

# Peoples' Needs and Public Housing

## A Case Study on Azimpur Governmental Housing Area in Dhaka City

*Selina Afroza*

Architect, Housing Specialist  
Department of Architecture, Bangladesh

### Introduction

Irrespective of our social status or economic condition, with the exception of a few footpath dwellers in our major cities all of us have either a house or a shelter to live in. Housing is therefore, such a subject about which everyone has something to say. The quality of the building we live in is also a variable commodity dependent upon many internal and external characteristics to which we relate on a highly personal and often critical level. We all respond to our home environment, often positively but also often negatively because this environment does not provide those basic requirements that respect our sentimental values and generate a sense of pride to the total physical environment.

Environment is not only the physical setting such as dwelling units, housing developments and neighbourhoods but also the social and economic dimensions of such settings (Francescato 1998).

The design of housing is one of the most difficult task in the field of architecture. A proper understanding of the nature of human needs is of crucial importance in the formulation of housing and space standards. A shelter provides people with functional, social and spiritual needs.

In the provision of housing the designer's role is central and success or failure of a housing development will in part be dependent upon the visual quality of the home environment: the "good looks" of the building the quality in the space outside in the streets, in landscape and gardens and in general aspect and accessibility of the neighbourhood.

Therefore the problem of housing cannot at the same time be merely restricted to designing pretty buildings for the middle and upper middle classes not to apartment blocks that house the same class of people. The urban housing problem has to be tackled from a wider socio- economic angle so that the majority of people are provided with essential facilities for living. The need then is for us to evolve a 'design for living' for those whom we wish to house before we actually construct.

Government efforts through all these years to provide housing to government servants, to the general public and to the urban poor have not so far been able to make any significant dent in the urban housing scene not to speak of the situation in the rural areas. The recent publication of the National Housing Policy-1993 modified in 1999 shows concern of the Government on this issue and the strategy for increasing the supply of housing through private sector investment.

"The Government intends to create a favourable and conducive environment in the country to provide impetus to this (housing) sector. The Governments endeavour is to make housing accessible to all citizens of Bangladesh through various measures, incentives, motivation, planning and management. Special housing schemes will be undertaken both public and private sectors, for the low- income groups, the disadvantaged the destitute and the shelter less poor".

The National Housing Policy is an indication of the Government's attitude to play an increasing role in encouraging the development of affordable housing.

The objective of this paper is to discuss the Public Housing situation in Dhaka City through an analysis of Azimpur Governmental Housing. This paper concludes with some general recommendations for efficient use of unutilised lands in the Public Housing areas

## Background

### City: Dhaka

Dhaka being the capital and largest metropolitan city of Bangladesh with its employment opportunities and other commercial activities has attracted the largest number of migrants from all parts of the country. As a result the population has increased tremendously during this period compared to the expansion in the city area. In 1991 it is estimated that 40% percent of the total urban population live in Dhaka city.

Dhaka has grown from a town of just 0.5 million people in 1957 into a metropolis of more than 7.0 million in 1991 over an areas (DMDP) of 1528sq.km (590 square miles). (Bangladesh Bureau of Statistics,1991)

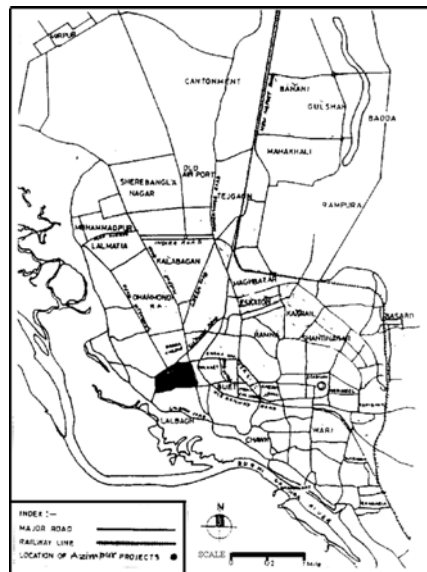


Figure 1: Location of Azimpur in Dhaka City

According to some reports it is estimated that Dhaka will have to house at least 10 million to 16 million people by the end of the 2000. Dhaka will be one of the world's 20 mega cities over 10 million people by 2000 says the UNFPA's world population report-1993.

According to various authorities and studies the yearly housing requirement in the city is between 45,000–83,000; all public and private efforts together can only produce 25,000 housing units a year. Percentage of people living in slum and squatter settlements is between 15–45 percent. It would take about 100 billion Taka nearly the entire ADP Budget to house the above population or to meet the annual requirement in the capital city alone.

### Public Housing

In the public sector most activities related to housing are carried out on behalf of the Government by the Ministry of Housing and Public Works and different departments / directorates under it namely Department of Architecture, Public Works Department (PWD), Housing & Settlement Directorate (HSD), City Development Authority namely, Rajdhani Unnayan Karttripakkhya (RajUK), Urban Development Directorate (UDD) etc.

In the urban area the Public sector has probably contributed directly or indirectly to not more than 10% percent of all urban housing activity during the last 40 years. The formal private sector has become visible recently but its activity is limited to one or two large cities. Despite the limited number of sites and services projects core housing, flat for sale and slum upgrading, rehabilitation schemes for general public. Public housing has primarily catered to the needs of govt servants. During the British Era bungalows used to be built for high officials and barracks for employees. In 1947 after the partition of India there arose an immense problem regarding the accommodation of govt. servants who had migrated from India. For

the employees of the Central Government, the Pakistan Public Works Department established Motijheel colony in Dhaka and Agrabad Colony in Chittagong. The Provincial Government set up Azimpur Colony and Eskaton Garden Governmental Housing for the government officers in Dhaka city.

