

# **Renewal of Old Dhaka: A Case Study on Shankhari Bazar**

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## **Introduction**

Urban renewal is a broad subject, because it encompasses different aspects of intervention, namely physical, social, economic, political, cultural and environmental to redress a complex of urban problems. The problems include unsanitary living condition, deficient or obsolete housing, inadequate transportation, lack of utility services and community facilities; haphazard land use, traffic congestion and others (Britannica, 1994: 201). The need for urban renewal arises from congestion, constriction and obsolescence of an urban area. Congestion occurs in towns which have natural growth and ultimately cannot cope up with the present day condition that is present day requirement of roads for traffic. The physical determination of structures and properties, lack of standard of facilities and amenities, the outdated and outworked buildings and obsolete street system combine together to make certain areas in towns and cities obsolete to the present day standard and use. When any one and all together occur in any area of a town, then the area requires immediate renewal (Sikdar, 1977:1).

Urban Renewal in terms of Old Dhaka is the need of today. The Old Dhaka is suffering from the loss of its function and losing its vitality thereby accepting and encouraging the changes in employment pattern. The presence of blighted structures, inadequate transport facilities and utility services together with uncontrolled and unguided development creates congestion, environmental pollution and insecure tenure living. All of these together hamper the overall living condition of the area. In the light of the above revealed situation, it has been felt that a renewal program is essentially needed for Old Dhaka in order to create a better living atmosphere of the present day standard.

Dhaka, the capital of independent Bangladesh since 1971 has a historical background of nearly 400 years (Islam, 2001). Shankhari Bazar is considered as a deteriorating area in Old Dhaka.. Shankhari Bazar was born in Mughal period (1608-1764) that occupied an important economic activity, the cottage industries. In most cases, the same house was used for the factory and the residence. Within the industrial area, different localities were specialized in different crafts. Sankhari Bazar (shell cutter's locality) is one of these localities (Chowdhury and Faruqui, 1996). Although the goal of urban renewal at neighborhood scale tends to improve inhabitants' living condition in all aspects, the emphasis in this study is to develop a mechanism for structural improvement consistent with the cultural value of the area. At the same time, the short analyses about the social, economic and legal problems of Shankhari Bazar can be helpful to understand this kind of localities more thoroughly to renew them more effectively.

## **Objective and Methodology**

The broad objective of the study is to prepare a plan for the Renewal of Old Dhaka by means of a case study on a deteriorating locality Shankhari Bazar that may satisfy the urban environment in the long run. The specific objectives of the study are to identify the present status of the old as well as the new structures, to explore the potential areas of structural improvement consistent with the cultural value of the area and to prepare a strategic plan for renewing the area.

The research uses information on day to day situation prevailing at Shankhari Bazar. Data and information have been collected both from primary and secondary sources. Primary data is collected through direct field survey on Shankhari Bazar mahalla and questionnaire survey on

the inhabitants of the area together with specialist interview. After completing the field work, data have been organized, interpreted and analyzed. From the detailed analysis of the existing condition of the study area and comparing it with the urban renewal programs worldwide, some strategies on implementation have been identified.

### Study Area: The Portrayal

The study area Shankhari Bazar is located on the south of Kotwali Thana of Dhaka city. It is a traditional neighborhood in old Dhaka, which is located near the intersection of Islampur Road and Johnson Road, the two main arteries of the old city and only a block away from the Buriganga River. At present, about 10,000 people are living in Shankhari Bazar within an area of 4.6 acres. Shankhari Bazar displays a blend of different architectural styles belonging to the different periods starting from the Mughals to the Raj (The Daily Star, 2006). The stylistic variations in Shankhari Bazar reveal at least three major stages based on chronological development or identifiable features. The stages are the Late Mughal, the Early Colonial and the Raj.

Though the Mughal and colonial styles dominated the forms and the geometry of the buildings, motifs from Hindu legends and mythologies are widely found in the surface decorations and architectural details of the buildings. There are certain architectural elements, like the temple courtyards and the juxtaposition of the courts at different levels, which are unique to this *mohalla*.

The division of elevation in three bays along with tri-foil and multi-cusp arches is a Mughal legacy. The short decorative free columns with bell shaped capitals, round pedestals and intricate surface decorations suggest a lineage that goes back to the architecture of Dewan-I-Khas.

By the mid 19<sup>th</sup> century, the architecture of Shankhari Bazar was taken a turn. The graceful proportions were gone, though the arches and the columns were retained. The following of the religious codes and orders were not to be found any more.

