A CRITICAL ANALYSIS OF HOUSING PROVISION FOR LOW INCOME GROUP AT UTTARA MODEL TOWN

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January, 2011

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Mahfuja Aktar

This thesis is dedicated to my Mother

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Abstract

Dhaka the capital city of Bangladesh is the centre of all socio-economic and administrative activities. The urbanization rate of Dhaka City has turned it to one of the fastest growing mega cities of the world. This huge population creates severe pressure on various urban sectors among which housing is one of the most important one. Housing backlog along with its skewed structure excludes the low income portion of the society to have access in the housing market. Here, comes the question of government role for housing provision to the low income group.

In Bangladesh government usually provide housing through sites and services scheme. Serviced plot at subsidized rate is provided to the people irrespective of income group. But the global practice of housing provision through site and services scheme is intended towards the low income group only. Again, past experience from other countries reveals that, the process may help the overall housing stock but not to the low income group. This is because; the cost involved in the scheme results in serviced plot which is beyond the reach of the intended low income group. In spite of that, these unsuccessful projects are replicated in our country without any evaluation.

So, this study intends to explore the extent of housing provision to the low income group through sites and services scheme and their impact in residential development of those intended beneficiary group. Uttara Model Town has been selected as the study area as the project initiated with the commitment to provide housing to the low income group to a certain degree.

The study investigates the beneficiary group from the project through the study of socio-economic profile of the first hand allottees and finds the minimal share of low income group (13%) in housing provision. The study also examines whether the low income group could be retained on those plots. It was found that plot transfer tendency is common to all income groups. A portion of low income group retained the plot but a major share is still vacant (61%). But the rest of the plots' development does not express that they are low income house with 5 to 10 thousand square ft. building.

So, the study reveals that this sort of public effort of housing provision does not actually benefit the poor rather it widens the social disparity. These findings will help to reconsider the current government policy for housing provision to the disadvantaged low income group and search for new policy and tools for solving housing provision to the low income group.

Acknowledgement

First of all, I profoundly acknowledge the benevolence of Almighty Allah, without which it would not be possible for me to complete my thesis.

I am deeply indebted to my thesis supervisor Dr. Afsana Haque, Assistant Professor, Department of Urban and Regional Planning, Bangladesh University of Engineering and Technology (BUET), for her constant supervision, guideline and direct help in the entire research work. It would be almost impossible for me to complete the dissertation without her continuous support, constructive comments and thoughtful suggestions.

I would like to express my gratitude to Dr. Sarwar Jahan, Professor, Department of Urban and Regional Planning, BUET, Dr. Ishrat Islam, Associate Professor, Department of Urban and Regional Planning, BUET, and Md. Akhter Mahmud, Associate Professor, Department of Urban and Regional Planning, JU for their constructive comments regarding the research work.

I extend my sincere gratitude to Md. Musleh Uddin Hasan, Assistant Professor Department of Urban and Regional Planning, BUET and Dr. Roxana Hafiz Ahmed, Professor, Department of Urban and Regional Planning, BUET for their valuable suggestions and kind cooperation.

I am also indebted to MD. Ashraf Ali Akhand, Deputy Town Planner, RAJUK for his immense cooperation throughout the study. I would like to thank Dr. Jahurul Haque, Town Planner, RAJUK and Md. Khijir Ahmed, Director, Estate, RAJUK for their kind cooperation in the official procedure for granting data procurement permission.

I wish to convey my heartiest gratefulness to my beloved mother for her constant support and also to my father and sisters who always inspired me and prayed for me for the successful completion of this thesis. I would like to recall my daughter's support as her patience was a great help to me.

I would like to thank specially to my husband for his support and help in the analytical portion of the dissertation.

Abbreviations and Acronyms

ADB	Asian Development Bank
BBS	Bangladesh Bureau of Statistics
BHBFC	Bangladesh House Building Finance Corporation
DCC	Dhaka City Corporation
DIT	Dacca Improvement Trust
DMA	Dhaka Metropolitan Area
DSMA	Dhaka Statistical Metropolitan Area
DMDP	Dhaka Metropolitan Development Plan
DMP	Dhaka Metropolitan Police
DUIIP	Dhaka Urban Integrated Infrastructure project
DWASA	Dhaka Water and Sewerage Authority
GIS	Geographic Information System
GOB	Government of Bangladesh
MoHPW	Ministry of Housing and Public Works
NHA	National Housing Authority
PWD	Public Works Department
RAJUK	Rajdhani Unnayan Kartripakkha
WB	World Bank

Chapter 1: Introduction

1.1 Background of the Problem

Dhaka, the capital city of Bangladesh has the history of four hundred years as an urban area. The city is surrounded by rivers Buriganga, Turag, Tongi Khal and Balu River on south, west, north and east respectively. The geographical position of this city has made it very important from administrative as well as economic point of view. Dhaka being the capital and the largest metropolitan city of Bangladesh with its employment opportunities and other commercial activities attracts the largest number of migrants from all parts of the country. The urbanization rate of Dhaka which is one of the highest in the world gives the evidence of this fact. From a humble beginning as a small colonial town, Dhaka emerged as a prominent city when it was selected to be the capital of Bangladesh in the 1970s. With a population of only 2,068,353 in 1974, population reached to 6,487,459 in 1991 due primarily to rural urban migration that was triggered by urbanized development (Kamruzzaman, et. al 2008). The result was that while overall urban population growth averaged 5.4% between 1981 and 1991, Dhaka's growth averaged 6.5%. Since 1991, Now, Dhaka's population has been experiencing a growth rate of 4.3% compared to a national average of 3.2% (Kamruzzaman, et. al 2008). So, the City's population is expanding at an alarming rate.

The population is not only large in number but it contains low income people as major share. Table 1.1 depicts the share of urban poor in the capital city:

Table 1.1: Share of Urban Population and Urban Poor in Dhaka City [1]

	Territorial Limit	**2001**	**2011**
Urban Population	DCC (million)	5.47	6.97
	Rate of growth (%)	(4.0)	(3.85)
	DMDP (million)	10.31	15.09
	Rate of growth (%)	(3.5)	(4.00)
Urban Poor	DCC (million)	2.66	
	Share of Population (%)	(45.0)	
	Rate of growth (%)	(4.5)	
	DMDP (million)	4.73	
	Share of Population (%)	(45.0)	
	Rate of growth (%)	4.0	

Source: Islam 2004 and BBS 2001, 2011

[1] The total area within DMDP area is 1528 sq. km. while the area within DCC limits to only 145 sq. km., DMA is 307 sq. km. and DSMA area is 1350 sq. km.

This population explosion resulted in shortage of housing with a skewed housing sector. Despite of the availability of maximum resources and opportunities, the worst environmental and housing problems exist here. The residential housing sector and housing market analysis gives evidence of this. It is characterized by a three-tier market. First are those households with the highest disposable income, able to afford high-quality housing in fully serviced neighborhoods, and able to utilize bank financing or specialized housing finance institutions. This group represents less than 3% of the housing market (ADB, 1995). The second tier is the relatively narrow stratum of middle-income households that are the main users of specialized housing financial institutions such as the Bangladesh House Building Finance Corporation (BHBFC). This group is the major beneficiary of available public subsidies and is composed predominantly of public servants and wage/salary earners of large private companies and public sector corporations; it represents 12-15% of the housing market. The third and the largest of the tiers are the low-income households, for which housing is provided largely by the private sector, often under illegal and unsatisfactory site conditions (ADB, 1995). The housing situation here indicates that there exists a huge demand for affordable housing.

The huge urban poor (40 to 45%) need government assistance for housing provision. Its absence has limited the access of urban poor in housing which is one of the basic needs. As a result, access to housing for the poor in DCC area is mainly limited to private slums and squatter settlements. These people are the major victim of backlog in housing supply (Nabi et. al.2003). The current housing supply situation especially the urban is reflected in the following table. Table 1.2 gives supporting data:

Table 1.2: Housing tenure pattern of urban poor of Dhaka city

	Dhaka			Urban areas of Bangladesh		
	Hardcore poor[2] (%)	Moderately Poor (%)	All poor (%)	Hardcore poor (%)	Moderately Poor (%)	All poor (%)
Owner	16.4	16.2	16.3	28.8	25.5	27.7
Tenant in private house	42.4	49.6	45.4	45.6	48.4	46.6
Government tenant	5.6	5.2	5.4	5.0	7.6	5.9
Sub tenant	5.2	5.7	5.4	3.0	5.5	3.2
Rent-free	9.3	5.7	7.8	7.6	5.2	6.8
Illegal	20.2	16.1	18.5	9.5	8.8	9.3
Others	0.9	1.5	1.1	0.5	1.1	0.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Islam et. al, 1997

The dominance of the informal delivery systems over the formal system is also highlighted by a breakdown of the housing stock into sub-categories. The informal sector is estimated to produce 85 percent of the 1.0 million housing units in the DCC/DMA area (Table 1.3). By contrast, the public sector's contribution to the housing system in Dhaka has been around 10%, while that of the formal private sector (real estate companies or developers) has been estimated to account for around 0.48% in the central city or DCC/DMA area.

Table 1.3: Housing Delivery Sub-Sectors in Dhaka in 2004

Sub Sector		Number of Units in DCC/DMA
Formal Sector	Public Housing	10,0000 (67% of formal sector)
	Private Housing	48,000 (32% of formal sector)
	Cooperative	2,000 (1% of formal sector)
	Total Formal Sector	**150,000**
Informal Sector	Private Housing	500,000 (59% of informal sector)
	Slums	200,000 (24% of informal sector)
	Squatter Settlements	150,000 (18% of informal sector)
	Total Informal Sector	**850,000**
	Total	**1,000,000**

Source: Islam 2004

[2] Hardcore poor was defined with the people whose monthly income is less than Tk 2500 and moderately poor are the people whose monthly household income is between Tk 2500 to Tk 5000 (Islam, et. al, 1997).

So, the previous studies reveal that, in spite of the collective effort of formal and informal sector, the supply sector is lagging behind. Nearly two third of these were required for the poor (Rahman, 2005). But the poor's access to housing market is limited by resource constraints and lack of affordability. This calls for housing provision for low income group by the public formal sector. So scrutiny of their role is very important from this point of view.

Under the given situation, Dhaka now suffers from severe backlog of housing provisions for middle and low income population (Islam, 2007). Current pattern of supply in the housing market is hardly intended to create provisions for low and middle income tenant households who constitute two third of citizens.

Under the population increase and increased demand of housing in Dhaka City, the housing backlog accumulated further. During 1980-2000 the housing deficit was projected to be 5 million units with an annual requirement of 165,000 new housing units (Jahan 2002). Dhaka now has an annual requirement of 80,000 new dwelling units irrespective of all income groups (Kamruzzaman, et. al 2008). But actually, the pattern of land ownership is highly unequal. Only 2% of the city's population, who constitute the upper income group, composes about 15% of the residential land of the city. 28% of the middle class occupies 65% of the residential areas while 70% which constitutes the poor have access to 20% of the residential land (Islam, 1991).

The reason behind this is many and varied. Among them, land price is a major actor. Residential land values in prime locations of Dhaka City range between US $[3] 30 and $ 60 per square foot, just similar to prices reported in other cities such as Hyderabad, Kuala Lumpur or New Delhi. Nevertheless, land prices are high compared to those found in developed countries. For example, areas in the US where land prices exceed $60 per square foot are rare (World Bank, 2004).

The high land price makes it impossible for the poor to purchase land in the open market within the DCC area. The cheapest ready-to-build plot within DCC is priced at Tk. 500,000 per katha (i.e., 720 square foot lot) or US $ 12 per square foot. Normally RAJUK

[3] 1 US $ = 69 TK (2004)

does not grant building permission on lot smaller than 1050 square foot. This would cost Tk. 729,000 (US $ 12,600), which is equivalent to nearly 20 years of income for an average poor household (World Bank, 2004). The cost of house construction would be additional. In any case, such small lots are hardly available in the open market[4], and only rarely supplied by the government in a subsidized market[5]. Consequently, it is estimated that 97 percent of the urban poor in the city do not own any land.