At present altogether 11,678 dwelling units under the jurisdiction of the Ministry of Housing and Public Works are already in existence for about one hundred fifteen thousand government officers and employees in Dhaka City

## Public Housing Space Standards

In 1969, the WPI Ministry of the Provincial Government issued a manual on office and residential space standards for government officers and employees. According to this manual we have (table 1)

**Table 1: Residential Space Standards for Government Officers and Employees, 1969**

Category of Officers / Employees	Allotable Floor Areas square feet	Type (Categories of flats)
Secretary	4000 3000	Bungalow Bungalow
Class I	1750 1500 1300	'F' Type 'E' Type 'D' Type
Class II	840	'C' Type
Class III	612	'B' Type
Class IV	519	'A' Type

After the emergence of independent Bangladesh in 1971, there appeared widespread government activities and a rapidly increasing number of employees to be housed across the country.

In 1980 according to the directives of the Ministry of Public Works and Urban Development formulated residential space standards for 21 levels of National Pay Scale, arranged in 6 residential groups (IM-25/77/80, dt 9.5.80). This went through a number of revisions and in May 1992, the Ministry of works issued housing entitlements in the form of a gazette notification (SRO no 106-Law/92 S-2/2M-12/91, dt 9.5.92).

**Table 2: Residential Space Standards for Government Officers and Employees, 1992**

Categories of Officer/Employee	Pay Scale (Taka)	Allotable Floor Areas square feet	Entitlement
Class I	8000 and above	1800 + 200 for garage	Superior Type
	7100–7999	1500	'F' Type
	5500–7099	1250	'E' Type
	2850–5499	1000	'D' Type
Class I & III	1225–2849	800	'C' Type
	1125–1725	600	'B' Type
Class IV	1050–1915	500.	'A' Type

The notification (Table 2) indicates a change in building types and pay scale levels. The process is an indication of the attitude of the Government for drastic lowering of residence size (1800 sq ft. flats instead of Bungalows (3000– 4000 sq ft.) for higher categories of officials and providing more accommodation to low paid employees.

The Department of Architecture has developed a set of standard residential building designs for different levels of government servants. These are repeated wherever necessary all over the country to meet the housing needs of government servant.

# The Case Study

## Azimpur Governmental Housing Area

Within the boundaries of Dhaka, Azimpur Governmental housing is the first govt multi-storey walk-up residential flats housing project for the govt. servants (figure 1). During the 1950s the then Provincial Government established this residential flat scheme consisting of 3 storied building units suitable for 6 families based on a typology consisting of two flats for two families and a staircase in between had been arranged in a cluster having an open space in the middle. 240 residential flats ranging from 1531 sq ft to 1741 sq ft (E & F type flats) were designed for the middle and higher-middle income govt officers on 46 acres of land.

In view of the ever increasing demand for government housing these buildings have been extended into 4 storied during the 1970s. This low density governmental housing consist of community centre, playground, girls' school and 3 ponds built on  $(46.00+1.00+2.82) = 49.82$  acres of land bounded by Govt New Market, Peelkhana Road and Azimpur road is a successful example of housing for higher-middle income and middle –income government officers.

At the same time D-type. Flat ranging from 950 sq ft to 1037 sq ft and C-type ranging from 650 sq ft to 850 sq ft have been built for middle & lower-middle income government servants on 23.64 acres of land stretching eastward from Peelkhana Road up to Sir Salimullah Muslim Orphanage. Simultaneously 800 sq ft. C-type flats were built on 4.08 acres of land beside Palashi Maternity Centre to the east of Azimpur Road and a government housing known as Palashi Barracks were built on 5.39 acres of land.

Even until the 1980s no further thought was given on this government housing scheme set up on 85.00 acres of land surrounded by a main shopping centre at a walking distance, Cinema hall, Eden Girls' college, Home Economics College, Engineering University, graveyard and health centre etc (figure 2)

### **Infill Within The Existing Governmental Housing Areas**

To fulfil the urgent housing demand of the government servants the Government has taken up a programme of improving the existing housing stock with the supply of new houses. During 1992s a programme of 3000 flats (measuring 1500, 1250, 1000, 800, 750, 600, and 500 sq ft.) for different categories of government servants has been under taken by the government in Dhaka city. Because of shortage of government land and with a view to proper use of unutilised land within the different government housing areas of Dhaka city most of the newly designed flats have been built on the pockets of land within the existing government housing areas. In order to alleviate the shortage of land for implementing the proposed 3000 flats construction project for the govt. servants Azimpur housing area was also considered within this scheme.

Under the 3000 flats programme two hundred twenty flats (1000sqft each flat) One hundred ninety (800sq ft), sixty (550sqft) in total 470 flats were constructed on the basis of 5- storied building each accommodating 10 families within Azimpur Housing Area. The second phase of 3000 flats scheme is still going on.

During 1996 the govt. has shown keen interest in solving the housing problem regarding govt servants in Dhaka city. With this end in view the govt is eager to build additional 5000 flats in the city. Already a scheme for building 2500 flats has been undertaken within the same project. For this project designs have been prepared by the Department of Architecture. The design consists of 16 storied high-rise buildings with lifts and fire stairs for accommodating 1000, 1250 and 1500 sq ft flats 4 units per floor leaving the ground floor free for parking and other services.

