



Research Article

Volume-03|Issue-05|2022

Criteria for Assessing the Quality of Social Housing of Countries in the World and Experience for Vietnam

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Article History

Received: 02.05.2022

Accepted: 14.05.2022

Published: 30.05.2022

Citation

Nhi, P.Y. (2022). Criteria for Assessing the Quality of Social Housing of Countries in the World and Experience for Vietnam. *Indiana Journal of Humanities and Social Sciences*, 3(5), 12-17.

Abstract: Housing quality is considered as an important factor to measure living conditions and the ability to meet the needs of residents. Low-quality social housing can be life-threatening and reduce the quality of life of the settlers (JICA & Hanoi City People's Committee, 2007). For many people, especially low-income people, housing is a huge investment, the amount of money is accumulated over many years or borrowed, so it cannot be used to buy a poor quality house. Meanwhile, due to lack of experience in housing selection, it is not certain that the investment for housing is commensurate with the expected quality. In addition, the information on the quality of social housing projects is provided by the builder itself. Therefore, it is necessary to create a set of quality standards and evaluation system applied to social housing in order to improve the quality of social housing while ensuring that housing prices are within the affordability of this group people.

Keywords: Social Housing, Quality, Criteria, Vietnam.

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INTRODUCTION

Social housing development is an urgent matter of top concern of the Government of each country in order to provide accommodation for people, towards social stability. The development of housing projects always has two conflicting issues: housing must be of high quality but at a low price. In particular, the cost reduction is more concerned with the social housing project's investors than the quality factor, leading to poor quality social housing, causing danger to users. The United Nations Human Settlement Program (UN-Habitat) has raised concerns about the lack of quality housing, particularly in developing countries. The World Bank report also highlighted the poor quality of social housing in developing countries and the limited access to quality housing by most residents (Chohan *et al.*, 2015). This article studies the criteria for assessing housing quality according to Vietnamese law and compares it with the criteria for assessing the quality of social housing of some countries around the world. From there, identify the shortcomings of Vietnam's legal regulations and propose solutions to improve the Vietnamese law on criteria for assessing the quality of social housing.

Criteria for Assessing the Quality of Social Housing of Some Foreign Countries

Building a system of criteria to evaluate the quality of social housing is one of the important steps to improve the quality of social housing (Petković-Grozdanović *et al.*, 2016). Traditionally, housing

quality is assessed based on building specifications and can be measured (Sanchez Barrera & Valdivia Loro, 2020). However, housing demand is increasingly improving over time, so the quality also needs to be changed. Housing quality is evaluated in many aspects, including objective and subjective aspects. The objective aspect includes factors such as housing type, room size, building facilities and surroundings. In addition to objective factors, housing must satisfy users' own subjective factors related to their needs and tastes, including factors that users want and expect (Elsinga & Hoekstra, 2005). Housing quality assessment results provide essential information about the current state of provided housing and are important data for establishing future housing supply. In addition, the housing quality assessment results reflect the current wants and needs of the current users (Brkanić, 2017).

In Korea, the housing quality assessment system launched by the Korea Real Estate Institute includes four main groups of factors: residential environment inside the building, complex environment, surrounding environment, services and other factors. This model is combined with prices based on perfect information frontier (PIF). According to this model, housing quality is assessed based on the correlation with price, which is also being applied by Hong Kong and Singapore (Lee & Oh, 2012).

In Nigeria, the country with the largest population in Africa, based on the criteria from the Urban Planning Act 1959, housing quality is assessed

based on three main areas: structural materials, internal infrastructure and surrounding facilities. Calculations show that the biggest deficiency is in surrounding utilities, followed by internal facilities and lastly in structural materials (Muoghalu, 1991). Although issued quite early, the set of criteria for assessing housing quality mentioned the criteria on housing surroundings when assessing housing quality in Nigeria.

Ghana is the second most populous country in Africa after Nigeria. Ghana's rapid urbanization of 56.7% has occurred at a time when the country has a deficit of affordable housing of 5.7 million rooms

(MWRWH, 2015). Along with the urbanization process, the increasing flow of migrants to these big cities and the rapid population growth have created great pressure to meet the housing demand in both quantity and quality. In an effort to close the housing gap, the government has supported housing construction in the form of a public-private partnership. This allows for affordable construction but can sometimes compromise quality. In that context, the government promotes housing quality control activities on the basis of a system of evaluation criteria including three main criteria: physical, socio-economic and environmental factors.

