

0-0795

Should Architects Work For *Mastaans* For House Reconstruction Activities?



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Abstract

Dhaka, the capital of Bangladesh is the city where more than 40 percent of people live in the informal settlements, mostly in slums. Only less than 10% of the areas of Dhaka city can be termed as planned areas and less than 5% of the population own land in any form of land tenure ship and the rest are living on a rental basis. The term house-owners and land-owners are not synonyms in case of slums of Dhaka city as in most part of the world. Here the house-owners are those who illegally occupy public lands and build houses for their own living as well as to rent out to other people.

On 4th December 2016, a fire broke out in *Korail* Slum, known as the capital of slums of Dhaka city and destroyed about 535 houses owned by 86 owners or *Mastaans*. After a week later, on the 11th December 2016, another fire gutted down 115 houses of *Saattola* slum, about 29 house owners were affected. We, a group of architects, planner, and engineers together with architecture students from different universities of Dhaka city decided to support both the *Korail* and *Saattola* slum community upon request of the Urban Development Programme of BRAC.

Keywords: *Slum upgradation, reconstruction, community participation, urban planning*

1. Introduction

Dhaka, the capital of Bangladesh, is the city where more than 40 percent of people live in the informal settlements, mostly in slums. Only less than 10 percent of the areas of Dhaka city can be termed as planned areas and less than 5 percent of the population own land in any form of land tenure ship and the rest are living on a rental basis. The term house-owners and land-owners are not synonyms in case of slums of Dhaka city as in most part of the world. Here the house-owners are those who illegally occupied public lands and built houses for their own living as well as to rent out to other people. Dhaka being the mega city and center of country's economy offers diverse livelihood opportunities and attracts people from rest of the country in search of secure living influenced by urban opportunities and rural calamities. Rural urban migration causes 40 percent of increase in urban population and in some cities of Bangladesh (Parvin *et al*, 2013). Consequentially cities are being congested by squatters and slums and at present there are about 4,766 slums alone in Dhaka city corporation areas (Slum census, 2014). Dhaka division contains the largest proportion of the slum population at 48 percent.

After migrating to the cities these migrant people arrange their accommodations in marginal settlements with substandard housing, limited infrastructure and services. Being deprived of basic urban amenities and secure living these slum people are prone to incidence like fire hazards, water logging as well as threat of eviction. As the dwellings are mostly of makeshift or temporary structures it faces devastation following any hazard. Fire is the most recurring phenomenon in slum areas; either as accidents or political motives. These incidents leave dwellers homeless and destroy their assets. On the other hand rebuilding or rehabilitation of

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slum requires much resource engagement.

Karail is located in *Mohakhali*, more specifically at the center of the upscale city areas, *Gulshan* and *Banani*. It has a total land area of 110 acre and population of more than fifty thousand (BRAC report, 2014), of which at present ,20 acres are owned by the Bangladesh Telephone and Telegraph Board (T&T),43 acres by the Ministry of Public Works and Housing (PWD), and 47 acres under the Ministry of Science and Technology. Despite of many eviction attempts and fire incidences the slum is proliferating day by day and the lake is being encroached. A greater portion of floating people, who finds employment in nearer areas (mostly as domestic worker, garment worker, rickshaw puller or drivers) starts living in *Karail*.

The fire incidence of December 4th 2016 was instigated from a restaurant kitchen inside *Karail* and spread very fast, because of the cotton of the blanket & pillow shop adjacent to the restaurant. The fire eventually destroyed around 500 houses and 40 more houses were destroyed, when dismantled to prevent the spreading of fire. Some shops those were along the main street were also affected.

