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Shrinking Cities in Japan

日本における都市の縮小

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SHRINKING CITIES IN JAPAN: BETWEEN MEGALOPOLISES AND RURAL PERIPHERIES

Winfried Flüchter

Japanese society is essentially a vital urban society in which it is not really possible to envisage the problem of “shrinking cities”—at least not yet. Even during Japan’s twelve-year recession, from which the country is only now beginning to recover, the cities seem too dynamic for that. Despite the fact that the economic situation has been precarious for so long, or perhaps precisely for that reason, the construction boom has continued unabated not only in the rural peripheries but in the large cities themselves. On the one hand, this seems surprising; on the other, it is understandable. The Japanese construction lobby, which is headed by powerful players within the system of the so-called Iron Triangle (the interplay of ministerial bureaucracy, politics, and business), have been able to push the expenditures on economic stimulus programs—that is, deficit spending—to dangerous levels on all geographic scales (national, regional, and local) and thus still guarantee the profit potential for the Triangle members through cartel-like bidder agreements (*dango*) in their own interest.¹

Today’s Japan gives the impression that its planning for urban and regional development, energy, and transport is still based on predictions of growth. It is indisputable, however, that, following decades of continuous increase, Japan’s population has now peaked at 127.8 million inhabitants and that, after a period of stagnation, it will decline to about 100 million inhabitants by 2050, a decrease of 22% (based on the mean estimate). In Germany, the population shrinkage estimated for the same period, 82.5 million to 75 million (mean estimate), is relatively mild at just 9%. The total fertility rate, for which a value of circa 2.1 is necessary to ensure population stability, has fallen in Japan from 2.23 (1967) to 1.28 (2004), on the lowest end of the world scale, even below the rate of Germany (1.34). Unlike Central Europe, however, the population losses in Japan cannot currently be mitigated by immigration. Japan’s self-image as an ethnically and socially homogeneous country and the psychological barriers to foreign infiltration are very high, so that its immigration laws are correspondingly restrictive.

The problems are made worse by the fact that Japanese society is aging more rapidly than that of any other country in the world (life expectancy is 85 for women and 78 for men). In 2004, the percentage of people over 64 was already 19.3% (in Germany, it was 16.4% in 2000); the figure predicted for 2050 is 36% (in Germany, 31%). The “shrinking of the population” is a topical theme in Japan that could potentially exceed the drama of the scenarios in Germany. In the peripheral rural areas of Japan the problems that will face the whole country in the long term are already a reality: dramatic declines in population, the extreme aging of society, and problems of maintaining a sustainable infrastructure. But is that reason enough to conclude that it is already legitimate to speak of shrinking cities in Japan?

Rapid Urbanization: Population Concentration, Metropolization, Megalopolization

According to statistics, 78.7% of Japan’s population lives in “cities” (*shi*),² but that tells us little about the degree of urbanization, which has increased with breathtaking speed in parallel with Japan’s great postwar economic successes. The contours of agglomeration are expressed most clearly in the urbanization of the “densely inhabited districts.” A densely inhabited district is a registration district with a minimum population density of 4,000 inhabitants per square kilometer and a minimum population of 5,000 inhabitants. In 1960, 43.7% of Japan’s

population was living in densely inhabited districts, on just 1.03% of the total area. In 2000, this figure increased to 65.2% of the population on 3.30% of the total area, with average population density in the densely inhabited districts decreasing from 10,563 (1960) to 6,648 inhabitants per square kilometer (2000). By comparison, Berlin had 3,811 inhabitants per square kilometer in 2000.

This extreme form of urbanization is concentrated on Japan's Pacific Coast: in the narrow sense as metropolization of the three large agglomeration areas Tokyo, Osaka, and Nagoya, but also in the broader sense as a megalopolization into one large regional belt of cities between the Tokyo and Osaka regions, extending further west to northern Kyushu (Kitakyushu, Fukuoka), including the inland sea coastal belt. This buildup is particularly strong in the Tokyo metropolitan region, whose share of the Japanese population increased from 16.7% to 24.2% from 1960 to 2000. The attraction of the capital region is so strong that since the 1990s the talk has been of a "one-point concentration on Tokyo" (Tokyo ikkyoku shuchu).

The population concentration in Japan, as elsewhere, is primarily a consequence of industrialization. The escape from the countryside which began at the turn to the twentieth century was motivated by an excess of workers in small-farm agriculture, and initially it had many positive effects. The personnel reductions in traditional family operations provided impetus for agriculture to improve efficiency and labor productivity and at the same time provided a welcome source of labor for industry. As industrialization increased during the postwar period, the motivations and effects of domestic migration changed. The more the economic upswing influenced urbanization processes and the attractiveness of cities, the more clearly it changed from a push effect of the rural areas to a pull effect of the city. The concentration of population and the overdevelopment of agglomeration areas went hand in hand with thinning and underdevelopment in the rural and peripheral regions. This trend, which was particularly strong during the phase of greatest economic growth, between 1955 and 1973, has clearly weakened since the mid-1970s, but it has nevertheless continued to worsen the imbalance in regional population distribution.

Regional and Urban Development in Japan, 1960–2000

Comparison of population developments of prefectures and cities with more than 200,000 inhabitants between 1960 (when the phase of very high economic growth began) and 2000 (the most recent population census) provides essential insights into regional and urban development in Japan (see fig. 1). Whereas the overall population has grown considerably from 94.3 million to 126.9 million, or 34.6%, during those forty years, 12 of 47 prefectures have suffered absolute losses: 3 in the greater Tohoku region and 9 in southwestern Japan. Another 22 prefectures have increased in absolute terms but have remained below the national average. This applies to large areas of central Japan outside the metropolises, parts of Kyushu, and the peripheral northeast.

In the large cities of more than 200,000 inhabitants the share of the overall population increased from 33.1% in 1960 to 47.8% in 2000. Nearly all 107 cities of this size were able to increase their population numbers considerably. Among the few exceptions are the former marine harbors and sites of shipyard industry Sasebo (Nagasaki prefecture) and Kure (Hiroshima prefecture), both of which experienced a painful process of deindustrialization.

Urban Development in Japan's Periphery, 1960–2000: The Example of Hokkaido

In examining the question of shrinking cities, we turn first to those urban (shi) communities that are characterized by their peripheral location and smaller population sizes. Hokkaido suggests itself as such an example for such regional problems. By far the largest prefecture in terms of area (and also the country's second-largest island), comparable to the German federal state of Bavaria in size, its peripheral regions only began to be developed at the end of the nineteenth century; with a population of 5.7 million inhabitants, it is extremely sparsely populated by Japanese standards (68 inhabitants per square kilometer). Although Hokkaido's population grew by 14% in absolute terms between 1960 and 2000, it is well under the national average of 34.6%. The excess of births over deaths has at least meant that the population on the island has not fallen as a result of continued migration to the core regions of Japan.

The growth of Hokkaido's cities between 1960 and 2000 (see fig. 2) is typical of many other Japanese prefectures in rural and peripheral areas. One is struck first by the very impressive population increases in the larger cities, especially the capital of the prefecture, Sapporo. Sapporo's large increase from 0.6 to 1.8 million inhabitants (203%) has been exceeded considerably by certain suburban satellites. An extreme case is Kitahiroshima (663%!), a suburb with plenty of green space, recreational activities, and excellent transportation links, less than twenty minutes to the Sapporo train station or to the international airport Shin-Chitose. The community now has 58,000 inhabitants, even though it was only 1968 when its status was changed from "village" (mura) to "town" (machi) and has been a statistical "city" (shi) only since 1996, when its population passed the 50,000 mark. Apart from Otaru, traditionally an important industrial port city whose development has been considerably hampered by bottlenecks of space and deindustrialization, all of the cities in the Sapporo area have grown. Suburbanization is not the only cause; state support for the Doo region ("central Hokkaido") to build up and improve modern infrastructure (including Ishikari, a trade port, and Tomakomai, an industrial port) has also helped.

Outside the Sapporo agglomeration, only the larger cities have seen population growth: Obihiro (71.5%), Kitami (67.4%), Asahikawa (67%), Kushiro (27.3%), and Hakodate (18.4%). It seems obvious why these isolated cities, which provide to extensive surrounding areas and hinterlands, would have increased in population. If we look only at the 1990s, however, it is clear that of these five regional centers only Obihiro and Kitami have increased in population, and only slightly. Although the other three have greater numbers of inhabitants, they have, astonishingly, experienced declines in population, including Asahikawa, which is by far the leading regional center in central Hokkaido. The cause for this decline is the appeal of the prefecture capital. In Hokkaido, one speaks of a "one-point concentration on Sapporo," in allusion to the "one-point concentration on Tokyo" in Japan as a whole.

Apart from the cities named above, nearly all of Hokkaido has experienced marked drops in population. That goes without saying for the villages and small cities, but it was true for nearly all the other cities as well. The situation looks particularly bad in central Hokkaido, between Sapporo and Asahikawa, a former coal-mining region that became particularly important around 1900 when Hokkaido was being developed, reached the height of its economic development in the 1960s, and has since undergone a catastrophic decline. It has six cities whose very existence is at risk as a result of disastrous population declines: Yubari (−86.3%), Utashinai (−84.4%), Mikasa (−75.9%), Akabira (−71.2%), Ashibetsu (−68.7%), and Bibai (−64.3%). These sad negative figures represent records not only for Hokkaido but for Japan

as a whole. They count as “cities” (shi) only in a formal sense; statistically (to say nothing of functionally), they really have no right to be counted as such. All of them are well below the threshold of 50,000 inhabitants which growing communities now need to exceed to be counted as cities. Five of these six cities no longer even qualify under the older shi criterion of a minimum of 30,000 residents. Utashinai is the most extreme case, with only 6,000 inhabitants (compared to 38,000 in 1960). It is strange that the former mining communities have nonetheless retained the rank of “city” in the statistics, though it is understandable from the perspective of political correctness: regions that have been exploited economically and ecologically should not have to suffer a degradation in status as well.

The developments have been most dramatic in Yubari, a very large community at 763 square kilometers (equivalent to 87% of the area of the state of Berlin). From 107,972 inhabitants in 1960 it shrank to just 14,791 in 2000, and the declining trend continues (in 2003 there were just 13,766 residents). Population aging poses an additional problem. The percentage of people over the age of 64 is 33.6%, well above an already high national average of 19.3%. Unemployment is also high. Only 0.1% of the population continues to work in mining, which has all but ceased. There are hardly any prospects for alternative jobs. The secondary sector employs only 24% (production industry 12.8%, construction industry 11%), the primary sector still employs 13.2% (agriculture 12.6%), and the tertiary sector 62.8% (overwhelmingly simple services; 6.4% are employed in public services).

All of the former mining “cities” mentioned above have similar structural problems. The region’s image is about as bad as it could be. The mining companies, one of the crucial players there, did not show much responsibility for their workers even during boom times. Suspiciously large numbers of mining accidents make that clear. After turning profits for decades, the companies withdrew from the region and left behind an extremely insecure population. Last but not least, the Japanese state clearly lacked any strong commitment. With a *laissez-faire* attitude, it stood by and watched as the companies ran their business exploitatively. The prestige of miners in Germany, especially in the Ruhr Valley, stands in crass contrast to their pendants in Japan, who tend to be discriminated against. There was no attempt worth mentioning to cushion the effects on miners when the mines were closed. Recultivation of the destroyed landscape is still a long time in coming. Mining settlements built for the long term, like the “colonies” of the Ruhr Valley, simply do not exist. Rather, miners in Japan, even in Hokkaido, which has very cold winters, are lodged in simple wooden houses that fall quickly into ruin once mining is abandoned. The word “vacant” is misleading in this context.