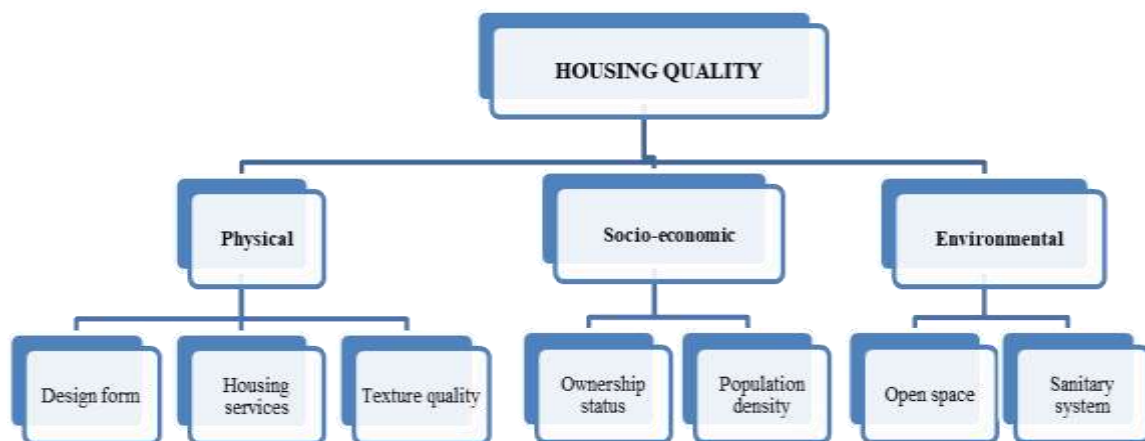


Fig 1: Ghana's housing quality assessment criteria (Hussey, 2014)

According to the U.S. Bureau of Housing and Urban Development, basic housing standards can be assessed based on the following factors (Community Tool Box, n.d.).

First, the housing must be livable. The house must be in good condition: no peeling paint, workable water and electricity system, openable and closable windows, sturdy stairs and railings; ensure the minimum area based on the average number of living people; no contain hazardous materials and other threats to health; the lock system must ensure safety, no intruders, the siren system must be in good working condition; in addition, housing must be in an appropriate location such as: not near factories, industrial zone, landfills or unstable neighborhoods in terms of security and order; at the same time, housing has access to education, health and transportation services.

Second, design standards must match the needs of users; housing location allows access to affordable basic services; public spaces with enough light and greenery; indoor space needs to be arranged reasonably; houses are built on dry land, suitable house orientation; suitable to the culture and lifestyle of the residential community; housing must be long-term sustainable,

using good quality materials, suitable for the climate; choosing materials and techniques that are less maintenance. Although durable materials are often more expensive, they often save money in the long run because of their low maintenance costs.

Third, it is an environmentally friendly housing, using recycled, non-toxic building materials; taking advantage of the location and climate where the house is built; reducing energy use by making the most of natural light and installing low-power, fluorescent lighting; saving and reusing water.

Finally, an additional criterion for assessing housing quality is housing location and accessibility to basic services. The distance from social housing projects to necessary areas in terms of education, health care, public transport, and shopping areas must ensure a radius sufficient to serve people living in that area (from the stay to public transport points no more than 400m) (Nguyễn, 2018).

Similarly, Peru is known as one of the countries with the highest per capita income in the Americas and the largest gap between rich and poor in the world. The market failure to build new affordable housing has left low-income households with access to a supply of low-

quality housing and poor living conditions. Supply shortages and deterioration in housing quality due to rapid population growth and lack of maintenance and repair have become serious problems that need to be

addressed in this country (Meng & Hall, 2006). In the criteria for assessing housing quality, Peru has added price criteria to the system of criteria for assessing housing quality.

