Towards Community Participation in Housing Design: Experience from Low-Income Waterfront Communities, Bangkok

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ABSTRACT: This paper aims to illustrate the working and community participatory process as well as the role of architects and urban designers in urban poor housing design through some upgraded low-income housing projects in Bangkok. Two cases are comparatively similar and different context which finally directs to each particular housing development guideline. The paper argues that other dimensions apart from physical significantly influence substantive outcomes. The learning experience among different involved parties can become one of the effective tools to conduct strong sense of belonging as well as community building. There are several concerns in practice, which architects and urban planners/designers have not to neglect and for low-income community those are always economic, political and sociological considerations.

KEY WORDS: Low-income housing design, Community participation, Social learning, Conflict resolution and mediation
1. **Introduction: Background and role of practitioners**

There are many low-income illegal settlements in Bangkok and one of the classical of those is along the canals. The low-income upgrading project is one of the main poverty alleviation policies from national government, which it tried unsuccessfully to get rid of in the past, but the main solution nowadays is to negotiate with the landlord, to whom the land belongs, in order that the community will get ‘legal land right’; the significant incentive, which importantly encourages people in low-income community to improve their living condition.

Bangbua canal is the pilot project for the low-income waterfront housing cases, composed of nine communities along its two-kilometer length, whose existing condition is legally settled on both sides of the canal. Not only illegal settlement, but part of the whole community’s housing still also finds itself trespassing into the water body. This circumstance becomes one of the government excuses to relocate all communities along the canals as emergency policy because it is considered as one of the reasons for flooding in Bangkok.

The project is supported by ‘Baan Man Kong’ program (CODI 2005), which is regulated under Community Organization Development Institute (CODI), one of the government authorities working on community and low-income housing by providing housing micro credit for housing and subsidizing cost of infrastructure to community member in order to reformulate their living from poor, ruined and illegal to rightful and better conditions. From this standpoint, architects and urban planners/designers are required to cooperate with officers and some NGOs in order to find out the most appropriate new housing characteristics with various perspectives and dimensions of concerned people. The role of architects and urban planners/designers here is challenging because this deals with the people and whole community, who contain very high diversities in financial condition, occupations, micro politics, and sociological characteristics in the community itself.

To deal with housing design in low-come community, a set of effective and efficient tools are required that responds to each community condition. The goal of this project not only concerns on housing design outcomes, maintaining the budgetary and aesthetic dimensions but also contains sense of community both physically and socially. That means the design process has to be open for people in the community to participate, in which the essential information will be apparent and responsive.

Design process is not one way communication as traditionally thought, which architects and urban planners/designers will provide to the urban poor community and evaluate community as object of study as previous practice in Thailand, but interactive and detail working. Community process and planning can be divided to four parts, which are 1) introduce and inform community people about the benefit of the project and encourage their involvement 2) initial data gathering – both physical and socio-economic information for designing, essentially working with community people 3) develop masterplan scheme regarding community limitations and decisions, and 4) physical design regarding community members’ ability to pay and
community’s sociological relationship through sociological and economical integrating planning.

Planning theory has significant switched, especially in community development field of study from picturesque community as object of study to become more subjective. The role of architects and planners nowadays has been challenged and changed from top-down planning to become more participatory and collaborative, from provider to enabler, from centralizing to decentralizing production/devolves decision making and from preferring standardization to promoting variety/flexibility (Hamdi and Goethert 1997: 27).

Hence architects and urban designers tangentially play facilitating roles as technical supporters, construction consultants, and cost estimators rather than architectural design scheme determinists. By the way, academic knowledge of physical planning like land use, infrastructure system, community greenery should be maintained here. Learning process is interchanged between designers and community members: architects learn more in sociological and managerial standpoint, while community people learn more about physical design standpoint. This brings more effective planning and design while conditions of knowledge gap between both were fulfilled and ran hand in hand.