In order to make up for the shortage of land for the project 16-story apartment buildings will be built on land obtained by filling up unutilised low- land, ditches and unused pond within government housing areas. As per decision Department of Architecture has prepared architectural drawings for two 16- story building with 1500 sq ft on a site created by filling up a pond within the Azimpur Governmental housing area (figure 2).

This high- rise residential flat building for public housing is a new concept in the public sector. It is expected to open up new horizons in the public housing scene of

the country. This proposal is under the consideration of the ministry of Housing and Public Works

## Analysis and Review of Different Regions of Azimpur Government Housing

During the 1998's the present government has taken a decision of demolishing Old conditioned existing housing stocks in order to improve housing environment and construct new houses. According to the decision of the present government vide memo no Admin-3/2 c-1/98/1041 dated 8-6-98 of the ministry of Housing and Public Works in view of the expiring of the life of 48 buildings built in the 1950s within the Azimpur Governmental Housing Areas consisting of 1000, 850, 800, and 600 sq.ft.flats are to be demolished in order to construct new buildings in their place.

The Department of Architecture is responsible for redesigning and planning of the existing master plan of Azimpur Governmental Housing Area. It is a great opportunity to study and analyse the different characteristics of the entire housing area before preparing a new Master Plan.

As per govt. decision the Department of Architecture prepared a report on the present and future use of Azimpur Government housing Area in November 1998 and sent it to the Ministry of Housing and Public Works for getting decision regarding policy matter.

In the master plan the entire housing area has been marked as regions A, B, C, D, E, F and G according to location and use. These regions measure respectively, 23.64, 4.08, 2.82, 46.00, 1.00, 2.07 and 5.39 acres totalling 85 acres.

### Region A

The area under review bounded by Peelkhana Road, Azimpur Road and stretching up to Sir Salimullah Muslim Orphanage, measures 23.64 acres. On this land there are 37 old buildings (33 with 850 sq ft. flat and 4 with 1000 sq ft. Flat) having a total of 600flats, which have been marked for demolition. 18 new buildings with 182 flats (170 with 800sq ft & 12 with 550 sq ft flat). Total nos. of flats in Old and New Buildings are 782 as shown in table 3. Therefore net density is 33 flats/acre.

**Proposal:** By keeping the new buildings (182 flats) intact and demolishing the old 37 buildings only and maintaining moderate housing density a plan for building 5-story building units each accommodating 10 families on the basis of a one stair two flats typology, will make it possible to build 858 flats which will be (858 flats-600 flats) =258 flats more than the present number.

### Region B

The area under review, located to the east of Azimpur Road and adjacent to Palashi Maternity Centre, measures 4.08 acres. There are 6 old 4-storied buildings 2stairs and 4 flats on each floor totalling 96 flats (850sft. C type) which have been proposed to be demolished. There are also 6 new buildings (2 with 800sqft. & 4 with 550sqft flats) with 68 flats. Total number of flats in old and new buildings is 164 flats. Therefore, Density: 40 Flats/ acre.

**Proposal:** By keeping the new buildings intact and demolishing the old 6 buildings only and planning to construct 5-story building 111 flats can be constructed thereby building (111-96)=15 flats more than the existing ones (table 3)

### Region C

The area under review, located to north east of Peelkhana Road measures 2.82 acres. There are 6 (5 with 850 sq ft & 1 with 600 sq ft. Flat) 4- storied old buildings with 100 flats, which are to be demolished.

**Proposal:** By demolishing these 6 old buildings, 5- story new buildings with 127 flats can be built thereby obtaining additional (127-100)=27 flats (table 3)