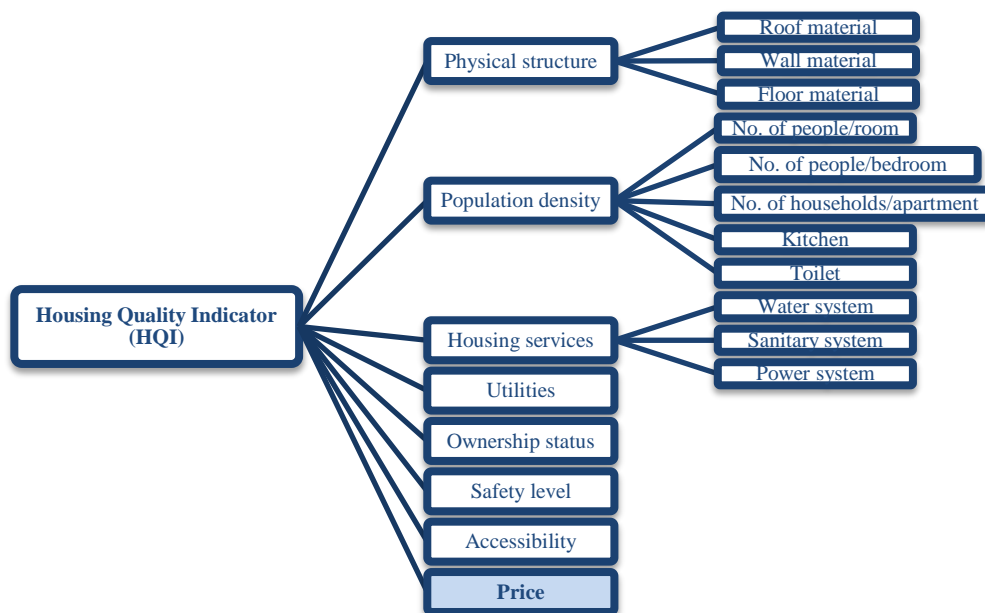


Fig 2: Criteria System for Assessing Housing Quality in Peru (Meng & Hall, 2006)

Unlike Peru, the UK housing quality index (HQI) system is set up to evaluate housing projects on the basis of quality and completely separated from the cost factor. This index system was jointly developed by the Housing Corporation and the Office of the Deputy Prime Minister based on three main categories: location, architectural design and usage performance. When building the HQI system, it is important to ensure that the three elements of housing design, the needs of the occupants, and the surrounding environment are connected (Da Costa & Sampaio, 2010).

The HQI system consists of two components: the HQI form and the score sheet. The HQI form is a set of documents containing information about a housing project and 10 component indicators (Location; site visual impact, layout and landscaping; site routes and movement; unit size; unit layout; noise, light and services; unit accessibility; unit energy, green and sustainability issues and performance in use). Each indicator contains questions for both investors and clients to evaluate. Information from the HQI form is transferred to a spreadsheet. This result provides useful information on the strengths and weaknesses of housing in the surveyed area (Le & Dang, 2016).

In France, housing quality is regulated in detail in the Building and Housing Code of 1978 (Annex to Article R443-11). In which, housing must meet the following minimum general standards:

- The entire main construction, which is the structural parts of the building such as walls,

frames, stairs, floors, balconies, must ensure that there are no serious maintenance errors.

- Closed construction and waterproofing need to ensure factors such as waterproof outer coating; floors, walls, doors and ceilings must be waterproof and spill-proof; The doors and windows must be in good working order.
- Equipments such as water pipes and connecting devices must ensure long-term use and not be contaminated with wastewater. Plumbing lines ensure adequate flow distribution and compliance with applicable health regulations; accommodation is provided with electricity and must ensure safety for users; the kitchen is installed inside and consists of a sink connected to a sewage chute; Ventilation, living room is equipped with a door that allows sufficient ventilation and light. The kitchen, toilet or bathroom must also have a door opening to the outside or be equipped with a ventilation system leading to the outside of the building; The toilet installed inside must be separated from the kitchen and dining room.

Based on the main criteria set forth by the Building and Housing Code of 1978, the French Association Qualitel has developed a system of component criteria for housing assessment. Although the price criterion is separated from the housing quality assessment system, it can be seen that the criteria for assessing the quality of houses in France focus on technical and architectural factors that have not been mentioned in surrounding environmental factors,

preferences, culture and satisfaction level of housing users.

Table 1. Criteria System for Assessing Housing Quality of the French Qualitel Association (Da Costa & Sampaio, 2010)

No.	Criteria	Scores				
		1	2	3	4	5
1	Water/wastewater supply system					
2	Power system					
3	Soundproofing system					
4	Solution to reduce summer heat					
5	Maintenance costs					
6	Hot and cold water system					
7	User's housing accessibility					
8	The level of completion of the building's general area					
9	Household appliances installed					
10	Waterproofing system					
11	Level of finishing of the floor					
12	Other factors affecting operating and maintenance costs					

When assessing the quality of housing, it is important to take into account the needs of the occupants and the environment surrounding the housing's location. Therefore, the evaluation criteria do not stop at technical factors but also need to be considered the location and surrounding environment of the house. Some social housing projects may suffer serious harm due to isolation and loss of community connection. Housing in areas far from infrastructure, transport, health, education, culture and employment networks, where residents can safely settle down but lack a livelihood (Bruscaglioni *et al.*, 2015).