By this programme, the participatory level is considered as ‘degrees of citizen power’ from Arnstein’s ladder of citizen participation (Arnstein 1969: 217), which means community members are able to influence and criticize on architectural and site planning design schema and are able to decide in which environment they prefer to live. Additionally, according to Abbott’s model of participation’ (Abbott 1996: 124), the characteristic of participation in the study areas addresses in the arena of consensus, where related stakeholder institutes are opened, which are based on deep-rooted conflict resolution and negotiated development.

The article will illustrate two pilot communities: Samakkee Ruamjai and Roykrong community, the most mobilized communities, which are both member of Bangbua community network, in masterplanning process, which have different consensus and decision making based on their own physical characteristic in the beginning level. The article will also evaluate some successes and obstacles, which the author experienced in project areas. And lastly, the summary is what tools and applications are needed in social interactive learning and planning in order to achieve best practice low-income housing planning and design.

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1 Sherry Arnstein has classified level of citizen participation into 3 levels, which are degrees of non-participation, degrees of tokenism, and degrees of citizen control.

2 John Abbott has provided various arena of citizen participation, where the factors are the level of government openness and level of government hierarchical complexity. He has categorized those in to four arenas those are arena of exclusion, inclusion, consensus and confrontation.
2. Field process: From theory to practice

Many theoretical and practical models for urban poor housing development had been proposed, which a practitioner can conveniently adopt and exercise as urban poor upgrading alternatives. However, first was to set up area-based working group so-called ‘Working Group for Housing Development of Bangbua Community’ (WGHBC), which was worked out on the basis of community’s readiness and was steered down into details, both community mobilization and strategic planning. The process started with high community potential on one hand and mobilized community on the other hand, which was less than prepared. Both Samakkee Ruamjai and Roykrong communities, members of Bangbua Community Organization Network (BCON), are located where land belongs to Crown Property Bureau (CPB). The aim, in which BCON participated (‘Baan Man Kong’ program) is that on one hand the community recognizes itself that they are living on unsecured land and they urgently require negotiating for long term land rent with land tenure and on the other hand to entrust CODI with their financial management capability for housing improvement’s micro credit. Therefore, initially, they require a community planning proposal to both CPB and CODI, not only of physical planning and design, but also representing how they can effectively manage the use of land regarding social equity environmentally friendly, and neighborhood sustainability and how to manage loans and debts, which CODI provides and subsidizes. The process to meet those requirements was supported by various actors, mainly independent architects and planners. The guidelines of filed practice have been derived from theoretical approach (Sanoff 2000; Hamdi and Goethert 1997), which are described in following points.

Need assessment and initial resolution through survey

Initial survey was undertaken by the WGHBC and was comprised of architect, planner, few CODI’s staffs, and few community representatives. Firstly WGHBC explored and evaluated the existing condition and housing characteristics of all nine communities which are the members of BCON. The aims of survey contains three purpose: first is to present programme to community members, who are not informed and who are distrustful, so that they become encouraged to gradually participated in the programme; secondly, it is to initially examine community capacity in term of community internal relations, capacity of community network, leadership, management skill, and community responsibility for the programme; lastly, it is to initially conceive the community guideline solution for the case of water body trespass, if community comes across this circumstance. As one of community leader had explained;

“We insist that almost all of community members still want to live in this piece of land and we know that we have no legal right, but we attempt to reconcile with local and any other related government agencies. The fact that our residences trespass to water body

For examples, slump upgrading, land sharing, reblocking, reconstruction, and relocation (Yap 1992; Aldrich and Sandhu 1995). Each approach is often decided according to community financial capacity and conflict resolution between community and landlord.
should be solved. We have discussed with our community organization and make public hearing, so we come to the conclusion that those of residences which founded into canals have to move up on the lands and share areas with the rest”.

Sergeant Wheang,
Leader of Roykrong Community, Jan 2004

By general principle, all nine communities agree to rearrange their buildings, especially those trespassing into the canal, by moving to the canal bank properly. However each community has its own direction to share the rest spaces from one to another. The major resolutions were concluded into two alternatives, reconstruction model as in Samakke Ruamjai case and reblocking model as in Roykrong case.