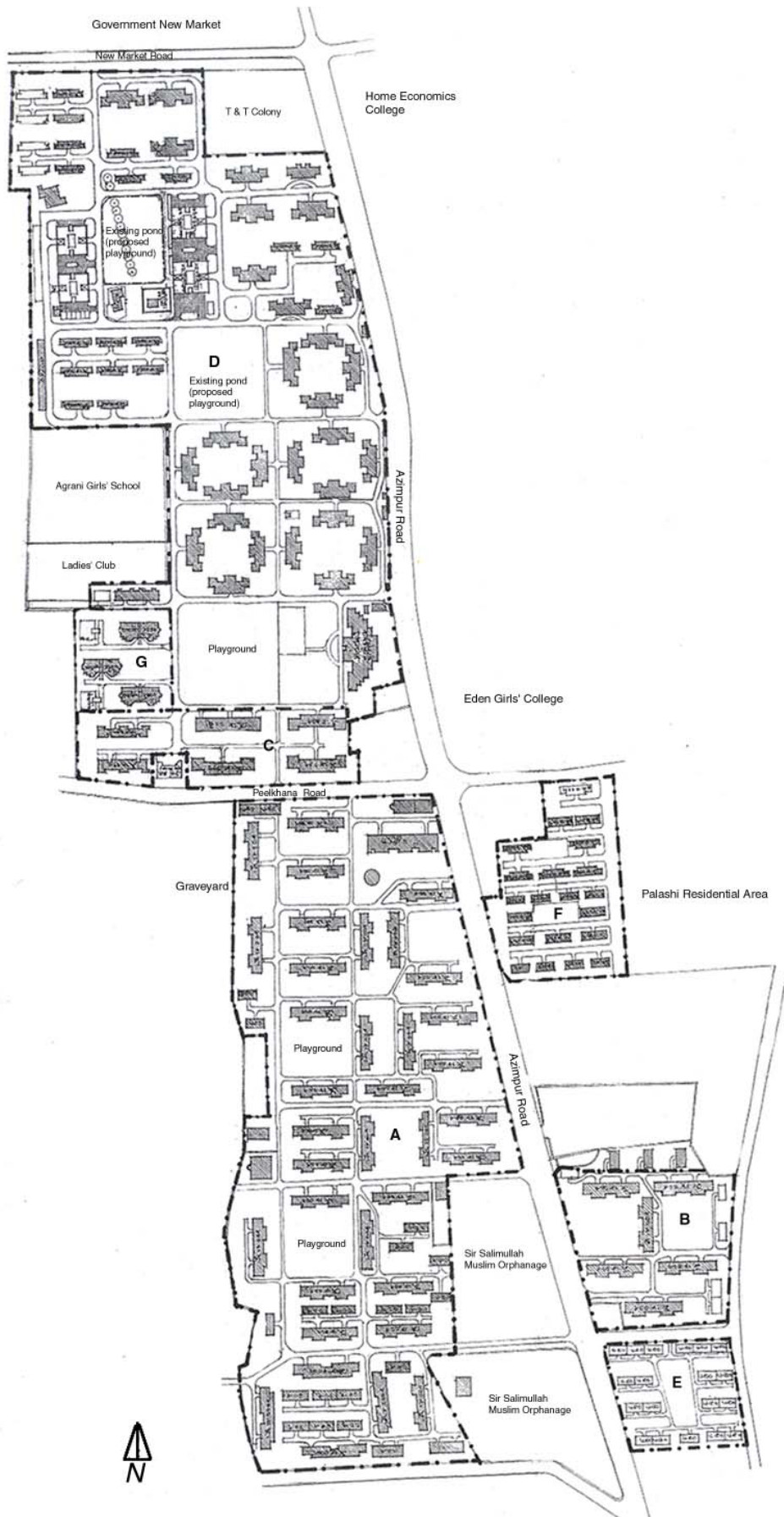


Figure 2: Site Plan of Azimpur Government Housing

## Region D

The area under review bounded by Govt. New Market Road, Peelkhana Road and Azimpur Road measure 46.00 acres. It consists of community centre, playground, two ponds Party House Mosque, Mazar of Hazrat Ibrahim Adam, WASA pump house and 30 old 4 storied buildings with 8 flats in each floor totalling 240 flats (1531sft-1784sft. E- type & F type flat). There are also 22 new 5-storied buildings with 220 flats (1000 sq ft/ flat). Total numbers of flats in old and new buildings are 460 flats. Therefore, present Net Density: 10 Flats/acre.

The life of old buildings in region D have almost expired, but no decision has yet been taken to demolish these 30 old buildings. According to the Ministry's decision taken in 1996, plans have already been prepared for constructing two 16-story buildings on the filled up big pond totalling 120 flats and two more 16-story buildings in the Party House area. Therefore the high-rise buildings proposed in 1996 would accommodate 240 flats (1500 sq ft/ flat), the new flats thereby totalling 460 in number and old flats totalling 240flats (table 3).

**Proposal:** In the region D, out of the 46 acres of land, 11 acres being excluded for accommodating community facilities, play ground, mazar, pump house and mosque etc and 35 acres being directly used the total number of providable flats would 1540 flats. Therefore, this 1540 flats excluding those proposed at present and before, ie, 220+240=460flats, and the old 30 buildings (240flats) may be demolished to provide 1080 new flats. That means there would be (1080-240)=840 additional flats.

## Region E

The area in review located to the east of Azimpur Road, and on other side of Sir Salimullah Muslim Orphanage and to the south of region B measures 2.70 acres. In 1990s a site plan was prepared for 5-story buildings with 600sft flats under the 3000 flats scheme but its construction has not been started. At present there are special semipucca houses for PWD employees on that land.

**Proposal:** The new architectural plans for these 2.70 acres of land would provide for 91 flats (table 3)

**Table 3: Azimpur Governmental Housing Areas Present use and Future Possibilities**

Region Marked In the Site Plan	Land (Acre)	Location	Bldg. Nos.	Period Newly Built/Old Bldgs.	Flat Area/ Types	Height (No. of Floors)	Flats/ Floor	Flats/ Bldgs.	Total Nos. Of Bldgs.	Total Flats (Old Bldgs)	Total Flats (New Bldgs)	Flats (Props. 16-Story Bldgs.)	Props. Flats In place old Bldgs.	
A	23.64	Peelkhana Rd. north, Azimpur Rd. East Stretching Upto Sir Salimullah Orphanage	1-32	Old	850sft. C-type	4	4	16	32	512			858	
			71	Old	850sft. C-type	4	6	24	1	24				
			39-42	Old	1000sft. D-type	4	4	16	4	64				
				New	800sft. C-type	5	2	10	17		170			
				New	550sft. B-type	6	2	12	1		12			
									600	182				
B	4.08	South-East of Palashi Maternity Center	33-38	Old	850sft. C-type	4	4	16	6	96			111	
			-	New	800sft. C-type	5	2	10	2	-	20			
				New	550sft. B-type	6	42	12	4	-	48			
											96	68		
C	2.82	North-West of Peelkhana Road	43-47	Old	850sft. C-type	4	4	16	5	80			127	
			75	Old	600sft. B-type	4	5	20	1	20				
											100			
D	46	Surrounded by New Market, Peelkhana & Azimpur Road	-	Old	1531-1741sft E-type	5	2	10	2	-	20		1080	
				New	1000sft. D-type	5	2	12	22	-	220	240		
											240	220		230
E	2.07	Beside B region vacant land											51	
														51
Total = Land	67.61									1036	470	240	2267	
													Total = 2507	

## Region F

This area known as Palashi Barracks because Barrack type housing had been built during British Period. Under the 3000 flats programme, by demolishing Barrack housing, 5storied flats of different categories for the Government servants were built on 5.39 acres of land in 1995. Therefore, figure 2 shows it is comparatively new built area.