New Trends in the Metropolises

Since the 1960s many of Japan’s metropolitan regions, above all Tokyo, have developed “housing craters.” This is because housing is being displaced from the city centers by the service industry. This conversion of downtown to the tertiary sector is familiar in Germany as well, though the pace is not as dynamic as in Japan, where it has created a strong trend to suburbanization. It has resulted in a substantial increase in population in the outer regions of metropolises, population decline in the city centers, and extremely long commutes.³ Since the late 1990s this trend has begun to reverse. This is particularly true of Tokyo, where the 23 wards increased by a total of 163,000 inhabitants, or 2%, in the five years from 1995 to 2000. This positive result is particularly strong in the three central wards: Chuo (+13.5%), Minato (+9.5%), and Chiyoda (+3.6%). This trend to reurbanization has a number of causes: (a) a drop in real estate prices (as a consequence of a long-term recession) which is nationwide but

particularly strong in metropolitan cores; (b) state, prefecture, and ward measures to increase the supply of housing in city centers (motivated by the model of the vertical, compact, multifunctional city); (c) demand from a varied clientele (singles, working couples, and wealthy older people) for urban housing close to the city center as an alternative to suburbia;⁴ and (d) a law passed in 2002, limited to a period of ten years, with “special measures for the urban revitalization of metropolitan regions.”

Despite the recession, office buildings in Tokyo have continued to be built since the 1990s at such a rate that the office space in the central municipal districts Chiyoda, Chuo, Minato, Shibuya, and Shinjuku totals 25 million square feet, a concentration of offices found nowhere else in the world. This led to intense discussions of the so-called Tokyo 2003 problem: a glut of office space in 2003. It remains to be seen whether the vacancy rate for office space, currently 8%, represents a normal level for long-term planning for the future or is already a cause for panic. To answer that question it is necessary to distinguish among office types. Experts presume that the so-called A areas, comprising 13% of the total office space and distinguished by a location convenient to public transportation, modern infrastructure, and new, earthquake-safe buildings, will be in sufficient demand, especially as they are currently available at relatively low prices as a result of the recession. So-called B areas, by contrast, which are relatively less central, completed before 1981, and less earthquake-safe, are generally expected to be more difficult to rent in the future as demand becomes increasingly selective. It is very likely that the sword of Damocles of high vacancy rates is hanging over this type of building.

The question remains whether the trend to reurbanization of housing means that the phenomenon of vacancy will be a problem for suburbia. There is no doubt that the demand for housing on the edge of metropolitan regions is decreasing. The “new towns” of the 1960s and 1970s are stagnating; many have already seen a clear drop in population. Thus far, however, vacancy problems have only affected residences with poor transportation connections, especially those remote from train stations. The fact that the population in many new towns is decreasing is not in itself a reason to speak of vacancy problems, much less of shrinking cities, in urban peripheral areas. In general, the decline can be explained by generational change: after the arrival of young families thirty years ago has come the departure of the children who have now matured, with the parents remaining behind, but with more living space.

Summary

The Japanese population is a society of large cities, with as many as 21% living in cities with more than a million inhabitants and 48% in cities with more than 200,000 inhabitants. Urbanism and vitality are typical of large Japanese cities. New challenges such as recession, population decline, and an aging society have not been enough to cause Japanese to question their preference for urbanism. There is no public discussion of “shrinking cities,” though there is of “shrinking, thinning regions” (*kaso chiiki*) with reference to rural peripheral areas.

Research into urban development between 1960 and 2000 has largely confirmed this finding, as long as the focus is on larger cities and the cities in agglomeration areas are not seen in isolation but in the context of metropolitan regions and suburbanization processes. A more refined examination of urban development in rural and peripheral regions, however, shows that Japan, too, certainly has shrinking cities. “Shrinking” is almost always associated with deindustrialization and the aging of society. That is particularly true of industrial areas based

on a single sector, especially mining areas, whose populations face serious problems when the factories close.

As far as the reurbanization trend in metropolises goes, it is too early to speak of shrinking cities and vacancy in suburban areas, though vacancy is already a problem on the edges of city centers, primarily as a result of a glut of less attractive B offices. When discussing the phenomenon of vacancy in housing in international comparisons, it should be remembered that construction of private homes in Japan is not for the long term over many generations; rather, after a single generation (thirty to forty years), buildings are demolished and rebuilt, with the result that the problem of “vacancy” can be adjusted to demand with greater flexibility. Despite the rapid decrease in population and the aging of society nationwide, the problem of shrinking cities has so far been subdued in Japan. It is high time, however, that the players responsible make it clearer than they have thus far that the golden decades of growth and development are gone. The “urban rebuilding” (Stadtumbau) of the future can more reasonably be called “urban dismantling” (Stadtrückbau). Japan’s affluent society, currently living in very cramped conditions, could be provided with an improved quality of life. Such urban dismantling would of course run counter to the interests of Japan’s powerful construction lobby. Be that as it may, the problem of “shrinking” will represent a great challenge in the future for Japan as well.

Translated from the German by Steven Lindberg

Notes

1. See the Deutsche Forschungsgemeinschaft research project for 2001–2004 at the Institut für Ostasienwissenschaften der Universität Duisburg-Essen, under Prof. Dr. Winfried Flüchter and Dr. Thomas Feldhoff: “Japan: Raumwirksame Baulobytätigkeit im Spannungsfeld zwischen systemischer Stabilität und nachhaltiger Regionalentwicklung,” and the associated publication, Thomas Feldhoff, *Bau-Lobbyismus in Japan: Institutionelle Grundlagen—Akteursnetzwerke—Raumwirksamkeit* (Dortmund, Germany: Dortmunder Vertrieb für Bau- und Planungsliteratur, 2005).

2. From a statistical point of view, the distinction between a “city” (shi), a “town” (machi, cho), and a “village” (mura, son) no longer provides a clear scale. A shi was originally any community that exceeded a threshold value of 30,000 inhabitants. Currently that value is 50,000. In reality, however, the threshold values for shi do not necessarily say very much about urban character. For example, even cities that have suffered considerable population loss and now have only a few thousand inhabitants are still included among the shi in the statistics.

3. See Winfried Flüchter, “Megastadt Tokyo: Monster oder Modell?” *Geographie und Schule* 19, no. 110 (1997): 30–38.

4. See Uta Hohn, “Trend zur Reurbanisierung: Renaissance innerstädtischen Wohnens in Tokyo,” *Geographische Rundschau* 54 (2002): 4–11.

SHRINKAGE IN JAPAN

Yasuyuki Fujii

In the Edo era, even in the centralized feudal system of the Tokugawa shogunate, each region in Japan flourished and maintained its original culture and economy. The modernization of Japan since the Meiji restoration beginning in 1868 brought on a generally continual process of immigration to the cities. Today the population of the Tokyo region (i.e., Tokyo, Kanagawa, Saitama, and Chiba prefectures) accounts for 26% of Japan's population, an increase from 14% in 1920, when Japan's first national census was conducted. In contrast, rural areas have constantly faced population declines. The population share of nonurban areas (including towns and villages) was 28% in 2001, slipping from 35% in 1970. This trend is expected to continue. In as early as two years, Japan's population will start to decline and — as is well known — then shrink very rapidly in the years to follow.

Local governments in Japan had made their plans on the assumption of continuously expanding socioeconomic factors. A common joke among Japanese city planning professionals is that the total sum of the population projections of the 3,400 municipalities nationwide comes to an enormous figure far larger than Japan's actual population of 127 million. Japanese local governments now need to accept depopulation and create strategies to deal with it.

Among the large cities in Japan, there are no counterparts of, for example, Liverpool or Detroit, which have seen sharp falls in population figures. The city of Osaka (population 2,620,000 in 2002) is perhaps the nearest counterpart. After reaching its post-Second World War peak of 3,160,000 in 1965, the population of Osaka continued to decrease until 1995 (population 2,600,000). During the same period, the population of the Osaka region even increased a little.

If one understands shrinkage as a decline in the economy, society, and culture as well as depopulation, then Osaka may well be a typical shrinking city. Osaka is a strong rival to Tokyo, but in the age of the global economy the number-one city, namely, Tokyo, has been expanding, while other cities, including number two, shrink. In the United Kingdom the situation with London and its relationship to the other cities is somewhat similar, whereas in Germany the situation is quite different. Many Osaka-based corporations have moved their important head-quarter functions to Tokyo over the last two decades. Although still maintaining its unique characteristics and culture, Osaka's role as a vigorous commercial city is fading away.

In general, port cities remotely located from major metropolises are stagnating. The relative importance of the port faded when airfreight became dominant in business. In addition, the importance of major international ports has increased relative to domestic ports. Examples of shrinking port cities include Nagasaki of Kyushu and Hakodate of Hokkaido. These two cities happened to be among the five ports, along with Kobe, Yokohama, and Niigata, which were opened to the world in 1858 after the termination of Japan's national seclusion policy. Nagasaki (population 423,000 in 2000, down from its peak of 449,000 in 1985) was the eighth-largest city in Japan in 1920, Hakodate (population 288,000 in 2000, down from its peak of 320,000 in 1980) was the tenth-largest. In 1920, Fukuoka and Sapporo, today cities of more than a million, were much smaller than Nagasaki and Hakodate. Nagasaki is now ranked 37th, and Hakodate has been set back to 71st. As the sharp plunges in their rankings reveal, the relative importance of these cities is dwindling. Today Nagasaki and Hakodate are no longer primary cities in their respective regions. In Kyushu, Fukuoka (population 1,341,000) is

now the regional core city; in Hokkaido, Sapporo (population 1,822,000) plays this role. The populations of Fukuoka and Sapporo, both of which have their economic base in the service industry and are transportation hubs in their regions, are expected to grow further.

The manufacturing cities are losing their populations and economic base. Both regional cities and metropolitan industrial cities have been affected in this respect. Examples of regional cities are Kitakyushu in Fukuoka prefecture (population 1,011,000; heavy industries), Sasebo in Nagasaki prefecture (population 241,000; shipbuilding), Hitachi in Ibaraki prefecture (population 193,000; electronics), and Muroran of Hokkaido (population 103,000; steel). Such cities tend to be “company towns,” which means that they are vulnerable to the performance of a specific industry or company. In the near future, Kitakyushu may slip below the one-million threshold, making it the first “former million city” in Japan.

Examples of metropolitan industrial cities are Higashi-Osaka in Osaka prefecture (population 515,000; small-scale industry) and Amagasaki in Hyogo prefecture (population 466,000; heavy and small-scale industries), both in the Osaka region. These two satellite cities of Osaka are blue-collar cities with many dense and substandard residential areas developed during Japan’s rapid period of urban immigration. The Tokyo region, on the other hand, has few cities with declining populations because it has been growing constantly. Except for Muroran, which lost about 30% of its population over the last two decades, the decrease in the populations of the industrial cities mentioned above has been marginal, between the range of 1% to 11% over a twenty-year period.

In Japan, there are 220 cities (i.e., not towns or villages) with populations of fewer than 50,000 inhabitants. The total population of these small cities has in fact decreased in the five years from 1994 to 1999. The greatest percentage decrease for the five-year period was Yuubari (population 15,000), with a 2.4% population loss, followed by Utashinai (population 6,000) and Mikasa (population 14,000). All three of these cities happen to be former coal-mining areas in Hokkaido. Moreover, small cities become sucked up by the larger regional cities. In the coming period of drastic depopulation, many of the cities with around 50,000 to 100,000 inhabitants will undergo severe depopulation and become very old societies.

