

Municipal Merger Process and Reorganization of Common Public Wealth Service in a Mountainous Area

- A Case study on Okuizumo Town, Shimane Prefecture –

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Abstract

This paper aims to clarify the relationship between the municipal merger process and the location of common public wealth service in Okuizumo town, Shimane Prefecture, considering the local community in mountainous areas. The results are as follows: 1) There were 63 municipalities in Okuizumo town in the early Meiji period. These were later merged into nine municipalities during the Meiji period in 1889, into two towns during the Showa period in late 1950, and into the present town of Okuizumo during the Heisei period in 2005. 2) Tatara iron making was popular in Okuizumo, and 30,000 people lived there in 1950. However, the population in 2015 was about 13,000 people. 3) Town offices were located in every district after the municipal merger in the Showa period. Educational facility areas expanded from nurseries and elementary schools to high schools. Many daily convenience facilities were located in the central districts.

Therefore, local government has functioned well in every district following the municipal merger in the Showa period. Conversely, the function as a central district continues in every districts after the municipal merger in the Meiji period.

Keywords: Municipal merger process, Common public wealth service, Facility location, Central district

1. Introduction

In Japan, the advancement of the aging society and the fall in the birth rate continue to progress. In addition, the population is decreasing in mountainous areas, such as the Sanin area. In these areas, sustainability is an important issue and a compact town plan, which is different from compact city in urban areas, is required. Nichinan town in Tottori Prefecture is commented on because its government aims at the “Compact Village Plan,” which centralizes the common public wealth services in the center of the town. Sustaining vital functions becomes difficult in many municipalities due to the decreasing population. Thus, the compact town plan has advanced through the cooperation between surrounding areas and the center area where there is a larger population and many

common public wealth services. Therefore, clarifying the way of local community is an important issue in order to advance the compact town plan in the mountainous areas.

2. Purpose and method of study

2.1. Purpose

Located in Shimane Prefecture, Okuizumo town had its administrative and vital functions sustained in each district before the municipal merger in the Showa period, although the municipalities were merged in the Meiji, Showa, and Heisei periods. However, a part of common public wealth services is consolidated because of the population decrease, and the consolidation of these service advances in the future is predicted. From the above, this paper aims to clarify the relationship between the municipal merger process and the location of common public wealth services in Okuizumo town of Shimane Prefecture, considering the local community of mountainous areas.

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Fig.1. The map of Okuizumo town

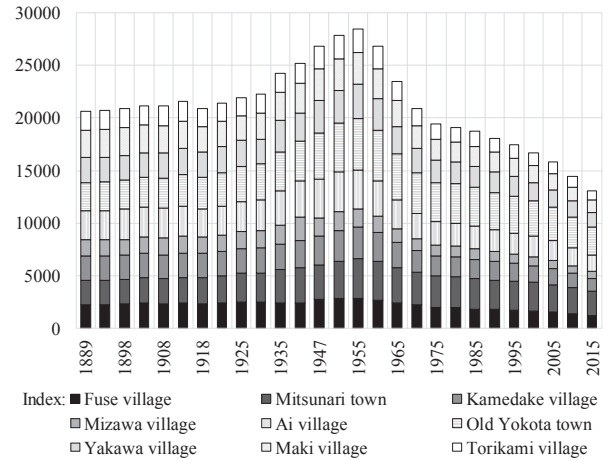


Fig.2. The population in Okuizumo town

2.2. Method

This research uses the following two methods.

1. Collection of the population statistics

We collected the population statistics of 1889-1918 from the Official Gazette of National Diet Library Digital Collection, and of 1920-2015 from the National Census. In addition, we collected deficient information from public relations magazine.

2. Collection of the data of common public wealth services and elaboration of a map

We collected the data of common public wealth services and confirmed the address using Zenrin and Google Maps. The map was created using a geographic information system.

3. Outline of Okuizumo town

3.1 Characteristics and industry

Okuizumo town is located in east of Shimane Prefecture. Its area is 368.01 km², and its population is 13,055 people. Seven out of nine municipalities at of 1950 are specified as agricultural mountain areas. In addition, this area is famous for “Tatara iron making.”