Given the circumstances, public agencies took various attempts to handle the problem through sites and services scheme in Dhaka. The scheme itself emphasizes on the provisioning of land/sites along with physical and/or social infrastructure or services. In this approach usually the public agencies prepare the land parcels or plots with certain basic infrastructure like road network, utility facilities etc. which are to be sold or leased to the intended beneficiaries. The next step of actual house building was left to the beneficiaries themselves.

The two key actors in a sites-and-services project are the intended beneficiaries and the implementing agency. But in most of the cases, the high level government officials involved in adopting the housing policy framework for low income people, lack practical field experience. As a result the housing policies adapted by them are usually impractical and inappropriate. Thus these policies on paper are not able to tackle the real problem and fail to address the demand of intended/actual target group. Although the people of the third world countries related to the government or administrative system agree, in principle on the importance of the lower income groups in their housing policies, these classes are the most ignored. The housing policies of developing countries basically benefit the class which is politically or economically powerful-clearly the upper class (Jahan, 2002). Small numbers of houses are built by the government sometimes, for the lower income groups: but only a limited portion of government employees get to live in their (Jahan, 2002).

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[4] An open market refers to a market which is accessible to all economic actors. In an open market so defined, all economic actors have an equal opportunity of entry in that market. This contrasts with a protected market in which entry is conditional on certain financial and legal requirements or which is subject to tariff barriers, taxes, levies or state subsidies which effectively prevent some economic actors from participating in them. (Wikipedia, 2010).

[5] Usually have the character of a **mixed economy** which is an economy that includes a variety of private and government control, that is, a mixture of capitalism and socialism. This refers to a degree of private economic freedom mixed with a degree of government regulation of markets. (Wikipedia, 2010)

Usually public agency undertakes sites and services scheme to provide housing to the poor in almost all the cases of world cities. Their experience suggests that, "housing processes in such areas are influenced by wider housing market trends and the policy context in addition to their original design and construction" (Rokadi, 2000). The processes often include exchange/transfer of plots and rental of rooms in the built houses with residents or absentee land owners (Rokadi, 2000). Such phenomenon very likely has impact not only on the socio-economic composition of the targeted population (usually lower income group) but also on the housing market and land development process. But in Bangladesh the scheme targets all income groups (RAJUK, 1965). Such practice creates scope for deviation from global best practices. Rather than minimizing housing deficit, the approach in fact favours the upper income group by providing subsidized housing opportunities (Srinivas, n.d.).

In Dhaka city, RAJUK mainly develops land and lease out those lands to private individuals, usually for a period of 99 years. In this system, leaseholder enjoys all the privileges of a freeholder except for transfer or sale, when approval is necessary from the concerned government authority (Jahan 2002). Wari was the first planned residential neighbourhood of this scheme followed by Dhanmondi, Banani, Gulshan, Uttara, Baridhara and recent Purbachal New Town. Table 1.4 depicts the year of inception of different projects along with total no of residential plots:

Table 1.4: Residential development by RAJUK at different times

Model Towns Developed by RAJUK	Year of Inception	Total Number of Residential Plots
Gulshan	1961	1341
Banani Model Town	1964	1239
Baridhara	1962 (originally initiated in 1972)	505
Uttara Model Town (1st and 2nd phase)	1966 (originally initiated in 1972)	9617
Uttara Model Town (3rd phase)	1999	8209
Purbachal New Town	1995 (originally initiated in 1992)	24697

Source: (Jahan 2002) and RAJUK

The number of plots indicates a few people were benefited from those projects and the areas have developed as high class residential area. In spite of that, successive replicability is evident in all the cases except Uttara and Purbachal where there was some provision for low income group (RAJUK, 1965). Uttara Model Town was initiated with the objectives to reduce the pressure of increasing population of Dhaka city by creating opportunity of residence for the city dwellers in the close proximity of Dhaka maintaining the environmental balance by proper urbanization. The township was established to reduce the existing acute housing problem, expand economic facilities and solve future housing demand of population (Alam at. el. 2006).

Now, it is important to assess who has benefited from the initial allocation of plots in sites and services schemes and allottees those have succeeded in constructing houses as planned (Rokadi, 2000). But there was no such attempt to evaluate or investigate the result of all these efforts in housing provision or whether it has reached to the right people. The intended beneficiaries and the actual ones were never investigated.

In case of Uttara Model Town the township project was initiated to set up as a satellite township in the periphery of Dhaka City covering 2484 acres of land with approximately 20,000 plots and flats of different sizes for 1,24,000 population with emphasis on the housing needs of lower and middle income groups and it is therefore tentatively posed to allot no less than 6250 plots for persons of lower income groups, plus 9014 plots for the middle income group, 1492 plot for the upper middle class (RAJUK, 1965). Though 2484 acres were suggested for the township, the present Uttara Model Town was implemented with an area of 1388.07 acres (Ullah, 1987). Plots of different sizes (3, 5, 7.5 and 10 katha plots) were allotted where 3 katha plot constitute 4381 no. of plots.

Experience on distribution of plots in these areas suggests that anyone who has interest, affordability and intension to invest on the land market some way or other (through ownership changes) gets chances to have a plot there. Even in some cases it is found that the allottees continue to live in government housing and hold the plot for future investment (Rashid, 2001). These sorts of practices are not only failed to address housing shortage issues (extreme for the lower income group) but also appeared as a thrust for land speculation and social inequity.

Now it is important to assess whether the low income group has been benefitted from the allocation of plots at Uttara Model Town and whether the allottees have succeeded constructing their houses on those plots as premeditated. Rashid argues that 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 (Rashid, 2001). On the other hand, Hasnath finds that there is a perverse use of resources in the process of resolution of low income housing problem and the practice continues because it is in the pecuniary concern of the dominant interest group. According to him without radical changes in the main direction of resource allocation, there exists little or no possibility for an improvement in the living conditions of poor families; and the provision of housing for the lowest income group is more a question of political will and social engineering than building technology (Hasnath, 2006).

Under such a backdrop, the present study will examine the initial distribution of plots for the lower income group and the current residential development status of those plots.

1.2 Objectives of the Research

This study intends to investigate current public efforts of sites and services scheme where ownership of plots is the major variable to assess their effort to housing provision. However, following are the specific objectives of the study:

- To investigate the socio-economic profile of the initial allotees at the study area and to find out whether the original plot owners could retain these plots
- To investigate the nature of residential development in the studied plots

1.3 Rationale of the Study

In order to sustain any housing development program, it is indeed essential to judge the financial ability of the target group to the housing scheme. The supply of housing concerns mostly the middle and lower income groups in Dhaka. The lower income group cannot enter into the formal housing market due to lack of economic resources and

housing for this ever-increasing segment of urban dwellers is difficult to manage (Kamruzzaman and Ogura, 2006).

Possible outcome of the study will be interpreted to highlight the nature of changes in ownership pattern of serviced plots under public intervention possibly along with some positive and negative aspects of such schemes. The study will give future direction about public effort whether new sites and services scheme will be adopted or not for housing provision especially for all income groups. On the other hand, it may give new thought for government as provisioning of flat instead of plot is already under consideration. This study will also help current government policy of creating four more satellite towns around Dhaka city.

1.4 Scope and Limitation of the Study

1.4.1 Scope of the study

The low income people are the most deprived portion of the society. They are deprived of the basic needs. Shelter and housing is one of them. So, this study aims at investigating the housing situation of the low income group. As the low income people cannot afford housing in most of the cases due to income constraints, here comes the question of government role as housing provider. Only government can provide housing in subsidized rate. Low income group are the deserving group here. But the actual practice is different in Bangladesh. So the study intends to investigate the target group and actual beneficiary of public housing provision. The scope of the study is confined in studying status of ownership change i.e. whether the lower income[6] could retain their plots or not. At the same time, residential development on those plots gives idea about the current development on those allotted plots

1.4.2 Limitations

During the research, it was found that, no definite data or record about plot allocation procedure or criteria followed in RAJUK. As a result it was assumed that all three katha plots were allotted to the low and middle income group. Low and middle income group was not defined in the project concept paper or any other document of RAJUK. So it was

[6] Government pay scale for different times was considered as the base for defining low income group. The pay scale of third and fourth class employees were used as the base line to declare low income people.

assumed that, as most of the plots were allotted to the government employee, third and fourth class employees are considered to constitute the low income group for the study. Individual income of the allottees was considered for defining income group.

While categorizing the first hand allottees' income group, it was not possible to define all of them due to the following reasons:

- Allottees whose land was acquired for project development, was termed as affected people and their income was not mentioned in their application form. So their income level could not be identified.
- All the office records were not available in the record room. Due to the requirement of various office works, some files were in head office or in other desks .
- Non cooperation in some cases was one of the major causes of incomplete data set.

The study is based on office records of estate section of RAJUK. No primary survey was conducted for the information collection of the socio-economic profile of the first hand allottes.

1.5 Methodology of the Study

To attain the research objectives a consequent research methodology was followed which is mentioned below:

1.5.1 Literature Review

Extensive literature survey has been done to review past studies and research related to this study. Along with better understanding and representation of the problem this review helps to shape the dimension and extent of the study.

1.5.2 Definition of Low Income Group

The study deals with housing provision of low income people, but to define them was a major challenge. At different times low income group was defined on different grounds. Household income and calorie intake are the two widely expected criteria.

Nabi et al 2003 defined low income group on the basis of occupied floor space. People living in Kutcha, semi-pucca houses with floor space below 400 sq. ft. and pucca houses

with below 200 sq. ft. are classified as low income group. Middle income group covers people residing in semi pucca of 400 sq. ft. and pucca houses of floor spacing ranging from 200-1200 sq. ft. People living in pucca houses with more than 1200 sq. ft. of floor space were considered to be in the high income group (Nabi at. el. 2003). But in this study it was not possible to collect such information of the first hand allottees'.

So, yearly income of the allottees was considered in this study. But it was not so easy to fix the range of income in this case, as plot allotment procedure continued for long time that is from 1975 to till 2009 for the first two phases. This is why, a different criterion was chosen to define income group. Government pay scale for different times was considered as the base. The pay scale of third and fourth class employees were used as the base line to declare low income people. The low income group defined on this ground is close to the low income group of Islam 1997. He considered monthly income 2500 Tk that brings yearly income 30000 Tk. The comparison of this study reveals that, it is similar as it was found to be Tk 32000 at the government pay scale of 1991. The details of income group definition have been given in chapter 4.

1.5.3 Site Selection

Development of Uttara Model Town is one of the most important initiatives of government to solve the housing problem of Dhaka City. The concept of Satellite Township according to which Uttara Model Township was established is a very successful concept for many countries but it is necessary to evaluate the success of this concept in the context of Dhaka (Alam at. el. 2006).

Uttara Model Town has been selected as the study area. Because from the very beginning it was initiated to set up as a satellite town in the periphery of Dhaka City with emphasis on the housing needs of lower and middle income groups. Again, unlike other relevant serviced areas, the area still maintains its residential character. Moreover office records regarding the information of the first hand allottees' information is accessible for the researcher particularly for Uttara Model Town.

Location of Uttara model town is shown in Figure no. 1.2

1.5.4 Data Collection:

All the research data were collected from office records of RAJUK. Files, project concept papers (PP) and other documents of RAJUK are the main source of data. The office files are preserved in Estate section of RAJUK

A total of 11,727 plots were allotted in two phases in Uttara Model Town. Assuming all three katha plots (4381 in number) are provided to the low and middle income groups, they were investigated to fulfill the first objective. A number of socio-economic variables of the first hand allottees were documented as age, sex, occupation, yearly income etc.

In order to fulfill the second objective data of official document was collected regarding year of house construction status, size, floor etc. to study current residential development on the plots allotted to low income groups. Initially, under 95% confidence interval and error level, e=5%, 100 sample size was considered for studying residential development based on random sampling of plots allotted to the low income group. But finally all the data were collected from official documents. All the residential development status of low income allottees were collected as the number is very low exceeds 100 sample size. In order to study the residential development characteristics of the plot owners' a number of variables like building coverage, no of floor, year of construction etc. were documented. Field verification of the data was carried out for cross check of the data collected from official documents regarding house construction.

