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## Affordable Housing for Low-Income Community in Thailand: The Challenges of the Improvement of the Quality of Life

\*Dr. Sadanu Sukkasame

*School of Architecture, Bangkok University, Thailand*

*E-mail: sadanu.s@bu.ac.th*

### Abstract

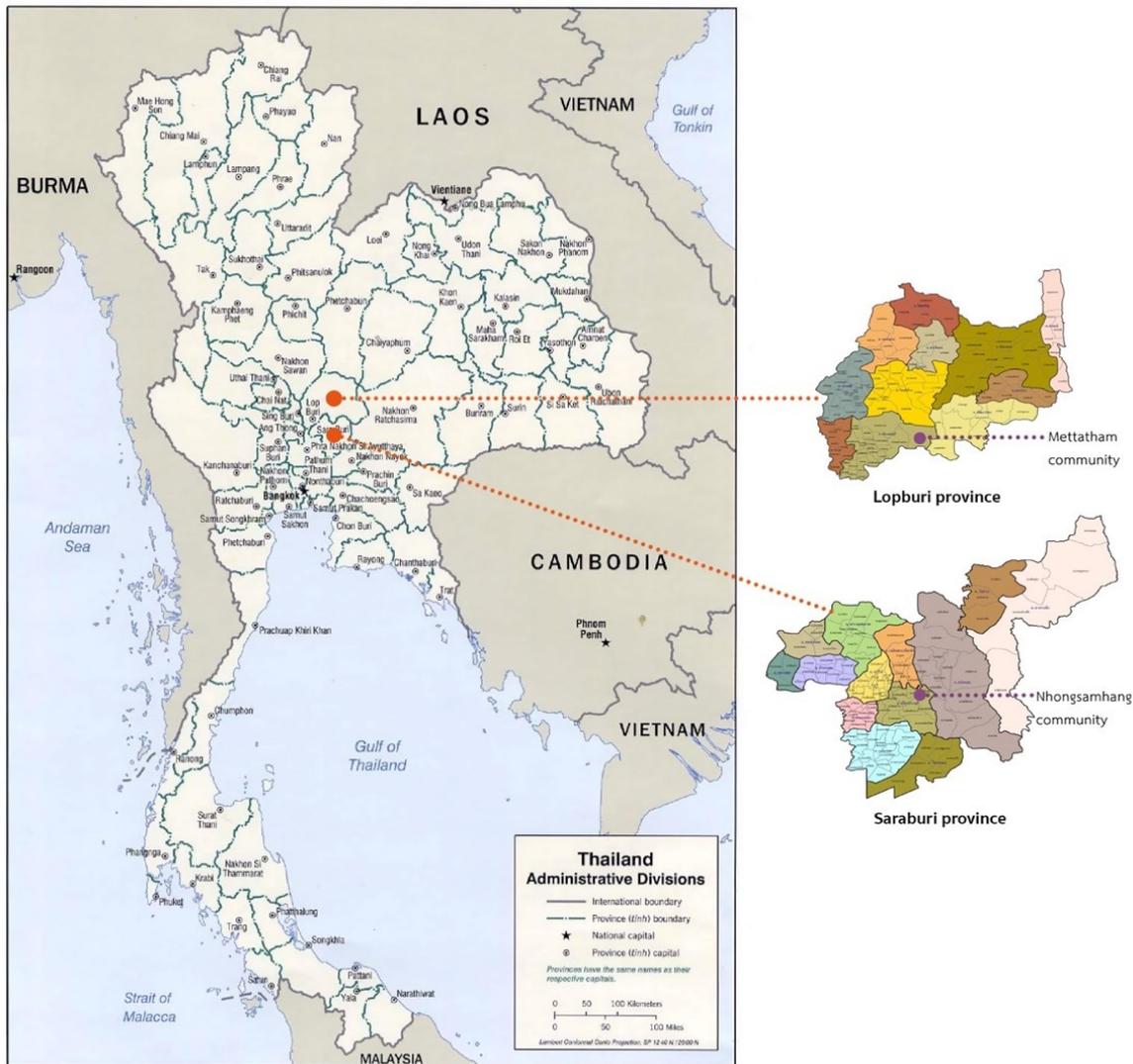
The major problems of the urban poor are lack of land, housing insecurity and access to basic infrastructure. The increase in inadequate housing and homelessness among the urban poor are clear manifestations of their relative poverty. For decades, affordable housing has been a strategy of the Thai government to promote access to the housing of an adequate standard. The main focus of this paper is on two low-income communities which constructed new settlements on new lands. Both were supported by funding and housing loans from the Thai Community Development Organizations Institute (CODI), and I was appointed to lead the projects as a community architect. This paper aims to explore the challenges of promoting affordable housing and how people deal with these challenges. They were involved in the participatory planning, design processes and worked collaboratively with each other. Additionally, financial assistance was a vital mechanism to facilitate community building processes. The outcomes of the processes generated by the activities and solutions respect the needs of the people. Also, collective saving groups were a significant development to learn together and overcome considerable constraints.