By the late 19<sup>th</sup> century, a stylistically distinct neo classical style could be seen in Shankhari Bazar. The architecture of this style reflected more of the classical elements in the decoration of the buildings. Use of classical orders in the columns, plasters, engaged columns, cornices, entablatures, stylized dentils all reflect a shift toward this new style. Among the different orders used, the preference for the Corinthian style is easily visible. Intricately decorated wrought iron columns, carved wooden posts, use of wrought iron railings are among other features that give this period a distinctive style. In some of the houses, the contemporary British influence can be seen in the Edwardian vocabulary used in the elevations.

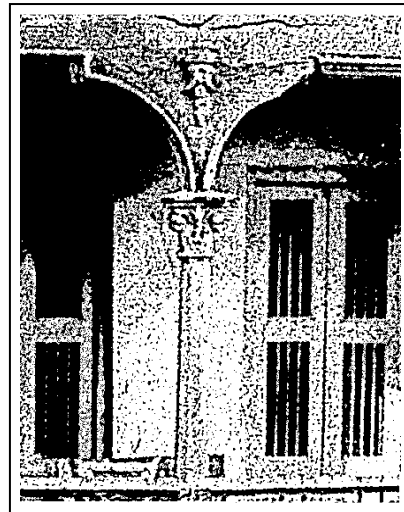


Fig. 1: Column style

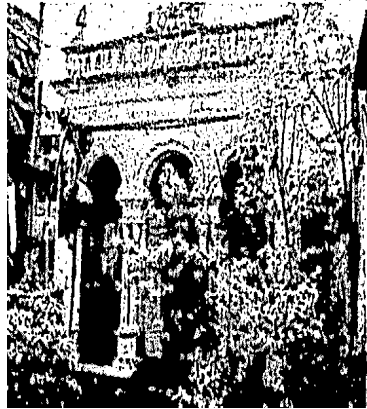


Fig. 2: Historic architecture

### Data Analysis and Survey Findings

An intensive field survey has been conducted to identify the existing condition of the study area in details. Some secondary data has also been consulted to make it more accurate. In general, data are collected on physical aspects together with information on social, economic and legal aspects. In this section, physical problems of the case study area are analyzed on four aspects, i.e., land use, road, building and infrastructure.

#### Analysis of Land Use

The land use problem is analyzed by using three variables that are land use proportion, building coverage ratio and floor area ratio. Using these three variables, the land use problem can be evaluated generally on the scale of a whole neighborhood.

**Analysis on Land Use Proportion (Scale: Neighborhood):** The variable of land use proportion is used to evaluate the rationality of land use on the scale of whole neighborhood. Figure 3 shows the land use scenario of the study area. The land use of the study area can be categorized into five distinct groups (Table 1).

Table 1: Land use pattern in the area.

Land use	Area (sq. meter)	Percentage (%)
Residential	615.82	3.29
Commercial	183.87	0.98
Mixed: Residential + Commercial	15071.65	80.44
Religious mixed with residential	197.31	1.05
Religious	178.89	0.95
Unused plots	366.55	1.96
Road	2122.61	11.33
Total area	18736.7	100.00

Source: Filed survey, August-2006 and GIS map from DCC, 2006.

Haphazard growth of the buildings, absence of open space, incompatible uses of buildings and incompatible land use are the major problems of the area. Spontaneously growth of the shops

in front of the buildings hampers the aestheticism of the area as well as the flow of traffic and pedestrians.

**Analysis on Building Coverage Ratio (BCR):** The variable of building coverage ratio reflects a two-dimensional density of land use. The Building Coverage Ratio is 0.689 in Shankhari Bazar. It reveals that the average building area coverage within the plots is 68.9%. The rest 31.1% space is open. It indicates that the problem of invading open area is serious in the study area.

**Analysis on Floor Area Ratio (Far):** The variable of floor area ratio reflects a three-dimensional density of land use. Floor Area Ratio has been calculated as the ratio of total floor space and total plot area, and has been found as 2.57. It shows that the floor area ratio in the study area is high.