1. 5.5 Data Compilation and Analysis

All the data were compiled and analyzed using statistical methods like Chi-square test. Data from secondary sources were analyzed both qualitatively and quantitatively.

1.6 Structure of the Thesis

The thesis has been organized sequentially to reveal the systematic study for the fulfillment of the objectives and specific aim of the study. In the first chapter it has been tried to give an overview of the intension of the study and reveal the rationality of the study. Statement of objective, methodology along with scope and limitations of the study also constitute this chapter.

The second chapter is a thorough discussion of experience of other countries regarding housing provision especially for low income group. Their success and failure were reviewed to get idea about current world practice to compare with our practice.

The third chapter of the thesis is a brief overview of the study area, Uttara Model Town. Its chronological development along with land use, plot allotment is summarized in this chapter to get general impression regarding the area.

Data analysis and elaborate findings from the collected data of the study is the major constituents of the fourth chapter.

The fifth chapter of the report depicts the analysis of findings and discussion regarding this. The final outcome of the study is discussed in this chapter.

The sixth and last chapter of the thesis provides recommendations from the experience of the study and abroad. A conclusion is drawn showing future guideline for public housing program focusing the low income group.

Chapter 2: Housing Policies and Programs for Low Income People: Global Perspective

2.1 Introduction

Most of the countries of South Asia recognize housing as a constitutional right. India, Pakistan and Bangladesh have clearly enunciated national housing policies. Housing for all is the basic theme of national housing policy of the countries. But in reality the policy could not reach the goal. Admittedly, for many years, housing policies have predominantly remained statements of intent rather than being translated into implementation. The lack of available and accessible housing has been identified by the Government of Bangladesh (GOB) as one of the important hurdles in improving the housing conditions for middle and lower income households (Marja, 1998).

So, review of past attempts of different countries of similar socio-economic characteristics helps to evaluate the previous experiences of low income housing provision. These experiences are discussed in the foregoing section of this chapter in order to compare with our public effort for low income housing provision. This will also provide new ideas and will help to find the flaws in current process.

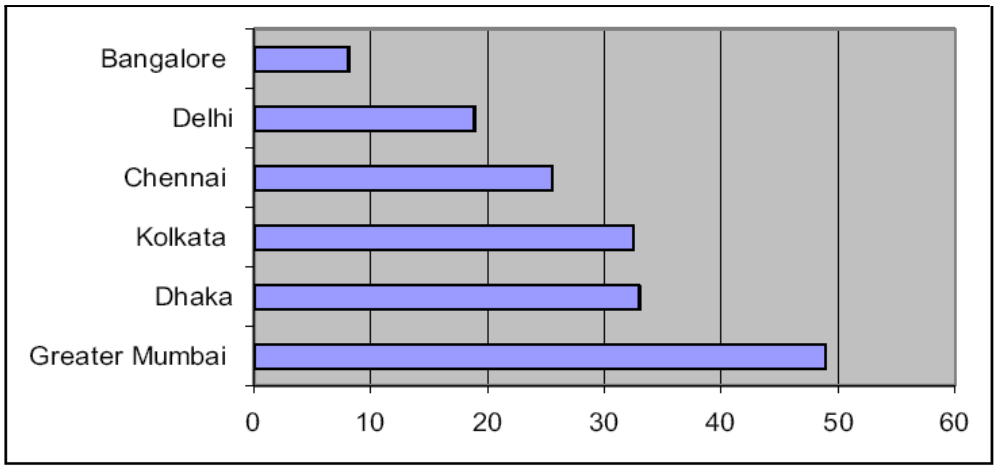
2.2 Low Income Housing need in South Asia

The low-income communities face the constraints in building adequate housing, particularly in the developing world, are often formidable and intractable, and deeply linked to political and economic order as well as to social structure. The number of urban residents is fast expanding in Asia. Again, Asia is also home to the largest concentration of poor people in the world (Chapman et al, 1999; Montgomery et al, 2001). About a quarter of the total urban population in Asia is living below the poverty line though the proportion may be higher in some countries. India and China each holds about a third of the region‟s urban population with many living in relative poverty (Jacquemin, 1999). Of the 12 million people in Mumbai, for example, about 50 per cent lives in slums, dilapidated *chawls* and on pavements. In the extreme, they join the number of homeless people, estimated to be in excess of 100 million in the world (UNCHS, 1999). In one estimate, Asia alone will need to invest a sum of US$280 billion a year over the next 30 years to meet the basic

needs of the population in housing and other urban sectors (Brockman and Williams, 1998).

The improvements in housing that are important to improving the quality of life among the poor often does not receive the attention they deserve from policy makers (Daniere, 1996). The low ownership rate in Dhaka stands in contrast with comparable Indian cities such as Delhi or Bombay and with cities of other regions such as the Middle East and North Africa or Latin America where ownership of the dwelling is by far the dominant status even for the poor. A statistical survey, conducted in 1995, found that 16 percent of the poor in Dhaka were owners, 56 percent were tenants; 8 percent were rent free dwellers, and nearly 20 percent were squatters or illegal occupants (Islam et. *al*, 1997).

In comparison to other cities in the region (India), the proportion of slum dwellers (in the broader sense) in Dhaka is similar to Kolkata, less than in Mumbai, and greater than in three other major Indian cities, Delhi, Chennai, and Bangalore (Figure2.1).



Source: For Indian cities, Indiastat. For Dhaka : Islam (2004).

Figure 2.1: Estimated proportion of population living in slums in Indian cities and Dhaka

Now, there has been a distinct recognition by most governments of South Asia of the need to move away from their role of being „providers" of social needs to being „facilitators" by creating the required enabling environment. This paradigm shift has perhaps been most noticeable in the area of housing and housing finance. The next section of this chapter reviews past public policies and programs of different countries of the world to provide basis of evaluation of Bangladesh practice.

2.3 Experience of Sites and Services Scheme in Different Cities

Sites-and-services Scheme enables government to share responsibility for housing provision with low-income groups and thus save scarce resources. Beneficiaries are in control of the pace and form of house construction and sites-and-services schemes can reach large numbers of people and be useful in meeting future housing needs. As a reaction to the inability of governments to provide adequate ready-built dwellings for low-income households there has been a global transition towards the provision of support for the self-help efforts of the poor themselves. This takes the form of supporting them through land, service and infrastructure provision, and sometimes by making credit and cheap building materials more widely available. At the project level, these ideas are incorporated into sites-and-services projects

In some African countries like Rwanda land belongs to the public although the government can possess it in the interest of national development. To provide housing alternatives for low income families, the city invests in acquiring land near amenities and services, or provides amenities and services in urban peripheries. But the experience shows that, in sites and services schemes, before installation of services and infrastructure, poor households may afford to live there but once the raw land has been serviced, it may become too expensive for these families.

The City of Kigali has embarked on a pilot project to provide 250 low cost houses in Batsinda, Gasabo district, which will employ the model house concept. This project is being funded by the government of Rwanda. Private enterprises that want to participate in providing affordable housing for low income households are also invested in low cost housing.

Some initiatives have been done at sites in Gisozi, Kimironko, Kibagabaga and Urugarama, which have really been successful and today serve as examples for planned neighborhoods with individual house construction. The Gisozi and Kimironko site and services scheme was funded by UN agencies. The public private partnership was also adopted for the city at Urugarama to achieve.

But unfortunately such arrangements end up accommodating middle income households because of the high demands they make on low income households. In reality, this approach may benefit the overall housing strategy for the city and not particularly for low

income households. This is because the plot and housing demand is so overwhelming, and one way to meet the needs of the population is to provide serviced plots.

Similar situation was found in Chaani settlement by the government of Kenya in 1979, where sites and services scheme was adopted by compulsory land acquisition. But the programme failed to address the needs of the low-income households and ended up primarily benefitting higher-income groups including staff from the government agency that was in charge of the project. Large sums were also spent on trunk infrastructure for water, sewers and electricity but most residents cannot afford the connection charges. The upgrading component was viewed positively by the households who were already established in the settlement. But the standards demanded by the sites and services and upgrading programmes, and the conditions that had to be met before one could qualify for a loan, were beyond the means of the majority. Large amounts of project funding went to the unnecessarily elaborate infrastructure networks such as the tarmac road network, surface water drains, a sewer trunk and electricity supply lines. (Magutu, 1997).

Public housing began in Nigeria with the establishment of Lagos Executive Development Board (LEDB) in 1928 in response to the ravages of epidemics, the incidence of communicable diseases and the need to combat the filthy, poor and unhealthy living conditions as existed then in Lagos. The housing policy was based on a political ideology which recognized the right of every citizen to adequate shelter. As the implementation agency of the 1979-1983 housing programmes, LSDPC embarked on massive construction of low-cost housing estates. The administration envisioned a programme of 50,000 housing units. In spite of the fact that they may help to improve tenure security, the programme is capital-intensive in nature and the initial target population, low-income, usually do not benefit from them. Aluko (2002) opined that the cost attached to each plot is usually beyond the reach of the urban poor.

2.4 Slum Upgrading as an alternative of Sites and Services Scheme

Housing policies in many developing countries are currently undergoing important transformations from earlier emphasis on slum clearance and public construction of flats to the new emphasis on the gradual improvement of existing housing stocks in slum and squatter areas, coupled with the creation of new serviced areas in which people can

gradually improve their shelter over time. But a possible consequence of improved tenure security is the displacement of the original lower income population (Angel, 2000).

A study of a legalized squatter settlement in Maxico City provides some evidence to the effect that the provision of legal tenure indeed results in attracting higher income households.

2.5 Public Housing Provision for All

In the area of housing, Singapore is often cited as a successful example of affordable housing production in Asian cities. Notwithstanding its uniqueness (small city size, particular cultural, economic and political conditions), the Singapore development presents rich case material for analysis. Like many other rapidly urbanizing and globalizing cities, Singapore has its urban poor and squatters though perhaps in present numbers smaller than the more populous cities of Dhaka, Jakarta and Rio de Janeiro. According to official figures, about 4 percent of Singapore‟s resident population of 3.4 million is living at or close to the poverty line in 1998 (compared to 16 percent in Indonesia and 9 percent in Vietnam) while less than 1 percent is living in squatter settlements and on the streets. But in the 1960s, Singapore was no different from many of the other cities: it has one of the largest and worst slum settlements in the world (Yuen 2005).

Now Singapore has continued to meet the basic needs of the urban poor in housing and other urban sectors. The core objective of the public sector housing initiative is to make housing affordable and accessible to the lower income families (Yuen 2005). Public housing estates house 83% of Singapore‟s population. Their development played a significant role after Singaporean independence and continues to play an important role in maintaining the social order (Satoshi 2007).

Rejecting the popular but incremental construction of assisted self-help in low income housing, Singapore launched a comprehensive sector development of public housing. Following from the view that the state bears a major responsibility for organizing the conditions of growth, the government has taken a major role in determining the production and consumption of housing that is to provide affordable and inclusive housing to the lowest income residents, demonstrating that often it is the determination to realize a political vision that breaks down barriers to actions and starts the path to real

housing reform on the ground. The capstone in the provision of in-time infrastructure and housing is the state intervention of compulsory land acquisition (Yuen 2005).
The Singapore response is an inclusive housing delivery system that recognizes the needs of varying income and family size. From the start of the program, the emphasis is on expansion of choice: not one but a range of flat types roughly in the proportion of 30% 1-room units, 40% 2-room units and 30% 3-room units were offered. Care was taken that the exercise of housing choice did not exclude the lower income families. This consideration is central to the system‟s success. It has resulted in pragmatic strategies that are inclusive (Yuen 2005).

