Collaborative Community Design Processes in Rural and Urban Settlements in Thailand

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ABSTRACT

This paper compares two contrasting processes of low-income community design in rural and urban areas in Thailand. The low-income Srabot community in the urban area is constructing a new settlement on newly purchased land. In parallel, the indigenous Banggloy community is located in the National Park as a community who were forcibly evicted from their village home to an allocated area where they constructed dwellings in the new village. Both cases were supported by housing loans and funding from the Thai Community Organizations Development Institute (CODI)[1]. The aim of this paper is to examine collaborative learning process based on low-income community design. Both cases employed participatory housing and planning design workshops. The urban community focused on designing the community masterplan. In contrast, the rural indigenous community concentrated on the housing design. In both projects, the occupants were encouraged to be the key actors and to decentralize the solution finding process. The outcome of workshops generated the activities and possible solutions that respect the need for the stakeholders and motivate them to continue to be active.

Keywords: collaboration, housing design, masterplan design, rural community, urban community

INTRODUCTION

Many low-income people are forced to live in substandard dwellings, with lack of tenure security, overcrowding, lack of basic infrastructure or poor environmental conditions. This relates to poor government policies, the failure of affordable housing and ineffective urban planning systems (UN-HABITAT, 2015). The lack of effective strategies, particularly in developing countries, has worsened living conditions because of the degradation of basic infrastructure (Amado et al., 2017) especially in rural settlements and remote locations. In the last decade, collaborative or participatory processes have gradually become effective in rural and urban poor development. This is especially true in urban areas which are the target of investments in development because urbanization is a major economic driver (Amado et al., 2017). However, it can be argued that, in basic assumption, human settlement planning is for people; therefore, people should have rights to participate in the planning and management of their own housing (Sanoff, 2000). In other words, all people have the right of self-determination (UN-HABITAT, 1960). Currently, a variety of citizen-initiated programmes in many developing countries represents alternative housing programmes. For example, in Thailand, last decade saw collaborative development becoming an important mechanism to deal with housing problems. The tools such as design workshops, meetings, community welfare strategies and community funding were used to arrive at solutions that are truly responsive to the needs of people.

This paper takes the form of two case-studies of low-income communities in urban and rural contexts. First, the Srabot is a poor urban community, located in Lopburi province, with in insecure tenure, inadequate housing and overcrowding. Second, an indigenous Banggloy community, located in the Kaeng Krachan National Park, Phetchaburi province, confronts new challenges in their settlement following relocation within the national park. These problems include lack of income-generating activities and inadequate housing. The research data in this study is drawn from the design workshops in both contexts. Both communities obtained financial support from CODI through the Baan Mankong Programme (BMP) and I was appointed to take the role of architect to support the process of design and management. A participatory and collaborative approach was employed throughout the processes. This approach supports community development by providing financial assistance in the form of funding, basic infrastructure and housing loans allowing people to control funding and management. Although it seems like a small amount of funding, for the communities, it is valuable finance. This budget encourages them to be active and plan together to build and improve the community. The main purpose of this study is to develop an understanding of collaborative design processes of low-income community by employing the BMP as an essential mechanism. It is a CODI project which opens up learning by acting and supporting community learning across several areas through workshops and meetings which help to strengthen and empower people to change their lives.

THEORETICAL CONTEXTS

Collaboration and Participation in Design

Masterplans and dwellings are usually designed by architects who employ technical computer software such as Autocad and Three Dimension rendering programs, which aim to convince the occupants to appreciate the design. In contrast, collaboration between professionals and house owners could establish better understanding of design practice by using simple tools to design together. Since participatory and collaborative design were first introduced in the 1970s and 1980s, it has developed and has been used in a range of practice and research (Dalsgaard, 2012; Hess & Volkmar, 2012). Participatory design has become a branch of design, concerned with giving users a direct role in decision making about the development (Johannessen & Ellingsen, 2012). Similarly, co-creation as any act of collective creativity is shared by two or more people (Sander and Stappers, 2008), for example, collaboration between designers and academics can create better understanding of working practice in both research and professional practice (Swann, 2012).

A key aspect of participatory design processes is the collaborative orientation which requires a collective understanding, development and reflection of mutual learning (Kang et al., 2015). It allows people to argue and change through a re-thinking of the design process (Binder et al., 2008). Generally, participation allows people to gain access to deep information with regard to various methods. Luck (2003, 2007) notes that participatory design is a

human dimension engaging the people who form community in the process, with various activities and situations of participants. Participatory design is an approach which can encourage people to change in the creation and management of environments (Sanoff, 2007, p.213). In the same vein, aspects of participatory projects can empower people to reach their goals. It can happen in the details of interaction through the self-organizing practice of the participants (Hussain, 2010, p.100–101). Participatory design, therefore, is likely to become a key design process with techniques which are applied in collaborative projects by the architect and facilitator.