The next week, on the 11th December 2016, another fire gutted down 115 houses of *Shattola* slum, in *Mohakhali* adjacent to *Gulshan* and *Banani* area, about 29 house owners were affected. According to the community, the source of fire was anonymous but started in the school, run by BRAC situated adjacent to main access street. There have been three eviction drives in the slum, since its formation as slum on the land of Public Health Department, GOB, following the liberation war when the employees of grade 3 and 4 started living there. The place eventually turned into a slum when the residents on purpose of increasing their source of income began to build shanty houses and rent it out to lower income people. Over time the entire area transformed into a large slum led primarily by the employees, their families, a number of local *mastaans* (muscleman) and political supporters. In the last particular fire incident, the entire slum area was not affected rather a street block was burnt down as the spreading of fire was interrupted by the surrounding streets measuring 6-8 feet wide. Some houses were dismantled to limit the spreading of fire also.

The houses were mostly built of corrugated Iron Sheet (CI Sheet) wall and roof over cement finished plinth that made the structures more vulnerable to fire. The victims were bound to pass days and nights of winter under the open sky. The immediate response was made by BRAC (NGO) through making a need assessment and a listing of the people affected. Upon the request, a pro bono group of architects, planners and engineers together with student volunteers from different universities of the city under the platform of Urban Support System, and support from JA Architects Ltd. spontaneously responded to participate in rebuilding both the *Karail* and the *Saattola* slums.

The overall goal of our interventions was to support the fire affected slum community for the reconstruction of their houses with proper access roads, ventilation and open space with the principle of “**build back better**” as well as to create a model for slum reconstruction in Bangladesh.

2. Our Interventions and Reconstruction Process

Karail Slum Reconstruction Process:

In *Karail* slum, we provided support to the house-owners particularly on the site planning and widening of the narrow roads. To develop the house reconstruction site plan, we followed certain steps such as assessments of the housing needs of the community through community mapping, studying of the existing housing condition & pattern, and prepared a draft house layout plan with wider roads and house ownership through site visits and continuous community consultations. Finally, development of a house layout map for the affected areas was done, after the agreement of land contribution for road widening was agreed upon by the house owners and the final site plan was displayed for the public.

Our interventions in *Karail* slum reconstruction can be summarized as follows:

- Understand the post fire needs for housing
- Analyze critically the pre-fire conditions
- Develop design considerations with community participation
- Negotiate with community people for implementation
- Develop final design and monitor the execution

Step 1: Getting to know the affected people and major stakeholders

Getting to know the affected people both the house owners and tenants, women and men and the surrounding environment of the people was our first step of involvement. Following key information were collected from the community consultation and site visit:

- Family size and economic condition: Most of the residents are tenants with the average family size of four.
- Household income: Average household income of the tenants is about Tk. 15,000 per month. Most of the women works as house maid gets around Tk. 3,000- 6,000 per month and men mostly rickshaw pullers with an average monthly income of Tk. 12,000-15,000.
- Existing condition of the affected people: The tenants took shelters in nearby houses and wanted to comeback as soon as possible. They were having difficulties staying there without proper warm clothing particularly children, some of them were suffering from cold.
- Relief distribution: The food and dry food, blankets and other relief items provided by the Mayor of Dhaka North City Corporation (DNCC) were distributed through Ward Counsellors. The Ward Counsellor receiving the donation (in kind or cash) from other organizations or individuals distributed it among the 500 families, on an equitable way managed by BRAC.
- House rent: The rent of a 5'x8' House is BDT1500- BDT 2000, for a 8'X10' room, BDT 2,500 for 10'X10' room and the rent is BDT 3,000 per month when the room sizes are 12'x12'. In general, a family of about 5 resides in one room.

At the beginning of our involvement, we met the Ward Counsellor (Ward no 19) at Banani City Corporation office. We briefed him about our intention to support the community to build better houses than before. The Ward Counsellor agreed and requested us to support the slum community in City Corporation's re-building efforts. After getting the green signal from the Ward Councilor we held a community consultation meeting with the house owners, explaining them the concept and the reconstruction plan.

Step 2: Demarcation of Individual property by house owners

After consultation with the house-owners it was discussed that the property line for each of the house owners should be demarcated with rope and bamboo stick. And the house owners together with our volunteers demarcated their respective areas as it was before the fire occurred. As we requested them to start demarking their houses on the sites immediately, they completed the house demarcation by noon that same day.