The housing problem of the urban poor, as Mitlin (2001) describes, is multifaceted and may hold the key to improved development. As Angel (2000) further suggests, that housing problem can be broadly characterized as the presence of a large number of urban families living in what society-at-large considers to be unacceptable housing conditions or simply put, bad housing conditions. Bad housing conditions often reflect the interaction of poverty and affordability as evidenced by the early Singapore housing situation of the 1960s. In the Singapore case, it has prompted the pursuit of adequate affordable public housing as the solution. Using comprehensive sector development of public housing as a vehicle, Singapore has distinguished those in need of shelter, assisting the poor while screening out those who could afford private housing which prices are generally several times higher. Such intervention has sustained a functioning housing sector that has been translated into housing improvements internationally recognized by many (Yuen 2005)

So, the experience shows that in countries confronting the challenges of high population concentrations, like Hong Kong and Singapore, **high-density zoning through the construction of high-rise buildings linked to an effective public transportation system have proven successful in meeting the housing needs of urban low-income groups**. Some developing countries have been able to provide the bulk of their population with housing that is economic and yet meets reasonable welfare requirements. Sites and services and squatter upgrading and slum improvement schemes are the ways to provide housing and services that the poor can afford in low developing countries. But the appropriate tool varies from city to cities. From the above discussions sites and services

scheme was rarely found to be a successful tool for the provision of low income housing. Rather mass housing provision for all income group was found to be successful. But it must have strong legal back up.

2.6 Low Income Housing: Bangladesh Context

The housing situation is worse in the urban areas of Bangladesh as more and more rural poor escaping from abject poverty caused by unemployment, landlessness and natural calamities by coming to the cities in search of a livelihood. So far Government or the private sector has shown minimal initiatives to provide shelter for the lower income group. The housing units provided by them are mostly flats in established neighbourhoods like Dhanmondi, Gulshan, Banani and Baridhara which are targeted for the upper income group. Historically, urban development in Bangladesh has been based on subsidized allocation of residential land for upper and middle class use. Access even to minimal shelter has been unaffordable for most of the poor (Nawaz, 2004).

In Bangladesh, housing provision is usually confined in sites and services scheme by the public authority. Despite of the demerits of sites and services scheme, over the years these unsuccessful projects are being replicated in our country. Starting from Wari up to Uttara, no review or evaluation is found regarding such public effort. It actually does not reflect the National Housing Policy recommendations. There is a wide gap between policy and action which are discussed in detail in the following sub-sections:

2.6.1 National Housing Policy of Bangladesh

The constitution of Bangladesh binds the Government to play an effective role in ensuring housing rights to all as basic rights as a citizen. The National Housing Policy of Bangladesh 1993 (updated in 1999**)** states that Housing is one of the three basic primary needs of man [and women], and is as important as food and clothing. It provides shelter, safety and a sense of belonging to the owner. The national housing policy 1993 commits the government to take initiatives in housing as a provider, for weaker section of the people and as a facilitator in all housing initiatives. The basic principle of the 1993 policy is that the government would play the role of an enabler or facilitator in the housing sector, and not the role of a developer or provider.

National Housing policy also states that, "The government would take steps to avoid forcible relocations or displacement of slum dwellers as far as possible…..encourage in situ upgrading, slum renovation and progressive housing developments with conferment of occupancy rights, wherever possible and to undertake relocation with community involvement for clearance of priority sites in public interest."

The 1999 National Housing Policy recommendation regarding low income housing are mentioned below:

- to facilitate the purchase of land by the poor in locations which are near the place of work and where communication is easy and inexpensive:
- to set up "urban land banks" on khas land, banks of dry rivers;
- to set up a system for easy loans through family or community savings, to remove barriers for housing, mainly for poor thorough non-formal micro-credit schemes
- to arrange housing credit programmes though public and private sector. The Government will set up a housing fund and loans will be available to NGOs and credit agencies and financial institutions for distribution to cooperatives, community associations, registered companies, private development agencies for disbursement for low-cost housing through the local government
- to develop housing for unauthorized urban settler in their present location, and if their land is needed for other purposes, to relocate them elsewhere;
- to facilitate provision of sanitation, water and night shelters for pavement dwellers and the homeless.

2.6.2 Public housing projects of Bangladesh Government

The lower income group is the most disadvantaged in the present situation mostly living in slums or make shift shacks in any vacant spaces. According to a study conducted in 1996, in Dhaka alone there were 3,007 slums or *Bustee* (ADB, 1996). Since then there has been many evictions of large and small *Bustees.* Though the slum evictions occur in almost all countries of the world, the events of forced eviction without rehabilitation vastly observed in Bangladesh, especially in the cities. Instead of providing housing or facilitating them, the government went through many forced eviction. Following is a brief description of minimal government efforts for housing provision of low income people:

Slum Rehabilitation Programs

Many rehabilitation programs adopted in different times but those were not actively implemented in the next time. Some efforts which have been made also lack proper planning and transparency in payments and therefore lose credibility. A huge number of slums were evicted in 1975, 1990, 1999, and 2001 (Nawaz, 2004).

In 1975 Government took steps to evict the slums and the evictees transferred in three camps for rehabilitation. The three pleases are Bhasantek of Mirpur, Chanpara of Demra and Dattapara to Tongi. The distance of these places from the center of Dhaka was respectively, 5, 10, and 15 miles. The rehabilitation program of housing supported by government and other national institution was not successfully gained.

The *Asrayan* [Shelter] Project:

The *Asrayan* project planned basic housing in a barrack style tine structure with cooking arrangements near a common pond for fishing and other needs.

The *Adarsha Gram Prokolpo* [Ideal Village Project]:

The *Adarsha Gram Prokolpo* is a similar programme offering credit for relocation from cities to the rural areas..

Squatter resettlement projects undertaken by the National Housing Authority are:

a. Rehabilitation Project for 2600 shelter less family of Bhasantek, Mirpur, Dhaka:

This project was completed with about 2036.68-lac Taka on 92.50-acre of land, which accommodates 2568 houses. Each family got 450 square feet [30´x15´] area which will be paid off in 10 years by payment of monthly installments. The project was jointly funded by UNCDF, UNICEF and UNDP.

At the end it became a highly subsidized project strongly condemned by the sponsor and never to be relocated anywhere in the world.

b. Rehabilitation Project for shelter less family in Dattapara, Tongi (1975-1990):

The project cost was estimated to be Tk. 1,197.92 lac. In this project 1016 semi-*pucca* houses were built. Out of the total 101 acres land the semi-*pucca* houses were built on 30 acres land. Each of the houses was about 460 square feet in area. The cost of housing was to be paid off in 15 year with monthly installment payment.

c. Proposed Construction of 1, 00,000 flats for Rural Poor and Slum Dwellers of Bangladesh.

A 4, 18,863.00-lakh Taka budget project is proposed for one-lakh flats of 400 square feet. Each flat cost was 3.22 lakh Taka. This project is planned on 500 acre on khas land. This project will be executed in six divisional towns. Installments of 30 years at 1162 Taka per month will be received as the return of the project. This project was proposed with the funds of World Bank, European Commission, Alfask International Fund. They have proposed to give 30% of the cost as grant and 70% as soft loan.

d. Bhashatek Rehabilitation Project:

It is the first public-private partnership project for low income group on government land. The land ministry allotted 150 bighas of land at Kaful Thana of Mirpur wit h the vision of providing 9024 flats of 215 sft and 6000 flats of 395 sft (Islam, 2004). The project was not completed and still in hanging situation.

2.6.3 Evaluation of Government intervention

Low income housing provision by the government in comparison to National Housing Policy has very little outcome. It is evident from the previous practice that these schemes implemented and proposed did not take into account of the huge number of people who were actually displaced or made shelter less through evictions from their housing. Since the inhabitants of city slums came to the city in the first place to earn a livelihood, they relocate themselves and move to any vacant space available. Therefore, it is imperative to address the housing need of the urban poor in practical terms and allocate resources for public or public-private initiatives.

But it is imperative that the need for housing for the 40% of the country‟s population must be addressed. This segment of population must be given access to shelter with security of tenure. The GOB though committed to various international and national conventions and declarations have not addressed the issue of shelter, especially for the poor, in any significant way. It has created some rehabilitation schemes by directing some people to return to villages and provided a token low cost housing in the urban area. The

plight of the thousands of people made homeless though slum clearance in the cities is not addressed in any meaningful way. The poor people who provide various services in the cities, from construction workers, garment workers, day labourers to house maids, will not go away from the cities no matter how many “back to village” programme is there. There is no policy to comprehensively address the issue of low income and slum scheme housing. There is no effort in allotting land or subsidization of the development costs of slum rehabilitation.

So, Discussion on these international experiences to compare with our national policy and action will help to assess current government policy in comparison with global practice. This will help to reshape the existing housing policy to an effective one and adopt an integrated approach connecting the provision of low-income housing to social programs, and addressing the new housing needs arising from demographic and social changes.

Chapter 3: Development Profile of Uttara Model Town

3.1 Introduction:

Uttara Model Town, at a distance of about 15 km north of the city, was the largest township developed by RAJUK. Development of this township started in 1965in phases (Jahan, 2002). The initial name of the project was North Satellite Town. The name of the project was changed in a DIT‟s Board of Directors meeting in 1980 and was named „Uttara Residential Model Town‟.

3.2 Background of Uttara Model Town Project

According to the Project Proforma 1965 Uttara Residential Model Town was developed with the objectives

- to reduce the demand of residential housing,
- to reduce the population pressure within Dhaka city by expanding the opportunities for residential housing,
- to create new plots for the allottees who are currently the plot owners and
- to create new plots to meet the increasing demand for plots in future.

The project proforma (PP) of the scheme hoped that upon completion of this project by 1971-72, an urgent need of the community will have been met by a scheme which is self-financing and laid out on a planned basis to ameliorate existing conditions of Dhaka city. On completion of this scheme, the pressure on the population increase of the Dhaka city was expected to be diverted to this new township and there will be employment facilities in and around the township. The establishment of Uttara Model Town had been evolved following this continuity (Satu, 2009).

Even in 1965 population pressure was felt and the need for housing for low income people was felt. But after independence, very little attention has been paid to this issue.

There was a proposal of area wise classification of land use for different functions in Master Plan (1959) which is given in the table 3.1:

Table 3.1: Functional classification of land use of North Satellite Town (present Uttara Model Town) in the Master Plan (1959)

Functions	Total area in acre
1) Residential	1,041 (44%)
2) Central Commercial	42 (2%)
3) Civic Administration	110 (5%)
4) Light industries and workshop	30 (1%)
5) Recreation & play field	182 (8%)
6) 38 primary schools	76 (3%)
7) 12 secondary schools	72 (3%)
8) 2 colleges	18 (1%)
9) Special institutions with green areas	36 (2%)
10) Centers of communities class III/ IV.	54 (2%)
11) Roads, Squares and footpaths (excluding the highway and railway dividing the area)	246 (10%)
12) Lakes and water bodies	519 (22%)
Total	**2,344**

Source: Ullah, 1987

3.3 Size wise Proposed Plot Distribution of Uttara Model Town

Among the 1041 acre land proposed for residential development, plots were suggested to be of 3, 5, 7.5,10 and 20 katha size. The following table shows size wise percentage and area distribution of plots according to size at the then North Satellite Town:

Table 3.2: Proposed Distribution of Plots of North Satellite Town in Master Plan 1959

Sizes of Plots in Kathas	Number of Plots (Percentage)
3 kathas = 2160sft	2900 (20%)
5 kathas = 3600sft	2500 (30%)
7.5 kathas= 5400sft	1800 (30%)
10 kathas = 7200sft	630 (15%)
20 kathas = 14400sft	100 (5%)
Total	**7930 (100%)**

Source: Ullah, 1987

But the actual figure varies with proposed one. Foregoing sections of the chapter discuss the picture of development and land use distribution of Uttara Model Town according to secondary sources.

3.4 Description of Uttara Model Town: Phase I

Although 2484 acres were suggested for the township, but the present Uttara Model Town: Phase I was implemented with an area of 950 acres (Ullah, 1987). Initial name North Dhaka Satellite Town of the project was changed in a DIT"s Board of Directors meetings in 1980 and was named "Uttara Residential Model Town" and subsequently it became popularized as "Uttara Model Town" (Satu, 2009).