On one hand, existing conditions were explored as background physical data such as, building materials, number of house floors, area of ground floor, existing house boundaries, and existing land use characteristics including existing infrastructure (road width, drainage and sewage system). On the other hand, socio-economic data such as number of household’s members, occupation, ability to pay, etc, were gathered by community members. Moreover, a list of reusable materials like wood and floor panels, window frames, or doors is important as architects have to take all reusable materials into account in architectural design.

Table 1 provides initial information of case studies after WGHBC had worked out with communities. Existing condition and community’s requirement had been explored from surveying. Samakkee Ruamjai and Roykrong community are quite comparable by their area, number of households, their initial expectation of housing characteristic and additional facilities. However, both are different in term of housing scheme approach. Samakke Ruamjai community decided to demolish all existing houses and rebuild them in order to redistribute land plot, which each household will equally obtain (35 sqm. of land plot for each household), while Roykrong community selected to partially demolish – only the houses trespassing into canal and share remaining space with the rest.

The different solution of each community at this stage represents different social relation and context from one community to another. Samakkee Ruamjai community, where leader plays strong leadership role, visualizes that, to them, land plot is the most important element. In contrast, Roykrong community, where leader plays mediating role, attempts to redevelop with the least impact to others and minimize to only the necessary cost. Rationally, from each community’s condition, it brings to professional practitioners that those criteria must be accounted when they analyze community masterplan and architectural design scheme.
### Table 1 Physical characteristic and information of the two communities

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Samakkee Ruamjai</th>
<th>Roykrong</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of households</td>
<td>102</td>
<td>127</td>
</tr>
<tr>
<td>Type of housing development</td>
<td>Reconstruction</td>
<td>Reblocking</td>
</tr>
<tr>
<td>Total area of community</td>
<td>12.1 Rai (19,360 sqm.)</td>
<td>10.5 Rai (16,800 sqm.)</td>
</tr>
<tr>
<td>Land use approach</td>
<td>Public space 15%</td>
<td>Public space 10%</td>
</tr>
<tr>
<td>Housing characteristic</td>
<td>2-3 Stories Row house</td>
<td>2 Stories single house</td>
</tr>
<tr>
<td>Land plot dividing method by community</td>
<td>Flat and equal dividing, Each 35 sqm.</td>
<td>Unequal dividing(^4), From 20 sqm. to 100 sqm.</td>
</tr>
<tr>
<td>Additional facilities</td>
<td>Community office</td>
<td>Community office</td>
</tr>
<tr>
<td></td>
<td>Childcare center</td>
<td></td>
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<tr>
<td></td>
<td>Playground and sport field</td>
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</tr>
</tbody>
</table>

Source: WGHBC’s field survey 2004

### Strategies, applications and tools

WGHBC implemented the same approach to every community in Bangbua canal. First establishes community panel to inform, discuss and communicate with each community about the programme. Second is to formulate network and committee within and between communities in order that programme will be undertaken by formal organization rather than individual. And third is to work with community people in planning process.

**Community panel (Public hearing)**

Basic understanding about project should be clarified at the first stage. After time, those communities are the victims of rumors and it can become difficult for people in the community to entrust the project. Several meetings in communities were undertaken not only to inform community but also to encourage them to seriously be aware about their living conditions, when opportunity comes to knock at their doors. Some other communities accept the project, while others may not, so empowering community is the first task with which WGHBC concerns itself. Two things should be done at the earlier stage, first is to organize community-based organizations for housing development actions and the other is to establish networks across the community (Iawsriwong 2002; Boonyabancha 1999a, 1999b). Then, the approach consequently becomes both to formulate community committees for

\(^4\) Because Roykrong community has selected partially reblocking model, some existing buildings, which are not on the canal side, will be affected less than the others and may have larger areas in some cases. Moreover, at the beginning discussion, they also take number of household members to land size dividing into consideration.
housing development and saving groups for housing in each community, which will become the core elements to mechanize the project and later to extend those to attach it to superior BCON clusters and enhancing community’s social capital as well (Luckin and Sharp 2005).