Deprivation is severe in rural areas. Wealth has become too concentrated in urban areas; in only nine prefectures does the per capita gross domestic product exceed the national average, meaning that per capita gross domestic product is below the average for 38 prefectures. The figure for Tokyo, which is 40% higher than the national average, is twice as large as that of the weakest region, Okinawa.

Thanks to efficient railway networks and employers’ full compensation of commuting costs, major Japanese metropolises have expanded considerably. A work commute of more than one hour in a packed train is typical for large cities in Japan. The size of Tokyo’s four central wards is close to that of Manhattan, but these four wards are populated by 520,000 people, whereas in Manhattan the figure is 1,490,000. Land is a basic commodity, but land prices in Japan skyrocketed from the late 1980s to the early 1990s. Since then, land prices have fallen from their peak by half, sometimes more. Nowadays people in large Japanese cities can afford to look for a place to live in the city. In 2000, 54% of condominiums were developed within a 20-kilometer radius from the center of the Tokyo region; this figure was 62% for the Osaka region. In 1991, these figures were 30% and 32%, respectively.

Shrinkage occurs in Japanese metropolises in a rather piecemeal fashion, but in the suburbs of large metropolises shrinkage is inescapable, perhaps because of the conditions described above. Suburbs with poor transportation connections are shrinking in general. As for types of communities, the new towns and communities of large public estates also have been shrinking. For example, Senri New Town in Osaka, which is 1,160 hectares in size, is one of Japan's earliest and largest satellite cities, located 10 kilometers north of Osaka's city center. The population reached nearly 130,000 in 1975, ten years after construction had begun, but has now dropped to 94,000. Senri's older population, with 21% of the inhabitants 65 years and over, is much larger than that of Osaka prefecture, with 16%. Conditions are not much different in the planned communities in Tokyo. Tama New Town is located 30 kilometers west of Tokyo's city center and is 2,980 hectares in size. The new town is inhabited by 180,000 people, falling considerably short of the planned 300,000 residents. The core municipality, Tama, lost 1.5% of its population in the period 1995–2000. Common features of these communities are obsolete housing estates and homogeneity. Both the detached and attached houses, particularly those built early on, are rather monotonous. The homogeneous population of small nuclear families is getting older. The problems are not yet serious, but in the future derelict land and abandoned houses may become more common in the metropolitan suburbs. In addition, most of the Japanese satellite towns, unlike their British counterparts, are “bed towns” without enough employment.

The “super suburbs” 50 to 100 kilometers from Tokyo's city center are also shrinking. The areas almost became a part of Greater Tokyo in the heyday of urban immigration and the bubble economy. But today such areas are disconnected from Tokyo and are having a hard time redefining their identities.

Japan may be the only global power with almost no foreign immigrants residing in the inner-city areas. In Tokyo, registered foreign residents account for only 2.7% of the population, and ethnic communities virtually do not exist. In contrast to other international cities such as New York, London, and Paris, Tokyo has a very small foreign labor force. In large Western cities, the inner-city areas are generally inhabited by minorities, whereas affluent people reside in the suburbs, leading to problems of social division. In Japan, the price of residential real estate becomes higher the closer one gets to the city center. Until very recently, hollowing out was a problem in the central districts of large metropolises, but now people are returning to these areas.

Only in rare cases has a regional city of import undergone widespread depopulation. In individual zones within regional cities, however, decline has occurred in some city centers. Many merchants have closed down their businesses, leaving many shops — sometimes more than half — with their shutters down on a once bustling strip in the middle of the city. Such streets are known as “shutter streets.” Some landowners operate temporary parking lots after they demolish their buildings in the city center. Nonetheless, the proprietors of closed shops are far from poor, even if they are not profiting from their properties in the city center. They live in spacious suburban houses and sometimes run a business on a suburban street or lease a store in one of the big suburban shopping centers which belong to national franchises.

In addition to depopulation, other prominent issues are aging in the central districts of regional cities and the loss of vitality in these communities. Land prices in the central districts of regional cities have also become cheaper. Unlike in large cities, however, people in regional cities do not return to the central district when market demand is weak. Various policies have

been implemented in order to promote the city centers of regional cities and revitalize the communities. Unfortunately, these measures have met with limited success.

The promotion of a compact city can be a desirable concept for both metropolises and non-metropolises. In the case of metropolises, the contraction of urban space is a current trend. For that reason, the agenda must include questions of how to realize sustainable shrinkage in the suburbs and how to regenerate urban centers and adjoining inner-city areas in order to accommodate more residents as well as promote a diversity of people. In the case of non-metropolises, the issues of an aging society and of the urban form must be addressed. The central areas need to be revitalized and need to include related services for the elderly. At the same time, sprawling development on the urban fringes should be curtailed.

The good news for local regions is that recently younger persons have been choosing to stay where they were born and brought up instead of studying and getting a job in large metropolises such as Tokyo and Osaka. This phenomenon can be seen as a by-product of the low birthrate. In a low birthrate society, the only son or daughter tends to stay within a short distance from his or her parents. In addition, the tradition of lifelong employment in a large company headquartered in Tokyo or Osaka is gradually becoming less popular among university graduates. Nowadays many students hope to take part in venture businesses. Since the enactment of a law on nonprofits in 1998, nonprofit community-based activities have been facilitated both at the local regional level and in large cities.

The era of depopulation and aging tended to be discussed in Japan in a rather pessimistic tone, but lately people have begun to realize that there might be ways to live better lives in such a society. A key to realizing sustainability may be self-sufficiency.

POPULATION AGING AND JAPAN'S DECLINING RURAL CITIES

John W. Traphagan

With a combination of increased longevity and very low total fertility rate (TFR), Japan's population has aged more rapidly than any other country in the world. Processes of demographic change have led to a redistribution of the age structure of the Japanese population such that as of 2002 people over the age of 64 represent a larger proportion of the population (18.5%) than those between the ages of 0 and 14 (14.2%). Along with an older age structure has come significant change in attitudes about how elder care should be provided, the responsibilities of the younger generation towards the older generation in terms of providing care and co-residence, and expectations about the extent to which female relatives should be expected to provide care. Although these changes have influenced Japanese society in general, they have had a particularly profound effect in rural areas, where the general aging of the population is accompanied by out-migration of young people to urban centers such as Tokyo, in search of education and work.

At the center of the problem of population aging in Japan is the family. Like other East Asian societies that have been heavily influenced by the strong emphasis on filial piety associated with the Confucian philosophical tradition, Japanese have historically viewed co-residence with parents as a moral obligation of at least one child (in Japan this has normally been the eldest son), and a corresponding focus on provision of care to frail elderly by a family member. However, in the post World War II era, some of these assumptions have come to be challenged as Japan has become increasingly urbanized and mobile, and as interpretations of values in other societies (particularly the U.S.) have influenced how Japanese think about individual and collective roles in society.

Demographic Change and the Japanese Family

Prior to the end of the World War II, the Japanese family structure adhered to a legally mandated form known as the *ie*. The *ie* (stem family) structure is a lineal family arrangement in which descent and inheritance among both the main family (stem) and branches from that main family are traced to a single ancestor. This structure involves considerably more than a system for reckoning descent and inheritance. For Japanese, the stem family represents an historically defined center of social continuity that includes living and dead relatives as well as property—the term *ie* can refer not only to the family, but to a physical house or to the combination of the house and its residents (Traphagan 2004).

Succession within the stem family is normally patrilineal; the eldest son (preferably) or another son, in the event that the eldest is unable or unwilling to succeed, is automatically expected to take on the role of headship of the household and in merchant and farm families, the family business or farm. It is common in contemporary Japan for a daughter to take on this role, either independently or by bringing in an adoptive husband who will become the head of household and/or business and take his wife's family name. Regardless of which child becomes successor, it is that child who has normally been expected to co-reside with his parents and provide care, including long term nursing care, should the need arise.

Although eliminated as a legal structure during the Occupation following World War II, the *ie* remains a key conceptual frame through which Japanese think about family relationships

(Knight and Traphagan 2003:7). Responsibilities for parental care and notions about residence are usually filtered through the lens of the ie and people continue to think about parental care responsibilities in terms of child birth order—even if the emphasis on the eldest male has relaxed as more people have come to prefer that care be provided by a daughter as opposed to a daughter-in-law (the person who usually provides the care when parents reside with their son). Indeed, Japanese anthropologist Chie Nakane (1967:5) described this family system as providing a form of social insurance for the elderly, and this description—even with significant changes in family structure—continues to shape the manner in which Japanese think about elder care.

These changes include a general trend toward nuclear family structure (known as *kaku kazo-ku*) of the family. In white-collar families, children, including the one who is deemed successor, may move away from parents in pursuit of education and work and may be unable to provide elder care. Japanese have come to a variety of solutions to this problem, including delayed co-residence in which the successor child lives apart from his parents while raising his own children and then returns to co-reside with them when he retires. This pattern has become sufficiently common that it has its own name—*kaigo U-tân* or “nursing-care U-turn”—and in 1998 the Japanese television network NHK produced a special on the nursing-care U-turn phenomenon, focusing on the lives of businessmen who had given up their careers to return to be close to their parents and provide care. NHK cites government estimates that 100,000 people per year quite work in order to provide care.

Other solutions to the problem of providing elder care have focused on social services such as home-helpers and day care for the elderly and these services have been expanding following Japan's inauguration of a national long-term care insurance program in 2000. This program, which is funded by premiums that all Japanese are required to pay from the age of 40 and co-payments by care recipients, provides comprehensive long-term care managed through case workers including both in-home and institutional forms of care. Even with these changes, Japanese continue to think about elder care in terms of the family. While government services may be a necessity for many elderly, particularly among the elderly there remains a preference for spending the elder years residing with children.

Although there has been a general trend among older people to indicate a preference for living independently or only with a spouse (see Figure 1), it is often difficult to interpret the results of opinion surveys about residence, or even to interpret the nature of Japanese residence patterns. Living independently of children may not necessarily mean living apart from them. One of the most interesting developments during the 1990's in Japan was the growth in multi-family housing designed to allow a lone elder or elder couple to live on the first floor of a building and an adult child to live on the second floor with his or her nuclear family (Brown 2003). The two floors of the building have separate bathing and kitchen facilities and living quarters, but both “nuclear families” occupy the same building. This provides security for the elders and the opportunity for the younger generations to have regular interaction with the grandparents. In essence, the elder generation is living independently, but has immediate help if the need arises. This approach also allows for both generations to maintain privacy.

The Changing Japanese Countryside

While population aging has influenced the manner in which Japanese think about family and living arrangements, other demographic trends have also had an impact on the experience of

aging. Perhaps most notable among these is the outflow of population from rural areas. Figure 2 shows net migration in some rural prefectures in Japan as compared to the major metropolis of Tokyo and the cities of Chiba and Fukuoka. It is immediately obvious that net migration is negative for rural prefectures such as Iwate and Akita, a pattern common throughout rural parts of Japan and one that has been consistent for several decades. By contrast Tokyo is the primary draw for people, particularly young people, in search of employment and education. Although many eventually leave Tokyo—often to neighboring Chiba—the pattern of migration into the cities is clear in the case of Tokyo and is replicated in regions with large cities such as Fukuoka in Kyushu and Sendai in the north.