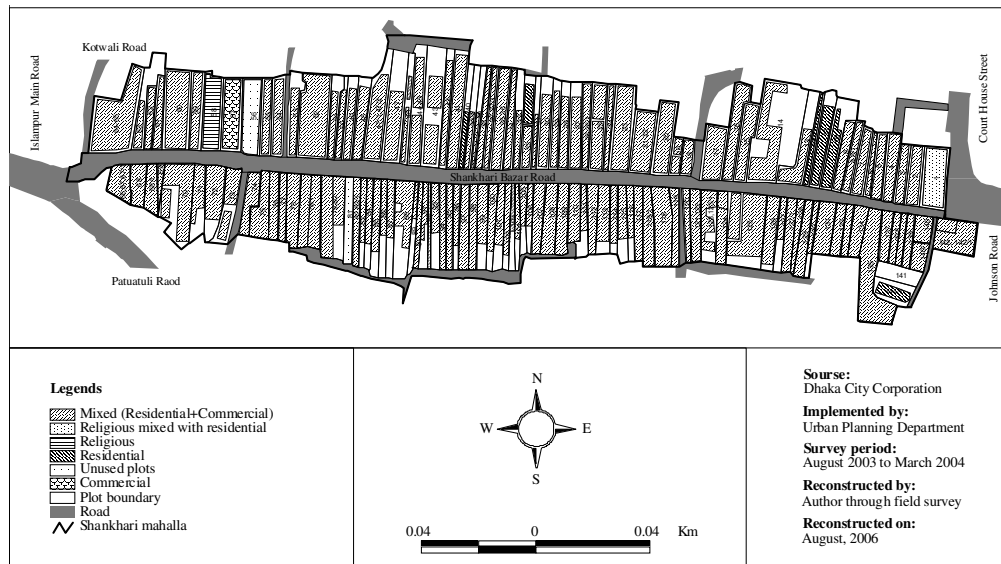


Fig. 3: Land use scenario of Shankhari Bazar

### Analysis on Road

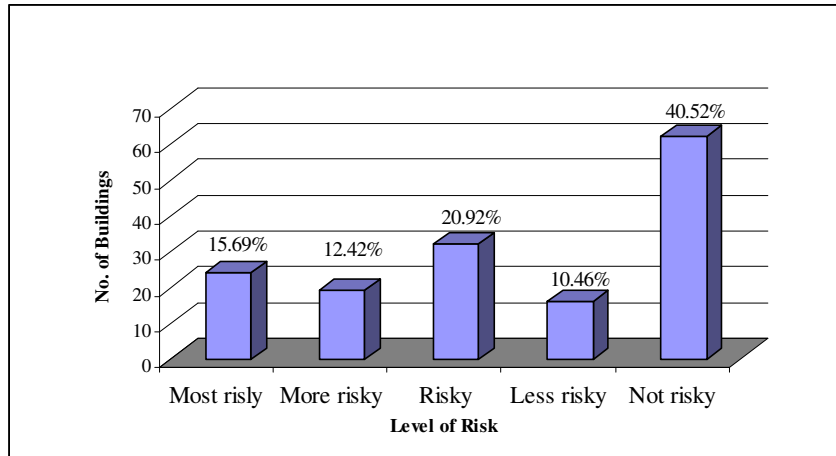
The roads of Shankhari Bazar are very narrow. The Shankhari Bazar road is only 600 feet in length is accessible by vehicles, like rickshaws and cars, but two of them plying from opposite directions create a serious level of congestion. Access for ambulance and fire service vehicles are very difficult in the mahalla. Other roads of the mahalla are accessible for pedestrians only. Due to heavy pressure of traffic on the roads, all of them remain jam-packed all the times.

**Problems of Road Network:** Low and irregular width of the roads, absence of footpaths and parking facilities and poor road conditions are the main transport problems of the area.

### Analysis on Buildings

The buildings of Shankhari Bazar are evaluated from the viewpoint of building age, building condition, intensity of use and the condition of maintenance activities carried out by the owner or the occupants. Shankhari Bazar has a total of 153 buildings and most of these buildings were constructed during the British period, though a good number of buildings have been constructed after the independence of Bangladesh.

**Problems Due to the Construction Period:** As most of the buildings were constructed during the British period, the condition of the buildings are now dilapidated and these buildings have high chance to collapse which poses threats to the safety of the inhabitants of the mahalla. Buildings conditions of Shankhari Bazar have been assessed in terms of the level of risk of each buildings and it is shown in Figure 4.



Source: Filed survey, August 2006; and findings from the listed 687 worn-out buildings Survey (DRAFT) by DCC, 2004.

Fig. 4: Building conditions of Shankhari Bazar.

