

# Overview of "Final Report on Comprehensive Research on Designing a School System and Developing a Form of Education in a Society with Declining Population"

## 1. Purpose and Overview of the Survey and Research

### (1) Purpose of the Survey and Research

Looking into the future of Japanese society facing mid-and long-term depopulation, the number of regions with difficulties in maintaining current learning bases for children is anticipated to increase, which surely will become an issue in Japan's educational policies. With the purpose of contributing to efforts of policy-making and institutional design to deal with school education during the coming period of falling population, we aim to clarify issues in advance, develop investigation methodologies, and accumulate useful information when studying survey results and cases from overseas.

### (2) Overview of the Survey and Research

While marshaling relevant literature and data, we held a series of discussions among the study group members on the school system and educational administration required in the time of population decline. Based on such discussions, the following four points were especially studied, leading to the completion of this report.

#### (1) Study on zoning of educational administration

As a main agenda of this project, we held discussions on the creation of zones, or zoning (*Kenikika*), consisting of multiple municipalities in the sphere of educational administration, specifically compulsory education which is currently undertaken by each municipality. At that time, while we clarified a future vision of each region based on the population projection data and discussed looking into general literature, we, in order to further the investigation from various perspectives, carried out interviews in specific regions which are considered to have interests in zoning as well as the simulation of costs for educational administration when several education boards work together as one zone, taking Nagano Prefecture, which provided abundant data, as an example.

#### (2) Review of frameworks for new educational policies in a society with declining population

It is assumed that new frameworks for educational policies, other than the above zoning, become necessary for school education in a society with declining population. We conducted additional studies from various aspects such as: the limits of the school integration and abolition strategy, which has been promoted in the regions facing population decline from previous levels; the possibility of using information and communications technology (ICT) in the educational scene; the complementary roles of social education; the utilization of external personnel; and, club activities at school.

#### (3) Analysis of related examples in overseas countries

Relevant cases from overseas, especially Germany and the UK (England) were analyzed to obtain useful insights into educational policies in the depopulating society in Japan.

#### (4) Analysis of other related issues

We analyzed estimates of population changes by smaller areas as well as local communities, specifically focusing on school education in agricultural areas and mountain villages. Online surveys of parents' attitudes towards education and growth of their children were also carried out to analyze differences among regions.

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## 2. Outline of Research Results

### \* Key research results

#### (1) Study on zoning of educational administration: Report, Parts I (Chapter 1) and II (Chapters 7-12)

Firstly, based on the data from the National Institute of Population and Social Security Research, population trends in each municipality were studied considering estimated populations of people with all ages as well as people aged 5-14 under compulsory education as of 2040.

The results are shown in Table 1. The percentage of municipalities where the population between 5 and 14 years old in 2010 will drop by more than half by 2040 is 41.1%, and the number of municipalities with populations less than 300 where the number of students per grade is expected to become fewer than 30 is as much as 22.4%.

Table 1: Trends of changes in population aged 5-14 in each municipality

Index of population aged 5-14 (2010 = 100)		20	20 -	30 -	40 -	50 -	60 -	70 -	80 -	90 -	100 -	110	Overall
		Less than	30	40	50	60	70	80	90	100	110	Or more	total
2040	No. of municipalities	8	49	229	405	448	296	148	56	30	10	4	1683
	Estimated figure	0.5%	2.9%	13.6%	24.1%	26.6%	17.6%	8.8%	3.3%	1.8%	0.6%	0.2%	100.0%
	Ratio	0.5%	3.4%	17.0%	41.1%	67.7%	85.3%	94.1%	97.4%	99.2%	99.8%	100.0%	—
	Cumulative total												
Index of population aged 5-14 (Unit: people)		100	100 -	200 -	300 -	500 -	1,000 -	3,000 -	5,000 -	10,000 -	30,000 -	50,000	Overall
		Less than	200	300	500	1,000	3,000	5,000	10,000	30,000	50,000	Or more	total
2010	No. of municipalities	42	63	65	117	221	429	228	250	195	45	28	1683
	Estimated figure	2.5%	3.7%	3.9%	7.0%	13.1%	25.5%	13.5%	14.9%	11.6%	2.7%	1.7%	100.0%
	Ratio	2.5%	6.2%	10.1%	17.1%	30.2%	55.7%	69.2%	84.1%	95.7%	98.3%	100.0%	—
	Cumulative total												
2040	No. of municipalities	132	134	111	154	230	409	172	183	121	22	15	1683
	Estimated figure	7.8%	8.0%	6.6%	9.2%	13.7%	24.3%	10.2%	10.9%	7.2%	1.3%	0.9%	100.0%
	Ratio	7.8%	15.8%	22.4%	31.6%	45.2%	69.5%	79.7%	90.6%	97.8%	99.1%	100.0%	—
	Cumulative total												

Source: Estimate by National Institute of Population and Social Security Research in Japan (IPSS) (March, 2013)

Note: The above figures are calculated based on each municipality as of March 1, 2013. "Population index" means a ratio of population in 2040 when the population of 2010 is set as 100.