The out-migration of younger people in rural areas has left behind towns and cities that are heavily populated by elders. It is now common for rural towns and cities to have populations in which well over 20% of the population is over the age of 65 and it is not uncommon for fairly remote rural towns to have more than 30% over 65. For example, as of 2003 the town of Mizusawa, located in Iwate Prefecture (a few hundred kilometers north of Tokyo), has about 22% of the population over the age of 65. This, however, consideration only of the aggregate population structure of the city, obfuscates a more complex and extreme problem at a smaller community level. Of the 110 neighborhoods in the city, 36 have more than 30% over 65 and three have over 40% of the population over 65. One neighborhood has 43.6% of its population over 65 and there is one district, consisting of eight neighborhoods, in which every neighborhood has more than 30% of its population over 65 and the entire district is 33.6% over 65. In this same neighborhood, 50% of the population is between 15 and 64 and only 6.4% is between the ages of zero and 14. In one neighborhood, over 70% of the population is between 15 and 64 and only 4.7% is between zero and 14 (25.1% over 6; Source: City of Mizusawa, Mizusawa, Japan).¹

These statistics point not only to the present aging of the population in rural cities such as Mizusawa, but also provide a predictor of the future. As the current population of middle-aged people ages, rural Japan will experience an increasing number of communities in which there are virtually no children. In response to this, the Japanese government has instituted a variety of pro-natalist policies intended to encourage people to have more children. For example, most Japanese municipalities will provide a one-time payment upon the birth of a child. In the community where I have spent time conducting research, this amounted to approximately \$3,000, which was sufficient to cover all of the costs associated with the birth of a child, including the hospital stay. In addition, this particular community provides monthly payments to be used for purchasing diapers and formula for couples with newborn infants. It is important to recognize that Japan is not alone in Asia in terms of facing this problem. Other countries, such as Korea and Singapore have considered or started providing payments to families that have children, a result of the generally dropping total fertility rate in Asia (Korea's TFR currently stands about 1.17, even lower than Japan's rate of 1.3).

Not only are demographic trends affecting rural cities and towns, but changing patterns of consumption also influence the characteristics of cities and towns throughout Japan. Although the trend towards personal car ownership has been going on for some time in Japan (Plath 1990), throughout the 1990's rural Japan, in particular, has become increasingly a "car culture." Car ownership is now common in suburban areas outside of Japanese cities such as Tokyo, but most people continue to rely upon the extensive network of subways and trains in metropolitan areas like Tokyo and Osaka. In rural Japan, however, car ownership has become a necessity of life. For people living in areas outside of rural downtowns, it has always been

difficult to do grocery and other shopping. In recent years, as small towns and cities have attempted to reduce congestion among the small streets of their downtown areas, businesses have been encouraged by local governments to locate, or relocate, along bypass routes built to circumvent the downtowns. At the same time, the poor Japanese economy of the 1990's and early 21st Century have led to an explosion of chain discount stores at which one can purchase clothing, groceries, pharmaceuticals or other products.

This combination of factors has led to a decline of downtown areas, to the extent that in some towns most of the stores have closed. In the center of Mizusawa, for example, a quick survey of the main street in front of the train station showed that 17 stores in an area approximately 75 km in length, had closed or moved to the bypass outside of the downtown area. In 1998, a large department store known as Daiei (a national chain) closed its doors and the 5-story building it occupied was torn down, to be replaced by a new office for a bank that had been located on another part of the main street. In the summer of 2004, the other major department store along the main street in Mizusawa, JUSCO, will close its doors in order to move to a new building being constructed along the bypass in a neighboring town. This will remove the last department store capable of drawing shoppers who may then purchase goods at the smaller stores that occupy the same building along with JUSCO. In the neighboring town of Kanegasaki, both of the main grocery stores in the center of town closed within three years of the opening of a discount grocery store along the bypass outside of that town.

These changes make it much easier for people to drive to do their shopping. Unlike the narrow streets of downtown areas, the large parking lots at these new stores along bypass routes facilitate shopping via automobile for those who own cars. However, this pattern has negatively influenced the lives of older people, many of whom do not drive. In the past, the elderly could walk or ride a bicycle to nearby locally owned stores to purchase the goods they needed; today, they normally have to hire a taxi to take them to the store. For people on a fixed income, regular taxi rides can become a significant drain on financial resources—a short taxi ride from the downtown area to the grocery store along the bypass in Kanegasaki, for example, can cost ¥1,500 each way. Although there are trucks that bring produce, meat, and fish to neighborhoods so that people can purchase what they need, many elderly complain that the food is not as fresh as what one can find at a grocery store and, thus, they are not happy with these services.

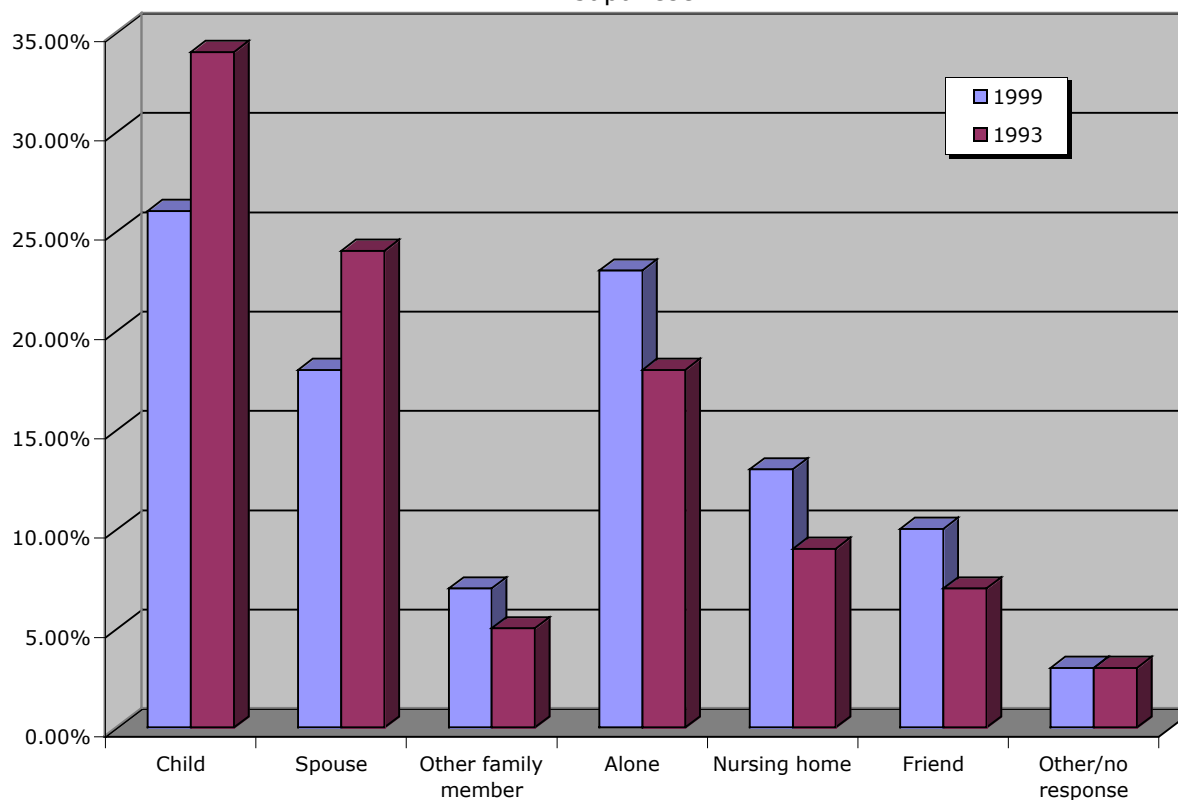
The Experience of Aging in Japan

The rapid change which Japan has experienced since the end of World War II, and particularly since the end of the bubble economy of the 1980s, has had a significant influence on the elderly. As young people have moved to major metropolitan areas, the elderly have been effectively left behind in the countryside. Social services provided through the national long-term care insurance program, are designed to help elders who are living alone or with an elderly spouse; disabled elderly, in particular, can make use of home helper services for grocery and other shopping, although there are insufficient helpers to visit more than once or twice a week. And home helpers also help elders with activities of daily living such as bathing and house cleaning.

Nonetheless, the demographic trends of the latter 20th Century, and the corresponding shift to a car-centered way of purchasing goods in rural areas, have made life for the elderly in many Japanese towns and cities difficult. Over the next few years, we will see increased aging of

the population of Japan, a process that will be magnified in rural areas, leaving neighborhoods (and in very remote areas whole towns) with few young people. Care provision for these elders will be difficult and, although many of these new elders will be able to drive, with increasing age and frailty, the simple activities of daily life such as going to a grocery store a few kilometers from one's home will become a significant chore. As Japan's rural cities decline (and shrink), the elderly will face new and increasingly difficult challenges that will require continued innovations in public and private systems of social support for the elderly.

Figure 1. Changing attitudes about co-residence among older Japanese



Source: Both surveys were conducted among a national sample of voters. The 1999 survey had a sample size of 2,184 and the 1993 survey had a sample size of 2,261. The 1999 survey was conducted by the Asahi Shimbun the 1993 survey was conducted by the NHK Broadcasting. Data were provided by the JPOLL database at The Roper Center, University of Connecticut [distributor], Storrs, Connecticut, USA.

Notes:

1. Source: City of Mizusawa, Mizusawa, Japan.

References Cited

- Knight, John and John W. Traphagan. 2003. "The Study of the Family in Japan: Integrating Anthropological and Demographic Approaches." In John W. Traphagan and John Knight (eds.), *Demographic Change and the Family in Japan's Aging Society*. Albany: State University of New York Press, Pp. 3 – 23.
- Brown, Naomi. 2003. "Under One Roof: The Evolving Story of Three Generation Housing in Japan." In John W. Traphagan and John Knight (eds.), *Demographic Change and the Family in Japan's Aging Society*. Albany: State University of New York Press, Pp. 53-72.
- Nakane, Chie. 1967. *Kinship and Economic Organization in Rural Japan*. New York: Humanities Press.
- Plath, David W. 1990. "My Car-isma: Motorizing the Showa Self." *Deadalus* 119(3): 226 – 245. Traphagan, John W. 2004. *The Practice of Concern: Ritual, Well-Being, and Aging in Rural Japan*. Durham: Carolina Academic Press.
- Traphagan, J. W. and L. K. Brown. 2002. Fast Food and Intergenerational Commensality in Japan: New Styles and Old Patterns. *Ethnology* 41(2): 119-134.

都市問題としての過疎問題と urban-rural communication の必要性について

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Depopulation problem in rural areas as an urban problem: need of urban-rural communication

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Abstract Depopulation problem in rural areas is regarded as an urban problem because urbanization affects socioeconomic problems in rural areas both directly and indirectly. In this brief review, medical and welfare services of the community elderly were analyzed and considered. First, the system of 24-hour continued welfare home care services in T town in Akita Prefecture was introduced as a successful model for elevation of community activity in a depopulated rural area. A focus group interview study as well as demographic study revealed that the system of welfare home care services could be adapted to the other communities by an appropriate experience transfer. Secondly, the effect of socioeconomic variables on resources of medical and welfare services in depopulated rural areas was analyzed by factor analysis using 16 indicators of 69 communities in Akita Prefecture. The result showed that welfare indicators of number of home-helper in communities was related to the ratio of public loan in a community, suggesting the enlargement of welfare resources for the elderly is dependent upon how policy decision makers give priority to welfare policy. Last, the need of urban-rural communication in the depopulation problem was considered from three different viewpoints; life-style related diseases in rural areas, the possibility of multi-media technology in medical and welfare services for the elderly in rural areas, and health promotion activities in rural areas.

