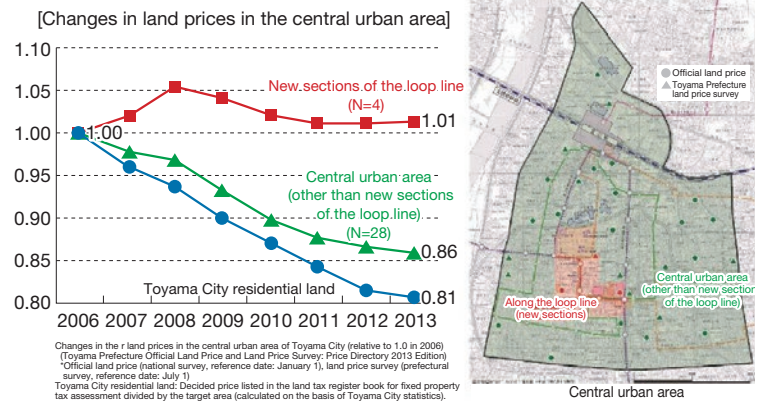
Average Number of Steps Walked by Elderly People (Outing Season Ticket users, Toyama Prefectural inhabitants, national average)



Source) Toyama City

Figure 2-2-21

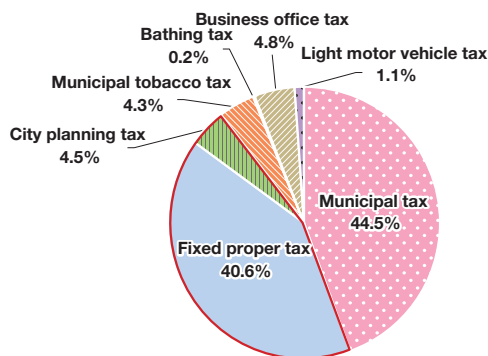
Changes in Land Prices in the Central Urban area of Toyama City



Source) Toyama City

Figure 2-2-22

Breakdowns of Municipal Taxes in Toyama City (FY2014 initial budget)



Source) Toyama City

Figure 2-2-23

Breakdowns of Fixed Property and City Planning Taxes by Region (FY2014)

Area	Area ratio	Fixed property tax + city planning tax breakdowns
Urbanization-designated area	5.8%	74.0%
Central urban area in the area above	0.4%	22.0%
Else	94.2%	26.0%

Source) Toyama City

(Hachinohe City)

Hachinohe City is also promoting the movement of people to central urban areas by enhancing the convenience of bus networks.

A central city in the southeastern part of Aomori Prefecture, Hachinohe has Aomori Railway and JR Hachinohe Line in service, but its urban public transportation network depends mostly on fixed-route bus services operated municipally by the Hachinohe City Transportation Bureau and privately by Nanbu Bus Co., Ltd. and Towada Kankou Dentetsu Co., Ltd. Bus services in the Hachinohe Station to central urban area section of the Hachinohe Station Line, a trunk line of the urban route bus services, are separately provided by the bus operators according to their own sales policies. As a result, the bus schedules were inconvenient to users, such that, for example, a Nanbu bus would arrive at a given bus stop immediately after a municipal bus had left there and no bus service followed for several tens of minutes thereafter. Discussions were iterated in 2007 with the participation of the bus operators to explore ways to improve the quality of services with emphasis on intelligibility and ease of use. Starting from 2008, a joint bus service schedule running buses at equal intervals of 10 minutes has been launched on the two routes of Hachinohe City and Nanbu bus services. The joint bus operation enabled both operators to cut the number of bus services while grabbing passengers than before, with the result of the bus routes run in joint service turning to profitability (Figure 2-2-24). On the basis of such results with the Hachinohe Station Line, a joint bus service running at equal intervals of 20 minutes has been launched in the section between Hattaro and the central urban area since 2010. Joint bus services running at equal intervals of 10 or 20 minutes have also been implemented on other trunks as well.

In the meantime, the Hachinohe Self-Sustained Permanent Residence Region, which is made up of Hachinohe City, with seven surrounding municipalities, started an upper-limit route bus fare program in October 2011 to mark down fares in most sections of the bus services. As a consequence, the number of route bus users (number of fare-paying passengers per weekday) in the Hachinohe region advanced 14.0% from its pre-markdown period (September 2011) one year later and 17.0% two years later (according to the March 2015 issue of Koho Hachihone (“Hachinohe Journal”). Analyses of the breakdowns by route, however, reveal that, over the one-year period, the average passenger density has obviously increased on those routes carrying many services (generally 16 or more a day) but varied on routes carrying less traffic. Some routes had a drastically increased passenger traffic, while others suffered a sizable decline (Figure 2-2-25), which may suggest that the more services a route carries and, hence, the more convenient it is, the more stable the passenger traffic becomes.

Figure 2-2-24

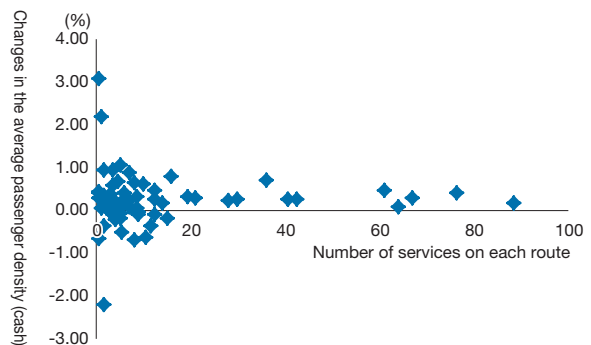
Comparisons of the Number of Passengers at Hachinohe Station after Implementation of a Hachinohe Station Joint Service Operation

Category		Before joint operation service	After joint operation service	Difference	%
Municipal buses	Number of passengers	388	403	15	3.9%
	Number of services	75	56	-19	-25.3%
	Average number of passengers per service	5.2	7.2	2.0	39.1%
Nanbu buses	Number of passengers	206	282	76	36.9%
	Number of services	55	46	-9	-16.4%
	Average number of passengers per service	3.7	6.1	2.4	63.7%
Total	Number of passengers	594	685	91	15.3%
	Number of services	130	102	-28	-21.5%
	Average number of passengers per service	4.6	6.7	2.1	47.0%

Source) Hachinohe Passenger Survey Findings Summary, Hachinohe City Public Transportation Conference

Figure 2-2-25

Relationships between the Number of Services and the Average Passenger Density



Source) Itsuki Yoshida, Makoto Chiba (2013): “Exploring the Possibility of Attracting Passenger Traffic by Marking Off Passenger Bus Fares – Positive Analyses in the Hachinohe Self-Sustained Permanent Residence Region.”

Furthermore, the efforts to augment the conveniences of bus usage are considered instrumental in consolidating the urban structure to some extent, as well as improving the bus operators' profitability. In Hachinohe City, bus route network trunk axes have been set in accordance with its Hachinohe City Transport Rejuvenation Plan and Hachinohe City Regional Public Transport Total Coordination Plan. Individual bus routes were assessed with regard to their degree of access to medical institutions and mass-merchandising stores in Hachinohe City, on the basis of the floor area of each of these facilities and its distance from a trunk axis. Comparisons of the figures in 2005 before restructuring of the routes and those in 2013 thereafter indicate that accessibility has improved on many routes, though by a slight margin (Figure 2-2-26).

Figure 2-2-26

Spatial accessibility to medical institutions and commercial facilities

Name	Accessibility to medical services			Accessibility of commercial facilities		
	Year 2013 (1)	Year 2005 (2)	(1)/(2)	Year 2013 (1)	Year 2005 (2)	(1)/(2)
(1) Hachinohe Str. trunk axis	-	-	-	-	-	-
(2) Tamonoki trunk axis	57.2	57.5	0.995	50.5	50.0	1.009
(3) Nejo-Ohashi trunk axis	52.3	51.1	1.024	51.8	51.2	1.011
Common section Shin-Ara-machi	55.2	55.1	1.002	61.7	62.0	0.994
Common section Hachinohe Str.	43.5	43.0	1.014	43.5	42.5	1.022
(4) Minato trunk axis	57.9	57.4	1.008	56.8	56.4	1.008
(5) Same trunk axis	48.0	47.8	1.004	41.6	41.9	0.991
(6) Misakidai trunk axis	55.7	55.1	1.010	42.2	42.5	0.991
(7) Nakaihayashi trunk axis	59.0	58.7	1.006	55.8	54.8	1.018
(8) Hattaro trunk axis	49.8	50.2	0.992	68.0	66.3	1.025
(9) New Town trunk axis	44.9	44.5	1.009	44.6	43.0	1.036
(10) Tagadai trunk axis	39.6	39.8	0.994	47.0	46.2	1.017
Central zone trunk zone	57.1	56.9	1.005	75.1	78.4	0.958
Other than trunk axis	43.1	43.1	1.002	43.3	43.2	1.002

Routes with accessibility improved over alongside trunk axes

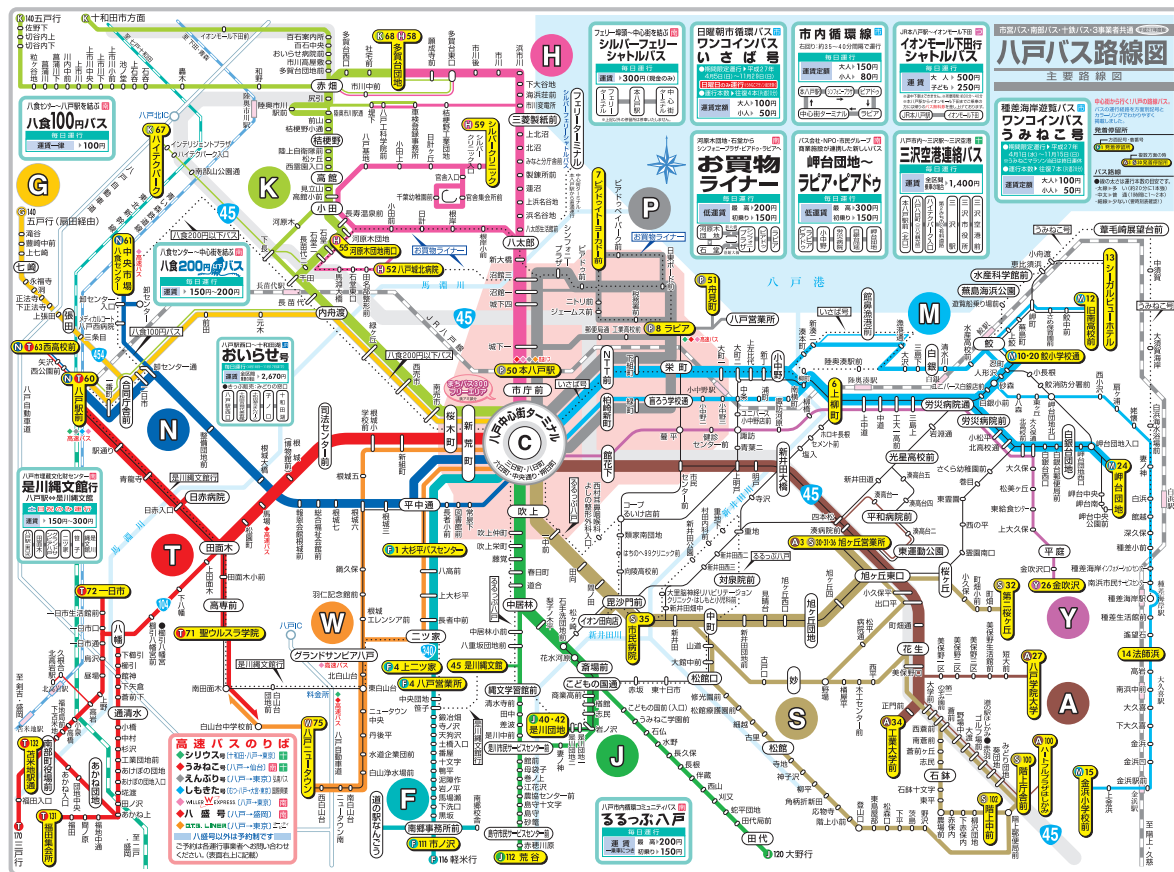
(Note) Spatial accessibility to the individual facilities is defined as follows:

$$A_s = \sum_{i=1}^N \frac{V_{si}}{R_{si}^\alpha} \quad A_m = \sum_{j=1}^M \frac{B_{mj}}{R_{mj}^\beta}$$

- $A_s$  : Spatial accessibility of the commercial facility ( $0 \leq A_s \leq V_{si}$ )
- $V_{si}$  : Floor area space of commercial facility ( $i = 1 \sim N$ )
- $R_{si}$  : Distance from commercial facility  $i$  to the region in question
- $A_m$  : Spatial accessibility of the medical institution ( $0 \leq A_m \leq B_{mj}$ )
- $B_{mj}$  : Number of beds in medical institution  $j$  to the region in question
- $R_{mj}$  : Distance from medical institution  $j$  to the region in question
- $\alpha, \beta$  : Parameters ( $\alpha = 0.5, \beta = 0.5$ )

Source) Positive Analyses of the Impact of Restructuring of Regional Public Transport Networks Upon Cities, Itsuki Yoshida, Makoto Chiba

Figure 2-2-27 Hachinohe City Bus Route Map



Source) Hachinohe City



**(Conclusions)**

“Compact” and “networked” can play complementary roles to augment their effectiveness synergistically. Compacting the various facilities that make up a city and consolidating them together spatially will help create a denser association of people. Such urban facilities and human activities combine to create a more attractive living environment that allures more people to join in a population of users needed to sustain local networks of public transportation facilities, assuring enhanced network quality, plus sustainable availability of services. As the population of urban dwellers grows through betterment of the living environment, a positive cycle of growth derives from “compact” and “networked”.