Initial development of the project was thought to be started in 1966 but the actual development work started in 1972.

Sectors of Phase I:

The township in its Phase I is divided into 9 Sectors in the principle of neighborhood concept. Out of these Sectors, No. 2 is reserved for police, Sector no. 8 s for staff housing of different Govt. / semi- Govt. organizations and half of the Sector no. 6 is reserved for commercial use (Ullah, 1987).

General Information (Project Proforma, 1965)

Total area	: 2484 acre
Total Plot	: 20,000
Proposed date of commencement and completion of the project	: 1966- 1972
Development Process Initiated	: 1966-67
Price of land	: 7500 Taka per Katha or 1.5 lac Taka per Bigha
Consultant involved	:Pakistan Town Planning and Engineering Consultants- M/S Engineering Consultants, Karachi and M/S, Zahir-ud-Deen Khwaja and Associates, Lahore.

Distribution of Plots according to size:

The distribution of plots according to the size is presented in table 3.3 below:

Table 3.3: Size wise Distributions of Plots in Phase I

Area of plot in Size	No. of plots (Percentage)	Area in Acres
3 Katha	1190 (28)	71
5 Katha	2381 (55)	176.80
7.5 Katha	731 (17)	90.62
Total	**4302 (100)**	**358.40**

Source: Ullah, 1987

Table 3.4: The following table gives a comparative picture of proposed and actual development

	Total Area in acre	No of plots
Project Proforma, 1965	2484	20,000
Actual development	358.4	4,302

The project was commenced in 1966 and the proposed date of completion was 1972 but actually it was completed in 1990. The original layout plan was revised several times. In the project proforma (revised) it was mentioned that the number of residential plots to be 6412 and the number of commercial plot is 92 (RAJUK, 1988).

After completion of the project, a portion of the area was handed over to Dhaka City Corporation for provision of all the related services such as waste disposal, street light etc. But RAJUK remains the sole authority regarding the decision of land use management (Satu, 2009).

3.5 Description of Uttara Model Town: Phase II

The project of Uttara Model Town was extended into its 2nd phase. Uttara Model Town Phase II is the extension to the western part of Uttara Model Town Phase I.

General Information (Project Proforma, 1986)

Sectors of the Phase	: 5 Sectors (Sector 10 – Sector 14)
Total Plot	: 5279
Proposed year of commencement and completion of the project	: 1986 - 1998
Development Process Initiated	: 1988
Price of land	: 80,000 Taka per Katha or 16 lac Taka per Bigha
Agency for operation or maintenance	: Rajdhani Unnayan Kartipakkha

Plot Distribution:

The total area of Uttara Residential model Town (Phase II) is 438.0675 acres (RAJUK, 1992). There are 5 Sectors (from 10 to 14) in the phase II. The total number of plots is 5315. The residential plots are mainly 3- katha and 5- katha plots.

Distribution of Plots according to size:

The development works of Phase II was finished in 1998 and all the plots were supposed to be handed over by this time to the allottees. Table 3.5 gives detailed data plot allocation for different plot size in phase II.

Table 3.5: Size wise Distributions of Plots in Phase II

Plot size	Number of Plots (Percentage)
3 Katha	3711 (69.82)
5 Katha	1204 (22.65)
Total Commercial Plots (5-20 Katha)	400 (7.53)
Total	5315 (100)

Source: RAJUK, 2007

Table 3.6 gives a comparative picture of proposed and actual development in phase II

Table 3.6: Comparative picture of proposed and actual development in Phase-II

	No of plots
Project Proforma, 1986	5,279
Actual development	5,315

3.6 Comparative Analysis of Development in Different Phases of Uttara

Following table gives a compeative analysis of different phases of Uttara Model Town which was initiated in mid sixties

Table 3.7: Comparative Picture of residential development of Uttara at different phases

	Project Proforma 1965	Phase I	Phase II
Sectors of the Phase		9 sectors (1 to 9)	5 sectors (10 to 14)
Total Area	2484 acre	950 acre	438.07 acres
Total Plot	20,000	4,302	5,315
Proposed year of commencement of the project	1966	1966	1986
Proposed year of completion of the project	1972	1972	1998
Development Process Initiated	1966-67	1966 (development started in 1972)	1988
Development Process Completed	-	1990	1998
Price of land		[1]7500 Taka per Katha or 10.41 Taka per sq. ft	80,000 Taka per Katha or 111.11 Taka per sq. ft

Different sectors of Uttara Model Town is shown in Map no. 3.1

[1] Land price not in present value

3.7 Land Price of Uttara Model Town and affordibility

Affordable housing is that it is affordable to lower or middle income households (Disney, 2007). Measurement of affordability varies from place to place and countries to countries but the most accepted measurement of affordability is the ratio between household income and housing cost (Hulchanski, 1995). There are two broad types of affordability measures used: one is based on the ratio of housing costs to income and the other on the residual income remaining after meeting housing costs (Jones at. el. 2010). It is widely accepted that household should not spend more than 30% of their household income on housing. This method was adapted to measure affordability where land price at two different phase of Uttara Model Town was considered.

The price of land changed in the Uttara Model Town abruptly specially after the year 2000 (Alam at. el. 2006) which is shown in table no 3.8:

Table 3.8 Land Price in different years at Uttara Model Town *

Year / Price	1975 (Tk/ Katha)	1988 (Tk/ Katha)	2000 (Tk/ Katha)	2001 (Tk/ Katha)	2006 (Tk/ Katha)
Uttara Model Town	7,500	80,000	10,00,000	20,00,000	35,00,000

Source: (Alam at. el. 2006)

*Time value of money was not calculated

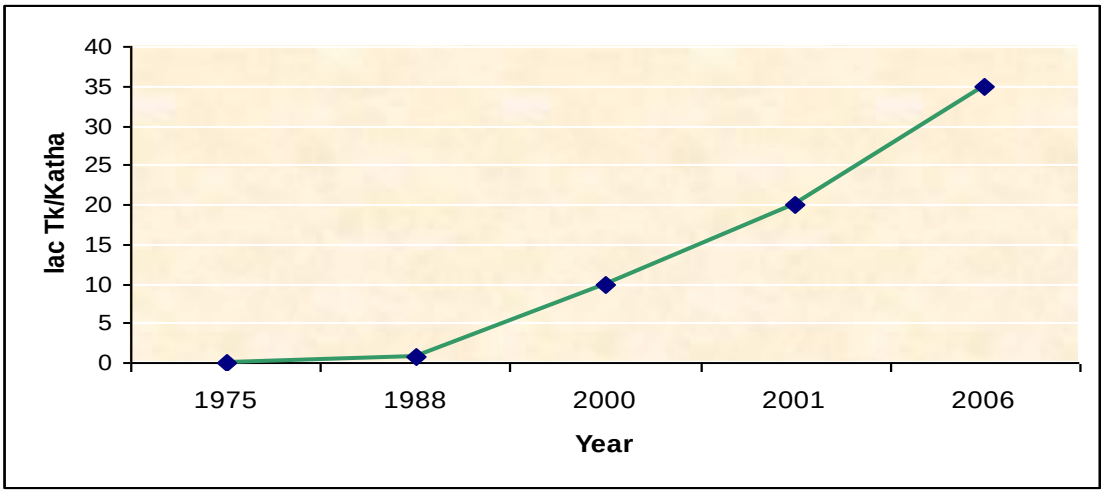


Figure 3.1: Land value increase trend of Uttara Residential Area

The initial land price was used to assess whether the plots were affordable to the low income group. These are discussed in the next chapter.

Chapter 4: Data analysis and general findings

4.1 Introduction

Housing, literally is defined as buildings or other shelters in which people live, a place to live, a dwelling etc. and to nations a critical component in social and economic fabric. Housing represents one of the most basic human needs. As a unit of the environment, it has a profound influence on the health, efficiency, social behavior, satisfaction and general welfare of the community (Onibokun 1998). The importance of low income housing was realized in the National Housing Policy of Bangladesh also. Housing for all –as the policy mentioned its vision. But in the practical field little has been achieved. Especially the low income group is the most deprived. Considering all these issues this study is an attempt to review a government project which began with the vision of providing housing for all income group with special emphasis to low income group.

So, Housing provision for different income groups at Uttara Model Town was thoroughly examined in the study. This is illustrated in the foregoing sections of this chapter.

4.2 Strategy for Data Analysis

It was mentioned earlier that it assumed only 3 katha plot can be affordable to the low income people. So this plot size was taken as studied plot and required information was collected regarding this plot size.

Data analysis for the study was designed sequentially to meet the demand of objectives of the study. So Socio-economic profile of the first hand allottees was the first thing to analyze. Income group wise plot distribution reveals the share of low income group. Then existing residential development was sought to see what has happened to the plots allotted to the low income people. It was sought that whether those plots was retained by them or not along with temporal dimension of plot transfer. Then the reason behind plot transfer was asked that those plots are affordable to the low income group or not.

Thus a sequence was followed throughout the data analysis procedure in order to reach the outcome of the study.

4.3 Findings about 3 katha plot

There is no specific area mentioned as low income housing area in the layout of Uttara Model Town or any data about their housing provision in the office record of RAJUK. So, it was assumed in the study that 3 katha plots were allotted to the low income people which are the smallest plot size. From the study of official records of RAJUK a total of 4613 number of 3 katha plots were found to be allotted to different income groups. Plot allotment started in the early 80's in the first phase and 90's in the second phase. A few numbers of plots were allotted later. A number of 3 katha plots were found to be allotted even in 2009 also.

4.4 Socio Economic Profile of the First Hand Allottees

Examination of the socio-economic profile of the first hand allottees of Uttara Model Town was the first objective of the study. These socio-economic data was to provide information about the first hand allottees and identify who were the beneficiaries from government projects. Their age, sex, income and occupation were documented for the three katha plots' allottees. Secondary sources mainly office record were used for this documentation. The study found some deviation in plot distribution which is mentioned in chapter three. These are illustrated below:

4.4.1 Age Group:

Government projects always encourage senior members and this has been rightly reflected at Uttara Model Town. The socio-cultural structure of our country supports this as it is believed that senior member is the head of the household. So those senior citizens who are not benefited by government housing provision earlier get a chance to be allotted. They become affordable at this stage and it also gives social security to those elderly people.

So, Plots were distributed at Uttara Model Town for mostly aged and senior persons. Age group 30 to 45 is the most prevalent (54%) among the first hand plot allottees. The next prominent group is between 45 to 60 age group followed by 'below 30' age group. These are shown in the table no. 4.1

Table 4.1: Distribution of plot owners according to age group at Uttara Model Town

Age Group	Number of Plot Owners
Below 30	241 (5.22%)
Between 30 to 45	2509 (54.39%)
Between 45 to 60	1087 (23.56%)
Above 60	159 (3.45%)
Missing	617 (13.38%)
Grand Total	**4613 (100.00%)**

Source: Compiled from office document of Estate section, RAJUK in 2010

4.4.2 Gender

Male domination is found in plot distribution of Uttara Model Town as almost 85 % plots are distributed among the male. Female group represents 13% the of total first hand plot allottees. Table 4.2 reveals the gender wise data of the first hand allottes:

Table 4.2: Categorization of plot owners according to gender at Uttara

Gender	Number (Percentage)
Female	606 (13.14)
Male	3941(85.43)
Missing	66 (1.43)
Grand Total	**4613 (100.00)**

Source: Compiled from office document of Estate section, RAJUK in 2010

4.4.3 Occupation

There were seventeen categories of occupation mentioned in the application form of plot for Uttara Model Town. Government service holders got priority in the plot allotment of Uttara Model Town. It was found from the study that out of total 4613 first hand plot allottee, Government service holders and affected group comprise the top 2 large groups. Different professional group who are in government service are also included in government category in most of the cases. This is applicable to some other categories also like Freedom fighter, Artist, Affected category etc. The whole

data were compiled according to the category mentioned in the application form. So, the data does not always give the exact occupation of the initial allottees.

