

Reform Promotion of Existing Housing for Formation of High Quality Housing Stock

MIZUTANI Akio, Director
Housing Department

(Key words) Stock type society, long term high quality housing, circulation of existing housing, market of housing renovation

1. Introduction

The housing stock of Japan is considered to be about 57,600,000 (2008) units. Of this, the number of new residential housing units per annum is about 800,000 (2012). In addition, the average life until demolition is short compared with other countries being more or less 30 years. Slated for the formation of high quality housing stock, the transformation from a housing market centering on new housing to a stock type housing market where high quality housing is cyclically utilized across generations, or in other words, as well as supplying quality new houses, accelerate the formation of high quality housing stock by reforming existing houses and realizing a society where things are used for a long period of time, to “produce a good thing, improve it and use it carefully over a long time” is assigned in order to realize the transfer to a new environment.

The four targets upheld in the Housing Life Basic Plan (revised in 2011), which is provided based on the Housing Life Basic Act (2008) indicate appropriate management and renewal for housing, and environmental improvement for the housing market where appropriately realizing a variety of residential needs, as well as development policies, of environmental improvement to promote appropriate maintenance and reform, the formation of high quality stock to be utilized for the future are described to carry out the development of policies.

2. For a society utilizing high quality housing long term

Using housing for a long duration of time restricts elimination of wastes in parallel with demolition and removal of housing, as well as decreasing the load on environment, reducing the burden of housing due to the reduction of expenses for replacement building, and links to shifting to more a affluent and more tendered

livelihood.

For this realization, based on the Act on the Acceleration of Dissemination for Long High Term Quality Housing (2009), dissemination of long term quality housing contributing to the formation of quality housing stock has been promoted, and in respect to new residential buildings, quality housing supply by the long term high quality housing certification system currently is being carried out.

In the future, the shift to high quality stock durable for long term uses is a crucial subject for existing housing, it is required to promote efforts for the improvement of existing stock, as well as an increase in the capability of new residential housing.

In the total reform plan illustrated in the chart, support for reform and dissemination for long term quality housing for the promotion of the enhancement of existing housing stock shall be projected, as well as environmental improvement for reform market and existing housing distribution.

3. Efforts up until now

For the formation of quality housing stock by the reform of existing housing, we will carry out deliberations from a variety of viewpoints such as earthquake resistance, energy conservation, barrier-free construction or the like, and necessary reforms shall be carried out for quality housing capable of realizing comfortable long term inhabitation.

As aforementioned, although the formation of quality housing stock capable of being used for a long duration of years is being carried out through long term quality housing authorization, the following eight items are the evaluation items indicated in its authorization standards: degradation countermeasures, earthquake resistance, maintenance and management / easiness of renewal, variability, barrier-free property, energy conservation

property,” living environment, housing area, and maintenance management conservation scenarios.

Regarding existing housing, although reform for stock durable to long term use shall be promoted from these view points, matters for which handling similarly to new residential building are difficult and deliberations suitable for existing housing will become necessary.

NILIM has implemented research and development aiming for configuration of a target level of capability to equip housing for utilization over a long duration of years, including the formation of multi-generation utilization type super-long-term housing and housing land, and the evaluation standard for long term quality housing has been prescribed based on its result. For the reform acceleration for existing housing, we have continually been grappling with preparing evaluation standards and arrangement for reform technologies.

Aiming for quality stock formation and distribution promotion, I will exemplify our research and development which have been carried out in regard to evaluation for existing technologies, reform technologies and so forth in the following.

1) Promotion of distribution for existing housing:

Development of capability evaluation technology for housing or the like (2011—2014)

In order to contribute to distribution of existing housing, market environment improvement, in cases where there is no plan or the like for existing housing, to readily comprehend its structure, materials or the like, and carrying out the development of technology to efficiently evaluate its performance and research and development to contribute to distribution of existing housing with appropriate information.

Specifically, we have been carrying out (1) improvement of design information using three dimensional measuring technology or the like, (2) establishment of methods to estimate materials/framing or the like for existing housing, (3) comprehension of degrading phenomenon in existing housing, (4) research and development for evaluating the performance of existing housing.

2) Development of energy consumption evaluation methods in accordance with categories of housing (2010 – 2014)

Of Japan’s energy consumption, housing and building structure occupy 1/3, about half of it is regarded as stemming from energy for housing, so for the reduction of energy consumption, the promotion of reform for existing housing for energy conservation is a big issue.

However, the present status is a situation where the effect

comparable to reform construction cannot be indicated, so for its promotion, the development of a method in which the reduction effect of energy consumption volume can quantitatively be illustrated in energy conservation construction is required.

For this reason, based on research or the like for casing/specification of equipment for each generation, we will develop a simple forecast method for energy reduction effects, as well as backing up deliberations for energy conservation reforms of housing owners, and carried out the development for more detailed analysis method of energy conservation reform and compiled it as a technological sheet.

We will publicize this result as an energy guideline, and urge energy conservation reform for existing housing.

4. Assignment for the future

The stock countermeasure is made a big subject for the latest policy related to the Ministry of Land, Infrastructure, Transport and Tourism. Not only civil engineering facilities, but also buildings and housing are the same.

As a measure at a view point of housing reform for the formation of quality housing stock, although I exemplified two research subjects above, there are plenty of research subjects to be tackled aiming for the formation of quality stock and its appropriate management in addition to those.

The evaluation for housing in the existing housing market in Japan is said not to reflect its capability held.

Quality housing is produced for the formation of quality stock, maintenance to keep its performance is firmly carried out; in addition, it is fairly evaluated and a market to reflect on the value of existing housing shall be formed. If the market grows to a rewarding one responding to striving for maintenance, it is considered to stimulate investment for creating quality stock.

NILIM also considers contributing to realization of stock-type society through research and development.

[Sources]

- 1) Statistical research for housing/land
- 2) Statistical research for housing start
- 3) Homepage of the Ministry of Land, Infrastructure, Transport and Tourism (Housing Bureau)