## Region G

There was a pond in this area before a programme of construction of 50 flats for judicial officers. Three 5-storied building consisting of 30 flats (1250sft/ flat) based on one stair two flats typology and two 5-storied building consisting of 10 flats (1500sft/ flat) based on one stair one flat typology have been constructed on 1 acre of land created by filling up a pond adjacent to a playground to the south of the residential area of Region D (figure 2)

## Strategy

### Proposals for New Master Plan

By analysing and reviewing the different regions (A, B, C, D, E, F & G) of Azimpur Government Housing Areas measuring total of 85 acres, it can be seen that regions F and G are newly built ones (figure 2). There areas under review are regions A, B, C, D and E. The review areas measure respectively:  $23.64+4.08+2.82+35.00(46-11)+2.07=67.61$  acres (table 3).

Proposed density on the basis of 5- story buildings is as follows

**Net Density=60 units / acre and Neighbourhood density=44 units /acre**

By constructing 5-storied buildings in review areas, at total of 2977flats can be provided. Newly built flats= $182+68+220=470$ flats and Proposed flats =  $2977-470=2507$  Flats. There were 1036 old flats in the area under review. Newly designed flats would total 2507 (shown in table 3).

Therefore additional  $(2507-1036)=1471$  flats may be built in the Azimpur Governmental Area. However, if more 16-storied apartment buildings could be planned in the Region D other than the four 16-storied buildings, these figures would be changed. Therefore a new master plan has been proposed for the efficient use of unutilised lands of Azimpur Government Housing Areas.

### Improvements and Rehabilitation of the Existing Housing Stock alongside New Housing

For the successful implementation of the strategy of the present government, the following issues may be considered in order to formulate clear out policies having analysed the different characteristics of the entire area of the Azimpur Government Housing before a new master plan may be prepared for this area:

- What would be the equivalent size of the flats to be designed?
- What poling would be followed regarding the building heights? Would it be for mid-rise (5-story), or high-rise (10/16 story) or mixed development?
- What would be the rehabilitation process for the existing housing stock? Would it be the same category of flats or higher or lower category of flats?

Though Azimpur Governmental Housing Area in Dhaka City enjoys prim & central location and have very high land value yet fetch very low financial returns due to low intensity of development (low FAR, ground coverage and density) and comparatively lower rents. If the mix of various houses type is not well consider in a housing proposal it becomes difficult to achieve the permissible density, ground coverage and FAR (Floor Area Ratio).

The future possibilities of Azimpur Governmental housing Areas should be explored properly during preparation of new master plan that has been waiting for the future decisions by the Ministry of Housing and Public Works.

After the successful implementation of the strategy the problem of government accommodation in Dhaka will be partially alleviated. A portion of government house rent allowance will be saved and the Government will earn an additional amount in the form of house rent. Moreover, though meagre in the context of Dhaka city, it will still have an effect on lowering of pressure on rented private houses, which will in turn, help arrest the skyrocketing of house rent. This will help bring about social discipline.



# Actors

## Main Institutions and their Respective Responsibilities in the Public Housing Provision and Funding.

### **The Ministry of Housing and Public Works**

and the following Departments/ Directorates under it are involved in the public housing provision.

#### *The Department of Architecture*

is the lone govt architectural organization and responsible for designing all govt buildings and public housing schemes across the country.

#### *The Public Works Department (PWD)*

is concerned with the construction and maintenance of govt offices/ institutional building and public housing for the govt servants.

#### *Housing and settlement Directorate (HSD)*

is vested with the responsibility of building houses for general public especially for low and lower middle income housing in the country. HSD has been involved in the provision of serviced plots, core houses, semi-pucca houses, flats, and slum upgrading schemes.

#### *The City Development Authority, RAJUK*

is responsible for physical plan preparation, land acquisition, land development distribution of plots, regulation and control on private development & building permission as well as slum clearance & rehabilitation.

#### *The Urban Development Directorate (UDD)*

limits its role only to the urban and regional planning policy and plan preparation.

### **The Ministry of Finance**

is responsible for funding the public housing. Therefore supplies finance for house building activities.

### **House Building Finance Corporation (HBFC)**

gives mortgage lending for housing construction to the people.

There are different agencies that are responsible for regulation and control over the design and construction of housing its location, necessary infrastructure, services and social facilities essential for housing areas. There are also other institutions for the distribution of housing and planning in Dhaka city.

### **National Economic Council (NEC)**

is for policy and programme and overall decisions.

### **Planning Commission**

is responsible for policy and programme review.

### **Water Supply and Sewerage Authorities**

are responsible for water, sewerage and drainage.

### **Titas Gas**

is responsible for gas supply.

### **Dhaka City Corporation (DCC)**

is for maintenance of urban services, slum improvement implementation.

### **Housing and Building Research Institute**

is responsible for research and development on building and materials

Although there are so many agencies involved in the housing activities the scope of their services remain limited. Because of the lack of funds and effective housing

policy these agencies that are concerned with Mass housing are of benefit only government servants and relatively rich upper income groups

## Project Related Actors and Their Roles

The **Ministry of Housing and Public Works** is the **Key Actor** for the project formulation, monitor and evaluation of Azimpur Governmental Housing Area. The Ministry of Housing and Public Works coordinates with the Administrative Team as well as the Technical Team for the proposed project.