Step 3: Understanding Pre-fire social and housing condition

In-depth discussions were held with each of the house owners about family size, amount of land owned by beneficiaries, existing housing situation, proposed housing needs, location of latrine, site preparation plan of the raised homestead, poverty level and other social aspects during the social mapping exercise to understand their pre-fire condition. A professional survey agency was engaged by J. A. Architects Ltd. to conduct the detail survey for the fire-affected areas.





Fig.02: Inside a house, Karail Slam, Dhaka



Fig. 03: Access road, Karail Slum

Step 4: Develop design considerations

Through excessive consultations with the house owners and the guidelines by the National Housing Authority (2015) "Guidelines for Planning, Design & Construction of PPSIP Settlements" following design considerations were developed for *Karail* and *Saattola*, which were as follows:

- Property boundary for the house owners should be the same as before
- Neighbors of the houses within a cluster should be same as before.
- The number of houses should be the same as before.
- Minimum room size should be 8'x8'.
- The main access road should be minimum 8.5 feet and the internal road will be minimum 6 feet.
- All the rooms facing the street may be for used for commercial purpose.
- A parallel road/courtyard should be kept inside the housing area in order to get proper ventilation and sunlight.

- North-South orientation should be considered to provide proper ventilation and sunlight
- The material will be brick soling and brick up to sill level on ground floor and then it will be corrugated iron sheet. Pre-cast concrete column on the ground floor and upper floor bamboo or timber posts for support. The roof will be of C.I sheet.

Step 5: House Design Layout development

Rigorous consultation with the house owners took place for the house layout planning process. A draft house layout plan was developed during the first stage of the reconstruction process and then subsequently the design was developed in three phases. Finally, validation and agreement with the community to follow the housing layout plan in presence of Ward Councilor and BRAC was done.

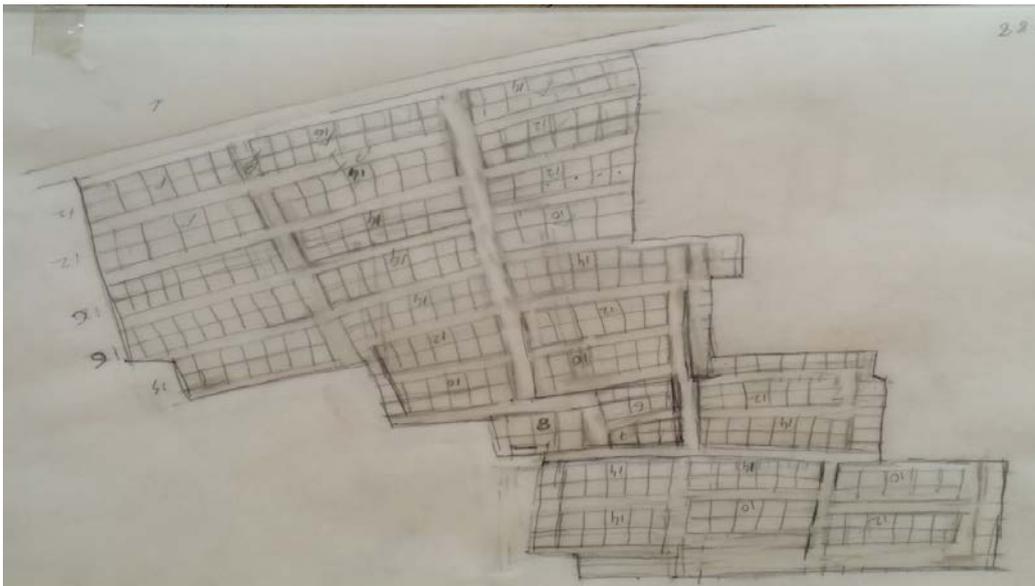


Fig. 04: Initial house layout sketch of fire affected areas



Fig. 05: Final house layout plan of fire affected areas of Karail slum



Step 6: Implementation

Agreement between the house-owners for land contribution for road widening took place and then the construction process started with the materials distributed by the Mayor of DNCC and BRAC.