**Problems Due to the Condition of Buildings:** Most of the buildings of Shankhari Bazar are found to be in the risky condition, which is dangerous for the residents of the buildings and without immediate initiatives to repair these buildings the inhabitants are placed in high risk.

The buildings constructed during the period of East India Company and the British rule used lime, chalk, brick dust and brick. Construction of most of the buildings of Pakistan period used the same materials. These buildings are now in a ruinous condition. Most of the buildings in Shankhari Bazar are 3 to 4 storied in height and they cover 52.29% of the total number of buildings. Very few single storied and multi-storied (up to 7-storied) buildings also exist here. However, the average height of the buildings of Shankhari Bazar is 3.83 storied. Some of the buildings have been extended from 1 story to 3 stories, but most of them are not approved by RAJUK. The intensity of use of the buildings of Shankhari Bazar is very high that makes the buildings unsafe for the inhabitants. Most of the buildings of Shankhari Bazar are affected by cracks, which make the buildings weak. These cracked buildings are more risky for the inhabitants. Some of the buildings of Shankhari Bazar have been repaired and maintained locally by the owners or occupants of the buildings. The maintenance works of 66 buildings have so far been completed. After the collapse of the buildings in 2004, the inhabitants of Shankhari Bazar started fearing to live in the ruinous buildings and began to repairing them. Inappropriate building design, overuse of the buildings and absence of



Fig. 5: Risky buildings

maintenance make most of the buildings dangerous for living.

**Structural Problems of the Buildings:** The land that is existed in the Shankhari Bazar area was allotted during the Mughal period. The allotted plot size was very small. Due to the construction of buildings maintaining the small plot size, the houses became very small in width and large in length. However, most of the buildings were constructed two or three storied in height. The height of the main door in front of the house is 6 ft. A 20-30 ft long corridor goes inside the house. A good number of rooms are situated on both sides of the corridor. Almost all of the houses consist of open space in the middle of the house, where stairs are located there up to upper floors. There are verandahs around the open space in some of the houses. The houses of a width of 10-12 ft and a length of 30-50 ft. look like row house that bears the architectural sign of Mughal and Colonial period.

Irregular and small plot size and full utilization of the plots make the buildings irregular and compact. The ventilation problem and new construction between the old houses look so odd.

#### **Analysis on Infrastructure**

The basic infrastructures relevant to inhabitants' daily life such as water, gas, electricity etc. are available in the study area.

**Problems of Infrastructure:** The condition of drainage, sewerage and toilet facilities of the study area are in a very inferior condition. Due to improper drainage facilities the storm water sometimes overflows inside the houses. However, because of poor sewerage and toilet facilities the flash water of toilets of many houses are not released properly and as a result it makes a very unhealthy environment and creates stink.

#### **Analysis of Social, Economic and Legal Problems**

Since urban renewal is not only relevant to physical factor, it encompasses different aspects of intervention namely, physical, social, economic, political, cultural, health, and environmental; the social, legal and economic problems in case study area is analyzed in this section, which in turn contribute to the physical problems more or less.

#### **Social Problems**

In this section, first is to analyze the population and density scenario and then how the different socio-economic stratum of people influences their views and attitudes. How their different views and attitudes influence the physical condition require a detailed analysis.

**Population and Density:** Total population of Shankhari Bazar is estimated 9726 (Field survey 2006 and Findings from Listed 687 Worn-out Buildings Survey -DRAFT by DCC, 2004) and this people live within an area of 4.63 acres where the density of population is 2101 persons per acre. As the density of population in the study area is very high, it creates unexpected crowd and hamper the suitable living environment of the area and the privacy of the residents.

**Socioeconomic Status of People:** In this section the residents of owners are compared with the tenants and consequently the information on occupational status of the residents, income scenario of the inhabitants and land ownership pattern have been analyzed. Significant portion of the people of Shankhari Bazar are somehow owner or occupier, which covers 20.56% of the total population and the rest 79.44% people are tenants. There is ownership problem due to more than one sharers of the same property and they live in the occupied building in a packed situation over the capacity of the buildings.