The **Administrative Team** is involved with the project formulation, fund allocation and support funding. The Ministry initiates the project & prepares PCP (Project Concept Paper) through its **Planning & Development Cell** and send the programme to the **Planning Commission** for **pre ECNEC** (Executive Committee of National Economic Council) programme review, then it goes through the National Economic Council for **ECNEC** decision. **National Economic Council** approves the programme and sends it to the **Ministry of Establishment** for fund allocation. Through the **Ministry of Finance** it returns to the Ministry of Housing and Public Works.

The **Technical Team** is involved with Design, supervision coordination, monitor and evaluation of the proposed project. The Ministry of Housing and Public Works monitors the whole design, construction, supervision and evaluation process of the proposed project through the **Department of Architecture** and the **Public Works Department (PWD)**.

The Department of Architecture is headed by the **Chief Architect** and the **Deputy Chief Architect** works as supervisor of a design circle. There are three design divisions headed by the Assistant Chief Architects under a design circle. The **Assistant Chief Architect** of the concern design division is assigned for the design and drawings preparation of the master plan, site plan and architectural plans (building plans) under the guidance of a Deputy Chief Architect. The Assistant Chief Architect supervise construction work to ensure execution of works as per architectural plans & specification and guide / instruct Site Engineers / Contractors / Suppliers regarding quality of workmanship & supplies as per architectural drawings & specification as well as make correspondence / coordinate with Design Engineers/ Site Engineers and client Ministry.

The project has to be implemented through the existing organisational set up of PWD, Chief Engineer heads the organization and acts as the chief coordinator of the project. **Superintending Engineer** of project circle as Project Director. The office of the **Executive Engineer** of Azimpur **project division** of PWD is the main body of project implementation. Executive Engineer is assigned as project manager and prepares PP (Project Proforma) for the proposed project & is responsible for supervision, coordination and monitoring of the construction works.

The **Executive Engineer of design division** of PWD is assigned for the preparation of structural design based on the architectural design supplied by the Department of Architecture. Electrical and mechanical designs and drawings are also prepared by the concerned Electrical and Mechanical division of PWD. After getting approval for the implementation of the project from the Ministry of Housing and Public Works, the concern **Executive Engineer** of (Azimpur site) project division of PWD will open tender for the **Contractors (Civil, electrical, water supply and sanitary contractors)**. The Project Division of PWD does the contractors, issuing govt. cheque and continuous supervision of works the tendering, procurement, purchasing, contracts signing, and payments to

**Electricity, water & sewerage and gas supply** connections are done by the different concerned agencies and the PWD also coordinates with the other organizations that are involved in construction process.

**Dhaka City Corporation** maintains and manages the garbage disposal system, roads & drains of the project site.

**Inhabitants** living in the Azimpur Governmental Housing have a passive role in the construction process because Public Housing does not allow for any participation of target groups in the total process. Inhabitants prefer flats with a greater number of smaller rooms than fewer bigger rooms that expectation has been reflected in the recent Type Design of residential flats for the Government servants.

After the completion of construction of the proposed project, buildings are handed over to the Directorate of Accommodation through the secretary of the Ministry of Housing and Public Works.

**The Directorate of Accommodation** allots the flats among the Govt servants according to the priority list of the different Ministries.

The Govt. servants are getting additional 40% to 50% of their salary as house rent allowance. The person who gets an Govt. accommodation, cannot received this house rent allowance moreover, he/she has to pay 5% to 7.5% of his/her salary as house rent to the Govt. per month. In this way Govt. collects the revenues and compensates the maintenance cost of the Public Housing for the government servants.

Through the analysis of govt built rental housing for the govt servant it is revealed that present public housing policies make no attempt to cover the full cost provision from the beneficiaries. Rents collected are too low to cover the annual maintenance costs and make no contribution to the recovery of the capital outlay. Because of this inefficient utilisation of limited allocation of fund for housing the annual provision of housing is far less than the needs.

The following figure shows the relationship between the Administrative Team Technical Team and the beneficiaries (Inhabitants).