1. 過疎地域における高齢者の医療福祉サービス－秋田県T町の事例

都市問題としての過疎問題を考える具体例として、高齢者の医療福祉サービスを取り上げる。過疎地域における人口高齢化の問題は、農林漁業中心の産業構造、低所得に起因する出稼ぎに代表される労働力人口の流出、生産年齢人口減少に起因する少子化の進行などが構造的な原因として考えられる。すなわち、過疎地域における人口高齢化は都市化の進行と表裏一体の関係にあるものであり、都市問題の一つと認識すべき問題である。社会保障制度の一連の制度改革の中で高齢者の医療福祉問題は先進諸国において重要な位置を占めている。我が国においては、医療制度・年金制度改革とともに、公的介護保険制度の始動が焦眉の問題として取り組まれており、高齢者の医療福祉サービスの再編が全国の市町村で行われている。全国の市町村の置かれている実状は財政面や基盤整備状況において異なり、ただちにすべての市町村が同じ条件で高齢者医療福祉サービスを提供できる状況ではないことは明らかである。とくに「過疎」という要因が小規模町村の医療福祉サービス基盤に影響を与えていることは容易に想像できる。

秋田県には69市町村があり、財政面・社会基盤整備状況に較差がある。本項では秋田県の中で高齢者福祉サービスが良く機能していることで知られているT町の実状を報告し、過疎地域における高齢者の医療福祉サービスの基盤整備に及ぼす都市化要因について考察することにする。

秋田県T町は秋田県北部に位置する人口約2万3千人の町である。人口密度は70.7人/km²であり、秋田県の中ではだいたい中位である。主たる産業は農業であり、65歳以上の高齢者（高齢化率、1996年）は21.4%である。表1に県都である秋田市と比較したT町の都市化指標と医療福祉指標を示した。T町は典型的な過疎地域とは言えないまでも、過疎化の進んだ地域であるといえることができる。T町は24時間体制のホームヘルプサービスの先進地域ということで全国的に知られており、全国からの視察が絶えない。表1を見ると分かるように、ホームヘルパー数、ショートステイ利用回数、訪問介護利用回数は秋田市と比べてT町では高い数値となっている。このことはT町の高齢者福祉サービスが、とくに在宅サービスを中心に充実していることを裏付けている。しかし、同時に老人保健施設、特別養護老人ホーム定員数は秋田市に比べて低いことから、高齢者保健福祉の施設サービスの基盤整備状況は秋田市と比べて未整備である。また、国民健康保険診療費、医師数も秋田市に比べて低く、医療サービスの提供は都市部に比べて少ない。これらのことから、T町では高齢者の在宅福祉サービスは充実しているが、施設福祉サービス及び医療サービスの整備は今後の課題であることがわかる。現在T町では地域密着型のケアタウン計画を実施しており、この中で老人保健施設、デイサービスセンターの建設を進めて、施設サービスの充実を図ろうとしている。

T町が福祉の町づくりを推進することになった経緯はすでに報告があるが、住民の福祉に対するニーズを把握した上での政治的リーダーシップと住民参加型の福祉推進が成功の鍵となった。過疎地域における高齢化の進展に伴う住民のニーズの高まり、医療施設の設置や医師の確保が基礎自治体単独ではなかなか難しかったために、高齢者対策として医療モデルを採用せず福祉モデルで対応したことが、結果としてT町を在宅福祉の先進地域として際立たせることになった。人口規模が2万人程度の地域であることから、在宅福祉サービスで地域全体の高齢者福祉ニーズをある程度カバーできたことも成功の重要な要因であると考えられる。

われわれはフォーカスグループインタビューの手法を用いて、T町の在宅福祉サービス担当者（ホームヘルパー）を対象に、T町の高齢者福祉サービスの現状と問題点についての評価を調査した。詳細は学術誌に報告する予定であるが、次のような点が明らかになった。すなわち、（1）在宅福祉サービス担当者は現在の在宅福祉サービスを肯定的に評価しており、このようなシステムは他の市町村でも実施可能であると考えている、（2）ただし、T町の在宅福祉サービスの実現には過疎地域である（人口が少ない、夜間に鍵をかける習慣がないなど）という特殊性も関与していることは否定できない、という結果が得られた。本研究結果にもあるとおり、24時間の在宅介護事業の実施にあたっては、夜間訪問の受け入れが容易であること、近隣の理解が得られることが重要である。過疎地域においては高層居住や夜間の犯罪増加や近隣同志の没交渉といった都市特有のコミュニティー問題がなく、訪問介護事業の実施に有利であると考えられる。逆に人口規模の大きな都市においてはこれらの問題が解決すべき課題として残されてくると思われる。

表1. 秋田市とT町の都市化指標と医療福祉指標（平成7・8年度のデータ）

指標	秋田市	T町	備考
総人口	311948	23034	人
人口密度	678.7	70.7	人/km ²
年少人口	16.1	14.9	%
生産年齢人口	69.4	63.7	%
老年人口	14.5	21.4	%
出生率	9.1	8.2	人口千人あたり、人
死亡率	6.9	11.2	人口千人あたり、人
高齢者のいる世帯割合	27	46.7	%
財政力	0.744	0.32	

地方債現在高倍率	1.84	1.01	
公債率	15.1	10.5	%
経常収支比率	132.9	81.7	%
市町村税収入額	78.8	77.5	
水道普及率	98.9	88.2	%
生活保護率	9.7	7.8	
ホームヘルパー数	4.24	10	
特別養護老人ホーム数	58	1	
同定員数	3517	107	人
老人保健施設数	33	0	
同定員数	3312	0	人
ショートステイ利用状況	94551	3830	
同100人あたり年間利用回数	38.9	75.6	
デイサービス利用状況	256575	1173	
同100人あたり年間利用回数	105.6	23.2	
訪問介護利用回数	265119	10878	
同100人あたり年間利用回数	109.1	214.8	
国保診療費	312.2	261.2	
医師数	304.6	147.3	

2. 過疎地域における医療福祉サービスの基盤整備に影響を与える諸因子について

過疎地域における医療福祉サービスの基盤整備状況に人口の高齢化、都市化がどのような影響を与えているかを明らかにする目的で、官庁統計資料から、秋田県の69市町村の都市化と関連する社会経済指標・高齢化指標・医療福祉関連指標を16変数を選び、分析を行った。都市化と関連する社会経済指標は、第一次産業就業者比率、第三次産業就業者比率、人口一人当たり市町村民所得、他市町村で従業する就業者割合、付加価値生産性、財政力指数、地方債現在高倍率、公債比率であった。高齢化指標は、高齢者のいる世帯割合、高齢単身世帯割合であった。医療福祉関連指標としては、医師数（人口10万人あたり）、一人当たり老人医療費（入院）、一人当たり老人医療費（入院外）、国民健康保険診療費（被保険者一人当たり）、ホームヘルパー数（65歳以上人口千人当たり）、生活保護法による保護率（人口千人当たり）であった。以上の16指標を用いて、因子分析を行い（主成分分析による因子抽出法）、バリマックス回転後の因子負荷量を求め、因子構造を検討した。解析にはSPSS ver.7.5を用いた。

因子分析結果をまとめたものを表2に示した。固有値1以上で抽出された因子は合計5つであった。各因子の以下のように解釈された。第1因子は都市化に関する因子、第2因子は所得に関する因子、第3因子は高齢者医療に関する因子、第4因子は生活自立の困難さに関する因子、第5因子は市町村の負の財政状態に関する因子である。第5因子の公債費比率および地方債現在高倍率は当該市町村の過疎対策事業や地域総合整備事業の財源を含んでいるため、過疎化対策の因子を含むものとも解釈される。

医師数という医療の人的資源については都市化と密接に関連していることが分かった。一方、福祉関連指標であるホームヘルパー数は市町村の負債状態と関連し、生活保護率は生活自立の困難さと関連していた。いずれの福祉指標も都市化との関連よりは市町村の財政政策経費と関連していたが、高齢化指標との関連性は希薄であった。図1には、秋田県におけるホームヘルパー数と公債費比率の散布図を示した。ホームヘルパー数が65歳以上人口千人あたり5人を越えると、両者に明らかな相関が認められるが、ホームヘルパー数が5人以下の市町村では両者の相関は認められない。これはホームヘルパー数の整備が現在進行中であり、市町村間の較差が福祉のニーズの実際を反映しておらず、現在の段階では市町村の福祉政策との関連の方が強いことを示している。ホームヘルパー数の増員を

過疎化対策との関連で積極的に推進していると思われる少数の市町村においては、ホームヘルパー数と公債費比率が強い関連性を示しており、自治体の政策立案に依存していることを示唆している。

表2. 秋田県69市町村の都市化と関連する社会経済指標・高齢化指標・医療福祉関連指標の因子分析結果の要約。バリマックス回転後の成分行列に基づき抽出された5つの因子の解釈。下線を付した変数は係数が負であることを示す

第1因子	<都市化に関する因子> <u>第1次産業就業者比率</u> 、第3次産業就業者比率、財政力指数、医師数
第2因子	<所得に関する因子> 市町村民所得、付加価値生産性、 <u>高齢者のいる世帯割合</u>
第3因子	<高齢者医療に関する因子> 国民健康保険診療費、老人医療費（入院）、老人医療費（入院外）
第4因子	<生活自立の困難さに関する因子> 高齢者単身世帯割合、 <u>他市町村で従業する就業者割合</u> 、生活保護法により保護率
第5因子	<市町村の負の財政状態に関する因子> 公債費比率、地方債現在高倍率、ホームヘルパー数

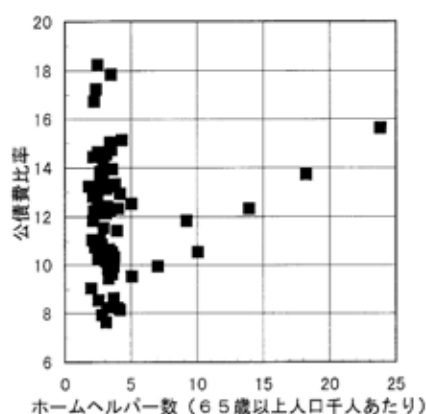


図1. 市町村におけるホームヘルパー数と公債費比率の関係
(秋田県の69市町村のデータ、平成7年度・8年度)

3. 都市問題としての過疎問題と urban-rural communication の必要性について

前節において、高齢者の医療福祉サービスの基盤整備状況を都市化との関連で考察したが、都市問題としての過疎問題は地域の健康増進の立場からはさらに別の角度から考察することができる。ここでは、3つの論点から urban-rural communication について考察することにする。

第1の論点として、生活習慣病と称される悪性新生物、心臓病、脳血管疾患の発症における生活習慣の都鄙較差の存在と都市化の進行に伴う都鄙較差の解消傾向を通して urban-rural communication の問題を考える。過疎地域における疾病構造がいまだに農村地域特有の生活習慣の残滓としてのパターンを示していることは確かである。一方、農村地域においても生活習慣の都市化の波が押し寄せており、農村地域特有の疾病構造に変化を及ぼしているものと思われる。生活習慣の中でもとりわけ慢性疾患と密接な関係のある食生活については、モータリゼーションの進展や大規模小売店の進出に伴う食品流通の均質化に

より、農村部においても都市型の食生活が広く受け入れられるようになっている。また、様々なメディアを通して農村地域の人々の考え方が都市的思考様式に馴染んできていることも確かである。就寝時刻、起床時刻、睡眠時間などの睡眠習慣についても都鄙較差が認められるが、都市化の進行に伴い過疎地域においても睡眠習慣の夜型化が進行しており、生活習慣病のリスク要因の変容が認められる。従って、今後農村部あるいは過疎地域の対人保健的な健康増進活動を進める上では、従来の都鄙較差でイメージされるステレオタイプな発想を切り捨てる必要があり、生活習慣の都鄙較差の実状に即した対応が必要であると思われる。