Pursuing both “compact” and “networked” at the same time, instead of either, would be essential to realizing a sustainable city. The MLIT is also working to this end. In August 2014, the Act on Making Partial Amendments to the Act on Special Measures Concerning Urban Renaissance, etc. came into effect to drive the effort to form a compact city into which welfare and other livelihood service facilities and housing are concentrated and in which elderly people can live without anxiety. Efforts directed at forming a compact city require consensus among the stakeholders, including citizens, private entrepreneurs and administrators. From this standpoint, it would be necessary to give an objective and quantitative assessment to the significance of a compact city, why it is needed, what it brings about and so on, with reference to the “Handbook on the Assessment of Urban Structures” released in the same month.

In November 2014, the Act on Making Partial Amendments to the Act on Revitalization and Renewal of Regional Public Transportation was enacted to inaugurate a framework for formulating programs to form sustainable networks of regional public transportation at the initiative of local public entities in pursuit of coordinated community development. In addition, a framework of developing regional public transportation restructuring projects and formulating regional public transportation restructuring implementation programs for implementing these projects was also laid down to restructure region-wide public transportation networks in conjunction with coordinated community development. In connection with these measures, the Compact City Formation Support Team was set up by the ministries and agencies concerned, with the Ministry of Land, Infrastructure, Transport and Tourism acting as a secretariat, pursuant to Overcoming Population Decline and Vitalizing Local Economies: Comprehensive Strategy. The team is committed to reinforcing lateral ties among the ministries and agencies concerned, as by exploring coordinated support policies, to expedite municipal approaches to forming compact cities.

**Column****Utilizing Public Facilities and Public Real Estate (PRE) and Public-Private Partnership**

As discussed in Section 2-2, the “Effects of Population Decline on Cities and Daily Life in Rural Areas,” Chapter 1, declining tax revenues caused by depopulation and the shrinking economic and industrial activities in its wake, and the increase in social security expenses from aging society predict increasingly tight local finances. Under such circumstances, the tasks of utilizing public real estate (PRE) and addressing the issues of aged infrastructures built back during the period of the nation’s rapid economic growth, such as public facilities, roads, bridges and water supply and sewerage systems, looms into importance.

**(Coordination of Community Development and Public Real Estate (PRE))**

In proceeding with urban compacting and transport networking to form a compact city, it is necessary to take into consideration the consistency with the associated policies for maintaining medical care and welfare, revitalizing central urban areas and restructuring PRE. The compact formation support team mentioned earlier is committed to supporting municipalities in approaching these associated policies.

As social infrastructures continue to get aged, the status of aging of public facilities and infrastructural assets was surveyed from a viewpoint of their life expectancies. The survey revealed that about 43% of the public facilities surveyed have aged and more progressively than other infrastructures, such as bridges.

Because the cost of renewing public facilities, etc. is predicted to grow in the future, it will become extremely difficult to continue maintaining and renewing existing public facilities, etc. at the present pace.

For this reason, it is vital to make effective use of the existing stocks of public facilities, and to coordinate



the restructure of PRE and urban planning, which will also contribute to comparecommunity development.

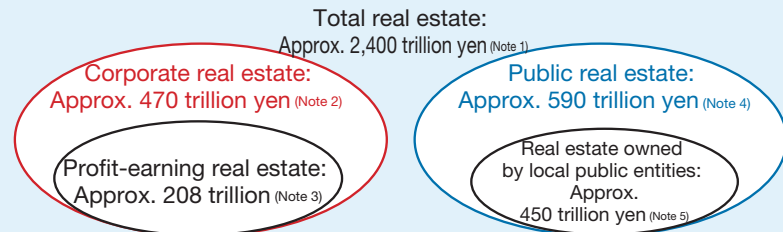
PRE accounts for a large portion of real estate in Japan. PRE owned by the national and local governments accounts for approximately 25% (590 trillion yen) of Japan's total real estate, which amounts to approximately 2,400 trillion yen. Local governments own approximately 450 trillion of PRE, commanding 75% or more of the total volume of PRE (Figure 2-2-28).

Accordingly, promote the appropriate and efficient management and administration of PRE with a view to revitalizing economies and restoring financial integrity, without risking public benefits and interests.

In June 2013, the MLIT organized the Committee on Studying Utilization of Public Real Estate for Urban Renovation (PRE Study Committee) to explore ways to aid local public entities in making effective use of their public real estate for community development. Findings from the deliberations by the PRE Study committee were released in April 2014 as "Guidelines for Utilizing Public Real Estate (PRE) for Community Development (Figure 2-2-29)."

Progressive municipalities have organized and consolidated information about the PRE owned by themselves and worked out plans to relocate public facilities to suit particular community characteristics, white papers on public facilities and so in their continuing endeavor to pursue their own perspectives of community development, as by appropriating public land to improve public livelihood service facilities.

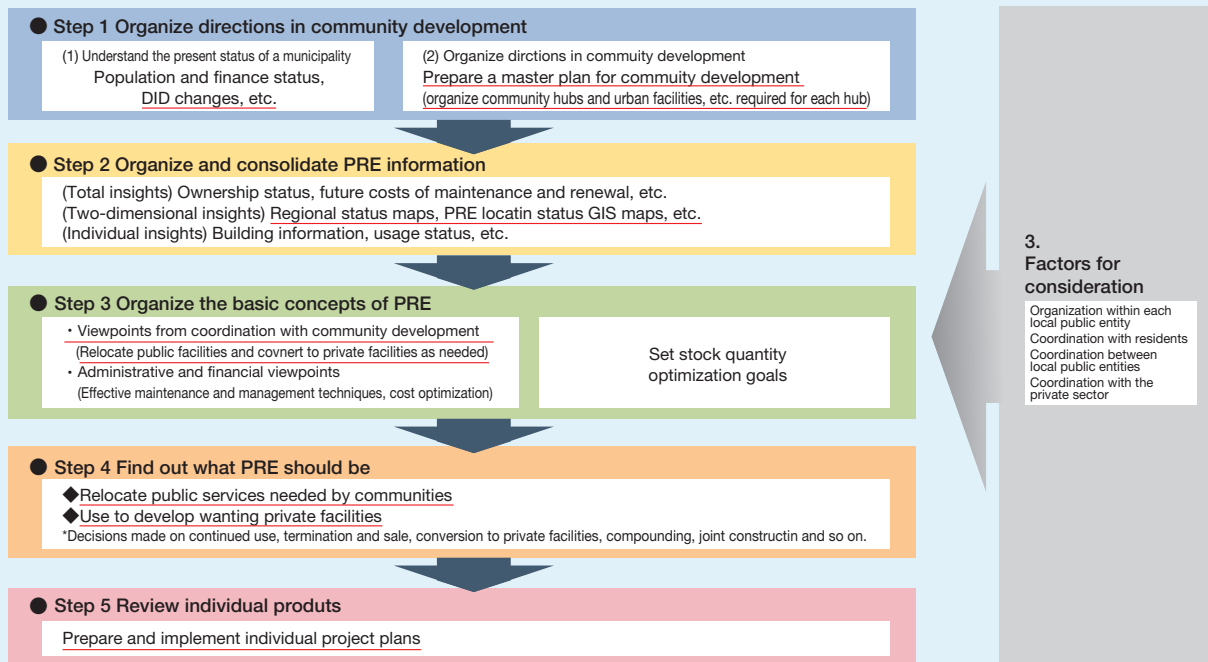
Figure 2-2-28 Value of Japan's Public Real Estate (PRE)



(Notes) 1 Developed by MLIT from "National Accounts" (FY2013 confirmed report) by the Cabinet Office.  
 \*Total of building, architecture and land property values  
 2 Market value based on a "Basic Survey on Land" by MLIT (as of January 1, 2008).  
 3 Developed by MLIT from Prudential Real Estate Investors "A Bird's Eye View of Global Estate Markets: 2012 Updates" (in Yen).  
 4 Developed by MLIT from "National Accounts" by the Cabinet Office.  
 \*Total amount of fixed properties and land (as of the end of 2013)  
 5 Developed by MLIT from "National Accounts" by the Cabinet Office.  
 \*The total amount of fixed properties of the real estate owned by local public entities is the cumulative amount of the gross fixed capital formation of the fixed properties owned by the general government (FY1980 to FY2013) proportionally distributed in the local ratios.

Source) MLIT

Figure 2-2-29 Summary of the Guides for Utilizing Public Real Estate (PRE) for Community Development



\*Underscored activities to be implemented from community development perspectives.

\*The master plan for community development may include a description of Step 3.

Source) MLIT

### (Utilizing Private Resources for Utilizing Public Facilities and Public Real Estate (PRE))

To make the process of developing, maintaining and managing and renewing infrastructures that are truly needed and fiscal consolidation compatible with each other, utilizing private funds and know-how, or improving the efficiency of their development on PPPs <sup>Note 1</sup>/PFIs <sup>Note 2</sup> would also be important.

Since the Act on Private Finance Initiatives (PFI Act) was established in 1999, implementation policies has been announced for as many as 489 projects up until FY2014, amounting to a total cost of JPY 4 trillion 501.5 billion (Figure 2-2-30).

Of these, 139 PFI projects relate to the MLIT as of January 2015, including those to be implemented by local public entities. These projects are mostly concerned with municipal office buildings, public housing and so on. By scheme, a greater proportion of these projects are service-purchase projects, whereby the costs incurred by private PFI operators building public facilities, etc. are paid in compensation (service fees) by public entities on a deferred payment basis (Figure 2-2-31).

