

Considering our Infrastructure in a Depopulating Society -from Different Perspectives-¹

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In the latter half of the 1950s, so-called "bedroom communities" were created in many parts of Japan in the early stages of the high-growth period of the Japanese economy and infrastructure and public facilities (hereafter, "Infrastructure, etc.") were constructed and developed.

Today, more than thirty years have passed since the completion of most of this Infrastructure, etc. and it has become necessary to take nationwide measures to rebuild this aging infrastructure. In order to realize the best and most efficient reallocation to ease the strain on the next generation while maintaining the safety of these facilities, local governments across the nation have been drawing up a "Comprehensive Management Plan for Public Facilities, etc." and carrying out their thorough management (hereafter, "Infra-management").

In this article, I would like to propose different perspectives from several stereotypical views when considering our infrastructure in a rapidly depopulating society.

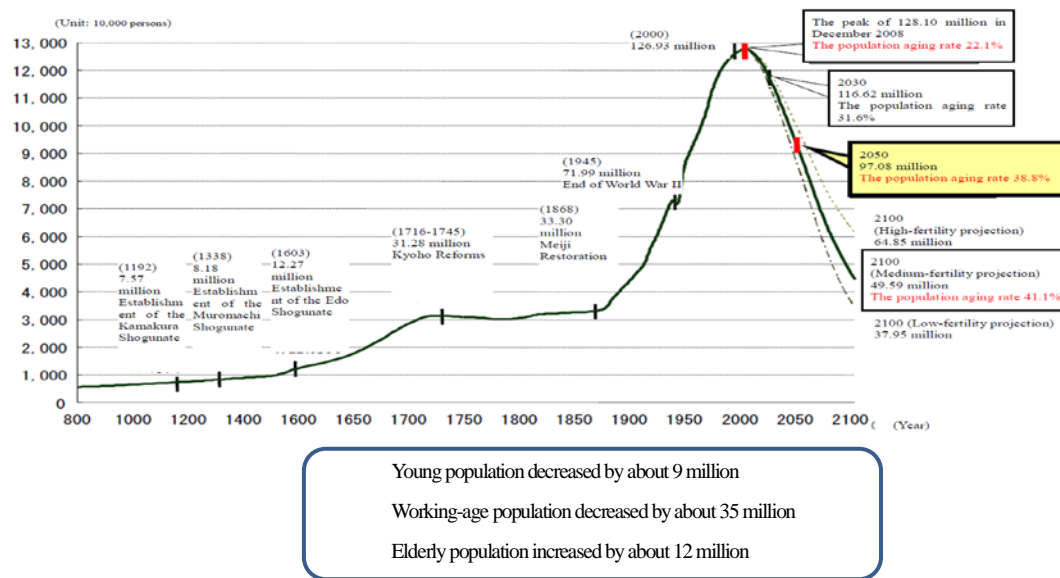
1. Break away from the concept: "The number of taxpayers sharing the tax burden will not change (decrease rapidly)."

The principle of sharing the tax burden means that local governments consider sharing the tax burden in exchange for the development of social capital as public services provided by local governments. In the past, such a principle of sharing the tax burden was designed on the assumption that the taxpayers bracket itself will not fluctuate. However, Japan has become a rapidly depopulating society since 2005 and it is expected that the working-age population, which is equivalent to taxpayers, will decrease by approximately 40% (Figure1).

<Figure1>

Transition of Japan's Total Population

Japan's total population will be 95.15 million in 2050, a decrease by approximately 33 million (25.5%). Working-age population will have decreased by approximately 35 million and youth population by around 9 million while elderly population will have grown by nearly 12 million. As a result, the population elderly share will rise from roughly 20% to 40%.



(Note 1) "Working-age population" refers to the people aged 15 to 64 and elderly population those aged 65 or older.

(Note 2) The percentages shown in parentheses indicate the ratios of young, working-age and elderly to the total population.

(Note 3) In 2005, the population of unknown age is included on a pro-rata basis in each age category.