第2の論点として、高齢者医療福祉サービスにおける urban-rural communication について考える。高齢者の医療福祉サービスの提供システムを効率的に構築するために、マルチメディアを活用した情報通信システムを利用する可能性が近時盛んに議論されている。自治体、民間の双方からこのようなマルチメディア活用の経験が蓄積されつつあるが、過疎地域の高齢者医療福祉サービスにおいてはとりわけその可能性は大きいものと考えられる。東北地方の豪雪地帯の過疎地域においては、冬季における住民の医療福祉サービスへのアクセスが豪雪という気象条件により物理的に制限される。もし豪雪の過疎地域の在宅ケアにおいて、マルチメディアを利用した情報通信システムが整備されれば、都市の拠点施設から豪雪過疎地域へ的高齢者医療福祉サービスへの支援が可能になるものと考えられる。過疎地域へのマンパワー整備の進捗が必ずしもはかどらないときに、このようなネットワーク型の支援システムが効率的に機能すれば、高齢者医療福祉サービスの都鄙較差解消の一助になることは間違いないであろう。このような urban-rural communication は高齢者医療福祉サービスのみならず、救急医療サービスの都鄙較差の解消にも同様に役立つであろう。

第3の論点として、地域保健活動の効率的推進における urban-rural communication について考える。平成6年の地域保健法の制定以来、地域保健活動の推進における市町村の役割が大きくなった。同時に、市町村は自らが行う保健事業について評価を行いその改善につとめるものとされている。地域の健康水準とその優先順位は市町村ごとに異なり、各市町村ごとに地域保健活動の進め方は一様でないことになる。都市部と過疎地域の自治体では自分の地域の特性を考慮した上で地域診断を行い地域保健活動を推進していくことになるが、広域的な地方の中で保健領域の自らの位置を確認することは、保健活動を効率的に進めていく上で有益なことである。また、各市町村がこれまで蓄積した経験を相互に交流する機会を設けることは健康増進活動の重要なプロセスである。そのためには、地域保健に関する情報が一元的に管理され情報へのアクセスが容易なシステムを構築することが必要である。さらに、そのような情報ネットワークの構築以外に、定期的に行われる研修会や技術交流の場を設ける工夫が必要である。市町村が自らの保健活動に関する情報を公開し、擬似的競争のような形で地域保健活動の質的向上を促すような方法も urban-rural communication の一つの手法として考慮されて良いのではないかと考える。

*本論文は、平成10年度日本衛生学会ワークショップ「新たな都市課題と衛生学」（平成10年10月11日）の発表内容をもとにしている。

参考文献

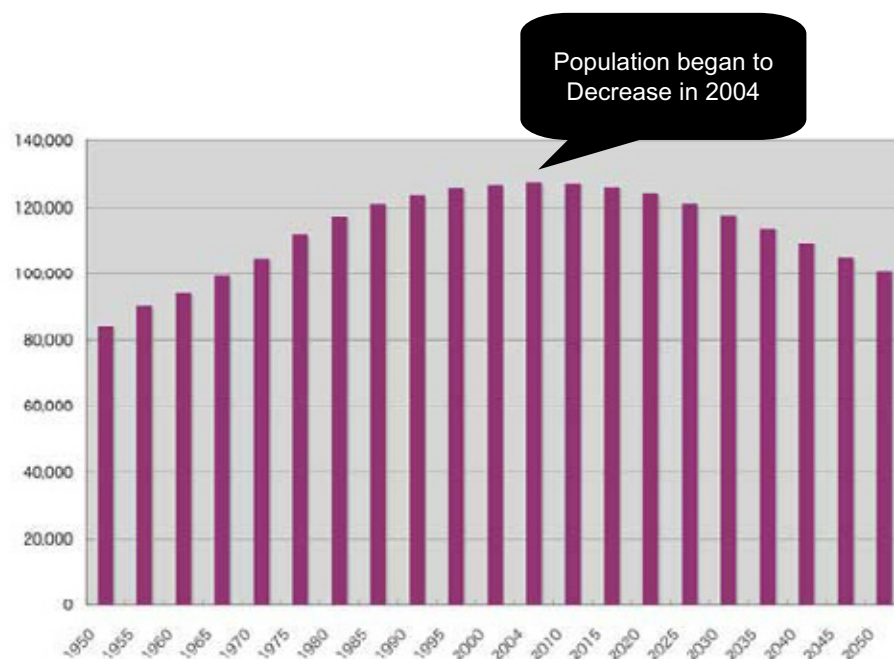
- (1) 秋田県企画調整部情報統計課：わがまちわがむら100の指標、秋田県統計協会、1997。
- (2) 秋田県：秋田県保健医療計画、秋田県福祉保健部医務薬事課、1998。
- (3) 太田貞治他：24時間在宅ケアへの挑戦、萌文社、1995。
- (4) 高野健人：マルチメディア時代の医療と福祉、高齢社会をサポートする情報通信技術、日本評論社、1996。
- (5) 高野健人：健康都市への提言、ぎょうせい、1991。
- (6) 本橋 豊：都市生活者の睡眠覚醒リズムの乱れ、労働の科学、51巻12号、768-771、1996。

Shrinking City Phenomena of Japan in Macro-Perspective

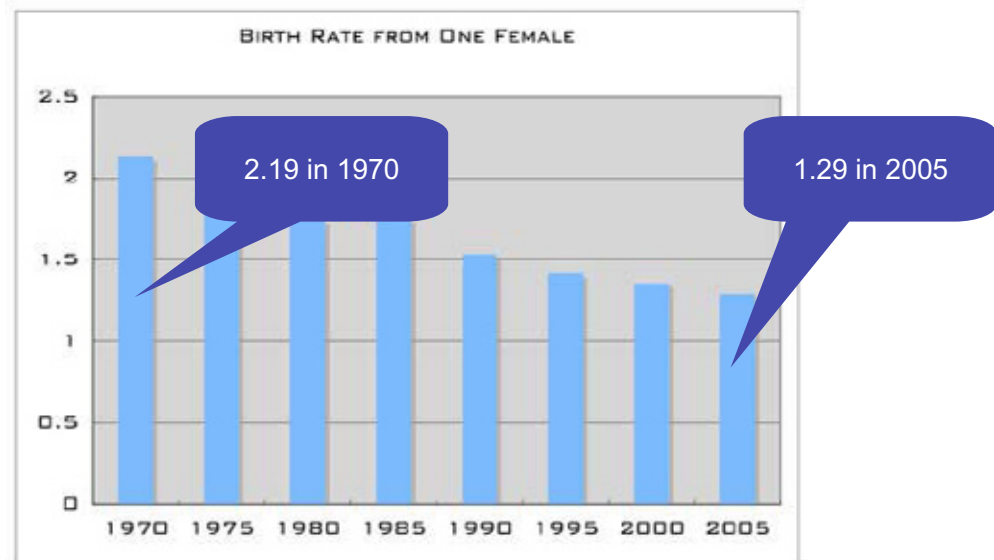
Keiro Hattori,
Urban Planner and Designer
Meijigakuin University

Presentation, held in the context of the Japanese German seminar „Revitalization of Shrinking Cities“, September 18, 2006 in Eisenhüttenstadt / Germany

Shrinking Phenomena (Population)

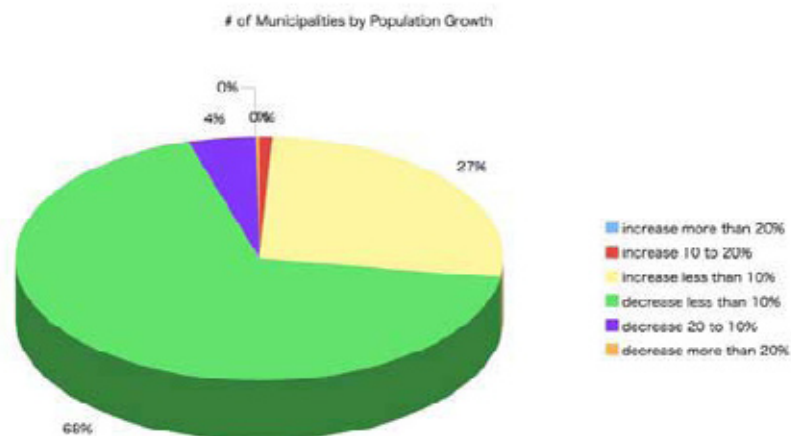


Shrinking Phenomena

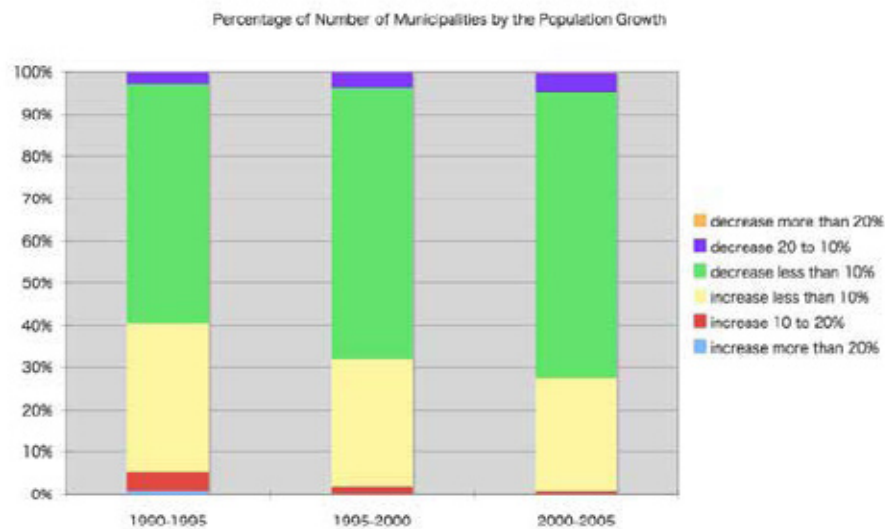


Shrinking Phenomena

- There are 2217 municipalities in Japan in 2005.
 - 1605, more than 70% of which, are decreasing its population from 2000.
 - 30% of all municipalities has decreased more than 5% of its population within this five years (2000-2005).