“Tatara iron making” is Japan’s own iron making method used from the Yayoi era to Taisho era. The bellows are used for sending air into the furnaces and were called “Tatara,” which led this method to be called “Tatara iron making.” Its characteristic is the production of high purity iron by using sand irons and iron ores as raw materials and charcoals as fuel, putting into clay blast furnace and causing the iron reaction in the iron component under a low-temperature environment. There were many managers of “Tatara iron making” in the surrounding area of Okuizumo town because there were good quality Masa iron sands that were optimal for “Tatara iron making.” The Matsue domain, which ruled over the surrounding area of

Okuizumo town, allowed only nine managers to produce iron, and five out of these nine managers were in Okuizumo town. Therefore, the population increased as iron production increased, and peaked in the 1860s. However, all managers except for the Sakurai family went out of business in 1923 due to the import of low-cost iron, and the Sakurai family went out of business in 1945. After discontinuance of business, they had also major works except for agriculture, such as Japanese beef production and charcoal making in the Meiji period, and abacus production in the Showa period.

3.2. Changing of municipalities

There were 25 municipalities before the municipal merger in the Meiji period, but they were merged into nine municipalities (Figure 1). In the municipal merger of the Showa period, Mitsunari, Mizawa, Ai, Fuse, and Kamedake villages were merged into Nita town in 1955. Yokota town, Yakawa, Maki and Torikami villages were merged into Hikami town in 1957, and Hikawa town became Yokota town in the following year. In this paper, the Yokota town from before the municipal merger is defined as old Yokota town, and the Yokota town from after the municipal merger is defined as Yokota town, as the old Yokota town became Yokota town in the municipal merger of the Showa period. In the municipal merger of the Heisei period, Nita and Yokota towns were merged into the Okuizumo town, in 2005.

3.3. Transition of population

The population in Okuizumo town is indicated in Figure 2. The population in 1889 was 20,603 people and remained unchanged after that. However, the population decreased after 1918 because the “Tatara iron making” declined. The population increased after 1935 and reached 28,477 people in 1955, but it decreased rapidly until 1970. After that, it became to decrease, reaching 13,063 people in 2015.

Table.1. Classification of common public wealth services

Large classification	Middle classification	Small classification
Administration related facility	Administration	Town office, Police station
	Citizen culture	Community center, Assembly place
	Social education	Library, Musium
Education related facility	school	Pre, Elementary, Junior high, and High school
	Child care	Nursery school, Child-care support facility, After-school daycare center
Medical welfare facility	Medical	Hospital, Clinic
	Elderly welfare	Residential care, Day care, Home-visit care
	Welfare for the handicapped	Residential care, Day care, Home-visit care
Daily life convenience facility		Post office, Bank, Convenience store, Store, Do-it-yourself store, Agricultural cooperative, Gas station
Traffic related facility		Railway station, Bus station



Fig.3. The map of administrative facilities

Table.2. the distribution of common public wealth services

		Administrative facility		Educational facility					Medical and welfare facility					Daily convenience facility					Transportation facility				
		Administ-ration	Citizen culture	School			Child care		Medical care	Welfare for the elderly		Welfare for the handicapped		Post office	Bank	Convenience store	Store	Do-it-yourself store	Agricultural cooperative	Gas station	Railway station	Bus station	
				Town office	Police station	Community center	Assembly place	Library	Elementary school	Junior-high school	High school	Nursery School	Child-care support facility										After-school daycare center
Nita town	Mitsunari	1	1	2	1	2	1	1	1	1	1	1	1	3	3	2	2	1	2	2	1	19	
	Mizawa			1		1		1		1				2					1	1		8	
	Ai		1	1		1		1		1									1	2		24	
	Fuse			1		1		1		1									1			14	
	Kamedake		1	1		1		1		1									1	1		14	
Yokota town	Yokota	1	1	2		1	1	1	1	1	1	1	1	2	3	2	2	1	1	2	1	2	18
	Torikami		1	1		1		1		1									1	1		14	
	Yagawa		1	2		1		1		1				1	2				1	1	1	3	29
	Maki		1	1		1		1		1									1	1		23	

Regarding each town and village, the population in 1889 was the highest with more than 2,700 people in the old Yokota town and Ai village. On the other hand, it was the lowest with less than 2,000 people in Mizawa and Torikami villages. The population increased in the old Yokota town and Mitsunari village after 1918, when they were the center of Yokota and Nita towns. In 1955, the population reached about 4,900 people in the old Yokota town and about 3,700 people in Mitsunari and Ai villages. After that, the population in all town and villages decreased, and became less than half in 2015.