The Government service holders occupy about 25% of original plot owners. Affected group are the next prominent group constituting 23% of plot owners followed by 12% autonomous service holder, 9% Businessman, 7% Private Service holder, etc. Non Resident Bangladeshi of different occupation constitutes a significant portion of first hand allottees who were included in others group.

Table 4.3: Distribution of plots of first hand allottees on the basis of occupation

Occupation (according to category of application form)	**Number (Percentage)**
Government Service	1141 (24.73)
Affected[1]	1077 (23.35)
Autonomous Service	594 (12.88)
Business	433 (9.39)
Private Service	344 (7.46)
Teacher	178 (3.86)
Doctor	154 (3.34)
Engineer	84 (1.82)
Architect/Planner	4 (0.09)
Journalist	27 (0.59)
Defense Service	44 (0.95)
Lawyer	42 (0.91)
Justice	27 (0.59)
Farmer	32 (0.69)
Artist	20 (0.43)
Freedom Fighter	18 (0.39)
Others[2]	289 (6.26)
Missing[3]	105 (2.28)
Grand Total	**4613 (100)**

Source: Compiled from office document of Estate section, RAJUK in 2010

[1] Allottees whose land was acquired for project development, is termed as affected people
[2] Others category include nonresident Bangladeshi, housewife, retired person, etc.
[3] Missing data are those which was not available in the application form

Initial allottees of different occupation are shown according to gender in the table 4.4

Table 4.4: Distribution of first hand allottees according to gender and occupation

Occupation	Female	Male	Grand Total
Government Service	67 (11.06%)	1066(27.05%)	1141
Affected	306(50.50%)	761(19.31%)	1077
Autonomous Service	34 (5.61%)	554(14.06%)	594
Business	44 (7.26%)	387(9.82%)	433
Private Service	14 (2.31%)	330(8.37%)	344
Teacher	29 (4.79%)	149(3.78%)	178
Doctor	14 (2.31%)	140(3.55%)	154
Engineer	1 (0.17%)	83(2.11%)	84
Architect/Planner	1(0.17%)	3(0.08%)	4
Defense Service	5 (0.83%)	39(0.99%)	44
Journalist	3 (0.50%)	24(0.61%)	27
Artist	3 (0.50%)	17(0.43%)	20
Farmer	1(0.17%)	31(0.79%)	32
Freedom Fighter	0 (0.00%)	18(0.46%)	18
Justice	3 (0.50%)	24(0.61%)	27
Lawyer	0 (0.00%)	42(1.07%)	42
Others	69 (11.39%)	217(5.51%)	289
Missing	12 (1.98%)	56(1.42%)	105
Grand Total	**606 (100.00)**	**3941**	**4613**

Source: Compiled from office document of Estate section, RAJUK in 2010

In the female group, affected people are the most prevalent, while, Government service is the dominant characteristics of male plot allottees.

4.4.4 Income Group

This information is the most important part of the research as the study highlights the income group wise distribution of first hand allottees. While defining low income group the yearly income of third and forth class government employees' were taken as base. Highest income of a third class employee was considered as highest income of a low income people.

The plot owner whose yearly income was studied is shown in Map no. 4.1. The study shows 70% plot owners are in High income group, 17% in middle and 13% in low income group. This data unfolds the actual provision of plots to the low income group which deviates from the commitment of higher provision of plots to the low income group (RAJUK, 1965).

MAP

In order to test equality of distribution of plot transfer rate over different test groups, few Chi Square Tests were conducted with statement of the following hypotheses.

Null Hypothesis, H0: Proportion of different income groups among first hand plot allottees is equal.

Alternative Hypothesis, H1: There is difference in proportion over income groups.

Table 4.5: Income Group Distribution

Income Group	Expected Frequency	Observed Count of Transfer	Observed Frequency
High	33	725	70
Low	33	135	13
Medium	33	172	17

Source: Compiled from office document of Estate section, RAJUK in 2010

Chi Square Test

Here, p-value[4] 0.00000000081541

Level of Significance** set for the Test .01

There is very little chance that such observed difference is due to sampling error. Hence, at .01 level of significance, the null hypothesis of equality in frequency distribution can be rejected (p-value<.01). So, in conclusion it can be said that high income group has received plots in a much higher proportion.

Figure 4.2 gives a simple picture of plot allocation to different income group.

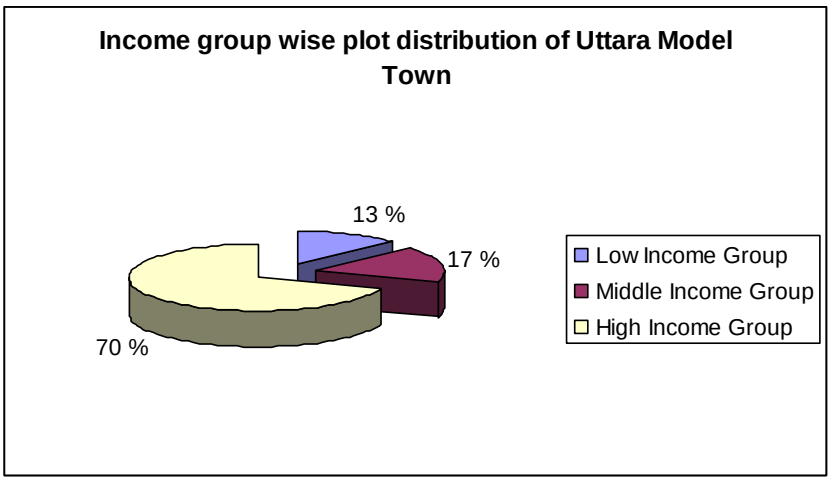


Figure 4.2: Income group wise distribution of plots at Uttara Model Town

[4] ***Note:*** *p-value: The observed significance level,* *or* ***p-value,*** *for a specific statistical test is the probability (assuming H, is true) of observing a value of the test statistic that is at least as contradictory to the null hypothesis, and supportive of the alternative Hypothesis, as the actual one computed from the sample data.*
The rejection region is chosen so that the probability is α that it will contain the test statistic when the null hypothesis is true, thereby leading to a Type 1 error. The value of α is usually chosen to be small (e.g., .01), and is referred to as ***the level of significance*** *of the test*

4.4.5 Housing Affordability Measurement

In order to measure whether the plots of Uttara Model Town was affordable to low income group housing expenditure up to 40% yearly income was considered as base. The task was difficult because no housing expenditure data was available to the researcher as office documents did not include them.

Again, there is no acceptable definition of housing affordability for Bangladesh. As a result the researcher had to consult the definition in other countries which are well accepted and well practiced. Measurement of affordable housing is that housing cost should be less than 30% of household income of the occupants in the bottom 40% of household incomes (Disney, 2007). Affordable housing also limits the cost of housing because households should not pay more than 30% of their household income. But this is usually applicable for developed world. In the developing countries, 40% household income was considered rather than 30% household income. The reasons have been discussed in detail in chapter 1. But it was not possible to consult the housing expenditure data as it was beyond the scope of the study and study was based on secondary data only. Housing expenditure data was not mentioned in the application form of the plot or in the office documents (Official files).

The land price for Uttara Model Town in the first phase was 7500/- per katha i.e. total land price stands to Tk 22,500. The land price for 3 katha plot in the second phase stands to Tk 2, 40,000 under Tk 80,000 per katha. From the study, it was found that the total yearly income of the low income group is far less than the land price. It is four to five times higher than their income. So it can be assumed that the land price was not affordable to the low income group.

4.4.6 Transfer of Plot

Plot transfer ratio among the first hand allottees was another important variable for research. Plot transfer occurred in two forms: firstly through selling of plots and secondly through providing Irrecoverable Power of Attorney. Study of office records of RAJUK gives the picture that transfer of plots is not correlated with income group in case of the first hand allottees.

Null Hypothesis, H0: No income group is inclined toward higher plot transfer rate.

Alternative Hypothesis, H1: Some groups are more inclined

Chi Square Test

p-value 0.7128

Chi Square test is conducted.

Level of Significance set for the Test .05

Table 4.6: Plot Transfer Rate of different income group at Uttara Model Town

Income Group	Count in Population	*Expected Frequency	Observed Count of Transfer	Observed Frequency
High	725	70	218	64
Low	135	13	64	19
Medium	172	17	57	17

Source: Compiled from office document of Estate section, RAJUK in 2010

There is 71% chance that such difference between observed and expected frequency is due to chance or sampling errors. Hence, at 0.05 level of significance, Null hypothesis cannot be rejected (p-value>.05); no dominant frequency distribution found in favor of any income group compared to expectation. That means, there is no such evidence that any particular income group is more inclined toward Plot Transfer than other groups.

Null Hypothesis, H0: No age group is inclined toward higher plot transfer rate.

Alternative Hypothesis, H1: Some groups are more inclined transferred plots in a much higher proportion.

Chi Square Test

p-value 0.000112552, Level of Significance set for the Test .01

Table 4.7: Plot Transfer Vs Age Group Distribution

Age Group	Population Count	Expected Frequency	Observed Count with Plot Transfer	Observed Frequency
Above 60	159	3.4468	12	3.54
Below 30	241	5.2244	10	2.95
Between 30 and 45	2509	54.3898	115	33.92
Between 45 and 60	1087	23.5638	137	40.41
Missing	617	13.3752	65	19.17

Source: Compiled from office document of Estate section, RAJUK in 2010

There is very little chance that such observed difference is due to sampling error. Hence, at .01 level of significance, we can reject the null hypothesis of equality in frequency distribution (p-value<.01). We conclude that 45 to 60 age group has been

Null Hypothesis, H0: No Sex group is inclined toward higher plot transfer rate.

Alternative Hypothesis, H1: Any group is more inclined

Chi Square Test

p-value 0.001019307

Chi Square Test is conducted.

Level of Significance set for the Test .01

Table 4.8: Plot Transfer Vs Gender Group Distribution

Gender	Count	Expected Frequency	Observed count with Plot Transfer	Observed Frequency
Female	606	13.14	29	8.55
Male	3941	85.43	291	85.84
Missing	66	1.43	19	5.60

Source: Compiled from office document of Estate section, RAJUK in 2010

There is very little chance that such observed difference is due to sampling error. Hence, at .01 level of significance, we can reject the null hypothesis of equality in frequency distribution (p-value<.01). We conclude that Female plot holder group has transferred plots in a lower proportion.

4.4.7 Trend of Plot Transfer

It was examined that whether the plots transferred follow a trend or it was prominent in some specific decade.

The findings have some limitations as legally allottees can not transfer plot prior to final allotment or without constructing house as per the lease document. But a large number of plot transfers occur immediately after plot allotment declarations which are not recorded in the official document.

The research found some temporal trend of plot allotment and transfer. The plot allotment started in early 1980's for the first phase and transfer started as well. In the second phase plot allotment started in the middle of 1990's. Plot transfer shows a common trend as heavy transfer rate after 2000.

Even in the official document some plots are transferred within one year of allotment and some after long period of allotment. Figure 4.3 shows the plot transfer trend at Uttara in first and second phase.