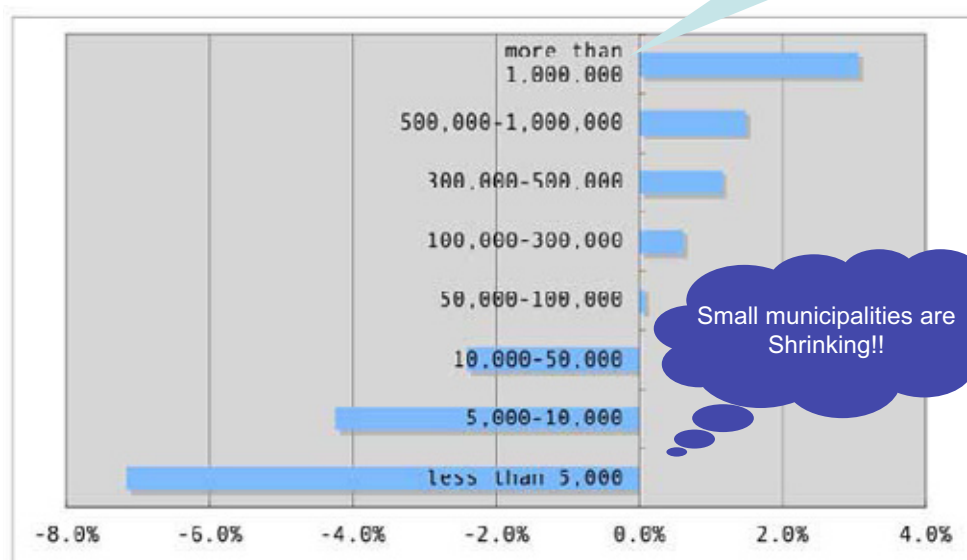
Shrinking Phenomena



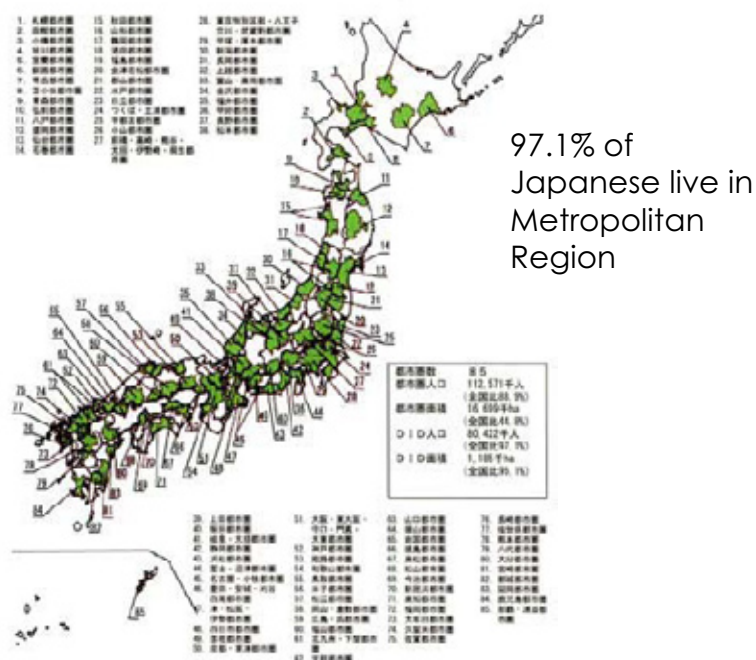
Smaller Municipalities shrink faster

Change of population 2000-2005

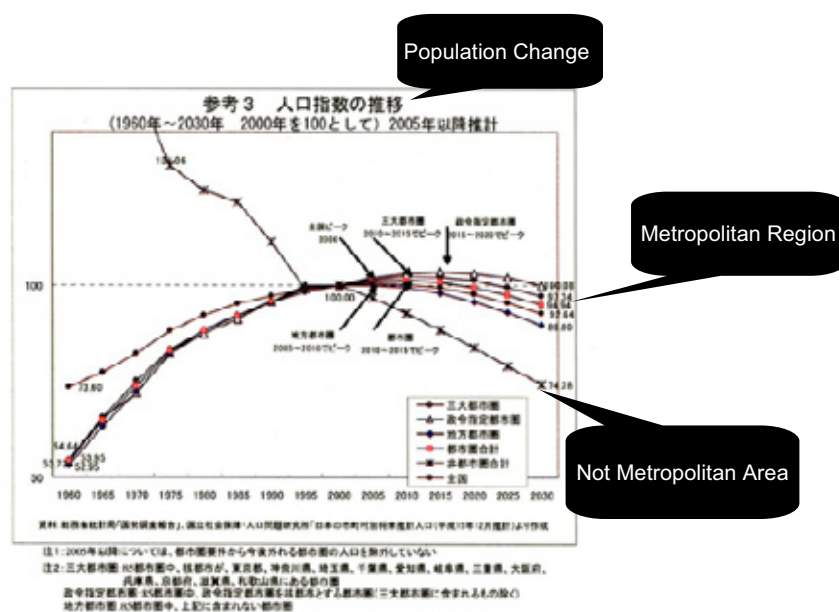
Population of municipalities



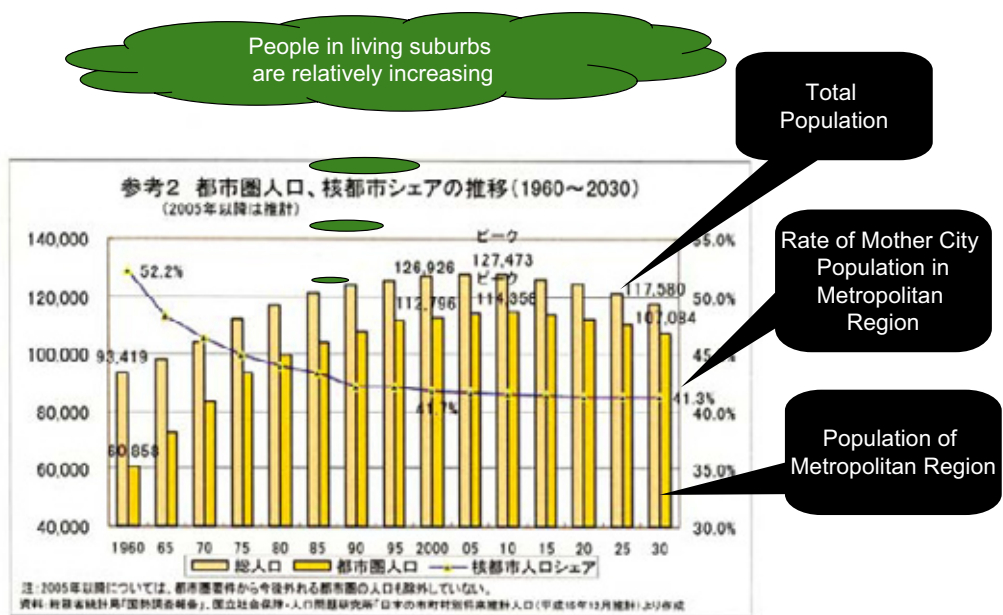
Metropolitan Region of Japan



Metropolitan Region of Japan

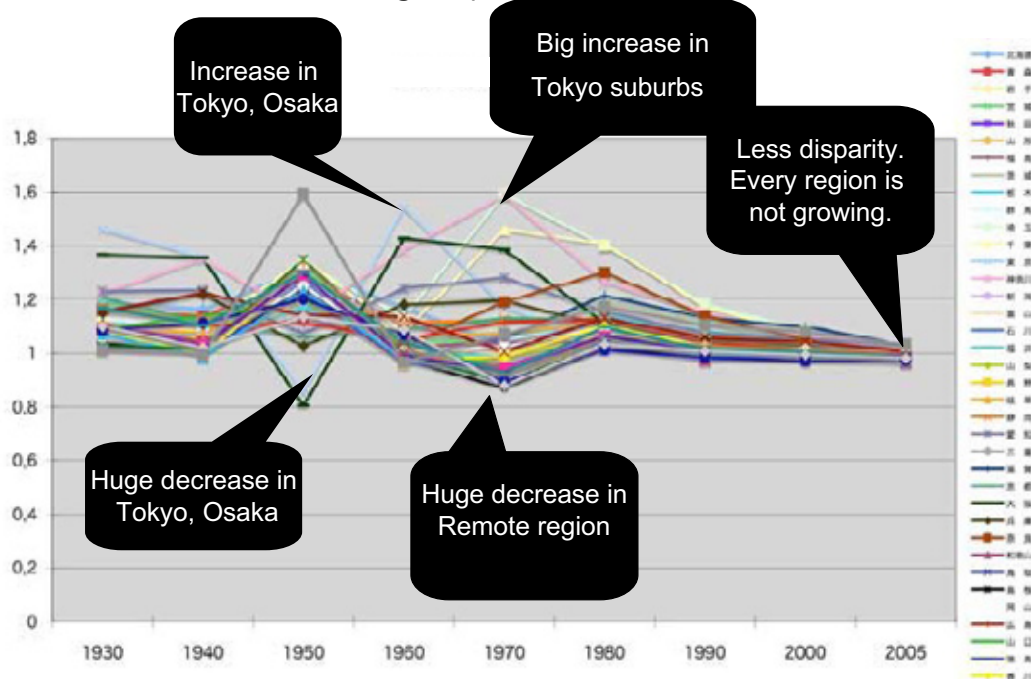


Population of Metropolitan Region



Shrinking Phenomena

Growth Change by Prefectures



Regions that are shrinking



However, shrinking has already occurred in 1970s

Regions that are shrinking



In 1960s, many people migrated to Tokyo Metropolitan Region or Osaka Metropolitan Region

Regions that are shrinking

- There has always been a shrinking phenomena in a certain region of our country.
- Some population just moved out from a region to another region.
- In-migration from a rural region to a metropolitan region may decrease recently, however, only few regions are growing.
 - i.e. there used to be a loser and winner, however, these days, almost all regions are losers.

Shrinking Municipalities

Decrease more than 12% btw 2000-2005



Shrinking Municipalities

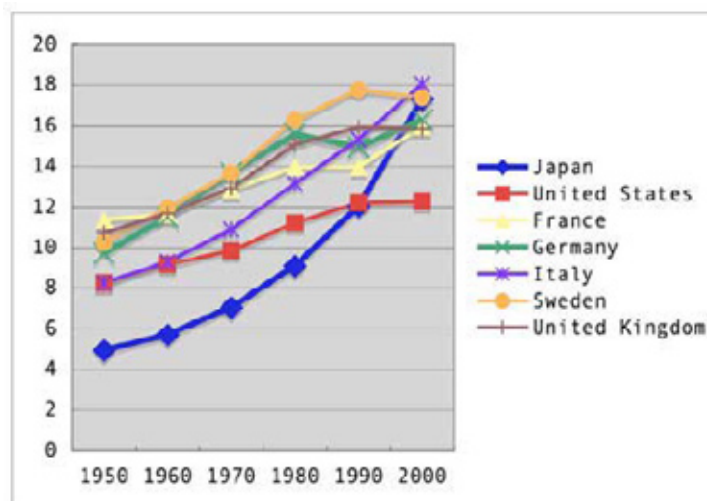
Decrease more than 14%

Name	Decrease of Population	Rate of Decrease
Ueno Village	-753	-33.0
Minami Aiki	-438	-27.7
Nishimeya	-450	-22.0
Kawakami	-513	-20.1
Otoineppu	-264	-19.8
Kuriyama	-478	-19.8
Uku	-772	-19.3
Higash Iyayamason	-377	-16.3
Nishi Iyayamason	-306	-16.0
Nakagawa	-358	-14.5
Ashio	-549	-14.5
Tenkawa	-304	-14.4
Shosanbetu	-253	-14.3
Kanna	-453	-14.1
Ieshima	-1,255	-14.0