**Keywords:** Affordable Housing, Urban Settlements, Low-Income Community, Collective Saving Group

### 1. Problems of Urban Poor and Challenges

The past decades have seen the growth of the population of the cities in Thailand. People continue to migrate to urban areas to find job opportunities. In 2017, the Thai government described people earning no more than Baht 100,000 a year as low-income earners. Around 14 million Thais are registered as poor and need additional state welfare (Thai PBS, 2017). This includes both rural and urban areas. Also, the migration of people from rural to cities has put pressure on people living in cities and has also affected the demand for urban housing. Then, many urban poor households live in insecure housing and lands because they cannot afford the high housing price from the private sector. Breaking the cycle of urban poverty requires understanding of the elements that affect urban living, such as access to basic infrastructure and services, the cost of basic goods and the ability to participate in the political system (Parikh et al, 2020; Mitlin & Satterthwaite, 2013, Aziz Amen, 2022). Of course, the provision of appropriate infrastructure in a community settlement has an impact on the socio-economic indicators of urban residents such as health, education, income and housing (Parikh & McRobie, 2009, Amen & Nia, 2020).

Some households intrude on the state and public lands as illegal squatters. There are many problems for the urban poor who cannot afford the land and houses individually in the formal market system. This means they cannot get access to a secure dwelling. They also do not have the power to negotiate the land authority for long-term land leases. The lack of financial assistance is a crucial problem and constraint in accessing adequate and affordable housing (UN-HABITAT, 2009). The majority of housing financial mechanisms have high-interest rates. Additionally, People have few options for using low technology to reduce the cost of housing construction (UN-HABITAT, 2005). The study aims to present the challenges of two former intruder low-income communities and the challenges of improving the quality of life of communities through participatory processes. The infrastructure subsidies and housing loans were both projects received from Baan Mankong, a channel of CODI. The Baan Mankong Project is responsible for supporting the design and management process with community organisation participation (Boonyabancha, 2005; Ebrahimi et al., 2022; Ghasemi, 2019 ). Today they both built a registered community and obtained secure land and house.



**Figure 1.** A map shows the location of Lopburi and Saraburi provinces

**2. Case studies**

Both case studies lived in insecure dwellings and poor housing conditions built by private on public land illegally. Some of them rented cheap rooms in the city in poor condition and often had insufficient infrastructure. Both communities also faced a problem with financing and affordability level.

Firstly, the Nhongsamhang community, Saraburi province, is gathered from the urban poor people who live in the Napralan district, Saraburi province. Total 121 households, most of them were renters and extended households. They were seeking secure land and housing. They negotiated to purchase the land for building a community. They also took a CODI loan for land and housing. To bring down the cost per family, they use participatory building and collective management to build the house. The average cost per household was US\$ 5,900-6,700, which include US\$ 757 for infrastructure subsidy. Each household makes repayments of US\$ 32-37 per month for 15 years.

Secondly, the Mettatham community, Lopburi province, occupied the land of the Thai temple many years ago. A squatter community of 13 families occupied 1.12 ha of land without any documentation, which was owned by the Thai temple in Koktoom district, Lopburi province. Together, they and other urban poor negotiated the land authority; an agreement was reached to rent and share the land between the 13 families and other low-income living nearby, totalling 56 households. They took a CODI loan for housing. The average cost per household was US\$ 3,600-6,700, which include US\$ 757 for infrastructure subsidy. They have to repay their housing loan approximately US\$ 20-37 per month for 15 years.

### 3. How can they afford houses

The affordable housing on the market is one of the major problems facing low-income households due to the continuing rising construction costs. The ability to pay for housing is usually measured by the relationship between household income and housing costs (Menshaw, Shafik & Khedr, 2016). Affordable housing refers to housing in which a household can afford the initial and other expenses of less than 30 per cent of a household's income (Maschaykh, 2015; Hulchanski, 2013). For the urban poor, the cheapest form of housing is built or assembled by individuals on a piece of land occupied without any formal title. This is the mode of housing production commonly found in the slum. However, it is an insecure dwelling with a lack of sanitary and poor construction. Although this mode is the cheapest housing, it is the most expensive regarding health and security (UN-HABITAT, 2005).

On the other hand, there is an optional housing construction involving the building process's lower cost. It is collective or collaborative housing. This approach incorporates a government programme and financial inputs. The programme brings low-income people together involved in the process to address the challenge of financing and integrate a financial mechanism to support the implementation of settlement upgrading strategies. The urban poor can be upgraded successfully when involved in the planning and design of upgrading projects (UN-HABITAT, 2009). It is also a substantial factor in creating a sense of community around the build together concept (UN-HABITAT, 2005).