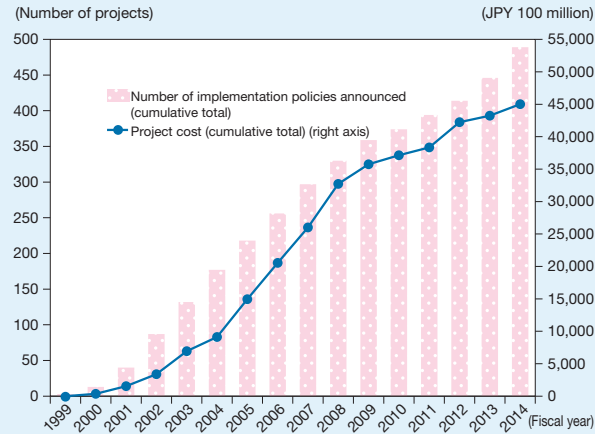
The MLIT has been weighing the feasibilities of rebuilding the Tokyo Metropolitan Expressways on PPPs while promoting the use of concessions in the construction of airports, sewage systems and roads in accordance with the Action Plan for Drastically Reforming PPPs/PFIs (decided at the June 2013 Conference for Promoting Projects Financed by Private Funds, etc.), which calls upon the government to make a full commitment to utilize concessions (a system of rights to manage public facilities, etc.), build profit-earning facilities in the premises of public facilities, etc. and utilize them, make effective use of public real estate by leveraging private proposals and so on to drive the implementation of a JPY 12-trillion worth of PPP/PFI

**Note 1** Short for Public Private Partnership. A broad concept of the schemes of encouraging private participation in the provision of public services in one form or another. It refers to a technique for leveraging private funds and know-how to improve the efficiency of developing public facilities, etc. or to achieve a higher level of public services quality.

**Note 2** Short for Private Finance Initiative. It refers to a technique for leveraging private funds, management skills and technical capabilities in the construction, maintenance and management, administration and other aspects of public facilities, etc. to maintain and administer social infrastructures efficiently and effectively. Characteristically, the fund needed to finance a project is procured by a private sector, not at the initiative of a public entity.

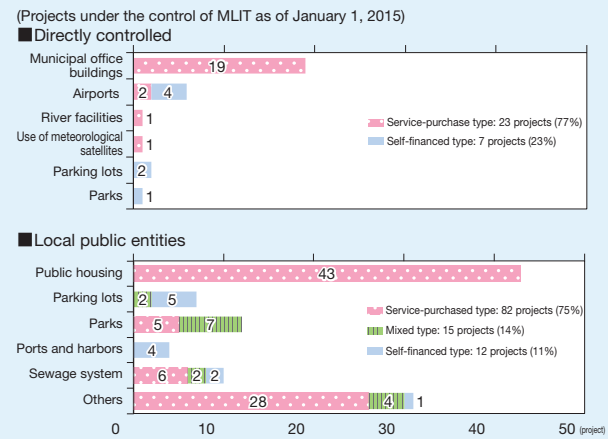
projects for the coming three years over a 10-year period from FY2013, and also with a governmental decision (June 2014) to give prioritized thrust to concessions for an intensive promotion period of three years (FY2014 to FY2016) to come.

Figure 2-2-30 Changes in the Number of PFI Projects and Project Costs (cumulative totals)



(Notes) 1 As of March 31, 2015  
 2 The number of projects indicated is that of projects whose implementation policies are known to a Cabinet Office survey and does not include those projects that were nullified or canceled during a period of service availability or that were abandoned after announcement of their implementation policies and before availability of their services.  
 3 The project cost is the sum total of the initial contract amounts of projects that the allotted amount in constructing public facilities has been decided upon operator selection among the projects announced to implement and that are known to the Cabinet Office survey.  
 4 Project costs in the graph have fractions of 1 billion rounded off.  
 Source) Developed by MLIT from Cabinet Office documents.

Figure 2-2-31 Breakdowns of PFP Projects Relevant to the MLIT (as of January 1, 2015)



Source) MLIT

## Column

### Rebuilding a Ward Office Building on PRE in a Government-Private Alliance (Toshima Ward, Tokyo)

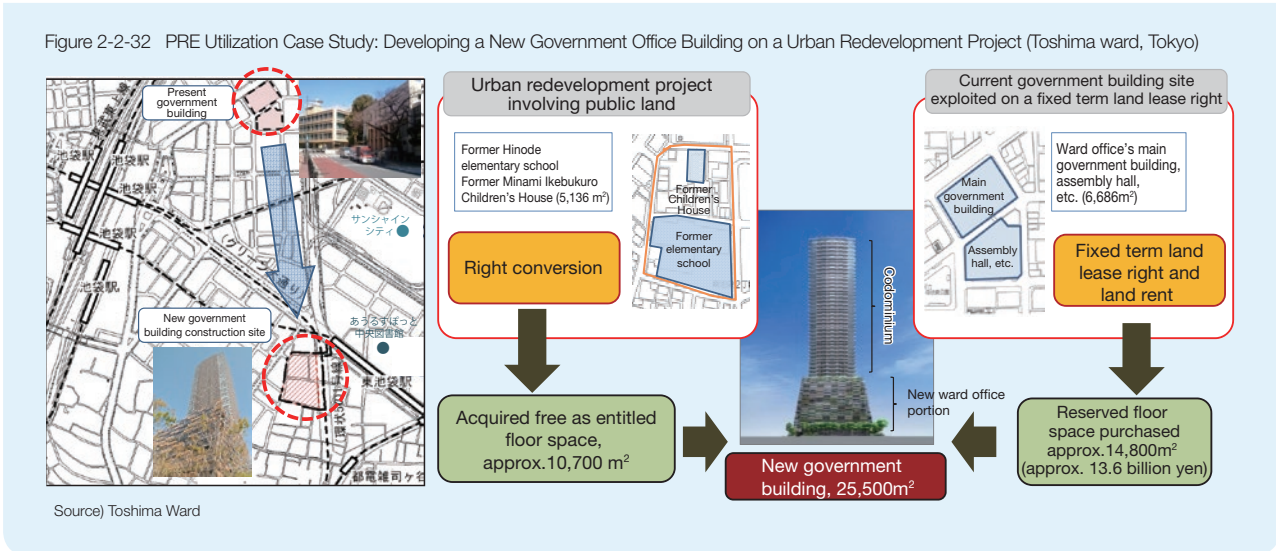
Fifty or more years on since initial construction, the aged Tokyo Toshima ward office building had come to threaten safety and disaster preparedness, urging reconstruction, but the extremely tight finance of the ward did not justify its new construction.

The Toshima ward, therefore, decided to build a new ward office building on a Category 1 urban area redevelopment project. It secured the floor space of a new ward office by purchasing “right-converted floors” and “reserved floors” and to lease the former main ward office site and the branch office and assembly hall sites to a private operator on term leases and cover the cost of purchasing the reserved floor space with such rents. Consequently, the Toshima ward managed to renew its office building at virtually no financial burdens and opened the new office on May 7, 2015.

The building houses a new government office (part of the first floor, and the third to ninth floors of the building) and car and bicycle parking lots as public facilities, complex facilities, including commercial facilities and the like on the first and second floors of the building as private facilities and a condominium managed by a private business operator on the 11<sup>th</sup> to 49<sup>th</sup> floors.

Public and commercial facilities, collective housing and the like developed and constructed in a fully integrated fashion should help upgrade the living climate, adding to the charms of the community.

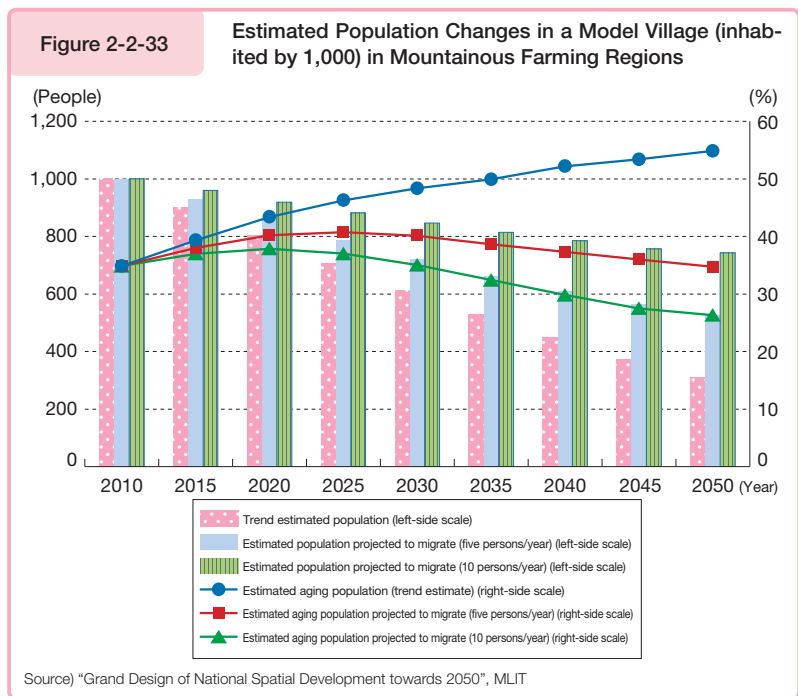
Such government-private alliances have been increasingly employed across the central metropolitan area. Local public entities, etc. may utilize the PRE they own to their profit, as it could offer a promising solution to improving their tough financial positions.



(2) Compact Hubs

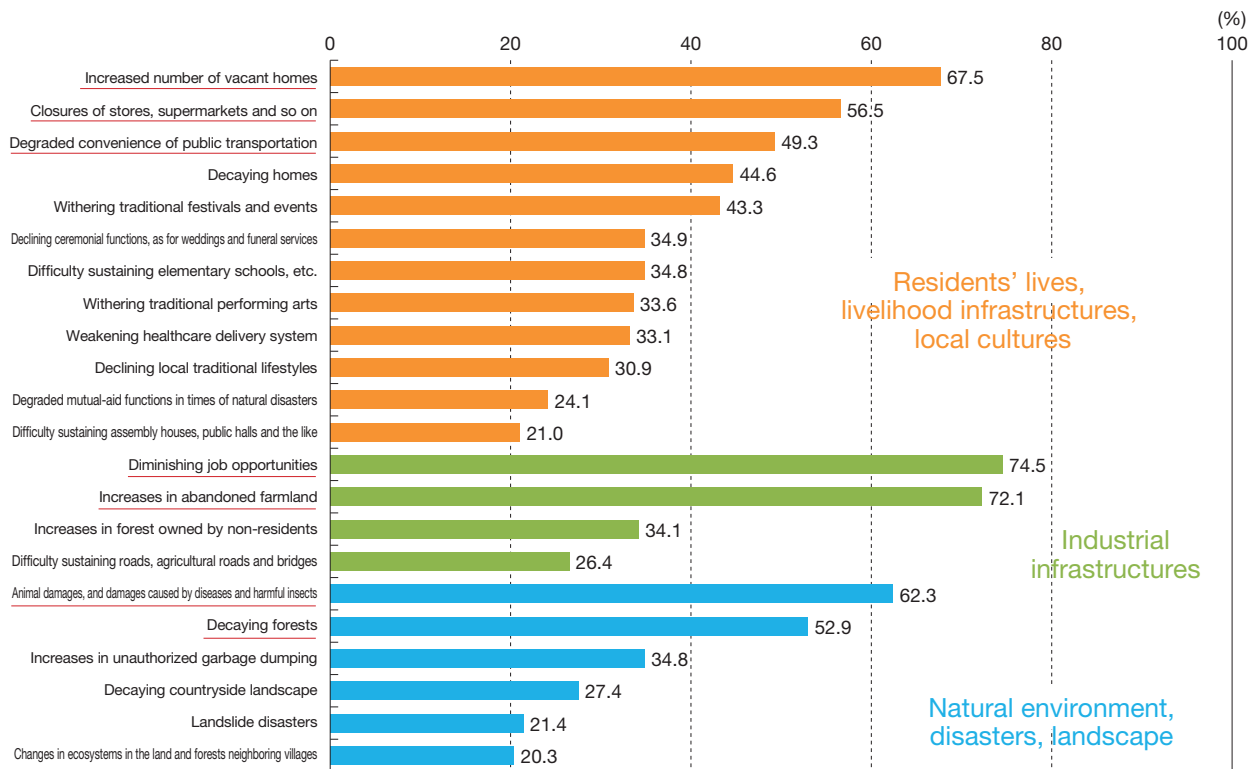
(Present status of hilly and mountainous areas)

Apart from the preceding review of the benefits of compacting an urban area, the trend towards a diminishing population gets more pronounced in a region with a smaller size of population. Among hilly and mountainous areas, mountainous farming regions had an aging population ratio of 34.9% in 2010, when compared with a nationwide ratio of 23.0%. Moreover, if the future population is estimated for an imaginary village inhabited by 1,000 on the basis of the average male-female ratio and age composition, mountainous regions are predicted to have an aging population ratio of 54.9% in 2050, 40 years from now, with their population declining by about 70%, against a nationwide ratio of 38.8% (Figure 2-2-33).