**Occupational Status of the Residents:** Most of the inhabitants (income group people) of Shankhari Bazar are engaged in business, which covers 62% of the total employees. The

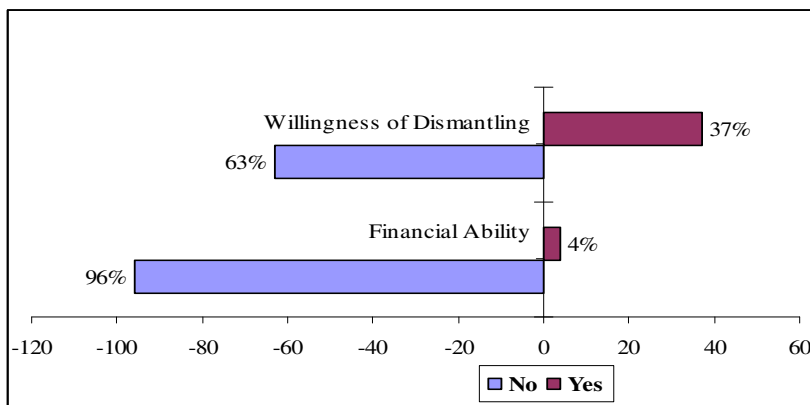
traditional professionals like artists and shonkho shilpi covers 12% out of the total employees. Due to the changing character of the economic activities, most of the people shifted from their traditional profession of shankha processing to many different professions. The century old profession such as shankha shilpo is now become a weak sector and over the last 15 years around 200 Shankhari families moved away from their traditional crafts seeing prospects in other businesses.

**Income Scenario of the Inhabitants:** Highest income group people lie down between 3001-5000 Tk. and over 60% of people earns up to 5000 Tk. Thus it can be said that, it is the area inhabited by low-income groups. As most of the people of Shankhari Bazar area fall into the low income group they are unable to repair and maintain the dilapidated buildings on a regular basis.

**Land Ownership Pattern:** Most of the owners possess the land through heirship. Some of the owners have mixed ownership through buying and heirship. Some of the owners occupy the land due to the original owners migrated to India permanently or to treat the property as vested property. Due to multiple ownership problems, it is difficult to take any kind of development activity in the study area and some buildings are used for religious purpose and cannot be demolished.

**View and Attitude of People:** This factor includes the willingness of people's caring about physical situation of this neighborhood, and the willingness of people's living in this neighborhood. In this study, these two variables mainly focus on householders' view.

**Willingness of Dismantling and Financial Ability- a Comparison:** After processing the questionnaire data, two different types of attitudes can be observed to dismantle the buildings and the attitudes of the people are graphically presented in the following chart.



Source: Filed survey, August-2006 and findings from listed 687 worn-out buildings survey (DRAFT) by DCC, 2004.

Fig. 6: Willingness of Dismantling and Financial Ability.

Form Figure 6, it is clear that the opinion of the people regarding the willingness to dismantle is lower than willingness of not to dismantle, but the financial ability to dismantle and reconstruct the buildings is very low. Only 4% of the householders' have the ability to reconstruct. So, it can be said that the reconstruction of the dilapidated buildings of the mahalla is a tough job and it is not affordable for the inhabitants.

**Expectation from the Inhabitants for Development Activities:** The inhabitants of the mahalla during the questionnaire survey said their opinion about any kind of development

activities that can be taken for the mahalla. A large number of the inhabitants (39.39%) especially the owners or occupiers support for repairing the dilapidated buildings, while 36.36% of the inhabitants support full co-operation for any kind of development activities that will be taken for the well being of the mahalla. As a good percentage of people support development activities by government in the one hand, on the other hand, a good percentage of people do not support it, so it is very difficult to initiate any kind of development activities.

### **Economic Problems**

In this study, the economic problems are analyzed from the viewpoint of financial assistance from governments or other organizations to develop the mahalla or carryout the maintenance work needed for the mahalla. Most of the people want financial assistance in the form of long term bank loan, which covers 70.31% of the owners or occupants of the holdings. The concern authority, Dhaka City Corporation has proposed a draft model of pilot project for the development of the Shankhari Bazar area integrating the identified 91 dilapidated buildings. The special features of this project are mentioned in Table 3.

Table 3: Special features of the pilot project (draft) proposed by DCC

Category	Description
Extended width of Shankhari Bazar road	30 ft
Footpath width	5 ft
No. of Buildings to be constructed	20
Height of each building	12 storied
Open space	60%
Covered area	40%
Total cost	69,85,50,000 Tk.

Source: Work paper of secretariat committee of DCC, 05.10.2005

### **Legal Problems**

**Problem of Legitimacy:** The legal problem is analyzed, from the viewpoint of property acts/ ordinances of Bangladesh, building control laws of Dhaka City Corporation and different litigations due to ownership problems between person to person or government that lead to the problem of unclear land ownership in the distressed neighborhood directly.