**Learning process through community and institutional network**

One of the most powerful instruments to encourage communities to be aware of living condition improvement is the learning process among related institutions. In other words, only working in a single community cannot pull them into a track. BCON, therefore, is essential for each community to see one another as motivating process, not only among BCON but also cross-boundary learning from other canal communities. Several learning exchange programmes were intensively and calculatedly conducted from one to the other network in order that group empowerment is able to strengthen among them. Having been extended to other institutions, communities collaborate with academic institutes and local administrative authorities as a cluster coordination which enhances community strength and for better positioning to negotiate with land tenant for long term tenure (20-30 years in principle).

**Define working strategy**

There are three main focuses when WGHBC worked with community in housing planning: first is to identify concerned issues, second is to manage how to work with various clients and third is to define limitations in planning and design.

- **Concerned issues**

  One of the common characteristics in urban poor housing design is that common space in each dwelling has to be multi-functional spaces, in which any activity can be obtained. Each household was given a small piece of land, on which they live as a big family (for instance, maximum to 9 persons in one 35 sqm. house). When land plot is fixed, number of stories becomes the design solution and to explore those of combination is the role of architectural design in details, which will not be stated here. Occupation is one of the influential factors that define how people utilize space. Some community members have their own small retail shop servicing inside the community. Some work as motorcycle drivers and many are hawkers which need space for those stuffs at the new houses and the architectural programme should be able to fulfill those. Various occupations, which mostly in urban service sectors including their life style answer somehow that why some of mid-rise apartments become a failure of urban poor housing development (Korff 1986: 48) because it does not enough concerns on those of socio-economic dimensions.

- **Breaking into cells/units**

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5 Canal community network is the network of low-income communities who live by 13 canals in Bangkok, which regularly formulate activities as one of community development strategy and BCON is one of canal community network.
After the general understanding of the projected was clarified, the next step was to discuss on architectural design scheme. Architect team would separate whole community members into smaller cells/units comprising around 10-15 households per unit and community members formulate the groups by themselves according to their preference i.e. kinship, friendship or occupational relationship in order that the best social space will be conformed for their requirements, so that overall pictures of new housing upgrading will be that the integration of cell and cluster with each other as the whole community. The process was planned from two ends, by approaching first from the smaller scale as cells and on the other end, the overall community as a whole (See Figure 1, 2). At the end the requirement will be a stage of compromising to achieve most viable resolutions which regarding to costs, safety, and socio-economic conditions of dwellers. These new groups of housing in certain levels are expected to create the sense of community, neighborliness atmosphere and cost effectiveness, in which self esteem of low-income people will be fulfilled (See Figure 3).

- Constrain-based design

Within resource limitation, both community people and architects were forced to be concerned with any saving process, for instance those of reusable building materials, which should somehow be created for material accounting systems. Furthermore, effective construction management becomes one of central discussion among stakeholders. From this focus, it raises the system that the community will buy building materials through saving groups rather than individually in order that the marginal material costs can be minimized and also to select suitable contractors, who initially are the community dwellers.
3. Evaluation, recommendation and summary

Currently, the project is positioned at the initial design, with architects daily discussing with the community to derive each group’s need and requirement including conflict resolution of interest in new planning among members. Some indications and notices need further explanation and direction, of which should be aware. Those are;

Technical dimension

There should be a debate when the final design scheme is conducted. Technical aspect will somehow become more or less a problem, which community people in both communities should have at least enough construction knowledge and experience to handle the shortcomings on construction site. The next questions are those of how the community is able to organize themselves to manage and to audit the quality of building construction and also some of training courses for basic construction, which can somehow minimize under-standardized construction and at the same time reduce labor costs, especially for infrastructure building. Alternative material is one of the next discussion, not only reusable materials but including to integrate some wastes like bottles, cans, or left over panels as elements for building, which need to be discussed in more details.
Financial dimension

