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A Fundamental Study of Vacant House in Local City in Japan

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ABSTRACT

We have been facing the problem concerning declining population and low birthrate in Japan. In these situation, the issue concerning vacant house is getting worse. Existence value of historic building is high because users who live or stay these houses find satisfaction from spending time in the environment around the historical Japanese landscape. On the other hand, utilization of vacant houses in urban region where are suburbanized with a certain level in local city is difficult. We grasped the actual state of vacant house in such city. In addition, we clarify the relationship between regional socio-economic condition and the status of vacant house quantitatively. There is a possibility that a vacant house use as tourism resource as well as dwelling.

Keywords: Vacant house; Urban policy; Regional revitalization; Tourism resource

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A FUNDAMENTAL STUDY OF VACANT HOUSE IN LOCAL CITY IN JAPAN

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Abstract

We have been facing the problem concerning declining population and low birthrate in Japan. In these situation, the issue concerning vacant house is getting worse. Existence value of historic building is high because users who live or stay these houses find satisfaction from spending time in the environment around the historical Japanese landscape. On the other hand, utilization of vacant houses in urban region where are suburbanized with a certain level in local city is difficult. We grasped the actual state of vacant house in such city. In addition, we clarify the relationship between regional socio-economic condition and the status of vacant house quantitatively. There is a possibility that a vacant house use as tourism resource as well as dwelling.

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1. Introduction

The problem concerning vacant house is getting worse in Japan. Living environment, public security and landscape have deteriorated with existence of such house. There are 820 vacant house out of a total of 6,063 houses in 2013 [1].

A convenience of every lifeday is high in a region where are suburbanized with a certain level in local city. This is an advantage from a view point of management of municipalities. On the other hand, they have disadvantage concerning utilization of vacant house. The reasons are follows. Many Japanese people want to live a new building except for the way of utilization which are mentioned previously. In addition, many Japanese firmly refuse other person use their real estate. It is required that the way of a solution is suggested.

In this study, we focus on Ishii town in Tokushima prefecture where is one of a urban prefecture in Japan as a case study area.

The aims of this study is to clarify the actual state of vacant house around a central city in local municipality. In addition, we clarify a relationship between a status of vacant house and regional socio-economic condition, too.

2. Actual situation of Ishii town as a case study region

2.1 Summary of Ishii town

Ishii town which we focused upon as a case study region is located in Shikoku region (Western Japan). This town is adjacent to prefectural capital, so a convenience in residents live in this town is comparatively high. Location of Ishii town is shown in Figure 1.

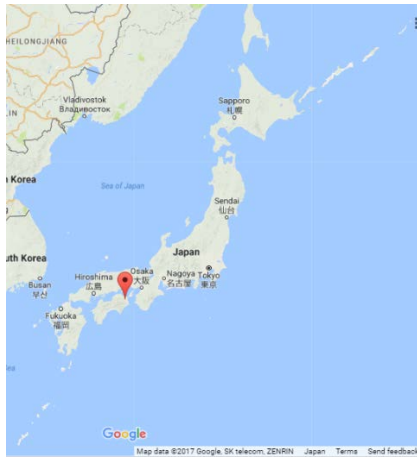


Figure 1. Map of Ishii town
Source: Google Maps

The number of population is 25,590 (The population of Japan is 127,094,745.) in 2015 [3]. Population in this town is slightly decreasing under the situation of rapid and long-term decreasing in Japan. The total number of dwellings are 9,780, the number of vacant houses is 920 in 2013 [3].

The smallest unit of analysis is sub-region which is specified by the Ministry of Land, Infrastructure, Transport and tourism. This classification is accorded at the following discussing. This classification is one of that which used when data is aggregated in the Census Bureau. Ishii town is divided into 30 areas and it is not enable the identification of the specific individual.

Figure 2 shows a proportion of the laboring population in the municipality. The mapping tool of the system of “jSTAT MAP” [4] provided by the the Statistics Bureau, Ministry of Internal Affairs and Communications is used in this study.