Villages located in a depopulated region have already experienced degraded functionalities for providing daily livelihood services, or difficulties maintaining such functionalities as stores dealing in foodstuff and medical clinics close in the wake of a diminishing or aging population (Figure 2-2-34).

Figure 2-2-34 Problems Occurring in Villages



Source) Developed by MLIT from "Plotted on the basis of a Field Survey into the Status of Villages in Commutation-Poor Regions, etc." (March 2011, MIC)

Therefore, villagers find it increasingly more difficult to sustain their livelihood service facilities than before. In addition, the difficulty of securing means of transportation to other regions mounts. According to a survey conducted on a village, the ratio of the number of households in which nobody drove a car to the total number of households rose as the heads of the households got aged. This ratio is marked in the households in which their heads are 75 years of age or older. These households account for more than half of the total (Figure 2-2-35).

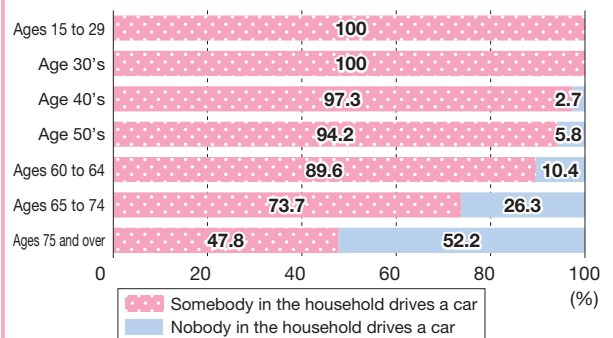
Thus summarized, endangered village lives are feared to spread further across the nation from now on. In order to get residents' livelihood in a depopulated village stabilized, it would be essential to build a framework of sustaining the fundamental livelihood services required for the villagers and providing these services efficiently. This section introduces a "compact hub" approach made to revitalize a locality.

(Compact Hubs)

The concept of "compact" and "networked" introduced so far applies to villages located in a hilly or mountainous area as well. A compact hub is an aggregation of daily livelihood facilities of vital importance, such as stores and clinics, consolidated within walking distances in a region consisting of multiple villages, such as elementary school district, and housed in existing facilities, such as elementary schoolhouses and former townhouse buildings, to ensure efficient delivery of the livelihood services to the villagers and provide them with a sphere of regional activity to stimulate human exchanges, by networking villages with community bus services, a home delivery service and so on if the villages are scattered.

Further, a compact hub could make a site of regional resources utilization; it may not only sell locally produced agricultural and marine products at a direct sales depot but may foster a sixth industry to develop, process and sell

Figure 2-2-35 Ratio of the Number of Households In Which Nobody Drove a Car (by household head's age)

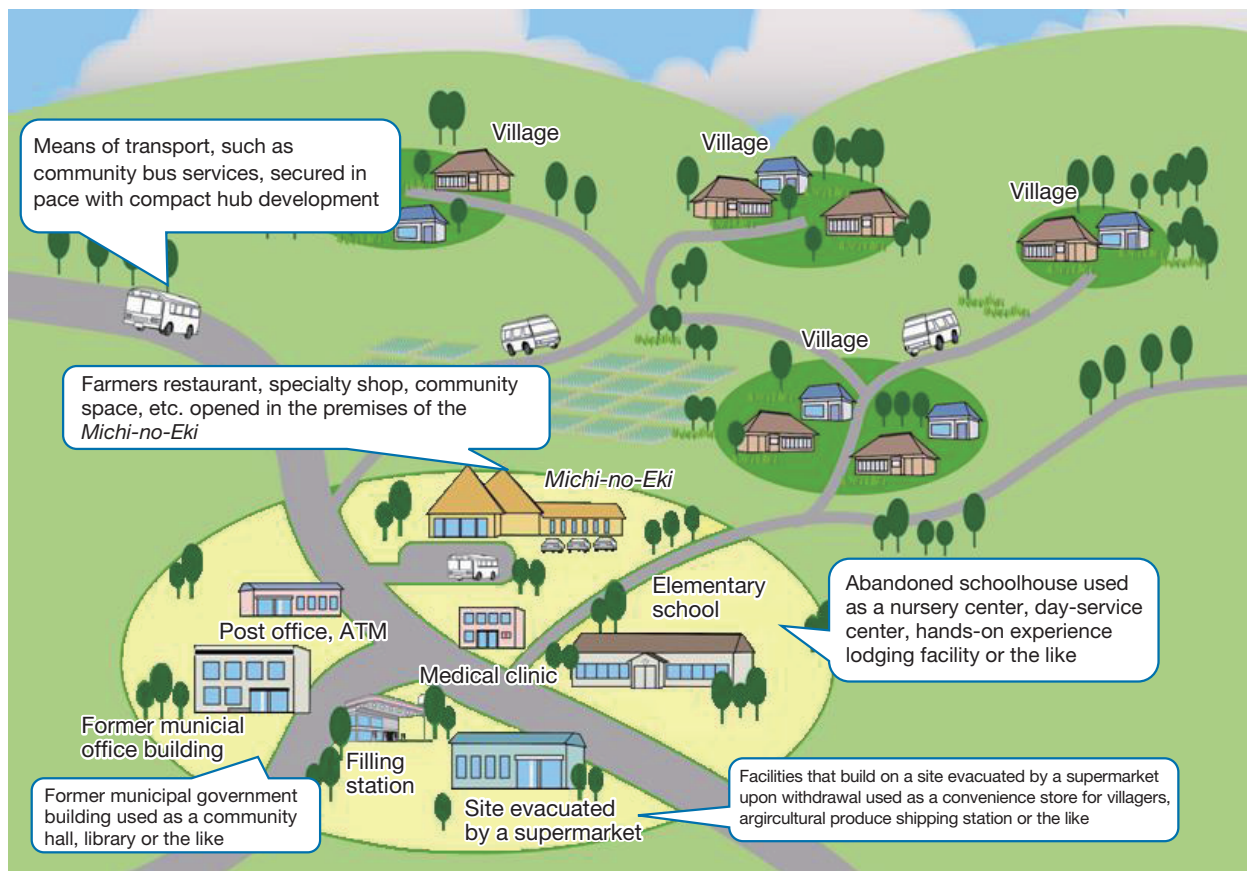


Source) 2005 Questionnaire on Daily livelihood Targeting Villages, etc. Faced with Advanced Depopulation and Aging, MLIT



commodities from these local products and might offer economic benefits by creating employment that focuses on regional agriculture, forestry and fishery and selling commodities outside the region.

Figure 2-2-36 Compact Hub



Source) MLIT

### (Typical Approaches to Forming Compact Hubs)

The following is a review of some pioneering approaches to forming a compact hub:

#### ■ Yusuhara-machi, Kochi Prefecture (Shimagawa District)

Kochi Prefecture is among the most rapidly aging prefectures in Japan, with an aging population ratio of 28.8% in 2010. It also has the largest ratio of forest area space to the entire prefectural land, and because it is dominated by hills and mountains, more than half of its population is concentrated in the flatlands of Kochi City and Nangoku City. Other municipalities are faced with an imminent need to combat village problems as their depopulated areas suffer a rapidly aging population with the villages having been downsized. Prefectural authorities dub places for locals to get together and solve community problems, using an abandoned schoolhouse, assembly hall or the like, “Community Action Centers,” and are working to install one in each village in the prefecture to support community activities. Shimagawa District in Yusuhara-machi is among such villages.

Figure 2-2-37

Village Action Center  
Shimagawa (Shimagawa  
District, Yusuhara-  
machi, Kochi Prefecture)



Source) MLIT

Shimagawa District in Yusuhara-machi is inhabited by 583, with an aging population ratio of 49.9% (as of March 31, 2014). Since the only filling station in the district closed in January 2013, concerns loomed over difficulties maintaining a supply of heating oil in winter and securing living necessities. The Community Action Center Shimagawa Promotion Committee was then organized in a bid to diffuse these concerns. After a debate, the committee decided to incorporate a joint-stock company with resident investment. Upon incorporation, the company opened a filling station and launched a local products sales business, offering services of vital importance to the residents' living, such as fitting the residents' cars with snow tires in winter, as well as filling them up. A store located in the premises of the center sells agricultural produce grown by the local farmers, farm implements and tobacco to fill residents' needs. There is a privately run store in the neighborhood but is to close in the future. Plans are underway to let the Community Action Center take over the shop function of the store after it closes.

#### ■ Miyama-cho, Nantan City, Kyoto Prefecture (Hiraya District)

The Miyama-cho is located at about the center of Kyoto Prefecture. Its Hiraya District is inhabited by 837 with an aging population ratio of 45% (as of March 31, 2015). Positioned at crossroads between a national highway and a prefectural highway, Hiraya had progressed as a center of the town housing a variety of facilities, public and private, including a JA (Japan Agricultural Cooperatives) store, a Health and Welfare Center and a medical clinic. With a larger-scale merger of branches of JA in 2000, the closure of the JA store was decided. The decision threatened that elderly people might experience inconvenience shopping foodstuffs and daily necessities. Talks among local residents were advanced in the initiative of a regional development association. As a result, the taking-over of the business of the JA store with joint capital investment from the locals in Hiraya was approved. In 2002, a shop managed by the locals themselves came into being as "Furatto Miyama." Because the store is located on a national highway that carries heavy traffic flowing from other regions, it comes complete with a shop that sells local products directly to tourists. In 2005, Furatto Miyama was registered as a *Michi-no-Eki* to form a regional hub, along with existing neighboring facilities, such as General Agricultural Promotion Center, Elderly People Community Center and parking spaces.

The site is packed with a complete set of service facilities needed by the locals to live their day-to-day lives, from selling daily necessities at Furatto Miyama, a *Michi-no-Eki*, to providing weekday medical care services at Miyama Medical Clinic, which is a publicly built and privately run facility adjoining the *Michi-no-Eki*, and preventive inoculation, medical examinations and mini-day care services at Health and Welfare Center.

The *Michi-No-Eki* also serves as a compact hub supporting local resident's livelihood with a community bus stop adjoining and with a demand-responsive bus (taxi) in service to ensure accessibility from villages in the hinterland.

Further, since dairy farming has traditionally been promoted in the Miyama area, a regionally branded product labeled "Miyama Milk" is available. A dairy product processing facility makes integral part of the *Michi-no-Eki*. As dairy products are sold at a shop in the *Michi-no-Eki*, it serves as a tool of migration to a sixth industry leveraging specialty products.

#### (Conclusions)

A bill for the Act on Making Partial Amendments to the Act on the Local Revitalization Act that has been submitted for deliberation at the 189 session of the Diet extends special measures to those projects that are based on a regional revitalization plans that provides for voluntary, autonomous regional efforts, namely, it allows those projects that aim at forming forms of regional revitalization within a regional daily living area, such as a village, or at maintaining and using farmland to be included in the regional revitalization plan. Further, the law authorizes the transportation of small loads of cargoes by onerous passenger transporters aboard their private vehicles as a business to be promoted as integral part of these projects only to such extent that cargoes are collected and delivered within the village living area.

The law is expected to accelerate the formation of a "compact hub," or a cluster of livelihood and welfare services concentrated within a given area and that is connected to surrounding villages on a transport network or the like.