Participatory Design can clarify goals and needs, designing coherent visions for change combining business-oriented and socially sensitive perspectives (Simonsen & Hertzum, 2012) by promoting design as an activity that is collectively negotiated among many stakeholders (Johannessen & Ellingsen, 2012). It can enable people to take part in public discourse in effective ways by providing a rich variety of answers (Disalvo et al. 2012), which can be divided into two explicit stances: firstly, users as full participant in the design process, and secondly, the value of mutual learning between users and designers (Halskov & Hansen, 2015). Participation, therefore, becomes a relational network achievement running through the design process (Anderson et al., 2015), and negotiation within the design context.

In view of the above, one may propose that the Collaborative Design Process (CDP) refers to the action of participation activities that are united by groups of people to encourage the participants in part of the design process to share their voices and ideas based on current circumstances as well as empowering participants connected to the design process (Iversen et al., 2012). Collaboration helps the people through difficult change processes, is always about relationships, and community learning processes show what people are doing together and accomplishing not just about their common ideas and processes (Senge & Scharmer, 2001, p.245). It can be concluded that participatory design is not merely for achieving a specific purpose, but also to engage people meaningfully in their environment through different levels of participation (Sanoff, 2000, 2007), and it becomes one of the possible ways to reach a design goal (Hess & Volkmar, 2012).

METHODOLOGICAL CONSIDERATIONS

The study draws on qualitative analysis to gain insight into the design process. To understand how people regulate community design, a series of activities were performed. First and foremost, investigating communities through people characteristics and environmental features, such as economic issues, present situation and lifestyles. The framework followed the action-planning process with integrated action tasks. Walking around the site or village with a map is effective for community learning as an initial point of the collaborative process. For example, mapping houses together with the villagers helps to identify their present position and boundaries; both physical and societal. Survey and questionnaires also helped me to gather information, attitudes and opinions from them. While interviews provided much more information. In the same vein, face-to-face interaction in the workshops also created an understanding of complex problems.

As mentioned, collaboration and participation usually occur in interactive learning and group decision-making. The key is to produce community design work effectively in a range of methods for supporting people to collaborate creatively. Identifying the beneficiaries to attend the workshops and explaining the programme focusing particularly on the head of family. For the urban community, around 30 households out of 64 households attended the workshop to design their own community masterplan. Additionally, joining the regional Urban Poor Community Network provided positive aspects, which can assist to build a new relationship of cooperation to integrate urban poor housing at a city-wide scale. At the rural site, 43 households of the indigenous community were motivated to design their new houses on allocated land in the National Park through participant drawing methods. Bamboo house models were also an effective tool to learn about house space and structure during designing.

For each workshop, I first introduced the financial, cultural, political contexts and programme to develop the understanding of design workshops. Explaining the programme and summarizing the funding and loans helped construct an understanding of the whole project. Likewise, it was important to identify the purchased land before designing the

urban community masterplan and to explain the current situation of land in the National Park before designing houses with the indigenous community. Then, brainstorming within groups generated many possible solutions and produced specific ideas. Collaborative design methods including interviews, questionnaires, focus groups, mapping through design workshops were valuable in gaining information and activating creative thinking.

CASE STUDIES

The Banggloy Community: Housing Design Workshop

The Indigenous Karen dwellers living in the Thai Kaeng Krachan National Park[2] (KKNP) were relocated from their village home to allocated land between 1996 and 2011. They were moved to new areas further from the Thai-Myanmar border where they constructed new dwellings. These operations have caused the Karen people to lose their homes and lands. In 2014, the CODI approved funding of estimated US$[3] 119,214 for the Karen Housing Development Project (KHDP) for 91 households in Banggloy village. The average funding per household is around US$ 1,310 to rebuild and repair their houses.

The workshops were held in December 2015 and September 2016 to plan and design their own houses. The initial stage was identifying effective ways to work together and encourage the Karen to get involved and explore how to address their housing needs. The schedule followed the structure of the Participatory Action Research (PAR) approach consisting of observing, reflecting, sharing, planning and acting stages.

Preparatory workshops helped to create the understanding and to clarify the steps of the programme in order to achieve the housing design.

