

How much do vacant houses cost? Estimating the cost of addressing vacant houses in municipalities

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1. Introduction

In recent years, the number of vacant houses in Japan has been increasing, and with this increase, there is concern about the future increase in the number of inadequately managed vacant houses. In addition, an increase in the burden on municipalities and owners has been seen. It is necessary to strengthen measures to prevent inadequate management of vacant houses, including implementing appropriate management and providing information and advice on various sorts of assistance. To address this, NILIM conducted "Research on Quantifying the Effectiveness of Preventive Measures against the Inadequate Management of Vacant Houses," aiming to clarify the minimum management level required to prevent inadequate management and to develop a method of quantifying the effect of preventive measures against inadequate management. In other words,

the goal is to plainly show how much loss may be incurred when a vacant house becomes dilapidated, and how much benefit can be achieved when it is properly managed.

The basic approach to quantifying the effect of the preventive measures is to compare the cost when a preventive measure is taken with the cost when no preventive measures are taken (Figure 1).

This fiscal year, we conducted a Web-based survey on vacant house management and the like for owners of vacant houses, and estimation of the costs and effects of preventive measures for inadequately managed vacant houses in municipalities.

2. Web-based questionnaire on the management of vacant houses, etc.

The management cost to owners and the risks (e.g., falling roof parts) that may result from inadequate management vary depending on how owners are actually managing houses and how they intend to manage them in the future. In addition, from the municipalities' point of view, the scale of subsidized projects for the utilization of vacant houses or for the disposal of vacant houses and their effects are expected to vary depending on, for example, the number of owners who desire to renovate or dispose of their vacant houses. Therefore, a Web-based questionnaire was conducted to identify the intentions of owners regarding future management and their intentions to

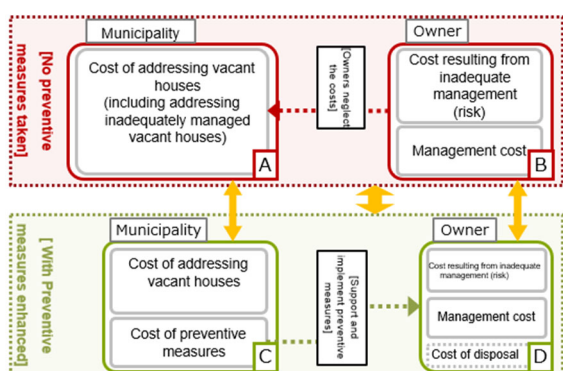


Figure 1: Conceptual image of cost estimation

use subsidized projects related to vacant houses.

Based on the results of the questionnaire, owners were classified into the four types shown in the Table based on their management details, willingness to manage, etc. For example, the tendency to improve management by type of vacant house (Figure 2) shows a relatively high percentage of Type 3 respondents who answered that the owners would be motivated to improve management "When I found that the risk of collapse of this vacant house (e.g., accidents involving nearby residents) would be more significant than the cost of management and repairs."

Type 1	Vacant houses expected to be adequately managed	42%
Type 2	Vacant houses expected to be adequately managed for the time being	31%
Type 3	Vacant houses with relatively low willingness to manage by the owner	15%
Type 4	Vacant houses that are not being managed as the owner desires	12%

Table: Types of vacant houses

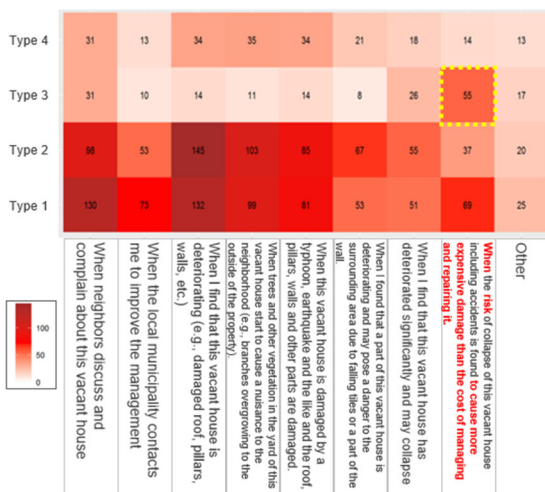


Figure 2: Intention to improve management by vacant house type

This may indicate that owners with relatively low willingness to manage do not necessarily understand the risks that may result from inadequate management, and that providing appropriate

information may improve management and the like.