Figure 2-2-38

*Michi-no-Eki* "Fureai Hiroba" (Exchange Plaza) (Hiraya District, Miyama-cho, Nantan City, Kyoto Prefecture)



(Source) MLIT

## Column

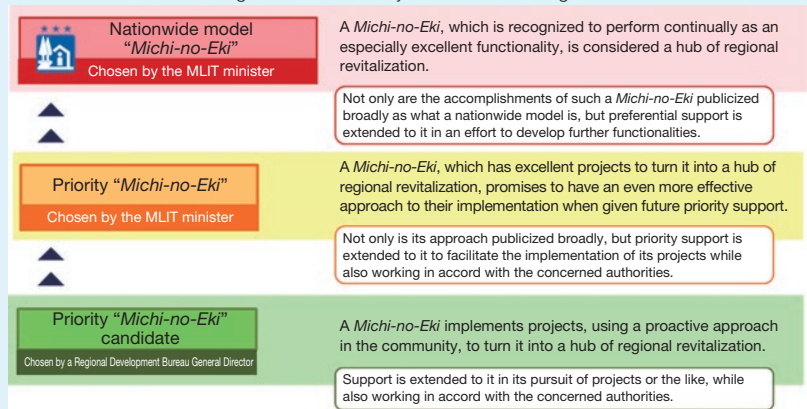
### Inauguration of the Priority “Michi-no-Eki” (roadside station) Program

Since its inauguration in 1993, the *Michi-no-Eki* Program has spawned 1,040 stations nationwide to date. They attract many visitors, create regional employment, revitalize the economy, and upgrade resident services by taking advantage of local specialties and tourism resources.

The Priority “*Michi-no-Eki*” program that was just launched singles out exceptionally outstanding efforts and gives

prioritized assistance to them in conjunction with the authorities concerned, who view the *Michi-no-Eki* program as a powerful tool of growth strategy to provide excellent economic circulation through to the localities.

Figure 2-2-39 Priority “*Michi-no-Eki*” Program



Source) MLIT

Figure 2-2-40 Examples of Diverse Effects of a *Michi-no-Eki* Evolving from Regional Ingenuities

- Attracts people with tourism**  
 A village inhabited by 3,700 people plays host to 1.2 million tourists a year with its “agriculture + tourism” strategy. (Kawaba Denen Plaza, Kawaba Village, Gunma Prefecture)
- Entice people with specialties**  
 – Through cross sector industry implementation, so called sixth industry, the benefits of employment and economic vitality are created.  
 Agricultural producers directly participate in the management of the *Michi-no-Eki* by developing and selling processed food products, taking advantage of their specialties, and creating about 60 jobs. (Uchiko Fresh Park, Uchiko-cho, Ehime Prefecture)
- Secure access to resident services**  
 – Compact hub formation functions –  
 (Takino-Haitaro, Kozagawa Town, Wakayama Prefecture)
- Appeal to people on migration**  
 More than 100 people each year have come to consult the *Michi-no-Eki* for migration tips. So far, 17 families with a total of 34 members have migrated. (Oguni, Oguni-machi, Kumamoto Prefecture)
- Reinforce disaster preparedness**  
 – An advanced disaster preparedness facility for a broad-area hub of disaster preparedness –  
 (Tono Kaze no Oka, Tono City, Iwate Prefecture)

Source) MLIT

### (3) Allied core metropolitan area

As reviewed in Section 2 of Chapter 1, the urban facilities located in a provincial city are defined to some extent by the population of the city. Provincial cities inhabited by less than several hundreds of thousands of people are expected to provide residents in those metropolitan areas with certain facilities, such as large shopping centers and schools. Among all urban facilities, those that are more advanced, such as colleges and central community hospitals, need to be maintained by adjoining cities allying with one another to form a metropolitan area on networks of roads, public transportation, ICT and so on. The allied core metropolitan area concept has been set forth to brace for a metropolitan area that is complete with facilities designed to propel economic growth in order to sustain a buoyant socio-economy while maintaining a certain size of in-sphere population in a depopulating society with declining birthrates and an aging population (Overcoming Population Decline and Vitalizing Local Economies: Comprehensive Strategy (Cabinet Council Decision, 27.12.14)). The job of forming allied core metropolitan areas makes it imperative to form an alliance that focuses not only on



population, administrative services and livelihood infrastructures but also on economic employment and urban structures.

For example, if it is difficult for one city alone to provide a complete set of facilities required in the circumstances, the adjoining cities may link together to assume their respective shares of responsibility to deliver required facilities to every part of their community as they are joined by networks of roads, public transportation and so on.

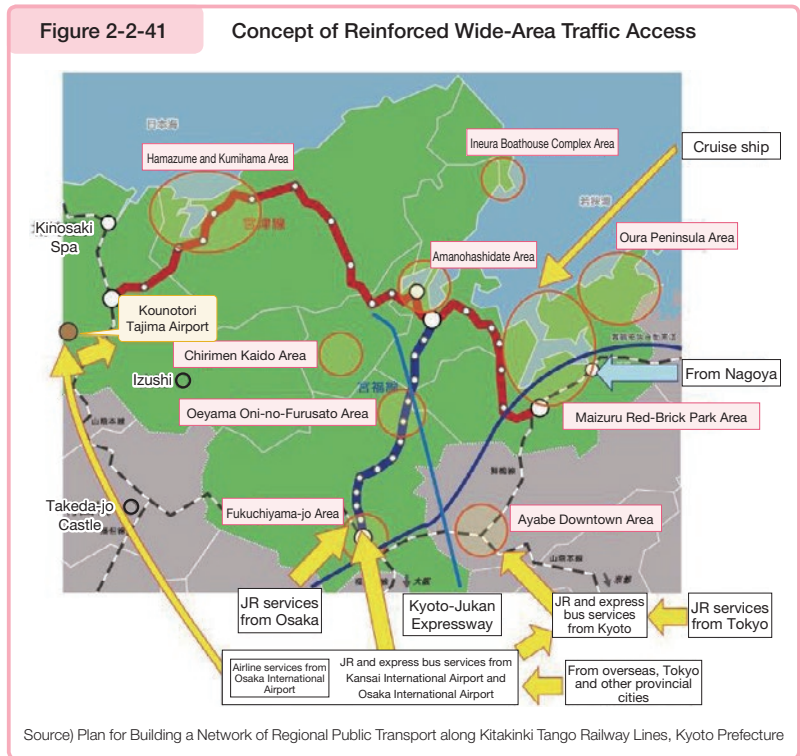
The area along the regional railway line of KTR (Kitakinki Tango Railway Corporation) in the northern Kyoto region is introduced below as an example of an effort directed at forming an allied core metropolitan area.

(Northern Kyoto Region)

The northern Kyoto region is divided into the Tango area (Miyazu City, Kyo-Tango City, Ine-cho, Yosano-cho) and the Chutan area (Fukuchiyama City, Maizuru City, Ayabe City). The Tango area is rich in tourist attractions, including Amanohashiate, one of the most scenic spots in Japan. The Chutan area hosts a largest-scale integration of industries in Kyoto Prefecture. Many industrial parks are located in Fukuchiyama City and Ayabe City. Kyoto-Jukan Expressway and Maizuru-Wakasa Expressway cross each other at these two cities, giving them ready access to Kyoto City and Hanshin area. The northern Kyoto region is thus full of municipal features.

The shares of responsibility, and alliance, among the municipalities taking advantage of their respective characteristics are examined below.

Figure 2-2-41 Concept of Reinforced Wide-Area Traffic Access



### (Tourism)

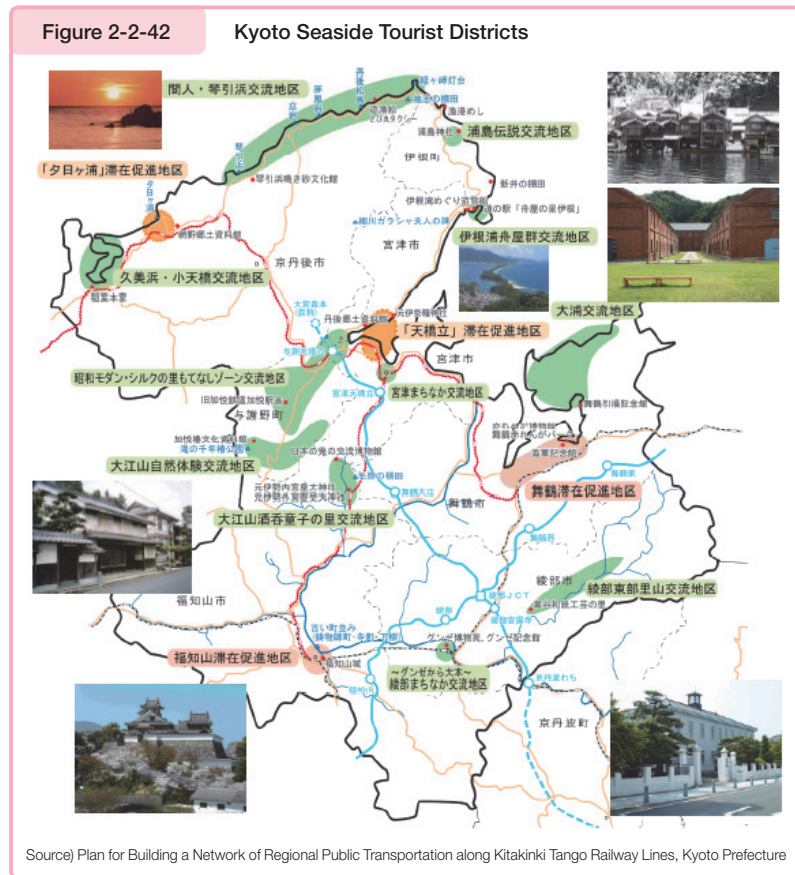
Since ancient times, the northern region facing Japan Sea has flourished as a channel of exchange with continental cultures and technologies. Its history is closely linked to the sea such that it hosted a port of call for Kitamae-bune (coastal freight vessels) during the Edo period and served as a naval port during the Meiji period. Rich in natural heritage, the northern region includes the handsomely profiled Sanin Kaigan (Sanin Coast) featuring unique animals and plants.

The development of stay-type tourist resorts is underway in a concerted regional effort in the northern region. The exceptionally popular tourist resorts of Amanohashidate in Miyazu City and Yuhigaura in Kyo-Tango City have been designated a tourist stay promotion district each. In addition, coordination in terms of transportation has been reinforced with Fukuchiyama City and Ayabe City, which are nodal points of traffic to and from Kyoto, Osaka and Kobe. Individual cities

in the northern region have a defined role each according to their characteristics. Further, eleven locations, such as Ineura boathouse clusters and Ayabe eastern domestic woodlands, have been designated a tourist exchange district each in which hotel lodgers can stop by for sightseeing or enjoy a hands-on experience type of tourism. For the key stay promotion districts of Amanohashidate and Yuhigaura, six numeric goals have been set – visitor satisfaction, visitor spending, number of staying guests, hotel guest repeater ratio, number of stay program participants and stay program satisfaction – and the specific effects of the measures taken to achieve these goals are being followed up <sup>Note 46</sup>.

### (Economy)

Industrial integration is in progress in the northern region of Kyoto Prefecture, centering on industrial complexes in Fukuchiyama City and Ayabe City in the Chutan area, attract growing volumes of commutation to and from work. In the Tango area as well, industries leveraging tourism, agriculture, forestry and fisheries, textile manufacture, and engineering and metalworking are booming mainly in Kyo-tango City and Miyazu City to lure growing volumes of commutation in the Chutan and Tango areas (Figure 2-2-43). In the meantime, comparisons of the ratio of the number of commuters the total in the northern Kyoto region for 2005 to 2010 indicate that inter-city or inter-gun (county) commutation was on the rise in each city and county <sup>Note 47</sup>. In the Tango area and Fukuchiyama City in particular, the ratio of commutation across the Chutan and Tango areas tended to get higher than that of commutation within either of these areas (Figure 2-2-44). These findings may suggest that a new trend towards commutation beyond regional boundaries is coming into existence in the northern Kyoto region.