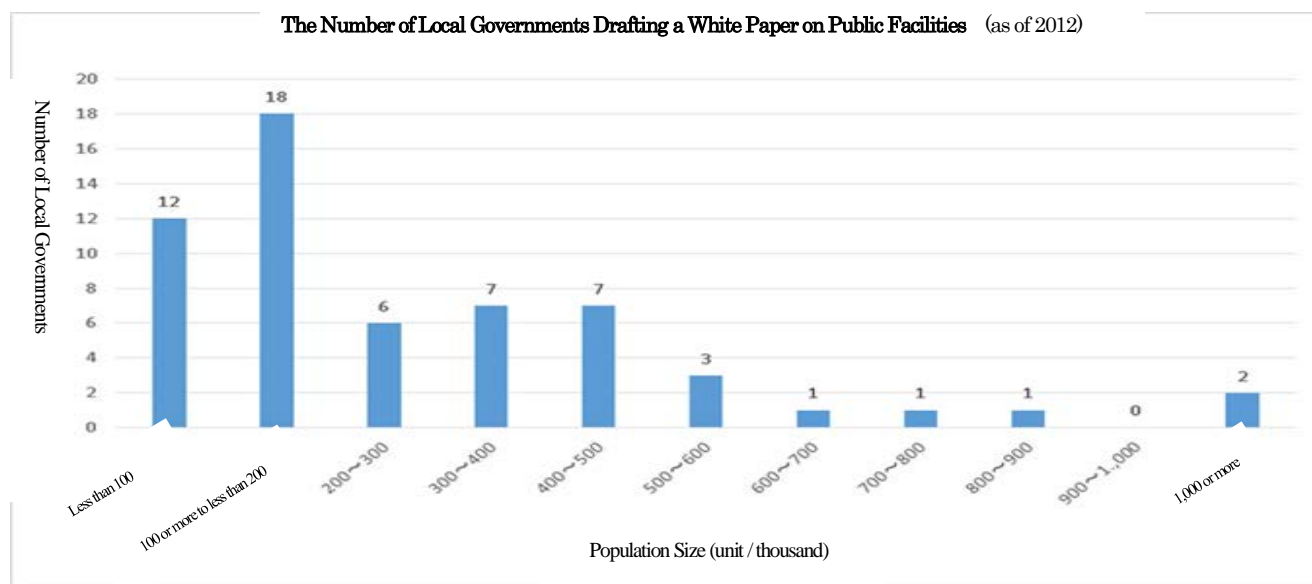
(Note 4) The data of Okinawa Prefecture is not included in the years between 1950 and 1969 and the year 1971.

Source: Interim Report on "Long-term Vision of the National Land"

¹ This is a translated and altered paper: Shunsuke Kimura, 'Considering our Infrastructure in a Depopulating Society-from Different Perspectives-', "Gekkan Keidanren, Policy and Action, Sep.2015", Nihon Keizaidantai Rengokai (the Federation of Economic Organizations), 2015, pp.34-36.

As a result of this, the precondition of the principle of sharing the tax burden has been drastically changed. Under the circumstances where covering the cost of our social capital is impossible even if citizens bear a tax burden, as is conventionally done, it has become difficult to realize and grasp the actual situation in "our city" even if we understand the situation from a macro-perspective view. For this reason, some local governments are drafting white papers on public facilities, demonstrating the expectation of working-age population as well as the process of reallocation for public facilities (reduction of overall facilities) and asking for their citizens' understanding. Many of the local governments drafting white papers are small and medium-sized with a population of 500,000 or less (Figure2).