**Vested Property Act of Bangladesh and Shankhari Bazar:** About 80-90% houses in Shankhari Bazar are listed as vested property (The Daily Star, 2006). Living in the same houses, which were built by there forefathers the Shankharees continue to live a life in a state of perennial dislocation. They do not have the legal rights to their parental houses any more. As a consequence of this 'Vested Property Act', huge ownership problem exists in the Shankhari Bazar area, which creates obstacle to initiate any kind of development activity thereof.

**Building Control Law:** The 'Building Control Law' under the section 111, chapter VI of The Dhaka City Corporation Ordinance, 1983 was promulgated for Dhaka City Corporation including some power regarding ruinous buildings for securing any area, but due to massive ownership problem in the Shankhari Bazar area, it is difficult for the corporation to take immediate actions

**State of Rule Violation by the Inhabitants:** Ten buildings of Shankhari Bazar were identified as high risky and vulnerable by the Dhaka City Corporation in 2001. The City



corporation authority by notice required the occupiers of these risky buildings in January, 2005 to demolish the buildings by their own effort. But till now, no buildings are demolished by DCC. Thus the owners or occupiers of the buildings are violating the 'Building control law' of Dhaka City Corporation Ordinance, 1983.

**Reasons behind violating the law:** Multiple ownership patterns and legal problems of ownership, inability to afford the reconstruction work, high density of buildings, common wall between two buildings, Presence of several Hindu Temples are some of the reasons that obstruct implementation of building control laws.

**Litigations:** Through the survey some court cases have been found due to the ownership problems. Though the number of cases is small, there are huge ownership problem in the properties of Shankhari Bazar due to different acts and ordinances of the government which are promulgated in different times.

### **Recommendations**

Recommendations provided here are based on physical, social, economic and legal aspects that have been analyzed above.

#### **Recommendations on Physical Aspects**

The recommendations are made on four aspects of land use, road, building and infrastructure.

##### ***Land Use***

An effective plan should be prepared for the study area to ensure planned growth and to restrict haphazard and spontaneous development. Open space should be provided and incompatible land uses should be rearranged. The standard building coverage ratio and standard floor area ratio should be followed to make the buildings more livable. Enforcement of the standards should be strengthened.

##### ***Road***

The width of the Shankhari Bazar road should be increased and the irregular width should be regularized. The condition of Shankhari Bazar road and the branch roads should be improved and hard landscaping e.g., footpath should be constructed in the primary thoroughfare to ensure smooth flow of pedestrians. Traffic management at certain times of the day can be applied and parking facility should be provided.

##### ***Building***

- ◆ Considering the historic value of the buildings of Shankhari Bazar, a detailed technical assessment of the buildings should be done.
- ◆ Documentation of the buildings should be completed before any decision is taken regarding demolition of the structures.
- ◆ Safety of the buildings should be ensured by retrofitting of the structures so that it will ensure the cultural value of the area together with safety.
- ◆ Renovation and upgradation of the buildings should be done for improvement of the living condition of the inhabitants.
- ◆ Immediate actions or repair activities should be taken for the highly risky buildings of the area.
- ◆ Appropriate design approval for the buildings that will be constructed should be ensured and illegal extension of building height should be restricted.
- ◆ The buildings should be repaired and maintained properly in a regular basis and the

capacity of the buildings should be maintained through rehabilitating the extra people or increasing the capacity of the buildings.

- ◆ Set back rules should be applied for constructing new structures.
- ◆ For structures with heritage values, restoration of elevation and other elements like courtyards, authenticity should be ensured.
- ◆ Construction of new buildings should be maintained between the old historic structures that look so odd beside the old structures.
- ◆ Architectural renovation of the structures should be done.

### ***Infrastructure***

- ◆ The quantity and quality of water supply should be increased to the level that can fulfill the demand of the inhabitants of the area and effective management system should be developed for supplying water.
- ◆ The capacity of the drains of the study area should be increased and regular cleaning of the drains should be ensured and the condition of toilets and sewerage facilities of the Shankhari Bazar area should be improved.
- ◆ The supply of electricity for the study area should be increased sufficiently and illegal and unplanned electricity connection should be regulated and the electricity wires should be passed in a planned way.
- ◆ Fire protection facility should be provided in the entire study area and a community center should be established in the study area so that different festivals particularly religious functions can be organized in a smooth manner and can avoid the use of road for these functions.
- ◆ Sufficient amount of dustbins should be placed in appropriate locations.
- ◆ Programs should be taken to increase the basic sanitary knowledge and public health education of the people of the area.
- ◆ Dustbins should be located in such places so that waste collecting vans of the city corporation can collect the wastes easily and regularly.
- ◆ Appropriate coordination and cooperation between the public and the concerned authority, DCC should be increased.