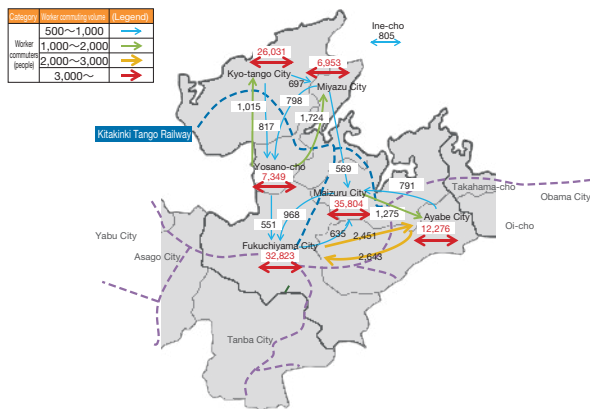
**Note 46** Numeric goals (from 2013 to 2030): (Amanohashidate Stay Promotion District) Visitor satisfaction: 10% up, visitor spending: 4,700 million yen (2013) to 5,640 million yen (2028), staying guests: 175 thousand (2013) to 210 thousand (2028), hotel guest repeater ratio: 10% up, stay program participants: 673 to 860 (2028), stay program satisfaction : 10% up (Yuhigaura Stay Promotion District), visitor satisfaction : 10% up, visitor spending: 1,640 million yen to 1,968 million yen (2028), staying guests: 116 thousand to 140 thousand (2028), hotel guest repeater ratio: 10% up, stay program participants: 2,102 to 2,690 (2028), stay program satisfaction:10% up

**Note 47** The Yosa-gun is organized of Yosano-cho and Ine-cho.



Figure 2-2-43

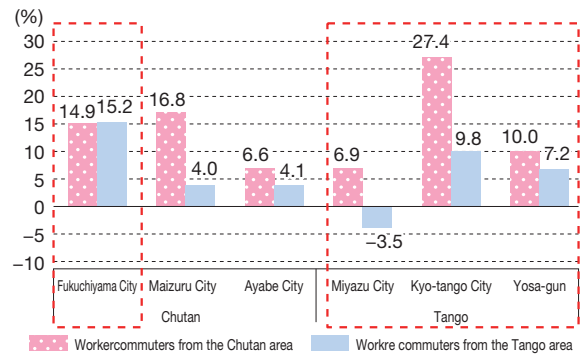
Flow of Worker Commuters in the Northern Kyoto Region (15 years of age or older)



Source) Developed by MLIT from National Census (2010), MIC.

Figure 2-2-44

Rate of Change in the Ratio of the Number of Inter-regional Workre commuters in the Northern Kyoto Region



(Note) The ratio of the number of worker commuters from the Chutan and Tango areas to work based in the cities and gun (counties) in the northern Kyoto region to the total number of worker commuters to the northern Kyoto region has been obtained and its rate of change for a period of 2005 to 2010 calculated.  
Source) Developed by MLIT from National Census, MIC.

A planned section of the Kyoto-Jukan Expressway that penetrates Kyoto from north to right is scheduled to open for July 2015. When complete, the expressway is expected to stimulate tourist exchanges and tourism investment and spurt further industrial presence along the way. Moreover, Maizuru Port, designated a hub port on Japan Sea, aims to upgrade its port and harbor facilities. As the development of infrastructures moves on, industrial advances in and around Fukuchiyama City and Ayabe City are hoped for to provide impetus for propelling regional economies, because the flow of people, goods, money and information beyond regional or national boundaries is predicted to expand further in these two cities.

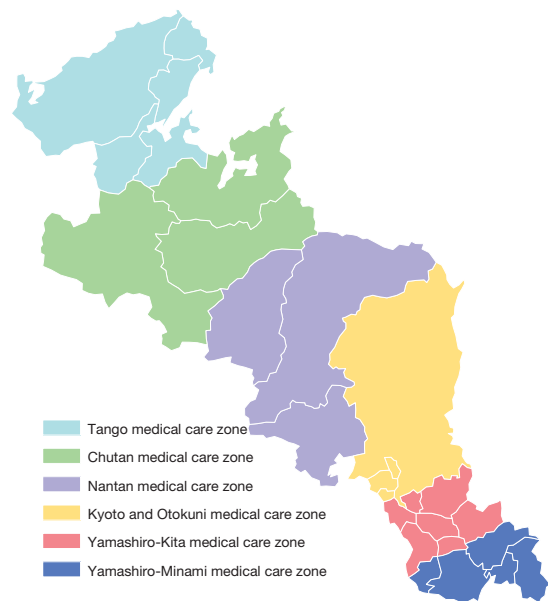
(Medical care)

In the medical field, a central community hospital exists in each of the two secondary medical care zones <sup>Note 48</sup> of the Tango area and the Chutan area, providing advanced medical care services <sup>Note 49</sup> to residents in the surrounding municipalities.

As Figure 2-2-46 shows, a survey into “Trends in the Number of Outpatients by City of Residence” conducted at the North Medical Center attached to the Kyoto Prefectural University of Medicine (Tango area regional medical care support hospital located in Yosano-cho, Kyoto Prefecture) indicates that the number of outpatients coming from the individual cities are on the rise for the past six years. The Tango area is the largest source of outpatients, but the adjoining Chutan area has a rapidly growing number of outpatients, suggesting that residents visit the hospital beyond the boundaries of regions, as well as municipalities.

Figure 2-2-45

Secondary Medical Care Zones in Kyoto Prefecture



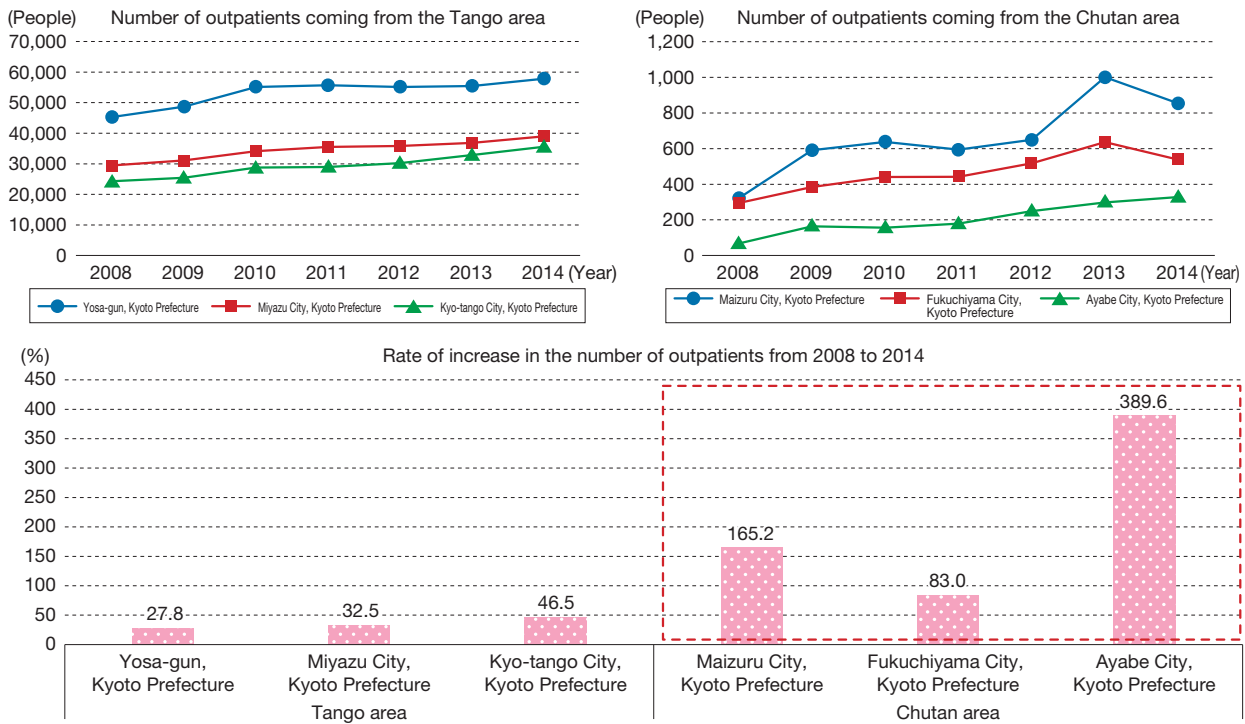
Source) Kyoto Prefecture

**Note 48** An integral area that is set as a reasonable unit of inpatient medical treatment, with relevant natural conditions, such as geological conditions, and social conditions, such as traffic conditions, taken into consideration.

**Note 49** As can be seen from Figure 1-2-3, a certain size of population is needed to justify the location of a central community hospital economically.

Figure 2-2-46

Trends in Hospital Visits in the Northern Region of Kyoto Prefecture (number of outpatients visiting the North Medical Center attached to the Kyoto Prefectural University of Medicine)



(Education)

According to a student commutation survey, inter-city commutation is dominated by inflow into Fukuchiyama City from other cities (Figure 2-2-47). Many governmental, prefectural and other research institutions and higher education facilities, such as four-year colleges, have been set up in Fukuchiyama.

The Community and University Alliance for Regeneration of Northern Kyoto Region has been formed in the northern region. Based on Seibi University, the alliance is composed of six universities in the Kyoto Prefecture, seven municipalities in the northern part, NPOs and so on. It is working to revitalize regional activities by taking advantage of the human resources and knowledge of these universities.

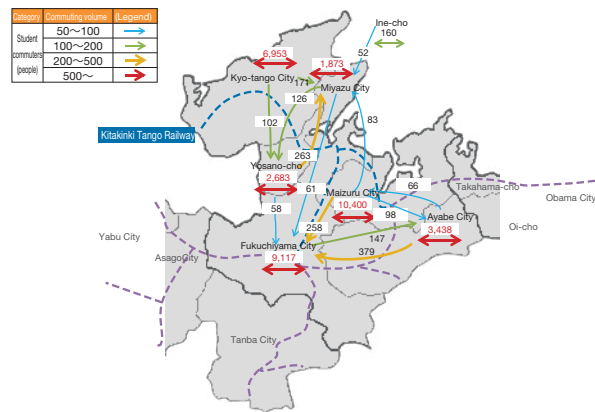
In addition, a move has taken shape for extra-regional universities to consider installing satellite campuses in Fukuchiyama City. Among them, the Kyoto Institute of Technology, a state-run university, seeks to open a branch school using the schoolhouse of a senior high school that closed upon merger with other schools. Plans are underway to hold lectures on regional issues, start an internship program taking advantage of the location of manufacturing companies in the neighborhood and so on, promising the benefits of technological reforms resulting from joint research and development activities.

(Conclusions)

Although an alliance of core metropolitan areas is yet to come to stay in the northern Kyoto region, it still has potentials for driving the flow of people and goods beyond the boundaries of the individual cities and thus making for regional

Figure 2-2-47

Flow of Student Commuters in the Northern Kyoto Region (15 years of age or older)



vitality amid a diminishing and aging population, as the cities take their respective roles in maintaining and reinforcing the transport networks that link them together by exploiting their own characteristics. As such metropolitan areas are duplicated in many localities of Japan, they would help preserve the affluent livelihood of their residents.

## Column

### Community Development in a Suburban Metropolitan Area (Effort at Toyoshikidai Housing Development in Kashiwa City)

The sheer numbers of elderly people living mainly in the suburban areas of the 3 major metropolitan areas of Tokyo, Osaka and Nagoya are predicted to leap, which could paralyze service facilities as medical and welfare facilities run short.

Increases in aging population date back to the periods of rapid economic growth in which the construction of new towns in the suburban areas of large cities was promoted as a solution to the issues of the over-centralization of population in the metropolitan areas. With the availability of housing of standardized structures in massive quantities, the same generation of people would seek homes in a new town simultaneously at the same timing. As a result, the population in a suburban new town now shows a lopsided age composition (Figure 2-2-48). In addition, since many homes have now been built for 30 years or longer, they have begun to pose problems with their buildings themselves, such as deteriorated facilities and inaccessibility.