From the above, it is expected to be difficult for a number of municipalities to individually carry out the current level of administration for school education in the future. We therefore clarified the necessity of zoning, that is, getting multiple neighboring municipalities together as a single zone in the sphere of educational administration. When zoning, each zone should be formed considering geographical, historical and economic backgrounds. However, in the case of geographically-separated municipalities which practically cannot be included in any zones, some policies specific to those municipalities are required at prefectural and/or national levels. As an example of efforts to deal with this issue, we examined the case of the satellite upper secondary school in the earthquake-stricken area in Fukushima and studied the

effectiveness as well as challenges of the case. (From Chapters 1 and 12)

After studying several cases where some municipalities which can be assumed to become part of zones after zoning, it was found that cooperation from the aspect of educational administration still tends to be limited while cooperation in terms of general administration is in progress. We also discovered that communication between sections in charge of educational administration and general administration tends to be limited. (Chapters 9-11)

Also looking into the case of Nagano Prefecture, expected qualitative advantages and disadvantages of zoning for educational administration were reviewed, and changes in personnel expenses among costs for educational administration were estimated, assuming the case where boards of education of each municipality work together as a zone. It was understood that personnel expenses for educational administration tend to be smaller when increasing the number of zones rather than when segmentalizing municipalities, and that zoning of educational administration has some influences on finance of local governments. (Chapters 7 and 8)

**(2) Review of frameworks for new educational policies in a society with declining population:** Report, Part I (Chapters 2-6)

As shown in Table 2, the survey of the number of students at schools after integration in Japan revealed that schools with fewer than 100 students account for 25.5%, while schools with 100-199 students account for 30.9%. In other words, the number of schools that satisfied the minimum level of the specified elementary school size (236 students in 12 classes) was less than half even after integration and abolishment of schools. The above data and example cases indicated the policy of integration and abolishment of schools was coming into an impasse.

Table 2: Trends of changes in population aged 5-14 in each municipality

Schoolchildren Number	100 Fewer than	100 - 200	200 - 300	300 - 400	400 - 500	500 - 600	600 Or more	No response	No. of cases
No. of municipalities	85	103	53	39	19	17	16	1	333
Ratio	25.5%	30.9%	15.9%	11.7%	5.7%	5.1%	4.8%	0.3%	100.0%

Source: Final Report, Chapter 2, Table 6 (p.52) (based on the survey carried out by the author (Hayo))

Taking into consideration the finding mentioned above, we presented our views on the necessity of networking full-spec schools (base schools) and partial schools (village-oriented small sized learning bases) and maintaining learning bases as measures to retain the certain number of children across the entire network. We also suggested the importance of creating a network-type school system by defining all schools in some municipalities as virtual schools. (Chapter 2)

Additionally, we pointed out that, while there remain some issues, ICT would serve to enhance learning effects in school life whether schools are in an extreme state or standard-size. It was also pointed out that it is crucial to have proactive ideas such as the utilization of ICT necessary for developing new capabilities which is required for a growing knowledge based society. (Chapter 3)

Social educational activities (cooperative activities among school, family and regions), which are supposed to complement school's educational function, have been carried out mostly outside the regular educational curriculum, and it turned out that such social educational activities have difficulties in being integrated into the regular education curriculum at present.(Chapter 4)

We argued that considering the utilization of external personnel such as special part-time teachers and allocating regional personnel with expertise in certain fields in the right places would help school education to respond to social changes in the future. (Chapter 5)

Pointing to problems including failure of team sports and lack of leaders for club activities at schools in recent years, we suggested that it is necessary to reorganize young student groups beyond the school scope, look for a field of activity outside school, and seek instructors outside the municipality in order to solve such problems. (Chapter 6)

### **(3) Analysis of related examples in overseas countries:** Report, Part III (Chapters 13-15)

In Part III, policies on compulsory education in sparsely populated areas overseas are reviewed. Some of them are remote education in Australia, educational personnel exchanges between urban areas and rural areas and distribution of lessons to rural areas via ICT in China, and home schooling from primary/secondary education in the U.S. (Chapter 13)

In Freistaat Sachsen of former East Germany that experienced rapid depopulation, its educational philosophies, which are different from those of Japan, i.e., dealing with young students with immigration background and assurance of various educational opportunities, are further hampering smooth reform of the education system. (Chapter 14)

In the case of the U.K. (England), one of the efforts to qualitatively improve management of small-sized schools, which are expected to increase in Japan, was "Federation" that was legislated in 2002. This "Federation" means that more than one school forms one or more school board(s) and cooperate with each other for school management, educational curriculum and teaching staff's training programs through regional partnership. (Chapter 15)

### **(4) Analysis of other related issues:** Report, Part IV (Chapters 16-18)

Part IV introduces population projections by region as of 2050 that were estimated using our own model explicitly considering impacts of economic factors on population movement among regions. Based on the projections, a higher possibility of population decrease in depopulated regions was identified when looking at the arrangement of elementary schools. (Chapter 16)

In terms of the relationship between retaining of residential population in rural areas and educational environment, it was found that educational environment is a crucial factor to maintain local communities since, for instance, the index of commuting conditions to upper secondary school has the largest influence on requirements for maintaining rural areas. (Chapter 17)

Finally, attitudes of guardians, especially those having elementary school children, towards school and the future image of their children were analyzed based on the results of the online survey we conducted on our own. We also examined mobility of guardians not only on the actual basis but also on the potential basis from the aspects of awareness and consciousness. One of the findings regarding needs for the

quality of school education, for example, was that guardians tend to value after-school activities and knowledge-based evaluation system in the three largest cities while they tend to look for education which nurtures abilities necessary in society in regions where depopulation is progressing. Further, although the mobility of guardians living in small-sized municipalities is relatively low, it was discovered that their "potential mobility" based on their demands is relatively high. These findings suggest that characteristics of attitudes and mobility of guardians differ among regions. (Chapter 18)