3. Costs and effects of measures for vacant houses by municipalities

The cost and effectiveness of measures for vacant houses in municipalities were estimated. The estimation was performed for a municipality model (75,000 households, 10,000 vacant houses, a vacancy rate of 13.5%), and the target period was five years. The two costs calculated were the cost of measures to prevent inadequate management of vacant houses and the cost of addressing vacant houses, etc.

Taking preventive measures as an example to obtain an image of the calculation, the cost of measures can be obtained based on the number of cases subject to measures (e.g., whether to target owners of vacant houses or to include owners of occupied houses as well), the unit cost, and the number of times the measures are implemented (Figure 3). In actual cost estimation in municipalities, in order to determine how to set the three aforementioned factors, it is necessary to take into account the policies of how to address vacant houses, population, household characteristics, and the like. This is regarded as a "scenario" in this research, and a "basic scenario" is tentatively set here.

To treat the effect of preventive measures, we set a percentage of vacant houses whose owners' management behavior has improved as a result of measures implemented by the municipality in a given fiscal year and reflected it in the cost calculation for the next fiscal year (Figure 3). Although the estimated values need to be further examined, the results of the estimation confirmed that preventive measures have a certain effect of reducing the cost of addressing vacant houses (Figure 4). Interviews were conducted with municipalities to discuss the

results, and specific opinions were obtained regarding the importance of securing a budget for human resources in preventive measures and a certain level of appropriateness with regard to costs for human resources necessary for the measures, which helped identify future improvements.

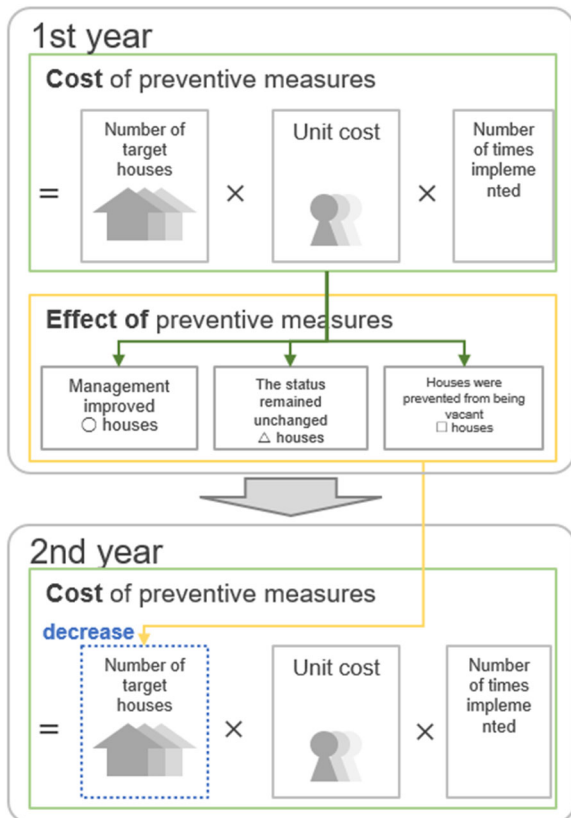


Figure 3: Conceptual image of calculating costs and effects of preventive measures

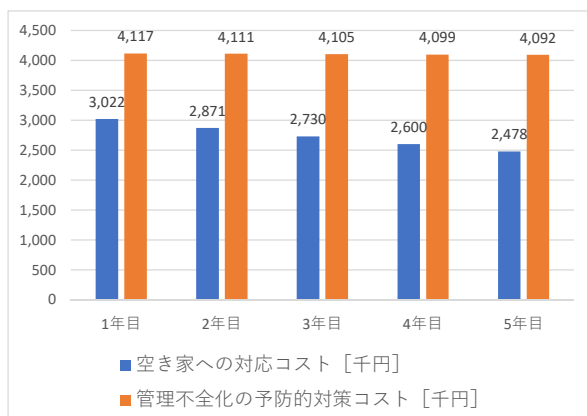


Figure 4: Results of cost estimation for preventive measures

4. Conclusion

The future plan is to conduct case studies and the like in multiple municipalities, including feedback on the results of interviews with municipalities and follow-up surveys of vacant house owners, in order to determine the minimum level of management required to prevent inadequate management, as well as to develop the method of quantifying the effect of preventive measures for inadequate management.

Note: Unit cost data and other data used for the estimation are based on the survey in FY 2020 and Web-based questionnaires.