4. Distribution of common public wealth service

Regarding the distribution of common public wealth services, analysis standards are the district after the municipal merger in Meiji period and in Showa period in order to clarify the community unit.

4.1. Classification of facilities

There is no definition of common public wealth services. Public service is defined as a facility supplied by public works, such as city offices, defined as the facility supplied by public benefit services, such as electricity, gas, and water supplies. Thus, in this paper, common public wealth services are defined as minimum facilities necessary for everyday life. Moreover, administrative, educational, and medical welfare facilities have been defined based on the specification of the “Update cost estimation software for public facilities and infrastructure” published by the Ministry of Internal Affairs and Communications (Table 1). In addition, daily convenience and transportation facilities have been defined as the common wealth services necessary for everyday life.

4.2. The administrative facility

Table 2 shows the distribution of common public wealth services, and Figure 3 shows the map of administrative facilities as an example. There are

the town offices in Mitsunari village and the old Yokota town. The town office is a two-based type with separated functions, because two towns merged on an equal footing. There is no branch office, so the town offices are located throughout the districts since the municipal merger in the Showa period. The police station in Okuizumo town is within the jurisdiction of Unnan police station. In addition, there is the large police station in Mitsunari village, as well as police substations in old Yokota town and Mizawa, Ai, Kamedake, Yagawa, Maki, and Torikami villages. Thus, almost all police stations are located throughout the districts since the municipal merger in the Meiji period. Community centers are located throughout the districts since the municipal merger in the Meiji period.

4.3. The educational facility

Nursery and elementary schools are located throughout the districts since the municipal merger in the Meiji period, and there are two elementary in Mitsunari village. There are junior high schools in old Yokota town and Mitsunari village. There is a high school only in Mitsunari village. Thus, Educational facility areas expanded as there were nurseries and elementary schools in all districts since the municipal merger in the Meiji period, junior high schools in all districts since the municipal merger in the Showa period, and high schools in all districts since the merger in the Heisei period.

There are child-care support facilities in old Yokota town and Mitsunari village, and all facilities are established with the nursery schools. There are after-school daycare centers in all districts since the municipal merger of the Meiji period, and these facilities in all districts except for Mitsunari village are established with the nursery schools. Therefore, the nursery schools have a central role on the child welfare institutions.

4.4. The medical and welfare facility

There are the hospitals in old Yokota town and Mitsunari village, and the hospital in Mitsunari village has many clinical departments and beds. There are the clinics in old Yokota town and in Torikami, Yagawa, Maki, Mitsunari, Ai, and Kamedake villages. The location of the clinic is similar to location of the police station.

There are four welfare facilities for the elderly in old Yokota town and Mitsunari village, two facilities in Yagawa village, and one facility in Mizawa and Kamedake villages. There are also two welfare facilities for the handicapped and one facility in Mitsunari and Fuse villages. There are more welfare facilities for the elderly than welfare facilities for the handicapped.

4.5. The daily convenience facility



Fig.4. The map of transportation facilities

There are post offices and agricultural cooperatives in all districts since the municipal merger of the Meiji period. Almost all banks, convenience stores, and regular stores are located in all districts since the municipal merger of the Showa period. In addition, there is a do-it-yourself store only in Yokota town. Thus, the elderly can withdraw the national pension from the post office and the agricultural cooperatives, but they have to go shopping in old Yokota town or Mitsunari village by bus or taxi.

4.6. The transportation facility

Figure 4 shows the map of transportation facilities. There are gas stations in all districts since the municipal merger of the Meiji period, except for Fuse village. There are three gas stations in Yagawa village, but there are no regional features.

About train lines, the JR Kisuki train line extends from the northwest to the southeast. The train stations are Izumo-Yashiro station in Fuse village, Izumo-Mitsunari station in Mitsunari village, Kamedake station in Kamedake village, Izumo-Yokota station in old Yokota town, Yagawa station, and Izumo-Sakane station and Minohara station in Yagawa village. Town bus has eight routes, and all these routes go through old Yokota town or Mitsunari village. Thus, residents have to go through these town and village if they want to commute to other districts. In addition, there are only two routes that go through both old Yokota town and Mitsunari village.