These municipalities are shrinking faster than Eisenhüttenstadt

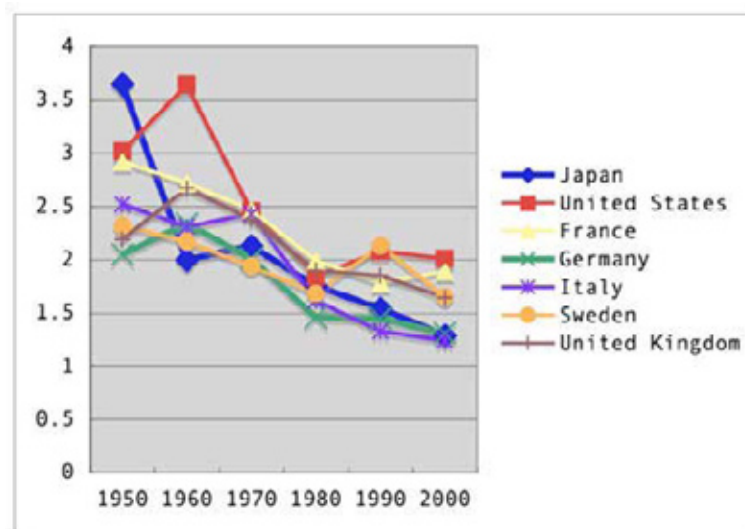
Some Global Comparison

Percent of Population older than 65



Some Global Comparison

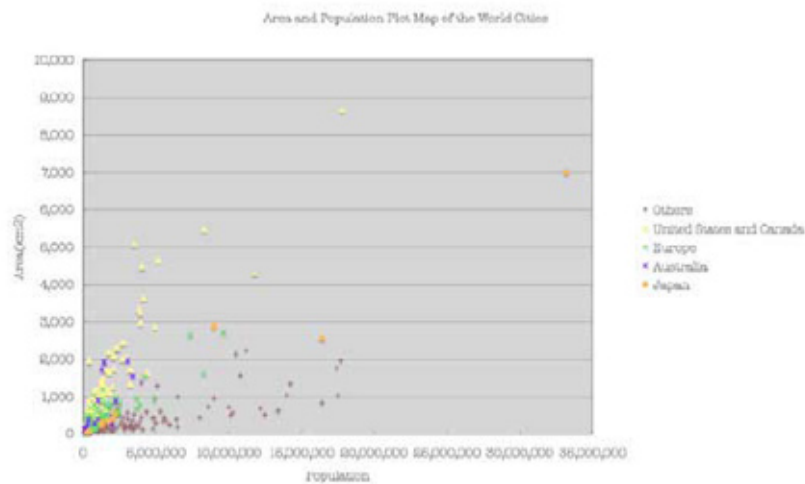
Number of Birth from a Woman



Some Global Comparison (Population Change)

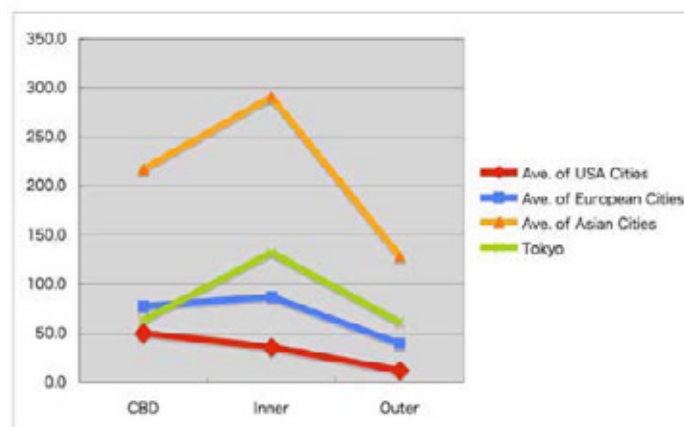
	1950-2000	2000-2050
Japan	1.52	0.88
Korea	2.48	0.95
United States	1.80	1.39
United Kingdom	1.18	1.14
France	1.42	1.06
Germany	1.20	0.96
Italy	1.23	0.88

Global Comparison



Population Density Comparison

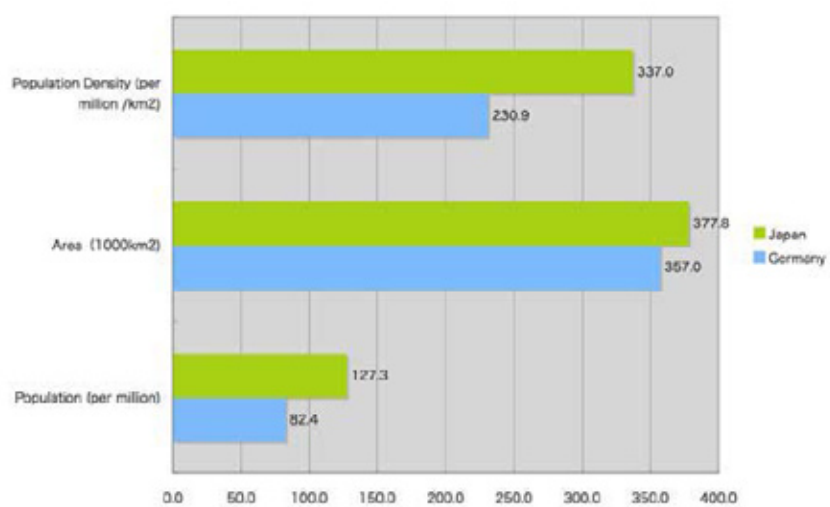
Region	Population Density per hectare			
	Metropolitan	CBD	Inner	Outer
Ave. of USA Cities	14.2	50.0	35.6	11.8
Ave. of European Cities	49.9	77.5	86.8	39.2
Ave. of Asian Cities	161.9	216.8	290.8	128.4
Tokyo	71.0	63.2	132.0	61.2



Urban and Suburbs

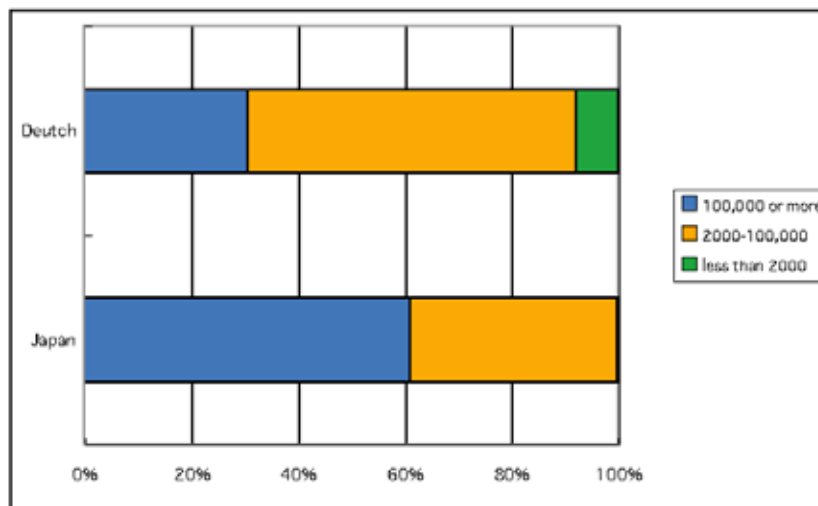


Comparison between Germany vs. Japan



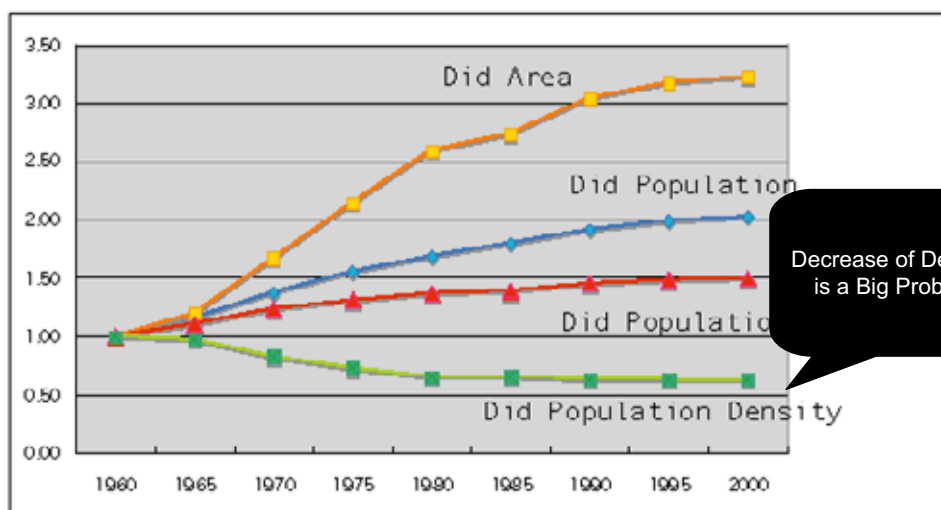
Comparison between Germany vs. Japan

PERCENTAGE OF MUNICIPALITIES BY POPULATION



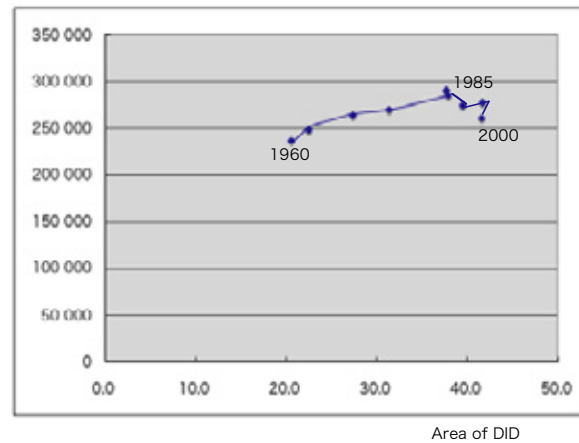
JAPANESE MUNICIPALITIES ARE MUCH BIGGER IN POPULATION

Problems associated with Shrinking

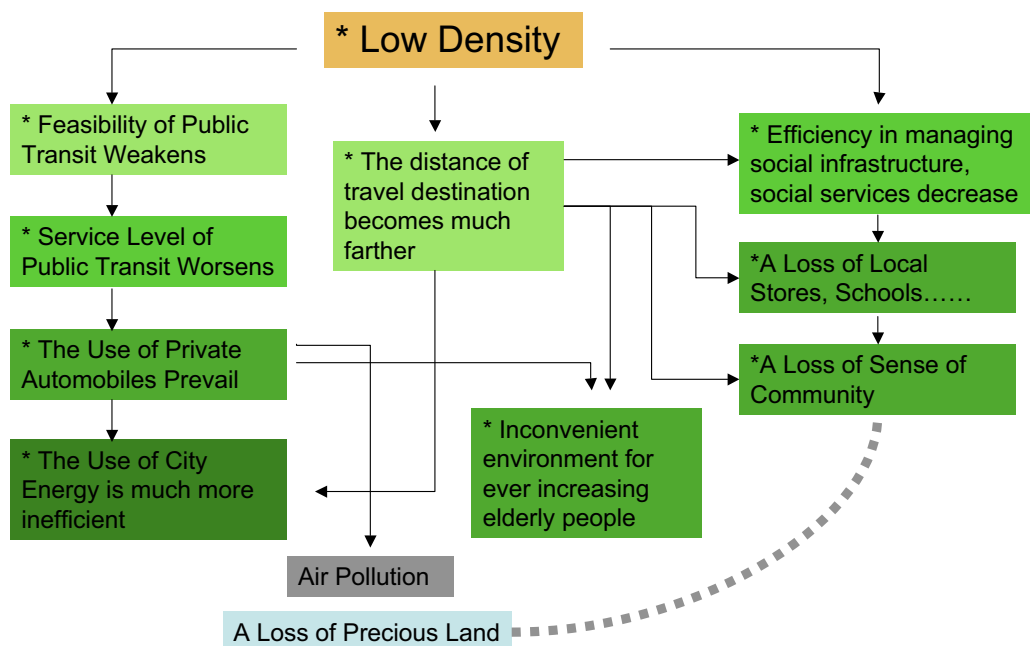


Case of Hakodate

Population



Problems with Low Density



Shrinking is not a problem

- Shrinking is not a problem.
- However, low density that can be associated with shrinking can cause a problem.

THEREFORE

- It is important to realize that cities and regions are no longer growing, but shrinking.
- It is imperative to make a vision and a plan of shrinking.

Shrinking is not a problem

- However, if we keep making plans and policies that are based on assumptions that we will still keep growing, we could face a catastrophic social condition in near future.
 - Economical-wise, Energy-wise, Society-wise.....
- We need to make plans and policies to shrink wisely.
- Germany and Japan possess similar problems in terms of shrinking population.
- I hope that exchanging information and ideas regarding above matters will help both countries to deal with shrinking issues.