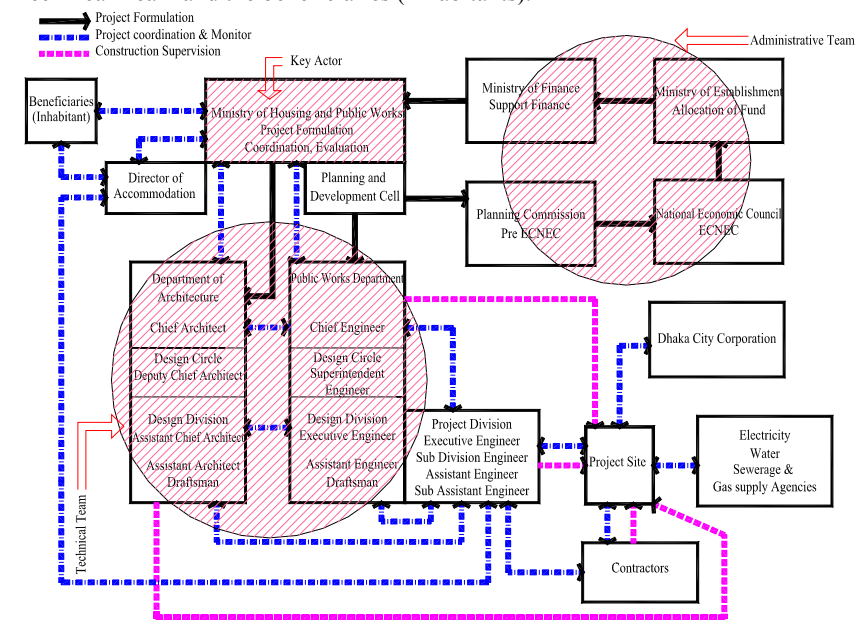


Figure 3: Chart of Project related Actors and their relationship

## Design Criteria

### Transformation from Bungalows to Flats to Meet the Changing Needs

The colonial public housing units mostly built for high officials were single-family bungalows on generous lots complete with gardens, patios, servants' quarters and even service stairs and service lanes. The post-colonial fifties witnessed a change. Copies of colonial models but on smaller lots and multi-storey walk-up flats were promoted as the 'modern' and 'optimal' solution. The design of housing units or flats were still characterised by lavish allocation of space with huge verandas and wide corridors reminiscent of colonial bungalows. There being no space standards, the flats tended to be large and expensive.

Changed circumstances brought about many changes in the housing design. During the Pakistan period, open verandas were in vogue as it provided comfort in hot humid climate. With lowering of accommodation sizes, large verandas had to be sacrificed. Flats with a greater number of smaller rooms were preferred to those with

fewer bigger rooms. Due to reasons of security, grilled or windowed verandas attracted greater attention in Bangladesh period.

With time, various types of built forms have evolved in the field of public housing. The earliest and most popular one is rectangular with a central staircase as in most government officers' and employees' colonies.

Current public housing projects, spread all over the country, show a marked tendency towards experimentation with building forms and façade treatment. Modification and innovations are being tried out in the treatment of external expression. Concealing unsightly service lines with brick screens offers a simple, workable and aesthetic solution for low-budget housing schemes. The importance of detailing is evidenced in the clean crisp details of buildings in recent public housing projects.

Housing activity is changing with the basic change in construction system, availability of building materials and their usage along with formulation of government Policy. Efforts are directed towards lowering cost incorporating traditional materials and producing structures, which are relatively permanent, familiar and easy to maintain and repair. The designs are rational and compact. with

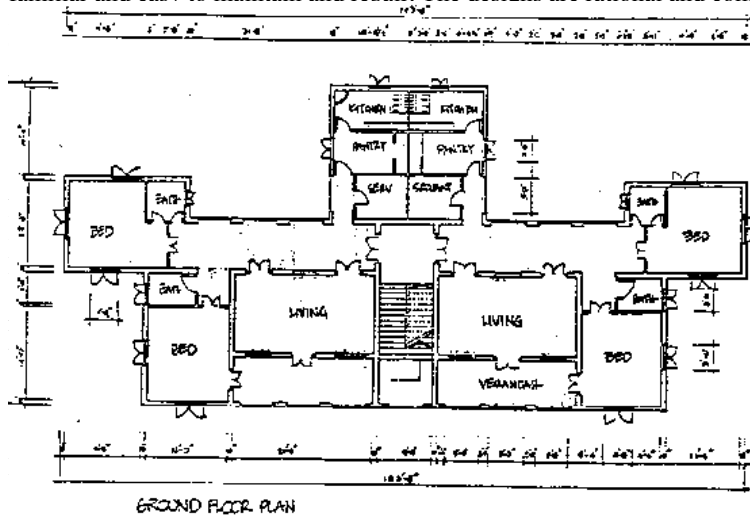


Figure 4: 1531 sq ft / Unit 'E' Type Flats in the Old Building at Azimpur Governmental Housing

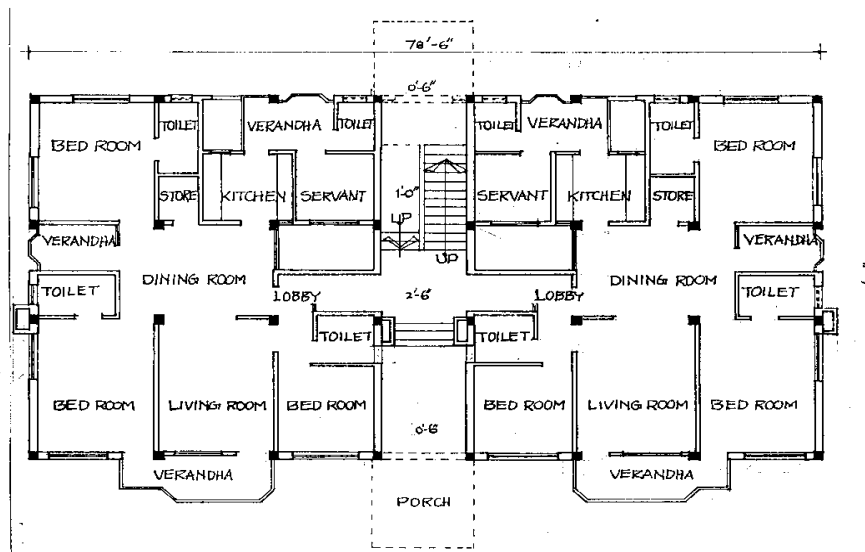


Figure 5: Ground Floor plan of 1250 sq ft ('E' Type) in the New Building at Azimpur Governmental Housing Area

An analysis of the two plans of the same category 'E' Type flat reveals that the new flat is more compact with minimum circulation space, more rooms and other

facilities within a comparatively smaller area (1250 sq ft) than the old flat with bigger area (1531sq ft). Entry to the old flat through a long corridor is an improper utilisation of space. There is no room for dining in the old flat. Kitchen layout, the fittings, fixtures and finishes of the toilet are unsatisfactory.