Data of socio-economic condition in is based on the data “the Census Bureau” in 2015 [5].

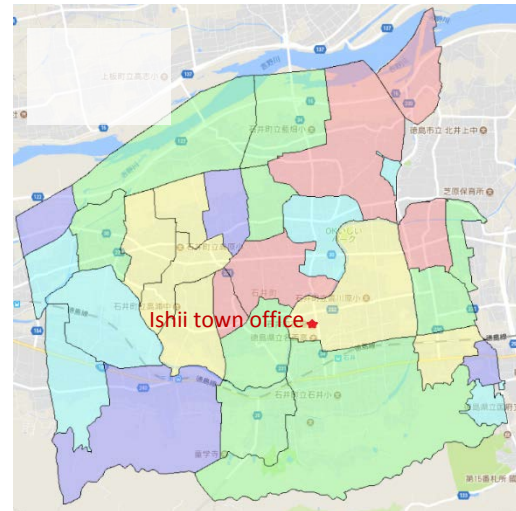
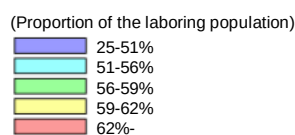


Figure 2. Proportion of the laboring population in Ishii town

Ratios of the labor population among the total population is high in center and the northeast areas. On the other hand, those values in the west area also show lower in comparison with in other areas.

2.2 Distribution of vacant house in Ishii town

Ishii town conduct a questionnaire survey concerning vacant house in 2017 [6].

The rank of the condition of vacant house is determines on based on each evaluation items shown in Table 2, comprehensively and quantitatively. These are related to the degree of decrepit and collapse. Details of the items mean that “condition of foundation and external wall of building”, “condition of the level of damage or decay”, “condition from the view point of emergency and evacuation” and “condition of rainwater drain”.

Table 2. Rank of determining

Rank (Score)	Degree of decrepit and collapse
1	Reusable with small-scale renovation
2	Low possible that the house is collapsed, although the house is not enough managed
3	A seriously damaged, because the house is not managed

- 4 Urgency of the need for renovation or demolishing is high, because high possible that the house is collapsed
- 5 Urgency of the need for demolishing is extremely high, because high possible that the house is collapsed

Figure 3 shows a distribution of population and vacant house. Each area is colored according to the color concerning population. The level of the number of vacant house is displayed as bar graphs.

The ministry of Ishii town conducted a questionnaire survey related to vacant house for owners of vacant houses [7]. They were collected and sent back. (A part of them is brought by survey respondents.)

Survey period: July, 2017

Scope of the survey: 602 owner

Percent of responses: 44.0%

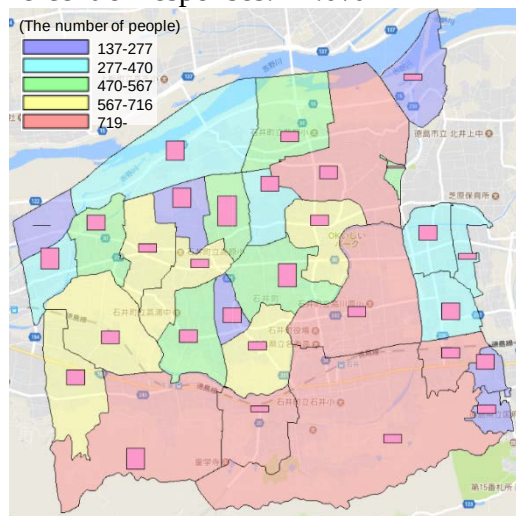
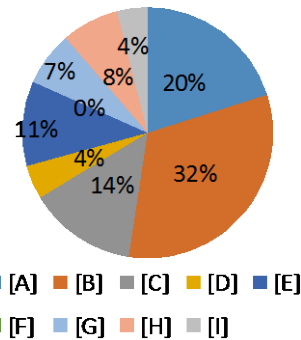


Figure 3. Distribution of vacant house in Ishii town

Figure 4 shows the reasons why vacant houses are. Figure 5 shows the intention how to use their vacant house in the future.