Through analysing of housing quality assessment criteria system of some countries in the world, it can be seen that the criteria for assessing housing quality may be different due to economic, political and culture conditions of each country. However, these criteria are built on the basis of three main criteria, which are the building's construction technics, the design and utilities inside the house and the surrounding environment of the building. In addition, when building a system of criteria for assessing housing quality, housing price is separated by most countries from the system of criteria for assessing housing quality. Housing price is considered as an independent factor for housing users to consider their financial ability in choosing the right house. These are experiences that Vietnam can refer to establish its own system of suitable criteria to the country's development conditions.

Criteria for Assessing the Quality of Social Housing in Vietnam

Social housing projects are implemented with low cost requirements. Therefore, materials in items such as electricity and water systems, fire protection, sound insulation, leak proofing, and interior are very low investment, making the quality of the work not guaranteed, leading to the overall consequences of social housing projects deteriorate rapidly. In addition, due to increasingly scarce land and rising prices, social housing is often located in areas far away from the city

center and lacking essential services. This creates a negative sentiment that social housing is of low quality (Ha, 2020). Low-income people accept the quality of housing as an obvious thing because they think that having social housing below the market price, with preferential loans, the quality cannot be asked for too high. Compared to previously rented houses, the living conditions in social housing projects are much better (Nguyễn, 2020).

The quality of social housing in Vietnam is regulated by the Law on Housing 2014. It clearly states that social housing investment projects must be managed and controlled by competent state agencies in terms of quality, standard area (Vietnamese Law on Housing, 2014). This content is continued to be guided in Decree No. 100/2015/ND-CP, the quality management of construction works for social housing construction projects comply with the provisions of law on construction quality management (Government on Development and Management of Social Houses, 2015a). Although they are legal documents that directly regulate social housing, these two documents have not thoroughly resolved two issues. Firstly, a criteria system for assessing housing quality has not clearly and fully been considered. Second, the provisions of these two documents have not yet provided separate evaluation criteria for social housing. For this reason, it is necessary to develop a separate evaluation criteria system for social housing.

It can be seen that the quality of housing has not been evaluated in multiple dimensions, but only at technical standards such as design standards and minimum area, without mentioning factors such as housing location, surrounding housing environment and residents' accessibility to basic services while living in the housing. Accordingly, the quality of social housing is determined based on the approved design and built in a closed manner (design standards), minimum area standards (area standards) and in accordance with the construction of the competent state agency planning

(standard housing location) (Government on Development and Management of Social Houses, 2015b).

Similar to the system of criteria for assessing housing quality based on three main factors, in their article, Le Lan Huong's research group when surveying the quality of social housing in Vietnam also gave three main criteria as follows (Vietnam Ministry of Construction, 2020).

The first criterion is housing location. The location demonstrates the ability to connect the building and its residents to urban life. For low-income people, social housing far away from the city center will increase the difficulty in accessing jobs and infrastructure.

The second criterion is the overall planning of the building. The quality of living space is not only reflected in indoor area of the apartment, but also in outdoor public spaces such as green spaces, routes and movements and other public facilities.

The third criterion is housing architecture. Architecture is one of the most important indicators to evaluate the use value of a building. The word "architecture" is used not only to apartments itself but also to common areas such as technical areas, corridors, and stairs. For social housing as an apartment, people are more interested in the number of rooms, the flexibility of living space and the sub-climate in the apartment, not just the total area. In addition, construction of infrastructure including electricity, water supply systems, elevators, fire fighting systems, waste treatment facilities also plays an important role in determining the quality of social housing.

CONCLUSION

The clear, complete and feasible criteria system for assessing the quality of social housing is useful to help low-income people who are looking for a suitable place to live to make a right choice on the basis of the data related to the provided criteria completely and accurately. In addition, this evaluation criteria system helps investors be more proactive in meeting the quality requirements of ongoing and upcoming projects. This eliminates the situation that although there is a shortage of social housing, many social housing projects have been opened for sale many times but no one has bought them. Because these projects do not meet the needs of customers in this area, the main reason is that the infrastructure around the project is not synchronized, lacks connectivity, and is far from the center. Because the usability of a house depends not only on the area and design but also on whether it is suitable for the lifestyle of low-income people.

From the housing quality assessment criteria system of some countries in the world and Vietnam's current legal regulations, the criteria for assessing the

quality of social housing should be expanded based on three main contents: (i) the overall structure of the housing area; (ii) the architectural design of the house and (iii) the location of the house and its surroundings. On the basis of these three main contents, local authorities develop component criteria to adapt the characteristics of each locality.

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