Fig.06: After reconstruction, Karail Slum, Dhaka

Saattola Slum Reconstruction Process

Immediately after the fire occurred in *Saattola* slum, BRAC prepared the list of affected people together with the information about number of houses owned by the house-owners, the extent of damages determined and accordingly prepared a list of affected people including the house-owners and tenants. After preparing the list BRAC distributed ID card to each of the house owners. According to the list total 115 houses were affected in *Saattola*. With the earlier *Karail* reconstruction experience, our interventions started in a more organized manner. Our interventions in reconstruction of *Saattola* slum can be summarized as follows:

Step 1: Getting to know the affected people and major stakeholders

In-depth consultations were held to understand community's needs related to their housing.



Fig. 07: After the fire, Saattola slum, Dhaka

Step 2: Analyze the pre-fire housing conditions:

A sketch of the pre-fire housing condition with the individual house owner's property line was developed together with the fire affected community. To understand the post fire housing needs, a social mapping exercise was conducted.

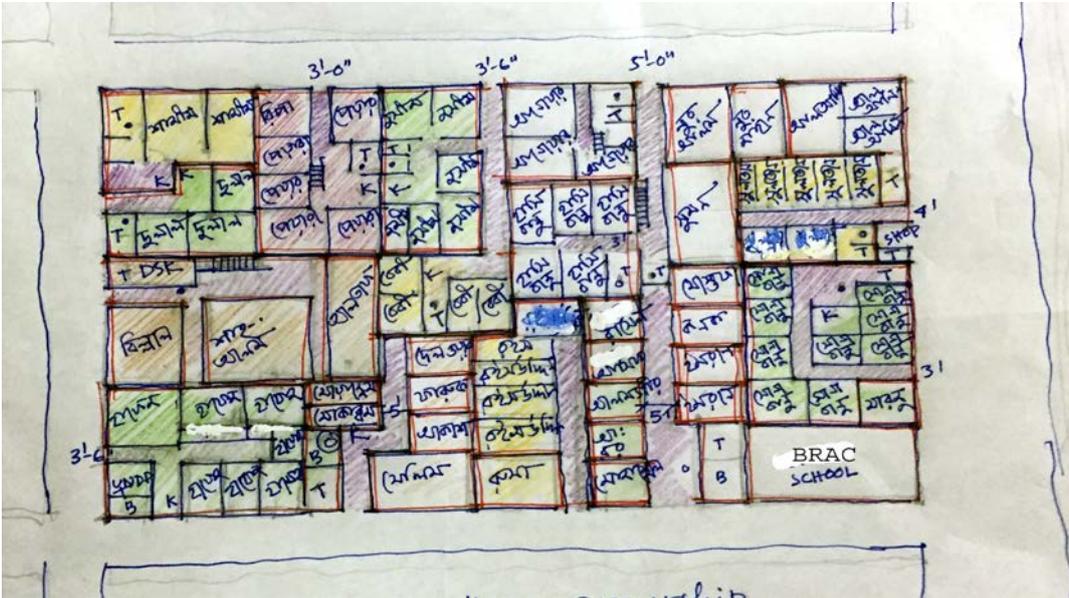


Fig. 08: Sketch of the house layout, Saattola slum, Dhaka

Step 3: Organize 1-Day design camp at the site

We organized a house design camp on 24th December 2016 at Saattola Slum area. Sixteen architects, planner and engineers divided into six groups, each group comprising of an architect, an architecture student, community leader and a house owner. Considering the smaller size of the affected house-owners, we worked at the house cluster level and after rigorous community consultation with the house-owners we suggested improvement/upgradation of the living condition by providing small courtyards, windows, open and wider passage ways etc.



Fig. 09: House design camp at Saattola Slum, Dhaka

Step 4: Negotiate with community people for implementation



It was difficult to convince the house owners to keep more space inside the housing clusters as the house-owners wanted to construct more rooms to earn more money. We need to consult at least 4 times with each of the house owners convince them to keep more space. Also we requested to keep more space to widen access road.