Meanwhile, listening to local voices was a vital task to make me respect and understand their needs. Additionally, a visual approach helped the Karen to make a clear image about their houses. For instance, we employed bamboo models as a tool to elucidate the house space, form and structure. This was significant because they could imagine as three-dimension space that what their houses would be, then they could design and discuss easily on their drawings. The workshops encouraged them to express ideas through their drawings and persuaded them to discuss more about their future houses. Drawing acted, therefore, as a bridge between me and the residents. Also the drawings delivered a starting point for the extended conversations on what we should plan for the building stage.

The study shows that the workshops helped them to realize the key features when designing and building new houses. For example, how they live and use the spaces, and how they define the spaces following household characteristics, such as the size of the family and occupation which were important data to clarify the layout and house schemes as well as how income and funding can limit construction possibilities.

The Low-income Srabot Community: Community Masterplan Design Workshop

The low-income Srabot community is formed from 64 households living in poor dwellings in the Srabot sub-district, Srabot district, Lopburi province. In 2012, they negotiated to purchase a parcel of 9,000 sq.m. land for building a new community supported by CODI loans for land and houses. CODI provided US$ 450,000 including both subsidized budget and loans to the Srabot community saving group. The average unit cost (for land, housing and infrastructure) is US$ 7,000 and each household makes repayments of US$ 29–55 per month for 15 years.

[2]   The Thai Kaeng Krachan forest was declared as a national park in 1981. The park is located in Phetchaburi and Prachuap Khiri Khan Provinces, bounded by the Tanintharyi Nature Reserve along Myanmar's border to the west (Thai National Parks 2016)

[3]   Exchange rate US$1 = 34.35 Thai Baht (April 2017)

Figure 1:
Fourteen households of the Banngloy community attended the housing design workshop 1 at the community house in December 2015

After surveying the low-income communities in the Srabot sub-district, the Urban Poor Community Network of the province, identified 307 households from 12 communities who were eligible to join the project. They were living in unstable dwellings and occupying illegal lands, insecure resident status and poor structural quality of housing. They came from different parts of the city, so some of them did not know each other before, while some came from the same place. At this stage, it was important to develop the collaborative approach to build harmonious relationships amongst the participants. For building a new community, defining relationship is an essential primary task, so they were divided into small groups to draw relationship diagrams within the group.

The next stage was collaboratively designing and planning the schematic community masterplan related to the group relationships. Participants arranged pieces of papers representing their own plots of land on the community's layout. They were encouraged to negotiate the space and relationship with each other and to understand the relationship between people, house and community space particularly public spaces such as streets and a community house. The complex issues of negotiation during designing the community masterplan include how to achieve equal access to public space, and how to reduce the cost of construction and reduce waste space. These tasks allowed them to experiment and make important decisions with greater flexibility and innovation. However, several limitations to this workshop need to be acknowledged such as limited time and size of group. It would have been better, if they had designed more than one schematic plan, and then compare between them to select the most suitable one.

Figure 2:
Participants designing the community masterplan of the Srabot community, Lopburi province, by arranging pieces of paper representing individual plots of lands

Table 1: House types and repayment each month of the Srabot Community

House size and type	Repayment of land (US$)	Repayment of house (US$)	Community Saving (US$)	Total payment/ month (US$)
4x7 m.	2.6	22	4.4	29
5x8 m.	2.6	34	4.4	41
6x9 m.	2.6	48	4.4	55

The final community masterplan consists of 10 different groups following the drawing relationship task. The masterplan is divided into two types of space: the housing area is around 70 per cent and a public area is approximately 30 per cent. Meanwhile, the size of house and land were designed relating to the cost which they are able to repay to CODI each month (see Table 1). Although house sizes vary, they all received the similar size of plot approximately 100 sq.m.

In general, during conversations and negotiations, all participants overcame primary problems and made the final schematic of the community masterplan for their future home through a democratic process where they got the chance to express ideas, vote or were free to say what they wish. Meanwhile, the workshop provided them with an opportunity to experience the design stage for the real project through the collective learning experience and collaborative design contributed to a sense of ownership.

The evidence from both contexts indicate that the workshops allowed participants to have a positive experience of collaboration. Although the housing design workshops focused on the creation of space and form to serve specific household needs, and community masterplan workshop concentrated on infrastructure planning and public space, these design exercises can be a starting point for collaborative community development.

RESULTS AND DISCUSSION

Workshop as a Process of Relationships

A possible explanation for this might be that the design workshops enhance and construct both new and old relationships with each participant in the sense of being in groups. They shared, for example, the experiences and knowledge of each other in the negotiation stage when they were creating the community masterplan or designing public community space such as streets and public spaces linking between people and place to build the identity of the community. In addition, it also promoted a feeling of equality between participants who engaged in activities by encouraging cooperative rather than competitive relationships.