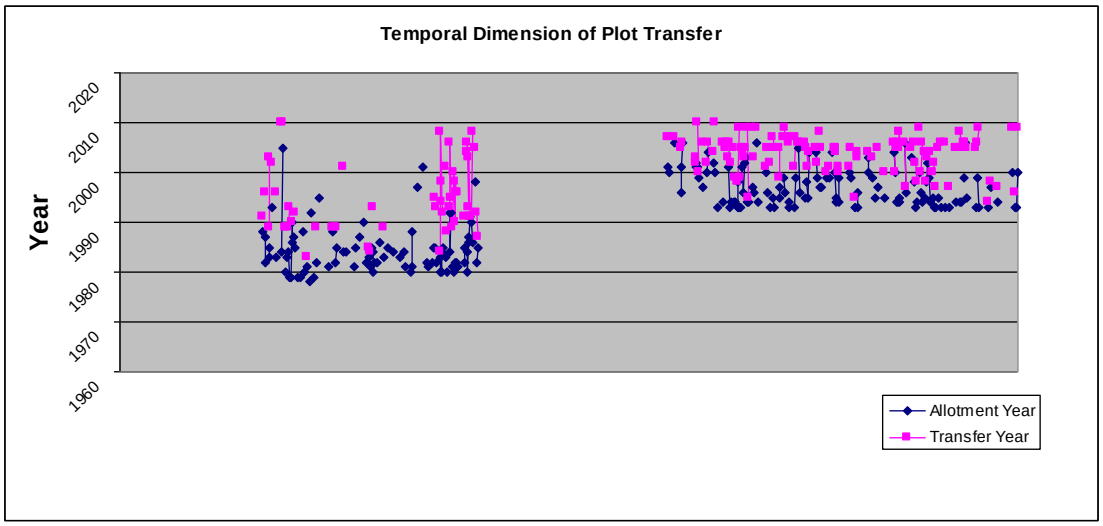


Figure 4.3: Temporal dimension of Plot Transfer for first and second phase.

An important thing to notice that about 20% plot were transferred without having any structure on the plot which is simply violation of clause 20 of lease document.

4.5 Residential Development

In formation of residential development on the plots that are provided to the low income group was collected from office records and these were cross checked in the field. The findings are illustrated below and plots are shown in Map no. 4.2:

4.5.1 Building Coverage

In the study the development pattern was investigated that how the plots allotted to the low income group are developed throughout the years. A number of those plots were transferred. But residential development rate is very low on those plots. In order to study residential development, 135 plot was studied as the total number of residential development is very low for low income group. 135 instead of 100 sample size was studied. From the research it was found that 500 to 1000 sq m building coverage is the most prevailing. These are shown in table 4.9

Table 4.9: Building coverage on the plots allotted to the low income group

Building Coverage	Count of Plots (Percentage)
Below 100 sq. m	7 (5)
Between 100 and 200 sq. m	1 (1)
Between 200 and 500 sq. m	10 (7)
Between 500 and 1000 sq. m	29 (21)
Between 1000 and 1500 sq. m	5 (4)
No structure	83 (61)
Grand Total	**135 (100)**

Source: Compiled from office document of Estate section, RAJUK in 2010

There is provision in clause 3 of lease document of RAJUK that plots must be developed within four years of plot allotment with full construction of building. But this was violated in most of the cases of residential development. The huge vacant plots (61% of the allottee) reveal the violation of lease document.

4.5.2 Number of Floor

Field survey reveals that most of the buildings allotted to the low income group are without structure. From the study about 61% plots were found vacant. But on the developed plots 5 to 7 storied building are second dominant development with 16% next to the vacant plot. 3 to 4 storied building covers 15% of the sample survey.

Besides that 7% are two and single storied. Table 4.10 gives the picture of residential development according to floor height:

Table 4.10: Information on type of residential development by floor

Building Height	**Count of Plots (Percentage)**
1 to 2 storied	10 (7)
3 to 4 storied	20 (15)
5 to 7 storied	22 (16)
No Building	83 (61)
Grand Total	**135 (100)**

Source: Compiled from office document of Estate section, RAJUK in 2010

the table reveals that the portion of 5 to 7 storey building is significant after vacant plots.

The following table (Table 4.11) gives residential development status on the plots allotted to the low income group.

Table 4.11: Summary of residential development on the plots allotted to the low income group

Building Height / Building Coverage	**1 to 2 storied**	**3 to 4 storied**	**5 to 7 storied**	**No Building**	**Grand Total**
Below 100 sq. m	7				**7 (5%)**
Between 100 and 200 sq. m.		1			**1 (1%)**
Between 1000 and 1500 sq. m			5		**5 (4%)**
Between 200 and 500 sq. m	3	6	1		**10 (7%)**
Between 500 and 1000 sq. m		13	16		**29 (21%)**
No Building				83	**83 (61%)**
Grand Total	**10**	**20**	**22**	**83**	**135 (100%)**

Source: Compiled from office document of Estate section, RAJUK in 2010

Chapter 5: Discussion and Analysis of Findings

5.1 General Discussion

The study unfolds a number of issues along with some facts about the low income housing situation and role of public sector in our country. The current practice of plot provision through sites and services scheme does actually solve the problem of housing situation of the low income segment of the society. There are inherent problems in the procedure and intension of public sector as well as within government policy also. These are elaborately discussed in the forgoing sections of this chapter.

5.1.1 Low Share of Plots for Low Income Group

In the Project Proforma of Uttara Model Town (the then North Satellite Town), government aimed to supply at least 32% plots (one third that is 6250 no of plots out of 20,000 plots and flats) to the low income people. But in reality no flat was ever been constructed in Uttara model town by government and there is no concrete document about the number of plots allotted to the low income people. For this study it was assumed that all the three katha plots were allotted to the low income group which was the smallest plot unit. The study found more or less 4613 no of 3 katha plots were allotted among which 13% were allotted to the low income group.

This finding reveals that the project did not meet government's commitment to reach to a large number of low income people and to provide housing for them. In fact the plots were not affordable to the low income group.

5.1.2 High Rate of Plot Transfer Irrespective of Income Group

In the beginning of the research it was assumed that the transfer rates vary among different income groups. But the study came to a result that, transfer rate is not significant in any income group. Rather it is found that; transfer rate is highest among the affected people who were the original resident before Uttara Model Town development. This data gives the message that the plots which were distributed to them could not be retained by

the initial allottes irrespective of the income group. The causes behind this needs more elaborate studies to investigate the issue.

5.1.3 Rapid Plot Transfer after 2000

The plot transfer in Uttara starts in the late 90's and rapid transfer was visible after 2000. The study found that sometimes the allottes transferred plot immediately after final allotment. In fact office record keeps the statistic of only official records. But actually plot transfer starts with first declaration of the allotment.

5.1.4 Low Development Rate of Low Income Plots

The residential development on the plots allotted to the low income group does not match with the income of the allottee's income mentioned in the application form. On an average 222.96 sq. m floor area was found in the developed plots irrespective of transfer rate. But most of the buildings (29%) are within 500 to 1000 sq. m. Floor area of those buildings do not express that it is low income housing.

But the most important thing is that 61% plots allotted to the low income group are lying vacant which is mentioned in the previous chapter. This may indicate that they are not capable of building house on those plots.

5.2 Grounds behind the Findings

Although government was committed to provide housing to low income people at Uttara Model Town, in true sense it failed to do so because it did not reach to the right people. Most of the plots were allotted to the high and middle income groups at subsidized rate. To find the causes behind these phenomena was not within the objective of the study but some issues came from the study.

The following causes may have acted behind this failure of housing provision to the low income group:

5.2.1 Plot Allotment Procedure

There were no rules or regulation found in the whole plot distribution process. Plot was allotted among seventeen categories where occupation got priority. There was no income group wise category. Although the PP 1965 aimed to provide housing to the low income group, there was no definition of different income groups there. There is a general trend that government employees get priority in public projects which was also followed here. But the share of third and fourth class government employees is very low.

5.2.2 Land Price and Affordability

In 1976 when plot allotment procedure started, per katha land price was set as Tk 7500 per katha. But the study reveals that during that time a person's yearly income in low income group is highest Tk 6000 which is beyond the affordable limit of that group. Minimum plot size is also not affordable for low income group.

5.2.3 Influence of Pressure Group

There are always pressure groups who want to be benefitted from these subsidized plots of government. They have good access in the land market because of solvency and they are the most beneficent group. This was also understood from this research that, profit motive of higher income group insisted them to get allotment from RAJUK or purchase land from the low income group. This was also indicated in Satu's (2009) study as she mentioned about the profit motive of higher income group acted behind this. She mentioned that, the changes in the layout plan such as creation of new plots are done under the pressure from the powerful persons of the country.

5.2.4 Profit Motive

The small percentage of plots allotted to the low income group was sold (transfer rate 19%) to the higher income. Profit motive in some instances may act behind this. From an informal discussion with some of them, it became apparent that the need of cash money in crisis period was the reason. From the study it was also found that they were not solvent enough to pay even that subsidized rate.

5.2.5 Land Price and Proximity to Work

The poor are effectively priced out of legitimate settlements in the city by very high land prices. The price and availability of land is an important issue influencing housing supply for urban families and low income families alike. The price of land depends on many factors including location, distance from services and amenities, nearness to commercial, academic, health facilities, availability of public transport, etc. The further land is from the city centre, the cheaper the price of land is likely to become.

At the city peripherals land prices may end up being low enough to be afforded by low income groups. Unfortunately in search of locations there will be inadequate or no such land in support of that assumption in Dhaka city.

For the city to plan and to provide housing alternatives for low income families, the city needs to invest in acquiring land near amenities and services, or provide amenities and services in urban peripheries. These are all costly alternatives. Serviced land is more expensive than raw land. For instance, in sites and services schemes, before installation of services and infrastructure, poor households may afford to live there but once the raw land has been serviced, it may become too expensive for these families. On the other hand, low-income households need to be in locations that are close to income-earning opportunities (the commercial and industrial centres of cities and towns) in order to minimize the cost and time spent in travel to work. To solve this dilemma is a major challenge for government.

5.2.5 National Housing Policy

Many governments around the world have set out to pursue conventional housing policies resulting in the construction of estates of modern, finished housing units, and the establishment of financial systems to capture savings and generate resources for housing programmes. But the impact of conventional programmes has invariably fallen far short of that intended when targets fail to be met and costs prove too high. ‘If little or no subsidy was given (so that more units could be built), the new units could only be afforded by relatively well-off households. If sufficient unit subsidy was given to allow

lower income groups to afford them, relatively few could be built (Hardoy and Satterthwaite, 1989).

In case of Bangladesh, the National Housing policy 1993 desires housing for all. But in reality it worked very little to achieve this target. Whilst the Government has developed the policy which reflects an enabling approach to land and housing markets, this policy has not been implemented effectively. The reason behind this may be lack of specific guideline in the policy that how government will achieve this goal. No Action plan was taken to ensure affordable housing for all with special emphasis to low income group.

5.2.6 Rural-urban migration and housing crisis

In case of Bangladesh, the rural to urban migration has contributed more than 40 per cent of the change in urban population. The figure is as high as 70 percent, as in the case of Dhaka (Islam, 1999). As a result, secure shelter is noted as a major challenge for Dhaka's urban poor. As migrants pour into the city, they often settle in illegal settlements on marginal pieces of land which pose significant environmental concern. If this issue is not handled properly the influx of poor segment will pose further pressure on low income housing of the city.

5.2.7 Inappropriate Government Role as Provider

In order to address housing shortage, Government initiative is confined in development of satellite towns for different income groups living in urban areas; development of site and services schemes for low and middle income groups, rehabilitation of squatters and construction of multi-storied flats for allotment on hire-purchase basis (UN, 2002). But no positive effect was found from them. All the attempts taken to provide housing to the low income group through sites and services scheme, was found to be failed. Here comes the question that whether government will further go for such attempt or should go for re thinking. In fact government role as housing provider should be reconsidered for low income group with appropriate policy and standard.

5.2.8 Absence of Appropriate Legal Framework

There is no specific rules and regulation to control urban land market. As a result land speculation is very common practice here. A significant number of allottes specially the low income ones (61%) failed to build houses on their plots. Even the high income plot owners left their plots year after year vacant. But the authority did not take any legal action against the land speculation.

The land acquisition and compensation laws are outdated and hence fail to understand the mind-set of mass people.