### 4. Structure of intervention

In both case studies, it is necessary for the urban poor to be involved in the process. They have to participate in the beginning stage of the building process to ensure that houses suit their needs and are within income capacity. Hamdi (1991: 75) mentions that the best community participation ensures that everyone involved has a stake in the outcome (Aziz Amen & Nia, 2018). All concerned will share the responsibilities, profits, and risks of what he or she decides to do. Participatory design and planning is an approach to problem-solving and understanding the complex interweaving of environmental, social and technological forces. Sanoff (1979) proposes principles of collaborative design processes. First, the conceptual framework should provide the learning activities. Second, the conceptual framework should be provided to encourage initial participant independence. Third, the participant should be given a maximum feasible choice at all decision parts. Therefore, the step of working and implementation of both communities formulate:

- Identify the stakeholders
- Meet and explain the programme
- Set community-saving activity and collective saving group
- Find problems and possible solutions
- Negotiate land authority
- Measure the plot of land
- Design and planning workshop
- Work with local government agencies
- Propose the project to CODI
- Approve the project and get loans and funds
- Clear the land right (purchase or lease land)
- Plan for construction
- Management plan
- Coordinate local government agencies and relevant organisations
- Financial management plan
- Build houses
- Move into new houses
- Continue develop, welfare, occupation, community management, environment management.

In addition to these processes, funding from CODI comes in the form of infrastructure and housing loans. In terms of housing loans, housing cooperatives can borrow CODI loans at an interest rate of four per cent per annum. The housing cooperative will lend this fund to each family at an interest rate of six per cent per annum. Housing cooperatives will receive a profit margin of two per cent to cover loan administrative expenses, community welfare and acts as a buffer for late repayments or default (CODI, 2017). Urban poor people are the key actors in the process and manage the funding and overall management. They also undertake most of the building, making funding go much further and bringing in their own contributions (CODI, 2017). This process also promotes the bottom-up approach and people process. They take action on their own behalf to build houses and communities. Also, the democratic voting process is significant to making the consensus in community planning design. Workshops offer a

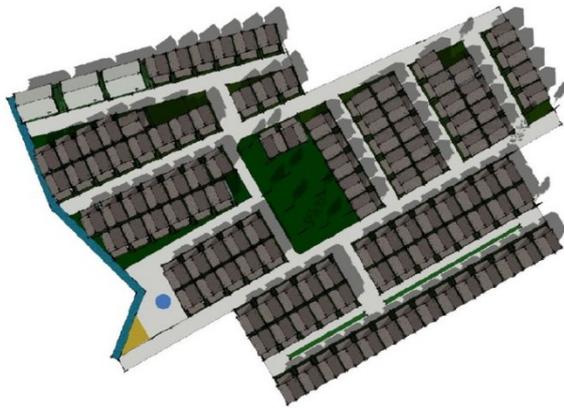
learning experience that causes them to reflect on ideas to problem-solving. However, it should bear in mind that observation of each group assists in shaping the design process.



**Figure 2.** Defining and analyzing the problems with the Nhongsamhang community



**Figure 3.** Meeting with the Mettatham community to identify problems and possible solutions



Nhongsamhang masterplan



Mettatham masterplan



Nhongsamhang community



Mettatham community

**Figure 4.** Masterplan and after building processes of both communities, people moved to new houses

## **5. Results and discussion**

### **5.1 Community-saving groups and funds**

Community funds and saving groups are a mechanism that strengthens the community and can reduce the risk for the individual's management. Community funds from CODI offer them small loans to households through community organisations. These collective loans are for purchasing land and building houses which are necessarily made by a group working together.

However, the challenging task is how to manage the funds effectively to ensure that all stakeholders have benefits and meet their needs. For instance, the Nhongsamhang community use loans for purchasing a plot of land and building houses for 121 units, while the Metthatham community uses loans for only building houses 56 units. Regarding infrastructure, both communities negotiate with the local government agencies to develop both electricity and water supply and construct the streets in the communities.

Saving activities connect people in the community. It is a strategy to help with repayments in which they have to demonstrate a capacity to collect money. The community-saving groups have to show a ten per cent deposit to qualify for the loan. The regulation and agreement between CODI and communities encourage them to save money within the families. This brings people to work together at both household and community levels in building activities. It also provides the confidence for a comprehensive self-development process (UN-HABITAT, 2009). However, it should bear in mind that the form of community-saving groups associated with affordable housing and the way of life of each household, mainly income and minimum wage. On the other hand, we found that many people withdrew their memberships and money from the group because they did not trust the project. Thus, building trust is important in the first stage of the meeting.