Inhabitants expect modern toilet and kitchen with ceramic tiled floors and plastic paint in the walls of the rooms. Small size modern finished flats are more popular among the Govt servants even though those flats are below the categories of their regular entitlements of flats.



Photo 1: "E" Type Old Building in Region D at Azimpur Governmental Housing Area



Photo 2: "E" Type New Building in Region G at Azimpur Governmental Housing Area

Layout plan of the Old Buildings (photo 1) in Region 'D' in figure 2 shows the cluster of 4 buildings having an open space in the middle. Two buildings had been arranged with wrong orientation facing east west in each cluster. Due to the characteristics of the local hot-humid climate those buildings remain hot in summer and cold in winter leaving an uncomfortable living in the flat.

Repetition of standardised flat building in the layout depicting symmetry or convenience ignores the aspect of energy- efficiency and proper orientation. The open space in the middle of the cluster has been unutilised and not properly maintained. The discussed open space has become breeding area for mosquitoes. If

well designed and maintained, the open space helps to improve the living environment.



*Photo 3: 'D' Type New Building in Region D at Azimpur Governmental Housing Area*

Under the 3000 flats programme 'D' Type flats (1000 sq ft) and 'C' Type flats (800 sq ft) have been constructed between gap of two old buildings in Region A and Region B. Inadequate distance from buildings create privacy problem. Exposed gas lines which are inconveniently situated at the main entry of the building (Photo 3), may be dangerous/ hazardous for the Inhabitants.

During the preparation of site plan a designer should think about the services and their locations that could give the quality of spaces. Photo 3 shows poor workmanship and use of non durable finish material during construction has shorten the durability of the buildings

## Conclusions and Recommendations

It is a fact to be understood by all that housing programmes similar to those which have been very successful in other countries may not be so in our case. This is because the success of every programme depends on its acceptability, which in turn is related to the people's socio-economic, moral, religious and psychological needs. Therefore instead of copying directly from successful foreign examples it is more reasonable to apply the knowledge learnt from those examples within the context of our own culture and environment.

In the field of housing in the public sector, different type designs of residential flats have been developed during the last two decades, which have been used in the implementation of the different Governmental housing projects. In view of the country's socio-economic conditions, the architects of the Department of

Architecture have been playing an important role in establishing architecture suitable for this country. The type designs were developed with respect to the climate of Bangladesh, limited resources, inadequate land and available technical know-how.

Availability of land, finance, their effective utilisation and strategy to mobilise finance, influence the supply of Govt housing. Therefore it is high time and essential to revise the exiting policies and formulate strategies in order to reduce the demand for Governmental housing, to upgrade, maintain and judiciously use the existing stock and to mobilise finance for efficiency and effectiveness

Governmental residential estates in Dhaka lend a distinct image to the capital Therefore it is prerequisite to design Government housing with full utilisation of all Govt. owned residential lands as per norms, good specification and quality construction for all Government housing for durability and easy maintenance as well as functional, energy-efficient and cost- effective house designs and layouts for creating an environment conducive to good living.

Rethink about the role of Govt as a provider of Govt rental housing or a facilitator of own permanent shelter to its Government servants in the changing future scenarios.

The major issue related to public housing is that the Government needs to clarify what its own role should be in securing or promoting housing and shelter for the people. In keeping with the Government's accepted role as an enabler emphasis needs to be given on providing the three main basic inputs namely land, services/ infrastructure and finance/credit so that households can build their own units in accordance with their means and choices. The private sector can also be motivated to play a greater role in meeting the housing needs to lower income groups by making these inputs available. To facilitate the housing supply and delivery system public actions must be taken in the above-mentioned fields.

The overall situation could be improved through further direct and indirect initiatives from the Government framing proper legislation, adopting and implementing proper policy towards the building industry. These could be based on appropriate building codes and formulating quality control guides through support and encouragement of research on building practices which could be well co-ordinated with the National Physical Planning, National Environment Policy- 1992 and National Housing Policy-1993, modified 1999.

Materialising the Global Plan of Action needs concerted efforts on the part of all the actors of the society. Participation of a wide range of actors ranging from Government, City Authorities, Private Sector, Individual, NGOS, CBOS to all professional groups are necessary in the process

Therefore, now is the time for evaluation and learning from past experience and consolidate our thinking for the future

## References

- Afroza, Selina  
1988 *The Role of Government as a Developer in Urban Mass Housing-Studies in the context of Dhaka, Bangladesh.* Unpublished M-Phil Dissertation, University of Newcastle Upon Tyne, England.
- Government of People's Republic of Bangladesh,  
1996 *National Report* United National Conference on Human settlements (Habitat 11) Istanbul
- Ministry of Housing and Public Works, GOB  
1999 *National Housing Policy-1993, modified 1999*, Dhaka.  
Department of Architecture
- 1998 *Azimpur Government Housing Area and its Present and Future Uses*, A Departmental Report, Dhaka.
- United Nations  
1996 *The Habitat Agenda: Goals and Principles, Commitments and Global Plan of Action*, UN Conference on Human Settlements, Istanbul, Turkey
- Subrata Chattopadhyay  
2000 *Residents' Satisfaction in Housing*, Architecture and Development Course material, LCHS, Lund University, Lund, Sweden.