<Figure2>



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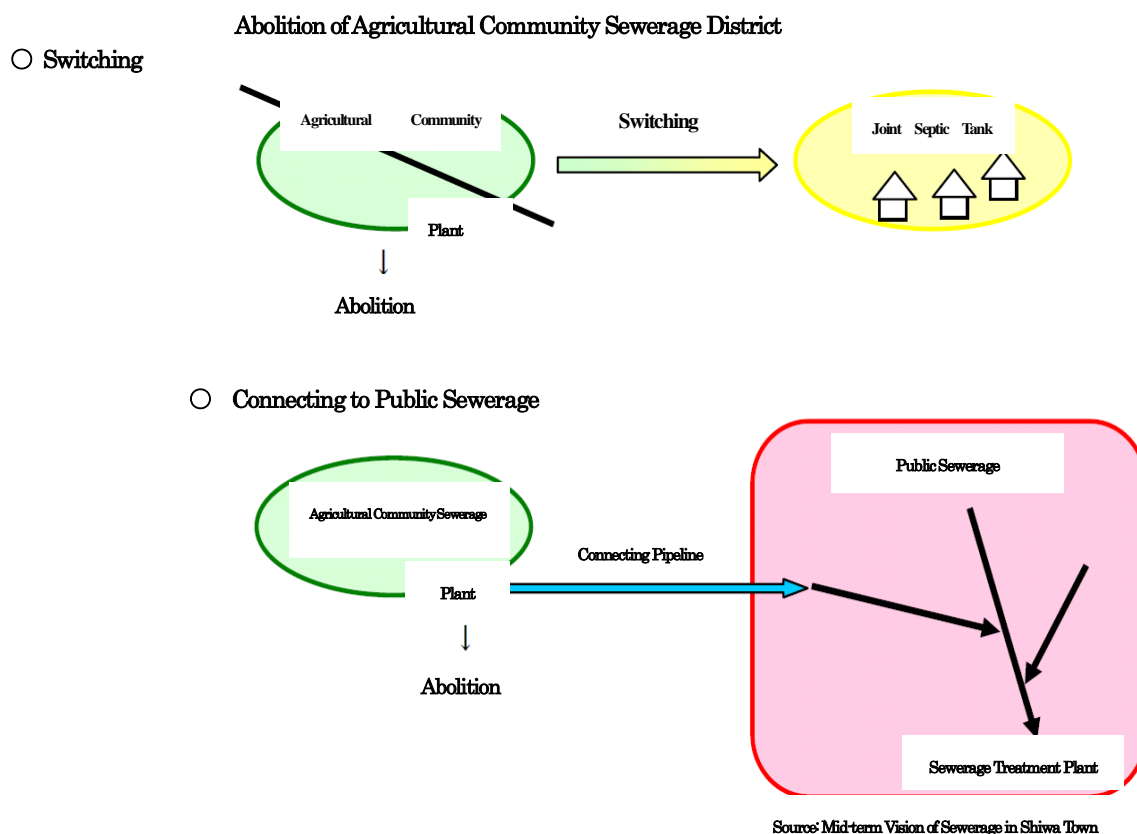
The number of local governments drafting a white paper will be expected to increase. Thus, local governments are required to provide an effective explanation of administrative policy in a depopulating society to their citizens.

2. Break away from the concept: "Downsizing leads to decrease in quality."

When considering sustainable development of a local community with declining population, it is unnecessary to think about a reduction in public service quality after downsizing the Infrastructure, etc. Instead, it is vital to find a solution for "right-sizing (appropriate size of infrastructure)" in such a community considering the burden on the next generation.

Measurements of downsizing in the aspect of systems or projects related to infrastructure have just begun. Examples of these efforts include the utilization of retirement bonds as local bonds, established since 2014, examination on the conversion from agricultural community sewerage to joint domestic septic tanks and a connection between an agricultural community sewage and a Public Sewage (Figure3). Thus, understanding of such infrastructure and downsizing by local communities is required.

<Figure3> Review of Infrastructure (as of 2012)

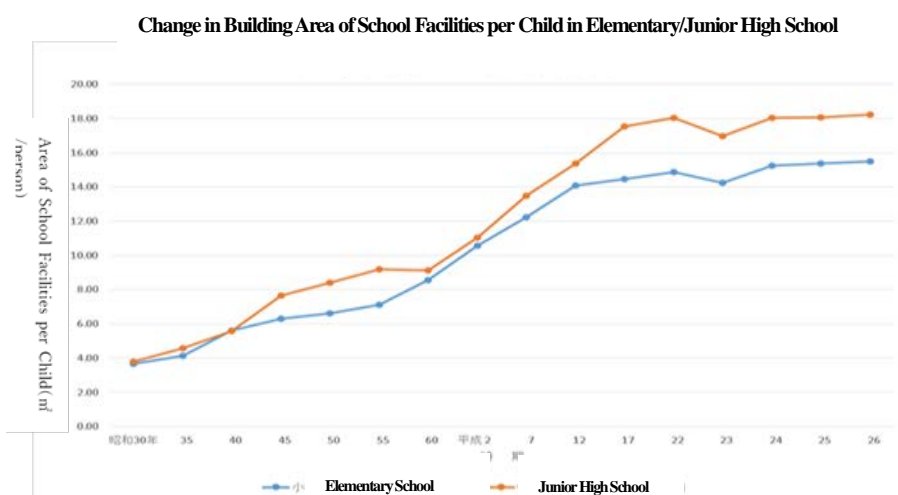


3. Break away from the concept: "Infrastructure must be single-purpose."

Much of the Infrastructure, etc. is equivalent to administrative assets under a public law. Therefore, unintended use of such infrastructure has been prohibited unless strict requirements are met in cases without any administrative problems or violation of public aspects and interests. With the background of this legal system, the concept: "Public infrastructure should be used for the purposes of its original intent." has been deeply disseminated.