Therefore, there are administrative facility functions in each district since the municipal merger of the Showa period, and other facilities function in all districts since the municipal merger of the Meiji period. It is a characteristic that there are many common public wealth services in Yagawa village. This is because this village shares functions of center districts of old Yokota town and functions as the base of transportation means, such as trains and

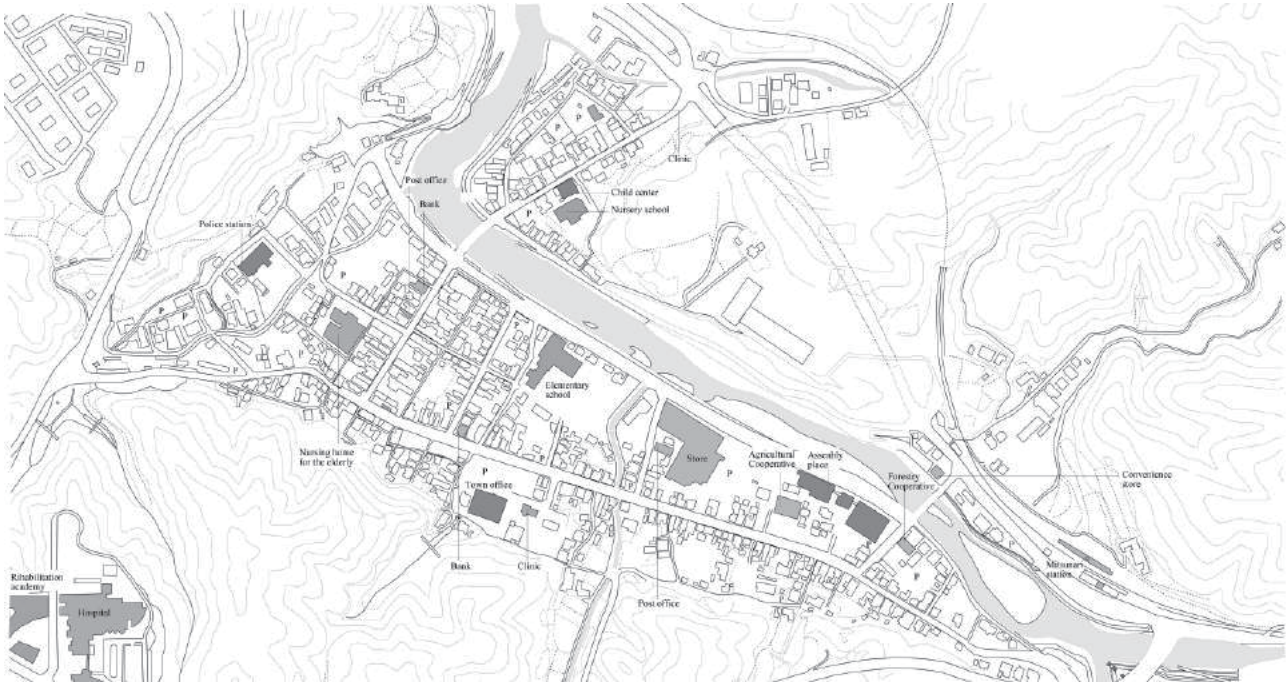


Fig.5 The map of the central area of Nita town

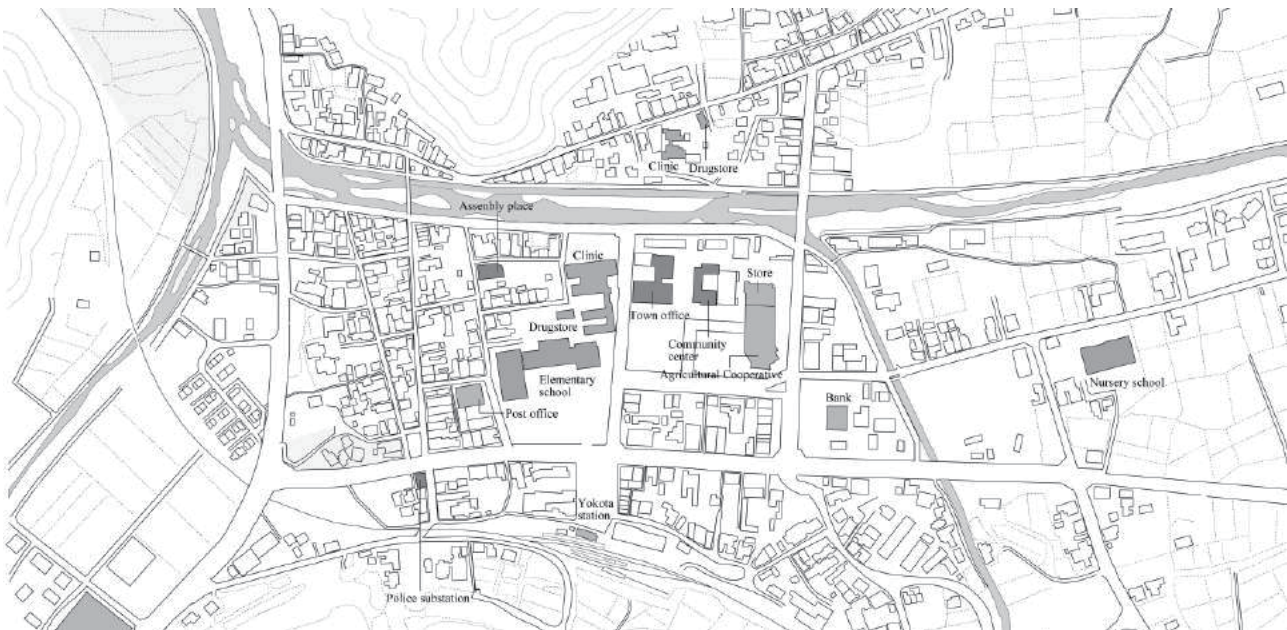


Fig.5 The map of the central area of Yokota town

cars. On the other hand, there are also the districts where central functions became weakened in Mizawa and Fuse town, which are close to Mitsunari village.

5. Location of common public wealth service in central area

5.1. Nita town

Figure 5 shows the map of the central area of Nita town. The central area is located in a

mountainous area, and spreads in the plains along the river. There are a community center, police station, nursery school, elementary school, clinic, post office, bank, convenience store, and other services around the town office. They are gathered compactly within a radius of 0.5 km. On the other hand, the hospital and junior high school are located in a mountainous area a bit far from the central area. Therefore, going to hospital is difficult for the elderly, especially. In addition, residential areas also tend to broaden in mountainous areas, and the central area is becoming wider. This is because that

there is no more land in the plain.

5.2. Yokota town

Figure 6 shows the map of the central area of Yokota town. The central area is located in a basin surrounded by mountains, and spreads in the plains along the river. There are the community center, police station, nursery school, elementary school, clinic, post office, bank, store, and other services around the town office. They are gathered further compactly within a radius of 0.3 km. In addition, it is characteristic that town office is close to the station. On the other hand, the hospital, junior high school, and high school are located in a mountainous area a bit far from the central area. Thus, the facilities needing a large land tend to broaden in mountainous areas.