Furthermore, creating a good relationship between local government agencies and communities is a vital process to support the building process. For example, the urban project reduced the cost of basic infrastructure such as water supply, electricity and street construction by negotiating with the local government agencies to invest in them. In other words, the investment create partnerships between communities and the state. In the same way, creating the good relationship between the indigenous community and the national park is also essential to create trust between them and negotiate to use new materials but follow traditional practices in the forest land in the future.

Collaboration as People's Process for Change

The aim of both projects is to empower low-income residents through collaborative design and to promote bottom-up processes for managing their own physical developments. The terms of empowerment refer to both empowering individually and collectively to improve their lives. Empowering the beneficiaries to organize and mobilize themselves as a team is most important because they are often confronted with shortage of funds and the lack of alternative solutions to improve their quality of life.

A general concept of collaboration is exchanging information within groups in which people are the key drivers of the process. Inevitably this is a kind of people's process based on involvement in the design and building stages of their communities. Collaboration helps them to journey throughout the process of change and deal with their problems themselves. During the workshops, the aim is to promote community members to develop the project together. Planning and housing design strategies concentrated on what people were able to do for themselves to reach the goal. It can be seen as an empowering process which allows people to control the project.

This approach also creates self-confidence to negotiate with local government agencies, and strengthen bonds within community memberships. People's processes are speaking loudly as an effective strategy to enhance their opportunities to drive community development toward future sustainable living. In other words, it is a voice for a long life. It can be said that collective voices of low-income people can become a massive power to tell the state that what they really need, and share social decisions to determine the direction of their lives. Unavoidably, working with a variety of people, some decisions may be ignored and conflict feedbacks may lead participants to have negative perceptions of outcome, and they may be less likely to participate in the future process. Hence, the group should assure that diverse public views are represented in the meetings and workshops.

Role of Architect as a Translator

In both case studies I have taken a role of architect, facilitator and researcher not only to facilitate the projects and advise on technical practice, but also to translate abstract ideas into concrete forms, as well as assist community members in creating the community with the best use of resources. It is necessary to have an open mind to develop trust and spend time to build trust through a bottom-up approach to encourage them to take on responsibility for decision-making, planning and implementing their own development. My role is not, therefore, to impose solutions on them but to enable them to improve their analysis of the project and reaching the design goals. For example, helping with the details of community master planning and house design allowed the project cost to stay within available loans and funding. As an architect, I can also encourage them to think about sustainability in terms of a future livable community. For instance, the discussion with groups about details of housing design, infrastructure planning or public space can empower beneficiaries individually and collectively. Those discussions led to possible solutions in achieving better dwelling conditions in the future, and learning to compromise and to accept all the people's ideas, both positive and negative.

CONCLUSION

The aim of this paper is to examine the collaborative learning process of low-income community design in rural and urban contexts. It can be seen that the collaborative design process is an alternative activity to offer participants a chance to experiment with ideas that can become possible in the current context. Different processes of low-income community design identify that collaborative community design is not only an improvement process but can also strengthen community connections into an active development process, to work together to overcome land and housing problems. Design workshops help them to better understand their position and the potential opportunities to improve their quality of living. The workshops resulted in a clear understanding of how to prepare and build the houses following their designs. Drawing helped people to think about building materials, construction and budget. It also referred to the self-awareness and self-image in relation to their circumstances. Specific social and cultural housing norms and experiences were expressed through their layout design and drawings. They reached consensus in the meeting to use the same kind of building materials to save budget.

In terms of the action stage, participants are able to attain their own secure houses and communities. All action plans are agreed amongst participants as a democratic process. Based on the idea that everyone has equal rights to make decisions, the plans came from the process that provided them with comfortable space to share their voices and become more active in their own development processes. However, for indigenous Karen people, due to constraints, especially access to traditional building materials and national park regulations, some action plans were not implemented but, in turn, this became a worthwhile lesson for the next workshop. The collaborative local-action processes of the research and project were aimed at strengthening the local community. The success of the actions relied on the leaders, who understood the process and were able to lead the people to reach the goals together. These activities and possible solutions were generated to respect the needs of the occupants as the local

actors and stakeholders and motivate them to become more active. During the diverse processes in the collaborative project, they were more and more involved and became drivers of the process. It is important to bear in mind that the variations of life and environment offer different explanations and further study should evaluate the collaborative community processes in order to ensure that the outcome of workshops are effective in the long term.

ACKNOWLEDGEMENTS

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