Step 5: Develop final design and model and share with the community

After series of consultations with the house owners, we shared the final design and a model with the community so that they can construct according to the final drawing. Community Based Organization (CBO) leader and representatives from BRAC Urban Development Programme and the fire affected community agreed to follow the layout design developed by us, the design team.



Fig. 10: Final house layout plan of Saattola Slum, Dhaka city

3. Challenges

Following are the key challenges we encounter during the reconstruction activities in *Karail* and *Saattola* slums:

Architect’s role in the reconstruction of houses on illegally occupied land: Our role in the reconstruction activities were not the conventional one. Here we had to work with the illegal house owners or *Mastaans*, who don’t have any land tenure rights over the land. We had to answers this question whether we should support these house owners, who are occupying land illegally.

In this respect, our response was very clear- we are there where people are in need. These *Mastaans* are providing shelter to these destitute migrant families where government don’t have any plan to provide minimum housing to these people, who constitute about 30 percent of Dhaka’s population.

Time constraint: People were living in a very temporary shelter sometimes open to sky and there was a severe time pressure to provide the reconstruction plan as the affected people started building prior to the reconstruction layout plan. We had to work day and night without any weekends for the first three weeks.

Encroachment of waterbody in rebuilding process: In *Karail*, there is a lake next to the settlement. People filled up the lake with garbage and other materials to extend their housing areas into the lake.

Difficult to motivate the house owners to sacrifice the land for widening the access roads and proper ventilation: As we worked with the house owners and they were always interested to construct more houses without keeping any access road. The house-owners were more interested in renting out more rooms rather than the quality of space (proper ventilation, light).

Lack of commitment from top level management/authority particularly for reconstructing: In general it was observed that there was lack of sincere effort among the top level decision makers to reconstruct the fire affected slum with a planned and more structurally sound materials. They distributed wooden and bamboo poles although most of the people constructed their houses with bricks. Also there was lack of synchronization among the service providers, like they provided C.I. Sheet for roof first then the wooden/bamboo poles. Also there was no follow-up to oversee the reconstruction from the local government or from the service providers.

4. Recommendations and Way Forward

With the experiences from the reconstruction work, we propose the following recommendations:

To develop a slum reconstruction policy that emphasizes both the house owner and the tenant's housing needs.

To develop specific guidelines for slum reconstruction based on the previous experiences incorporating different parameters such as density, land use pattern, open and build area ratio, road hierarchy, structural durability, land tenure ship and minimum living standard.

An institutional setup is required to oversee the overall reconstruction management.

City Corporation has to take the lead role and should involve concerned & interested organizations and coordinate all agencies responsible for providing all infrastructure services and amenities (water supply, footpath, road, drainage etc.).

Setup a design office on site to provide continuous support during the re-construction process and for follow up.

Ensure community involvement (CBO, CDC etc.) during reconstruction process

Establish a financial institution to support the housing reconstruction (loan, material supply etc.)

Encourage voluntary services from different fields of society

Be more inclusive – involve students from architecture and planning as well as other social development sectors.

5. Conclusions

Our aim was to support the slum communities in the reconstruction initiatives and to develop a model for slum upgradation in Bangladesh. A question was raised during the reconstruction process, whether we should support the house owners, who in most cases don't have any land tenure rights over the land. But we were clear about our roles, as we felt that these *Maastans* or land grabbers had provided housing to these destitute people where the government had failed them. We supported people for their survival, may be in a bit better way and that was our very intention.

Regarding the development of a model for reconstruction, we have realized that, we need more experience in the reconstruction process of different types and pattern of slums in order to give us a wider spectrum in slum upgradation. It is quite apparent that people were very happy for the guidance and support we provided



them and there was a remarkable improvement in the housing areas with wider access roads, ventilation and creation of inner space in housing clusters. Though, in some cases the community did not follow our plan as there was no legal or institutional backing for us. Thus, it is very important to develop a low income community shelter upgradation guideline based on the experience of different agencies involved in upgradation initiatives.

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