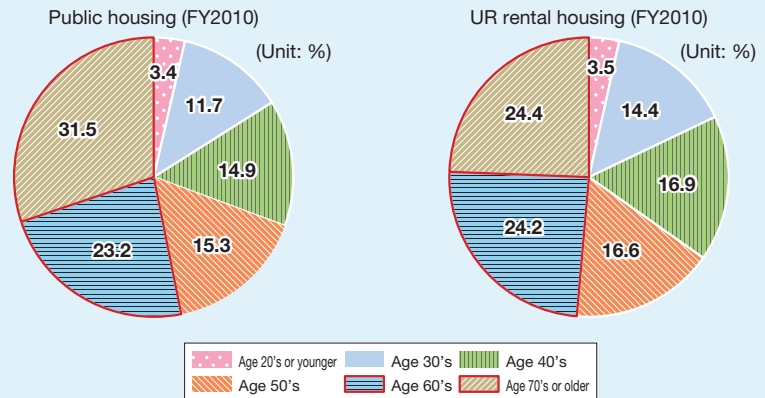
(Public Rental Housing Complexes in the Suburban Areas of Large Cities)

As the pace of aging hastens in the future, the demand for medical and nursing care services at public rental housing complexes and elsewhere in the suburban areas of large cities is predicted to multiply, making it imperative to condition the environment needed to address these needs. Building a community in which seniors can live a healthy life and in which living is easy for multiple generations of people, including child-rearing families, has become an imminent task. An approach taken at Toyoshikidai Housing Development in Kashiwa City in the suburbs of Tokyo is introduced below to illustrate the effort made to reorganize suburban housing complexes.

#### Effort at Toyoshikidai Housing Complexes in Kashiwa City

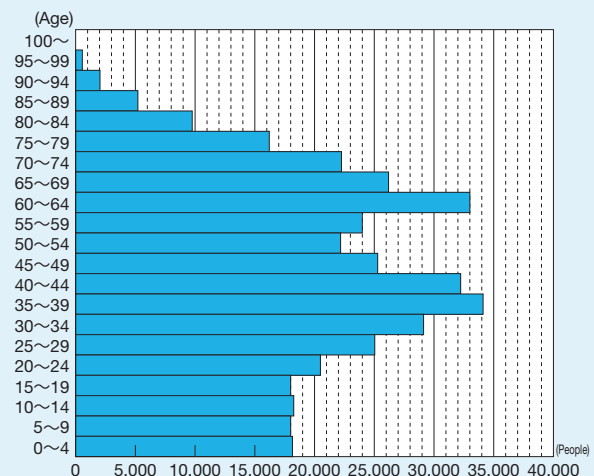
Kashiwa City in Chiba Prefecture, like other suburban housing developments, has witnessed a bulging population triggered by the nation's high rates of economic growth. Consequently, the population of the baby boomers and that of their children are dominant (Figure 2-2-49). The city is faced with a rapidly growing population aged 75 years or older, as it predicts a more than twofold

Figure 2-2-48 Ratios of the Number of Households by Age Group in Public Rental Housing and UR Rental Housing



Source) MLIT

Figure 2-2-49 Population of Kashiwa City by Age Group



(Note) Values as of April 1, 2012 based on "Population of Chiba Prefecture by Age and Municipality" by Chiba prefecture.  
Source) Kashiwa City

increase in the population aged 75 years or older for 2025.

In particular, the Toyoshikidai Housing Complex, with its ratio of aging population already exceeding 40%, is symbolic of an aging population in an urban area of future Japan (Figure 2-2-50).

For this reason, Kashiwa City is teaming up with Tokyo University and the Urban Renaissance Agency (UR Agency) to carry on approaches to developing a community in which “people can get aged in their own ways and in a familiar place,” which is Kashiwa is committed to driving the development of a community compatible with a society of longevity, in which “one can live a secure life in one’s home for long” and in which “one can stay healthy and active for long.” The city takes two approaches to achieve this goal: realizing a comprehensive regional care system and creating worth-living-for employment for elderly people. Projects evolving from these approaches are underway across the entire city centering on the Toyoshikidai area that encompasses the Toyoshikidai Housing Complex under reconstruction by the Urban Renaissance Agency (Figure 2-2-51).

The Comprehensive Regional Care System is a scheme of extending support necessary to realize a community in which elderly people can continue living in their homes in a familiar area. Its guiding principle is to provide the five facilities of nursing care, medicine, preventive medicine, livelihood support and dwelling within a “sphere of daily living” in which required services are essentially accessible within 30 minutes.”

The Toyoshikidai Housing Complex aims to create an easy, secure living environment for multi-generation families to live in, for example, by encouraging the moving-in of child-rearing families and attracting community dining halls to cater for all generations of people, as well as ensure access to home medical care and nursing care services, for example, by attracting elderly housing that comes complete with services and regional medical care centers in the premises of the complex.

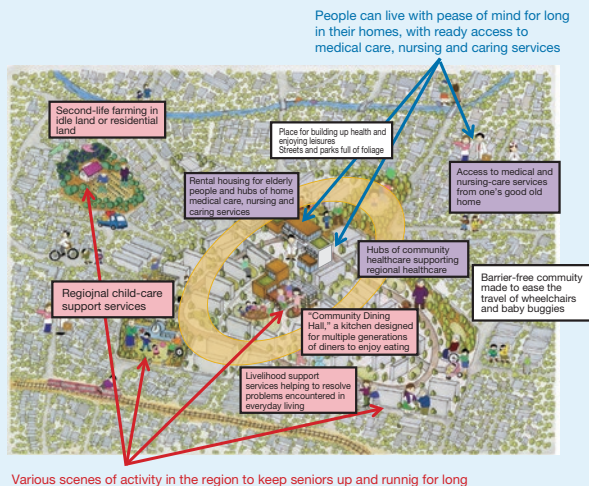
In August 2014, the MLIT released “Guidelines for Promoting Community Development for Health, Medical Care and Welfare” in its bid to drive community development in coordination with “Comprehensive Regional Care System,” which is committed to delivering comprehensive support to elderly people from viewpoints of health, medical care and welfare so they can live a self-reliant life in their dear old homes.

Figure 2-2-50 Ratios of Elderly Populations in Toyoshikidai (2010)

	Entire Kashiwa City	Toyoshikidai Housing Complex
Ratio of the population aged 65 years or older	20%	41%
Ratio of the population aged 75 years or older	8%	18%
Ratio of the number of persons aged 65 years or older and needing nursing care	12%	10%

Source) Kashiwa City

Figure 2-2-51 Conceptual Image of the Future of the Toyoshikidai Area



Source) MLIT

### 3 Creation of a Country Generating Diverse Synergies among Regions

Apart from preceding discussions of the concept of “compact” and “networked”, its benefits, approaches to its implementation and so on, this section considers the relationship between it and the creation of a “country generating

diverse synergies among regions”<sup>Note 50</sup>, a key philosophy of spatial planning in a sheer depopulating society, by reviewing the flow of people, goods and so on stirred by “compact” and “networked” on the basis of the analyses, case studies and more given earlier.

In the convection of people, goods and so on, the most important asset that helps create new values through innovations is human resources. The convection of people should be of vital importance. Redirecting the flow of people would be essential to responding to the problems of over-centralization of population in the Japanese capital of Tokyo.

Obviously from a historical retrospective of the inter-regional migration of people given in Section 1 of Chapter 1, the postwar years have seen a continuing undertone towards the inflow of people into the three major metropolitan areas, particularly, Tokyo, in pursuit of better income and employment (see Figures 1-1-5, 1-1-8), suggesting that economic factors may have been the primary impetus for driving the movement of population between cities and localities. In the meantime, the lifestyle has diversified in line with the pace of social maturization, such that the urge for “return to countryside” to live a country life is said brewing among the urban residents. Creating an individualistic, attractive locality to respond to such trend is considered instrumental in encouraging the migration of people to localities (convection of people) and correcting the over-centralization of population in the Japanese capital of Tokyo.

As analyzed in Section 1, Chapter 2, some proportion of would-be migrants seeks the charms of the countryside, including natural landscape, and a certain degree of convenience. To appeal to these people, it would be essential to have conveniences (urban facilities) consolidated within their walking distances and also to maintain their access to provincial cities and metropolitan areas (roads, railways, etc.) pursuant to the concept of “compact” and “networked” to encourage their migration<sup>Note 51</sup>.

As already discussed in 2.(3) in Section 1 and 1.(2) in Section 2 of this chapter, moving ahead with the compact city initiative could rejuvenate the urban central zones and make them less energy-dependent as the urban facilities are concentrated and the conveniences of public transportation are augmented, promising further improvement in regional economic circulation. This could not only help create more local employment but also have a positive effect on the migration of younger people who are highly interested in employment and income.

Case studies of the implementation of the concept of “compact” and “networked” that has possibly stirred (or is expected to stir) the flow of people, goods and so on to lead to enhanced regional vitality and charms as cited by regional characteristics in 2. of this Section are reviewed below.

#### Central Urban Area in Toyama City (Compact City)

As seen in 2 of this section, in the city of Toyama pursuing the compact city initiative, increasingly more users choose to use public transportation facilities, such as LRT, than before as the conveniences of these transport facilities have been enhanced. For example, the introduction of LRT leveraging former JR railway facilities (Toyama-ko Line) has kept the number of passengers increasing centering on seniors (see Figure 2-2-18). Further, since “Odekake Teikiken” (Outing Season Tickets) was launched to entitle seniors riding the city’s route buses to a uniform bus fare of 100 yen, elderly people who go out carrying the season ticket have been found to take more steps on the average than those who go out without it (see Figure 2-2-20). Thus, increased chances of elderly and other people to go out in this way might offer diverse benefits, such as increasing their chances to exchange with other people downtown, stimulating their spending and cutting their medical bills.

**Note 50** Key Initiative for National Land Development in a Sheer Depopulating Society:

Convection which is an active state of two-way movement of people, goods, money, information and so on stemming from a mutual alliance of various regions possessing diversified individual characteristics is expected to set into motion nationwide to create a “Country Generating Diverse Synergies among Regions” dynamically. (from “Intermediate Report on New National Spatial Planning” (Planning Division, National Land Council, March 2015).

**Note 51** Sakudaira City, Nagano Prefecture, for example, is a popular place to live in for those people who need to travel to and from the Tokyo metropolitan area after their migration, because the city not only commands a view of Mt. Asama and offers the joy of living a country life embraced in a rich natural environment but also is conveniently located for access to Tokyo, only about 70 minutes away by Shinkansen and about 110 minutes away by an expressway.



In addition, a loop line implementation of transport routes has also been constructed to augment the ease with which people can stroll from one place to another in the central urban area. Private investment has gained strength and the construction of commercial facilities, etc. progresses in the central urban area.

As an additional example, “Toyama Downtown Lab (Toyama Machinaka Kenkyushitsu)” has been set up in the central shopping mall as a student action center, which aims at luring students at Toyama University located in the suburbs of the city into downtown to exchange and collaborate with diverse entities, including businesses and local residents.

#### (Compact Hub in Nantan City, Kyoto Prefecture)

The resident-invested shop Furatto Miyama at the *Michi-no-Eki* “Miyama Fureai Hiroba (Miyama Communion Plaza),” introduced in 2 of this section as an example of a compact hub, is furnished with a direct sales depot for agricultural produce. The depot sells not only foodstuffs and daily necessities for locals but deals in local specialties for tourists. The voluntarily run yet profit-making shop carries on sustainable storekeeping with resident investment and enjoys growing sales since its opening <sup>Note 52</sup>. Most of the customers come from outside the town, with many reportedly repeating.

Further, a dairy product processing facility at the *Michi-no-Eki* is working to migrate to a sixth industry, as for processing dairy products, by taking advantage of the local brand of Miyama milk.

In this way, this local hub not only functions as a livelihood hub for locals but as a source of the flow of people, goods and money to and from locations outside the region, such as attracting tourists <sup>Note 53</sup> from outside the town and selling dairy products, to help revitalize the region.

#### (Northern Kyoto Region (Formation of Economic and Living Spheres through Inter-regional Alliance))

As reviewed in 2. of this section, seven municipalities in the northern Kyoto region (Tango area (Miyazu City, Kyo-Tango City, Ine-cho, Yosano-cho) and the Chutan area (Fukuchiyama City, Maizuru City, Ayabe City) ally and collaborate with one another to take their respective shares of responsibility for building up the functionalities of tourism, employment, medical care, education and so on and also to develop public transportation and other networks so as to turn the northern Kyoto region into, and revitalize it as, one economic and living zone.