### **5.2 Ways to reduce housing costs**

Housing production cost components are categorised into financial assistance, land, infrastructure, building materials, design, location and building technology. To be affordable, all of these elements require to be integrated into the process. It is obvious that financial assistance is the critical source of the cost of the building process. It is a powerful tool that brings the urban poor to work, learns, and makes decisions to implement effectively. Also, the development fund allows people to participate in the management process.

Furthermore, access to affordable land for housing is a significant constraint. There are two possible approaches for both communities: long-term land lease and land purchasing, which depend on the situation and availability of each community. The new community's location is also essential in deciding on a new location because it affects the commute to work for the villagers and going to school for children in the community. The essential features of the affordable land process are participation and collective ownership. People identify and select the location to be developed for building community. It must be related to income-generating activities. It is essential for building the community to be located as closely as possible to the income-earning opportunities.

In terms of building materials, both communities employed the collective building and materials methods that are the most affordable way of providing sustainable housing. It is saved because it is based on the cooperative substantive amount of equity. Beneficiaries engaged in it and shared and reflected the ideas. They are able to pay for the construction of the housing, and it responds to their actual needs. It responds to the actual needs of people and level of affordability. For example, buying bulk materials to save on construction costs or finding a construction company and negotiating construction prices together. Moreover, the design helps to identify the cheapest building materials and components for durability with the imperative low-cost construction solution. My role as an architect is, therefore, a factor that influences the process. It is necessary to open mind to develop a degree of trust and spend the time to build trust. I also aim to empower them to take on responsibility for decision-making, planning, and implementing their own development's ideas.

The community welfare programs are an interactive strength-building tool within groups, such as patient funds: elderly funds, and community emergency funds. A community welfare project has been developed to take care of members of the community. These welfare funds allow them to help each other so that isolated issues become a community's shared responsibility (UN-HABITAT, 2009). The consensus of poor communities is the key agreement of each welfare activity. Thus, people should participate in the decision-making stage. This approach has demonstrated sustainable development in which the people are the main action at all stages.

### **5.3 The challenges of the improvement of the quality of life**

Does the process improve the quality of life? There is no single formula to achieve affordable housing. The issues of land tenure and secure housing have been resolved, and basic infrastructure is created in place. These have greatly improved the quality of life for low-income people. They can negotiate long-term leases with landlords. And safe land holdings are essential, which gives them confidence and a sense of security in their long-term residence. They

share ownership of the land and become common property, which is an efficient way to sustain their lives. In terms of repayment, they have repaid their land and housing loans in the long term with a small amount of money. They can manage their communities based on their ideas; it generates confidence and management skills. Several types of house forms and sizes have been developed through loans to community initiatives to match each household income, including resetting on land that is close to former squatter or living areas. The advantage is that they can continue to live and work in the same area.

#### 5.4 The role of an architect

An architect who works with the community or community architect may differ from other types of the architect. An architect aims not only to design a community but also to criticise, discuss, understand, and explain the phenomenon of community. The ambition is to improve the quality of life and dwelling through social and design processes as well as to recommend concrete solutions to society. We aim to understand the phenomenon of society and find the solution by presenting new perspectives and analysing the contexts, and working with the urban poor. This is, of course, a lesson for an architect to contribute to the knowledge. The features of the process enable participants to improve the stage of practice through the participatory process, which is a flexible process. It is essential to think that the participatory process shapes and changes the practice and helps to constitute architectural educational practice. This working process is an optional practice to help an architect who works with the community to achieve the goal. Importantly we found that process-based holistic thinking and the analysis of phenomena are developmental concepts and challenge the old paradigm of working and understanding the context of urban society.

#### 6. Conclusion

This paper has examined how the urban poor deal with the challenges of promoting affordable housing. Both communities challenged the problems of financial assistance, building materials, design and land to produce affordable housing. A participatory approach was applied from the beginning stage to the end of the process. Participatory design and planning provide problem-solving methods, and it becomes a tool that brings people to work, learn and make decisions together, particularly in financial management and the building process.

When considering the housing process for the urban poor, clear communication is a vital consideration that makes people understand to engage in the projects. If they get unclear information, they may not trust and participate in the projects. Then, the collaboration of the local government agencies was essential, which also impacted the project's success in supporting the basic infrastructure. However, this is an optional way to achieve both case studies. The most challenging task was setting up community-saving groups because we had to build trust and connect people who come from different places to work as a team. At the end of the process, we found that secure land and financial assistance are essential considerations that the urban poor desire and enable them to build their own affordable houses. Further studies need to examine more closely the links between the spatial arrangement of the internal house and the urban poor to search for the adaptation of affordable house.

#### Conflict of Interests

The authors declare no conflict of interest.

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