In this depopulating society, however, we are facing the pressure to break away from such fixed concept and to take the initiative for multi-purpose use of infrastructure based on the decreasing number of people asking for a single public service as well as shrinking financial resources in local governments as service providers. For example, the building area of school facilities per child is on the increase due to the recent decline in the number of children (Figure4), creating vacant classrooms.

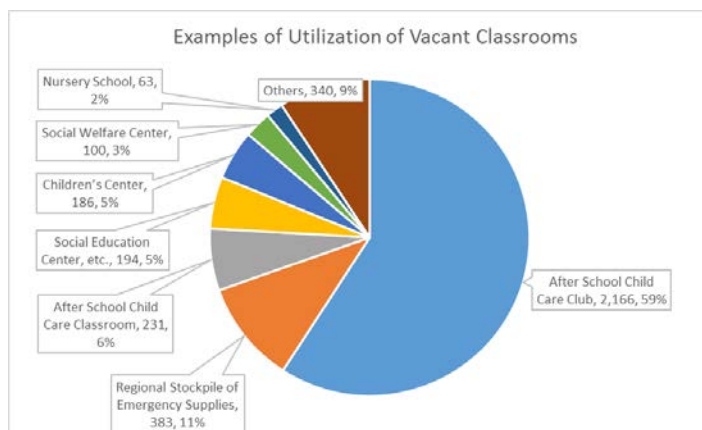
<Figure4>



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author of this article
based on the School
Basic Survey

As a result of this, various utilization for multi-purpose use including nursery schools and social welfare facilities has been initiated (Figure5).

<Figure5>



Source: Data from the Ministry of Education, Culture, Sports, Science and Technology

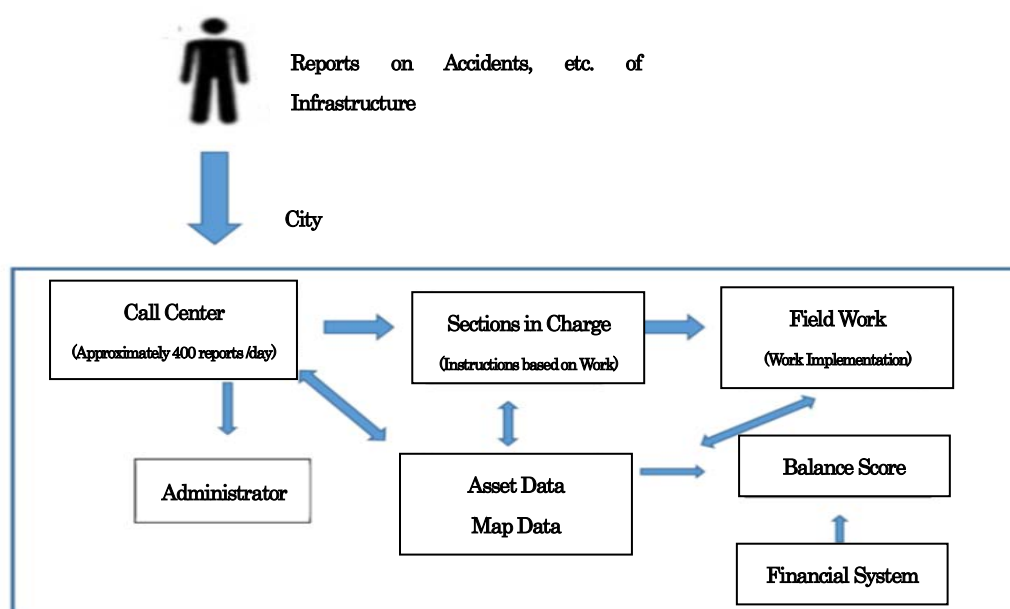
Currently, various utilization methods such as the establishment of fixed term leasehold for grounds under elevated roads (administrative assets) are under way. It is also vital to seek multi-value (multi-purpose) for Infrastructure, etc. and create a secondary value for administrative assets.

4. Break away from the concept: "Decrease in quality of public service in a depopulating society cannot be avoided."

People often have a fixed idea that if the population has decreased, services provided by local governments will be inadequate, leading to the deterioration of quality in public service. However, one example shows the enhancement of convenience for citizens through an integrated management method for a kindergarten, a nursery school and a child-care support center by utilizing a closed elementary school. (This method is called "conversion". / Samegawa Village, Fukushima Prefecture)

Another example found in the city of Corpus Christi, USA, shows the realization of a one-stop service through the centralized management of reports on the infrastructure after developing its infrastructure information system (Figure6). In this way, it is also important to have the idea of improving the quality of service by utilizing depopulation.

<Figure6> Infrastructure Information System in the City of Corpus Christi, USA



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