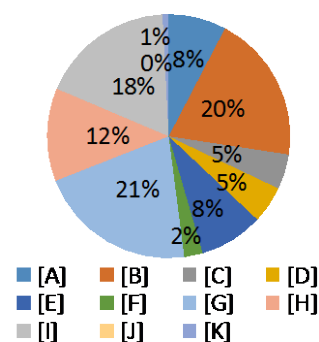


- [A] A house is redundant because a former resident transferred
- [B] A former resident died
- [C] A residence is not stay the house, because of admission into a retirement home or a hospital
- [D] A house cannot be used, because of dilapidation
- [E] There are no person after inheritance
- [F] A house cannot be sorting out, because no one is decided upon as heir
- [G] A house cannot be used, because there is no one as a buyer and a tenant
- [H] Others
- [I] Non-respondent

Figure 4. Reason of a house is vacant

From Figure 4, there are many vacant houses because former residents transferred, died and admitted into retirement home or hospital.

Rate of the owners of a vacant house who have a plan to use it in the future is 70%, although, 20% of the owners have no plan or idea to use it. They are needed a support by local municipality or nation.



[A]	An owner of a house want to use it either way of selling or renting
[B]	An owner of a house wants to sell it
[C]	An owner of a house wants to rent it
[D]	An owner of a house allow it access to public space for free or a low price
[E]	An owner of a house or relatives will use a house in the future
[F]	A owner of a house or relatives will use a house when a ceremony is held
[G]	A owner of a house want to manage it
[H]	A owner of a house want to demolish it
[I]	A owner of a house has no idea and plan how to use it
[J]	Others
[K]	Non-respondent

Figure 5. Intention how to use a vacant house in the future

3. Relationship between condition of vacant house and regional socio-economic condition

Relationship between condition and existence of vacant house and regional socio-economic condition are clarified. We define the condition of vacant house as equation (1). Score of them in each rank is shown in Table 2. It means that a score in an area where have a lot of vacant house is higher. In addition, the higher the score, the worse a condition of house in that area is. Table 3 show a correlation coefficient among variables related to a condition of vacant house and regional socio-economic condition.

$$S_i = \frac{\sum_{m=1}^5 (s_{mi} \times vh_{mi})}{\sum_{m=1}^5 s_{mi}} \quad (1)$$

S_i : Score rate of condition of vacant house in area i

s_{mi} : Score of condition of vacant house judged to rank m in area i

vh_{mi} : The number of vacant house judged to rank m in are i

Table 3. Correlation coefficient among variables

	[a]	[b]	[c]	[d]
[a] Score rate of condition of vacant house	1			
[b] The number of population	0.799	1		
[c] Ratio of the number of household which is composed only of 65 year old or older person	0.120	-0.156	1	
[d] Ratio of the labor population among the total population	0.072	0.274	0.022	1

From the result, the status of vacant house is affected by various socio-economic condition, quantitatively. The number of population is the higher, the score rate of condition of vacant house is. In addition, the the score rate of condition of vacant house is low in an area where the condition of an economic activities is brisk and lively.

4. Conclusion

The aims of this study are to grasp the actual stat of vacant house in local city and clarify the relationship between the status of such house and regional socio-economic condition. We focused upon Ishii town which is one of typical local city. From the analysis, it is clarified that the status of vacant house is affected by the regional condition of an economic activities and another social condition.

It is required that a promotion of settlement and tourism interaction in order to solute the problem of vacant house.

Migration between regions is influenced by interaction between regions as well as socio-economic condition. These are affected by regional attractiveness and convenience of transportation [8]. Concerning urban policies, we should consider those mechanism and residents' needs. Vacant house is one of an attractive tourism resources.

5. References

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