In the field of tourism, for example, the “Kyoto Seaside Tourist Districts” development plan was accredited by the Japan Tourism Agency in FY2014. Efforts are in progress in the stay promotion districts, such as Amanohashidate, to near defined numeric goals, such as the amount of visiting tourist spending and the length of stay <sup>Note 54</sup> (see Figure 2-2-42).

Since the northern Kyoto region externally declared to promote the formation of an allied metropolitan area back in April, it is expected to help revitalize the area as its member municipalities work to collaborate and ally.

**Note 52** Furatto Miyama has annual sales of approximately 160 million yen (about 1.6 times the initial sales at its opening in 2005), with about 120,000 people visiting it annually (both in 2014).

**Note 53** Miyama-cho contains tourist spots, such as “Kayabuki Shuraku (village of thatched-roofed houses)” (designated the nation’s Important Preservation Districts for Groups of Historic Buildings), attracting a growing number of tourists from Kyoto, Osaka and Kobe in recent years.

**Note 54** As an example of the inter-city or inter-regional flow of people, the ratio of worker commutation across cities or counties (counties) or regions is relatively on the rise (see Figure 2-2-44). In the field of medical care, the rate of growth in hospital visits at the community healthcare support hospital in the Tango area (North Medical Center attached to the Kyoto Prefectural University of Medicine) from neighboring regions is found relatively high (see Figure 2-2-46).

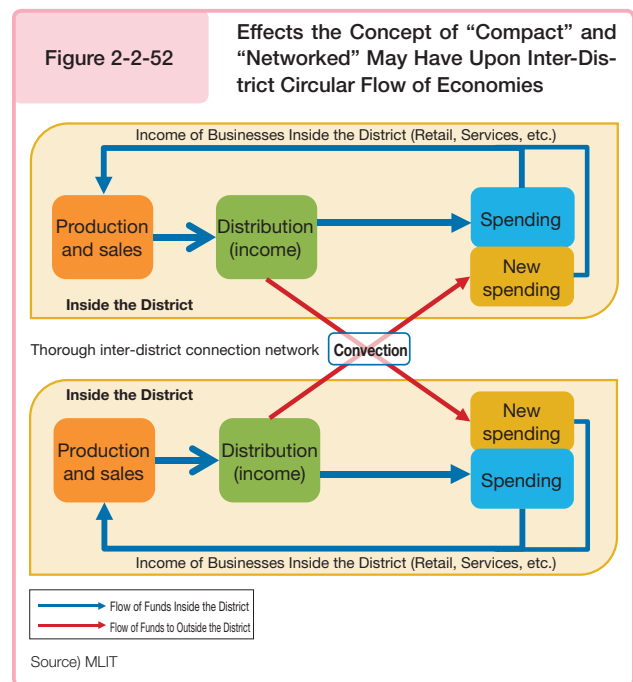
So far, the flow of people, goods and so on by regional characteristics stirred by the concept of “compact” and “networked” has been reviewed. Compact cities and compact hubs are considered to encourage such intra-regional flow. “Convection” is defined as “an active state of two-way movement of people, money, information and so on stemming from a mutual alliance of various regions in possession of diversified individual characteristics” as mentioned earlier.

Intra-regional interactions among various people, goods, money and information resulting from compact community development could help develop regional individual characteristics at a higher level of refinement or create a new value <sup>Note 55</sup>. Moreover, individualistic regions linked together on an inter-regional network might stir the flow of people, goods, money and information, or convection, creating a new value.

Let’s look at the economic aspects as analyzed in 1. (2) of this section. Figure 2-2-52 shows how the diagram of relations among the effects of the “compact” and “networked” upon regional economic cycling (Figure 2-2-11) can be applied to the economies of multiple regions to multiply its effectiveness. What matters here is the idea of convection.

Compacting should not be confined to one region alone but should be stretched to multiple regions to let them work to develop their individual characteristics at a higher level of refinement and create goods and services that would not be available anywhere else. This will stir convection among the local consumers, creating a new trail of spending or cash flow.

If the spending that used to flow out from a region can be channeled back into the region, it will not only augment the sustainability of the regional economy but also create a new value or a new opportunity for spending, encouraging economic expansion as a whole.



### (Conclusions)

As discussed so far, the concept of “compact” and “networked” is expected to stir the flow of people, goods and so on to lead to enhanced regional vitality and charms. If such flow is duplicated on a wider scale, it could help develop regional individual characteristics at a higher level of refinement or create dynamic “convection” nationwide on networks, proving a source of national rejuvenation in a sheer depopulating society. “Compact” and “networked” is thus considered vital to the creation of a country generating diverse synergies among regions from regional structure perspectives.

While the MLIT works on last year’s amendments to the Act on Special Measures Concerning Urban Renaissance, etc. and to the Act on Revitalization and Rehabilitation of Local Public Transportation Systems and various approaches that build on these laws and moves ahead with cross-ministerial support provided from the Compact City Formation Support Team as outlined in 2. (1) of this section (Conclusions), it is committed to getting prepared for giving a further momentum to local public entities for “compact” and “networked” community development.

**Note 55** As explained in Column “Coworking,” in 2. (2), Section 1, Chapter 2, as various kinds of workers get together in some place and communicate with one another to share, or collaborate on, their information or wisdom, exchanges among diverse entities could lead to an innovation or to the creation of a new value.

## Column

### Examples of Enhanced Regional Vitality and Charms on Wide-Area Networking

Here are case studies of how the flow of people, goods and so on is stirred on wide-area networks, such as roads and railways to lead to enhanced regional vitality and charms.

#### (Businesses advancing along Nihonkai Engan Tohoku Expressway)

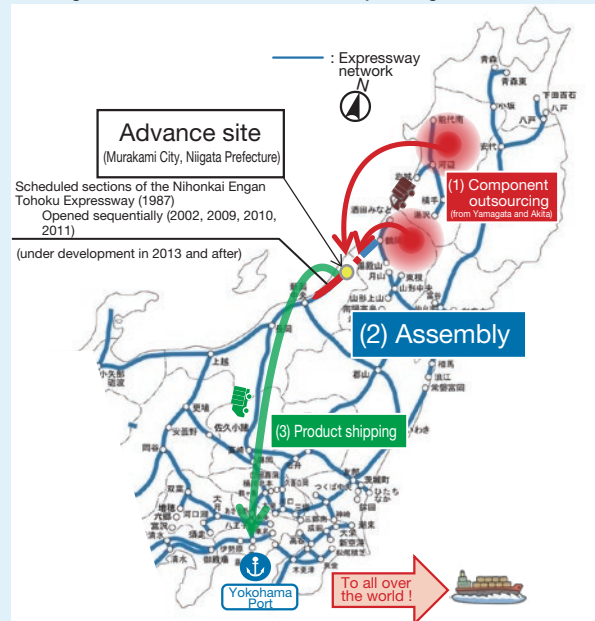
NIIGATA JAMCO Corporation is one of the world's largest aircraft interior manufacturers that command about 50% of the global market for aircraft toilets (lavatories) and about 20% of that of the kitchen equipment (galleys).

In anticipation of the construction and improvement of roads on Nihonkai Engan Tohoku Expressway, JAMCO advanced into Murakami City, Niigata Prefecture to expand its scale of business gradually by simplifying the logistic flow from parts procurement, through assembly, to product shipment on the support of road networks (Nihonkai Engan Tohoku Expressway) and port and harbor facilities.

In addition, massive local employment encouraged by excellent business showings and supply and demand outlooks keeps the job opening-to-application ratio for high-school graduates progressing at a higher level than the prefectural standard.

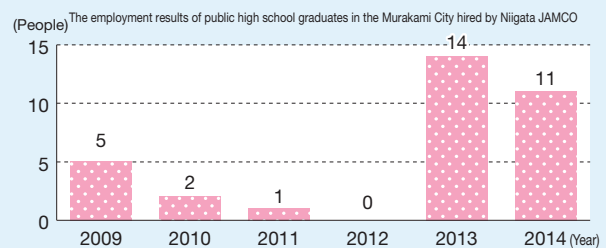
Global businesses making inroads along expressways on the support of developing road networks, etc. may be stirring the flow of goods,

Figure 2-2-53 Production Activities by utilizing road network



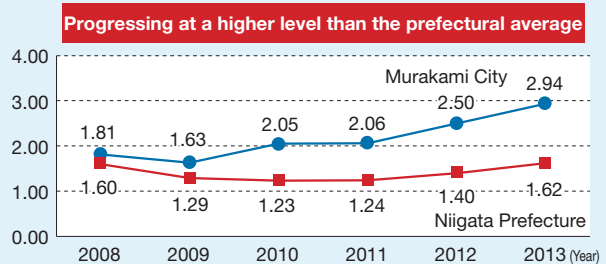
Source) MLIT

Figure 2-2-55 Impact on Local Employment by Niigata JAMCO Moved into the Murakami City



Source) Developed by MLIT from public high schools websites.

Changes in the job opening-to-application ratio for high-school graduates



Source) Employment statistics information, Hello Work (unemployment office) Murakami

Figure 2-2-54 Niigata JAMCO Production Plant



[Upper] Niigata JAMCO production plant

[Lower] Aircraft interior parts manufactured at Niigata JAMCO



Source) Niigata JAMCO Website

money and so on to make for greater regional economic vitality by expanding the scale of operation, creating local employment and so on.

### (Industrial Presence along the Hokuriku Shinkansen Line)

YKK Corp./YKK AP Inc. have sequentially moved part of their headquarters operations (about 230 employees) of their administrative divisions, such as personnel, accounting and international, to Kurobe City in Toyama Prefecture (around Kurobe-Unazukionsen Station on the Hokuriku Shinkansen Line).

The relocation of the YKK Group's headquarters operations in Kurobe, the "Mecca of technology" or the home ground of manufacture, is meant to augment the group's technical capability and marketability further, take advantage of the opening of the Hokuriku Shinkansen Line connecting Kurobe to Tokyo in a matter of 2 hours 30 minutes, concerns over possible earthquakes that might endanger the headquarters operations currently over-centralized in Tokyo and so on.

The group has also been working to develop low-energy communities and housing that take advantage of the natural environment of Kurobe. For example, it expects to craft a "Passive Town Kurobe Model" (rental housing combined with commercial facilities, nursery centers, etc.) on a conveniently located company housing site. As a token of its regional contribution, the group will make the rental housing open to people other than its employees and their families as well. The Passive Town Kurobe Model will also hopefully showcase environmentally friendly housing that leverages the building materials, etc. manufactured by YKK AP Inc.

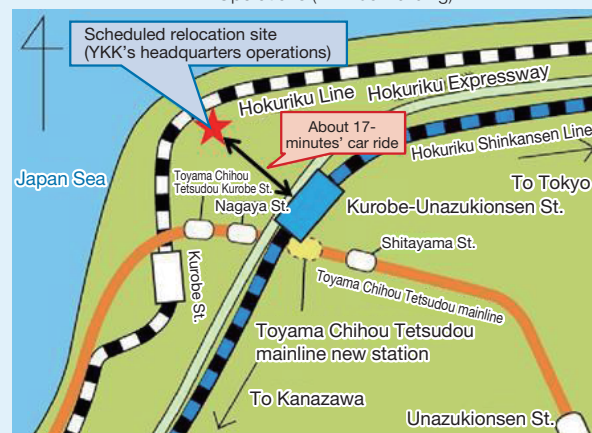
As the flow of people and goods is stirred following partial relocation of the headquarter operations, it could lead to further betterment of regional charms, such as employment and living climates.

Figure 2-2-56 Schematic of the Passive Town Kurobe Model



Source) YKK website

Figure 2-2-57 Scheduled Relocation Site of YKK's Headquarters Operations (YKK 50 Building)



Source) Developed by MLIT from Toyama City documents