The main idea is that if community has limits on financial resources, they should contribute more in labors. Some households, even it is low-cost housing, are still capable of this, especially in Samakkee Ruamjai community, which cost for construction of each house supposes to higher than Roykrong community. Methodology for subsidizing them needs to be figured out earlier. For instance, can this group of people substitute their labors for financial credits? Not only to set up, but to develop community saving group system is one of the core strategies, which all people concerned and involved. This organization must be controlled by all community members with accountability and transparency, which cannot only be investigated by community, but also by other stakeholders like, CODI (who are the loan owner and provide finance with low interest rate to the community), and CPB.

Socio-economic dimension

One of the classical problems after any urban poor development programme has been launched is that the current dwellers will become the new landlord. This issue requires close surveillance and one of the effective mechanisms is the community’s self-control. CPB should provide rent through community network, not individually, in order that the community organization will be able to control its member’s behavior to not acquire interests on benefits of the others.

Furthermore, questions of how both communities will be flexible in long term after the project has been completed arise: to manage their houses according to socio-economic change, for instance, if the numbers of community members are changed. What will they do when their economic condition is better and they want more requirements, like house extensions? A community organization should be like a “fortress”, which exercises a set of communities’ own living system regulations in order to reach a compromise of requirements so that one’s need will not exploit others and to state what home improvements one can or cannot make.

Social dimension

In an urban poor housing development project from two case studies, there are always inevitably unavoidable social segregation and equity issues that one group will get this benefit and the other will not, and even loss, for instance the members who have been the renters for more than 20 years. What are the solutions for them? Do the tenants have right? Or, in case of members, who do not permanently live in the community, but run rental businesses – do they have rights also and how many units they can acquire? These questions require appropriate resolution, in which the community can still exercise its relationship. As long as the community plan does not contain and clarify these issues, it seems to be risky to provide them housing micro credit. Both CODI, as well as CPB, have to play a significant role to strictly regulate and manage all stakeholders in terms of how they delegate land rights.

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As mentioned before, a high diversity of community groups are contained inside the community. One cannot perceive the community as a uniform unit without conflicts, rather it represents a fraction and complexity of power relation (Douglass and Friedmann 1998; Sandercock 1998, Lefebvre 1991; Castells 1978)
among themselves, how saving groups run, transparency issues of financial resource allocation, and how they resolve their other conflicts. These all must be clarified and maintained in order that every dweller’s rights will be guaranteed.

As earlier mention, this project is currently at the beginning stage, what we can learn since now from Samakkee Ruamjai and Roykrong community are those – firstly, housing scheme is very much associate with social and socio-economic condition in community such as role of leader, numbers of rental business running, strength of neighborliness. Samakkee Ruamjai community, which community sympathy seems to higher than in Roykrong community pays more attention to how can rights among community members will be equally distributed, while in Roykrong community, because of higher conflict, it manages to find economical and political viable solution. Secondly, every community contains its conflict and if something such this programme is managed to change, its relationship will be even more catalyzed. The matter is not to avoid the conflict, but instead to manage it by more advantage’s overwhelming. Thirdly, both are still weak about financially and technically community organization management, which architects and urban designers/planners should strengthen together with social activists. Finally the lesson learn from two communities reflects that in urban poor housing development case, the main focus of design and planning does not start from physical housing characteristic scheme through available resources, socio-economic condition and rational planning approach but starts from social space design, which new social arrangement in community will be put in the right position with the least conflict. So community members will feel that they are part of community development and their interests are responded.

In summary, it is essential for architects and community members to maintain an open mind and to work hand in hand in order to achieve urban poor housing development which satisfies every party. To see the community as source of learning rather than the source of problems is also at the core of the work. Providing related institutes and planners lead to discovery of various perspectives and approaches in design. Urban poor housing design, in itself, is comprises of several concerning dimensions, which differs from case to case. This article can depict only as the cases with specific characters and conditions to remind others that if one can integrate those and fulfill them all satisfactorily, the result will be successful.
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