Therefore, the central area spreads in the plains along the river, and the common public wealth services are gathered compactly. However, the facilities needing a large land tend to broaden in mountainous areas and the central area is becoming wider because there is no more land in the plain. It is a characteristic that the facilities are close to the station in Yokota town.

6. Conclusions

1) There were 63 municipalities in Okuizumo town in the early Meiji period. These were later merged into nine municipalities during the Meiji period in 1889, into two towns during the Showa period in late 1950, and into the present town of Okuizumo during the Heisei period in 2005.

2) "Tatara iron making" was popular in Okuizumo, and 30,000 people lived there in 1950. However, the population has decreased since 1950, and in 2015 the population was about 13,000 people.

3) Town halls are located in all districts since the municipal merger in the Showa period, and police substations in all districts since the merger in the Meiji period. Educational facility areas are expanded as there were nurseries and elementary schools in all districts since the municipal merger in the Meiji period, junior high schools in all districts since the municipal merger in the Showa period, and high schools in all districts since the merger in the Heisei period. Many daily convenience facilities are located in the central districts since the municipal merger in the Showa period.

Therefore, the local government has functioned well in every district following the municipal merger in the Showa period. Conversely, the function as a central district continues in all districts since the municipal merger in the Meiji period. In addition, there are also districts where many facilities remain near the center since the merger in the Showa period by sharing functions of the center

district. On the other hand, there are also districts where central functions became weakened in a part of the village. It is predicted that these villages increased because of the population decrease. Therefore, it is an issue to consider the method of centralizing common public wealth services in the future.

7. References

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