5.2.9 Absence of National Urbanization Policy and Plan

Bangladesh lacks a comprehensive policy on urbanization and urban poverty and there are between 16 and 40 different bodies involved in one way or another in urban matters in Dhaka, with little coordination and planning. This has resulted in significant gaps in urban services and infrastructure. The poor are particularly affected by these limitat

Chapter 6: Recommendation and Conclusion

6.1 Recommendation with Future Scope

Bangladesh, which is one of the developing countries in the world, is faced with a critical housing crisis of long standing. It has been estimated that as many as three-quarters of the urban population are unable to contribute anything toward their housing due to their low incomes (Choguill, 1988). But, it is essential that the city is to be livable for all its citizens in the future. The bulk of its working and growing segment of the population must be given an opportunity to acquire housing or a reasonable shelter. Without that, thousands of people in the urban areas will still be homeless or be living in temporary shelters with mortal fear of eviction. As a result, the city will descend in to a city of slums and pose the threat of an environmental and social nightmare.

A major commitment is needed from government to provide land and security of tenure to low income inhabitants. There is no alternative of government's intervention to solve the housing problem. Government must go for massive housing supply with the vision of cheap and fast housing supply in a massive scale.

In order to reach the low income group that constitutes the greater part as well as increase housing supply for all following recommendations may be considered:

6.1.1 Appropriate Role of Government

The urban government needs to play a very significant role in adopting and implementing policies to reduce urban inequality and poverty. While macroeconomic trends have pushed towards a diminished role for the state over recent decades, more recent efforts at rehabilitating the state are increasingly focused on the local level. But the urban government has failed to play its effective role in urban development of Bangladesh due to the multiplicity of institutions and the overlapping nature of their jurisdiction. Whilst the Government has developed a National Housing Policy which reflects an enabling approaches to land and housing markets. But this policy has not been implemented effectively.

So, Bangladesh's housing problems are to be more effectively addressed, housing policies must consider the causes rather than the symptoms of policy failures. Stronger, more effective enabling strategies must be developed by the public sector to allow housing markets for the various tiers to leverage the activities of the private sector. Left to themselves, Bangladesh markets for housing may be able to meet a considerable part of housing needs. However, because of a range of market failures, both housing demand and supply remain constrained.

To address the situation, the government will have to change its policy from provider of housing and land to a few to an enabler of many, i.e., mostly for the poorer section of the society. The public sector may provide housing mainly in three ways: housing for employees, housing for sale and housing for rent to low-income households. A housing development policy will have to be formed that will aim to enable a low-income person or a family to acquire, build, develop and finance/purchase a reasonable shelter in his working lifetime.

The existing government policy of housing provision for all income groups through sites and services scheme has no longer been practiced in other countries of the world. This scheme is practiced here in spite of its tested failure. Further research is required to find appropriate government policy which will be reflected in the National Urbanization Policy as well as in the National Housing Policy.

6.1.2. Large Scale Public Housing Production

Government can take the leading role for providing cheap and simple housing for housing provision for low and middle income group. But only low income people should be eligible for subsidized housing. There must be certain criteria fixed by the government about which group of people will be eligible to apply for what sort of house. Detailed need assessment is required for that. There is no alternative of vertical expansion of Dhaka City.

6.1.3 Appropriate Need Assessment

The execution of the policy should be based primarily upon appraisals of how housing initiatives among low-income groups actually operate rather than upon some abstract assessment of "**needs**"

and hence targets based upon computer prediction models of household formation and the economics of "**affordability**" and "**loan repayment ability**" Considerations on **'units', layout** and **size** are also important. Low-income housing initiatives should be integrated into the national policy so that it can reach larger people. Government should take greater responsibilities in supplying serviced land to the right person. A number of issues are related with this need assessment for the low income target group. Following are some important criteria:

6.1.4 Housing Standard and Design according to Need

Design plays a very important role in providing sustainable and affordable housing. Design can reduce the house cost, infrastructure cost, reduce ecological footprint and could increase social sustainability and quality of life.

Flat sizes should be kept small so more people can be accommodated and costs kept low. Lower standard should make easy and available in design and technique to reach low cost housing target. Units should comprise basic layout requirements (built-in kitchen and toilet facilities), and limits on minimum and maximum size are to be determined. International practice suggests that 70 sq. m for two-bedroom units and 90 sq. m for three-bedroom units is an appropriate standard for middle income group. But for low income group it may start from 40 sq. m. Creative design can easily accommodate more people in smaller spaces with essential facilities.

6.1.5 Housing Area Selection

Proximity to Work: Location is important to achieve the economic sustainability. If high and medium density housing is provided near transport node and transit corridor, it will allow and facilitate use of public transport rather than private car. Hence this will reduce the transport and infrastructure cost.

When planning a sites-and-services scheme, land should be found as close as possible to centres of employment and work in order to offer viable livelihood opportunities to project participants. A site should be chosen that is also close to existing infrastructure and service networks so as to reduce the cost of extending these networks.

Public transport: To achieve affordable housing, there is need to reduce the cost of house by providing housing near public transport, infrastructure and community facilities with due regard to climate and solar orientation. A common approach to sites-and-services is to look for large peripheral sites where big projects embracing large numbers of plots and new sites for schools, clinics and recreational and social amenity facilities can be developed. However, in most cities there are many small sites with easy access to the existing infrastructure and services that may be economically used for sites-and-services projects without having to invest in costly trunk infrastructure extensions.

6.1.6 Fixation of Criteria for Public Housing Provision

There must be specific rules and regulation based on different income group. Housing standard should be fixed based on different income criteria. There must be certain criteria fixed about which income group can apply for which size of flat. This will restrain high income group from penetrating in the low income housing supply.

6.1.7 National Urbanization Policy and Regional Development

Bangladesh lacks a comprehensive policy on urbanization and urban poverty and there are between 16 and 40 different bodies involved in one way or another in urban matters in Dhaka, with little coordination and planning. This has resulted in significant gaps in urban services and infrastructure. The poor are particularly impacted by these limitations (World Bank, 2007). There is no Ministry with sole jurisdiction over urban development, and urban areas are partly administered by the Ministry of Local Government Rural Development and Cooperatives, and partly by the Ministry of Housing and Public Works. No national policy on urbanization or urban planning exists and there is no formal policy on urban poverty or strategy for urban poverty reduction.

So, there is a need for a national **urbanization policy/plan** in Bangladesh as a means of redressing regional disparities in development between the capital city Dhaka and other urban centers.

An urbanization policy would be both systematic and guided by public and private investment in existing urban and rural settlements. Regional investment in development would contribute to commercialization and agricultural industrialization (development and linkage of market towns and service centers, strengthening of basic infrastructure and land use patterns, strengthening of urban areas around transportation centers, promoting nonfarm employment opportunities, establishing strong financial and technical institutions in middle-sized cities, and strengthening municipalities' mobilization of local resources and financing).

Besides, the percentage of the urban population living below the poverty line is comparatively higher in Dhaka City than other urban centres of the country (Hossain, 2008). Providing settlement for the poor should be a top priority for policy makers. The national urbanization policy can address this issue from the root cause of the problem. A balanced rural-urban planning is required to face the problem of rural-urban migration.

6.2 Tools for Implementing Policy

This study is an attempt to find the actual plot allocation status for different income group. But the causes behind this are yet to be investigated. The current government tool for providing housing for low income group is not suitable which tested many is where in the world.

6.2.1 Legal Framework

There must be specific laws regarding land management with strong enforcement in order to prevent land speculation. Laws regarding Land Ceiling, Capital Gain Tax etc. can be very effective tool for controlling land price and ensuring sustainable development.

6.2.2 Management and Utilization of Khas Land

Throughout Dhaka there are large areas of Government land that remain unutilized and subserviced. There is no central Government land register to assist in the planning of future land development. Unless this resource is more efficiently utilized, efforts to improve the

performance of financial intermediaries in delivering finance for housing, and thereby increasing the level of housing stock, will be constrained by the shortage of sites for housing .So, efficient land management system for the khas land is necessary to utilize them properly. Before that inventory of khas land is a prerequisite. There is a clear need for the Government to establish a central computerized register of unused Government lands, held in trust by all Government agencies. This is seen as an important potential residential housing resource that has yet to be fully utilized.

If the total document is available to the government, it will be easier to control those lands and utilize them through proper planning. Khas lands can be very useful source of land for housing provision to the low income group through some sort of tenure security.

6.2.3 Public Land Banking

Government can easily create land bank in less developed areas. These land can save unnecessary land conversion and land speculation by the individual. These areas can be later properly planned for the low income group with appropriate standard.

6.2.4 Land Ceiling

With a view to preventing the concentration of urban land in the hands of a few persons and speculation and profiteering therein and with a view to bringing about an equitable distribution of land in urban agglomerations to sub serve the common good urban land ceiling may be an important tool. This may have a huge bearing on urban development by barring development on large tracts of available land. The existing Immovable Property Act is not practiced properly.

6.2.5 Housing Finance

ADB in one report suggested that, the shortage of serviced land for housing in Dhaka and in most of the district towns would be lessened if residential construction by private agencies, as well as public agencies such as the Dhaka Capital Development Authority, could be supported by large-scale, flexible institutional financing that covers all phases of housing development: (i) initial land and services development, (ii) construction, (iii) interim financing, and (iv) household mortgage financing. Government can raise capital for housing development by bond selling,

share market etc. Central Provident Fund can be the source of individual's housing financing source.

6.2.6 Central Provident Fund

This is one of the most effective tools for housing finance practiced in most of the countries that are successful in housing provision. In this system a portion of individual income is preserved as compulsory saving where employer contributes the same amount. This is saved in Central Provident Fund (CPF) and money saved can only be used for housing finance. This tool is one of the reasons for successful public housing in Singapore, Korea and many other countries in the world. This tool can easily be applied in our country.

6.2.7 Regular Appraisal and Monitoring

Any project undertaken needs an appraisal to scrutinize its success and failure. This is totally absent in our current practice and the same projects are replicated further without any analysis.

There should be close monitoring from the very beginning of the project up to its completion and then regular evaluation and monitoring is also very important. Lack of monitoring in our country helped to replicate the unsuccessful site and services projects one after another.

Establishing of a Management Information System (MIS) in the Housing Sector for strengthening monitoring of occupancy type is a prerequisite.

6.2.8 GIS based Housing Database

Geographic Information System (GIS) based database should be developed for the housing sector to collect data and update all housing related information like socioeconomic, physical, and spatial. GIS will be an imperative tool to store the multifaceted information needs of several agencies involved in the implementation of national housing policies. It will help overlay housing related information spatially on infrastructure, socioeconomic, as well as urban zoning maps and facilitate better coordination between various agencies to plan and implement low cost housing. Among other benefits, GIS will help in decision making through (i) preventing spatial concentration of low-cost housing, (ii) improving the monitoring of impact of government

housing policies, (iii) provide better access to infrastructure to low income households, and (iv) enhance the planning, implementation, and monitoring capacity

6.3 Conclusion

The existing government policy is overlooking the need of the majority of the people who are low income group. Rather it works for the limited upper income group who controls the major resource base which is evident from this research. But it is the responsibility of the government to implement its policies to solve housing problem for all specially the low income group.

So, from the review of different global experience in chapter two, it can be concluded that, substantial government spending is needed, both in the material expansion of the city's infrastructure and implementation of poverty alleviation programs to make any appreciable improvement in low income housing provision. Buttressed by the heritage of literature that argues the importance of affordable and improved housing in urban poverty reduction, countries tend to opt for one of two major strategies for the provision of affordable housing, i.e. universal or targeted approaches. Countries including Singapore, the Netherlands, Sweden and Denmark have applied a universal approach, which aims to provide the whole population with decent and affordable housing. The targeted approach, which is more common, is based on the assumption that while the market plays a primary role in housing provision, special programs should be implemented to address the needs of the low-income or vulnerable groups excluded from the market distribution system.

In conclusion, it can be said that little has been achieved in terms of the implementation of the National Housing Policy. Property rights have not been assured. Public interventions have been fragmented, have not targeted the poor, are based on unworkable design standards, and are not coordinated. The current policy environment is not one in which additional public resources will necessarily benefit the poor. Improving the housing conditions of the urban poor will require substantial policy reforms.

Provisioning of appropriate policy was beyond the limit of this study. But this study unfolds some concrete document about the flaws of current practice. Further research is required to find appropriate policy and tools to provide housing to the disadvantaged group for an equitable society.

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