### **Renewal and Renovation**

**Renewal of Shankhari Bazar Area:** The following tasks are important for the renewal of Shankhari Bazar Area:

- ◆ Conservation of the Mahalla
- ◆ Investment and financial support should be increased for the shankha and other traditional crafts
- ◆ Community development program
- ◆ Introduction of cultural tourism

Two alternative recommendations are suggested here for the conservation and renovation of Shankhari Bazar area.

**Conservation of the Site as a Heritage and Historic Spot:** For conservation of the area, the following tasks are important:

- ◆ Designation of Shankhari Bazar as a heritage zone.

- ◆ Retrofitting or consolidation of structures.
- ◆ Restoration of the historic elevation and other architectural elements.
- ◆ Reconstruction of part of elevations in significant buildings.
- ◆ Upgrading by providing necessary modern utilities and services.
- ◆ Adaptation by shifting to different functional uses relevant to the area, when the buildings cannot accommodate the present use properly.

**Renovation of the Site:** Renovation or restoring a building to good condition is as difficult a task as the construction itself. Renovation involves suitable construction materials, the right manpower, architectural expertise, and most importantly, the money to bring back the pride of a building that had once stood in style. So development projects should be taken carefully considering the heritage value of the structures of the area. However, construction materials, architectural forms, load bearing capacity of the buildings and so on should be considered for the renovation of the buildings of Shankhari Bazar area.

### **Recommendations on Social, Legal and Economic Problems**

#### ***Social***

- ◆ The density of population in the study area should be decreased to reduce unexpected crowd and ensure suitable living environment of the area by rehabilitating excess people in other places.
- ◆ Ownership problem of the houses in Shankhari Bazar area should be solved and density of population in each house should be decreased to the level of the capacity of the buildings.
- ◆ Investment should be made for the century old profession, such as shankha shilpo which is now in a weak condition. In addition, productive occupations should be introduced and technical training should be provided.
- ◆ The buildings that are used for religious purpose should be repaired and maintained properly.
- ◆ The willingness of people's caring about physical situation of this neighborhood, and the willingness of people's living in this neighborhood should be considered for initiating any kind of activities. Peoples' participation should be ensured.

#### ***Economic***

Financial assistance for the study area should be increased so that people can take necessary actions by introducing long term loan without interest. Development activities should be taken considering the economic affordability of the people of the study area.

#### ***Legal***

Vested property act that creates a huge ownership problem in the Shankhari Bazar area should be reorganized and the Building control law should be followed properly to ensure safety. Litigations due to ownership problem should be solved.

### **Conclusion**

The most significant policy undertaken by a wide range of cities since World War II is urban renewal. Since 1954 urban renewal programs have changed the face of many downtown areas and millions of displaced low-income citizens. This study has concentrated on four aspects

i.e., physical, social, legal, and economic problems, of which the analysis of physical problems are particularly emphasized.

With regard to physical problems, it is found that the physical status of the area is in a dilapidated condition. The land use of the area is in a haphazard situation and it has grown in an unplanned way. The Building Coverage Ratio (BCR) is low which refers to the lack of open space and the high floor area ratio of the area is another problem. The condition of roads is poor and narrow.

With regard to the social problem, it is found that the attitude about physical condition is influenced by the socio-economic status; and the biggest social problem comes from the inhabitants that fall in the lower income group. A huge portion of the property of the area is besotted with ownership problem. With regard to the economic problem, it is found that the financial assistance in the case study area is very limited, which reflects on the poor maintenance and physical condition in this neighborhood. With regard to the legal problem, it is found that a significant portion of the property of the area is treated as vested property. Some court cases also exist due to ownership problem.

Finally, if adequate financial support can be provided to implement the recommendations made in this research, it could be possible to bring improvement in the Shankhari Bazar area into the present day standard and consequently preserve the great history of the area and as well as the Dhaka city.

*Note: This article is based on undergraduate dissertation.*

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