Housing the Urban Poor: Planning, Business and Politics

A Case Study of Duaripara Slum, Dhaka city, Bangladesh

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Declaration

Except where duly acknowledged, I certify that this thesis is my own work under the supervision of Professor Axel Baudouin of the Department of Geography, Norwegian University of Science and Technology, Trondheim, Norway

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Abstract

This study is conducted on Duripara slum of Dhaka city which is one of the fastest growing megalopolis and primate cities not only among the developing but also among the developed countries. The high rate of urbanization has posed a challenging dimension to the central, local govt. and concerned development authority. In Dhaka about 50% of the total urban population is poor and in the urbanization process the poor are the major contributors which can be characterized as urbanization of poverty. In response to the emerging urban problems, the development authority makes plan to solve those problems as well as to manage the urban growth. By focusing on the housing issue for the urban poor in Dhaka Metropolitan Development Plan (DMDP), this study is aimed to find out the distortion between plan and reality through making a connection between such planning practice, political connections and business dealings.

Knowledge gained from the reviewed literature, structuration theory, actors oriented approach, controversies of urban growth and theoretical framework were used as interpretative guide for the study. The data set for this study were collected both from primary and secondary sources. The primary sources include data collected through semi-structure questionnaire survey administered to 60 households using non-random judgmental sampling method. Moreover, interview guides, group discussion and personal observation were also used to synergize the study objectives. In addition to primary sources, secondary sources were used when relevant. The study used both qualitative (content analysis) and quantitative methods like descriptive statistics to summarize the results of the study.

In DMDP, it was recommended that the urban poor will be relocated to the urban fringe areas with tenure security. This study found that these recommendations are not practical and implementable, at all, in relation to current socio-economic characteristics of the slum dwellers, land management system, transport facilities and political practice. The slum dwellers are highly mobile in choosing their place of residence and their choice is determined, to a greater content, by close proximity to work place and travel cost. This study discovered that a patron-client relationship has been existing in the study area where the political leaders play the major role to control over the slum and thereby their lives. Under the feudalistic social structure the poor are only able to use their limited form of agency for the survival. Whilst, in the urban fringe, almost all the lands are in the grip of private land developers, local elites etc. who have strong relation with the powerful political leaders and where land acquisition cost by the development authority is fairly high.

In general, in and around Dhaka public transport system is very poor and costly which eventually discourages people to live away from their work places. From the findings of this study it is revealed that there is a clear pattern of urban pockets of small scale industries and small scale slum and squatter settlements. There is as such no direction and guideline regarding the development of transport infrastructure facilities commensurate with the recommendations.

The politicians are most pervasive actors in all spheres of development activities. They misuse the power to influence any decision of the public agencies in favor of their business interests. They are the well known businessmen and the other businessmen have to keep a good relation with them in order to gain financial benefits. From the findings of this study it was discovered that many of the owners of the private land developers and private consulting firms are politicians. Moreover, these political elites have strong influence on the officials of different public agencies as those officials have been appointed by the recommendations of those national elites. All over, there is a business relationship between these politicians, officials of public agencies and businessmen themselves where plan like DMDP is a mean for business. Under such structure and practice, the poor are the victims who are becoming aliens in the urban social geography.

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Operational Definition

Actors- Politicians, officials or employees of public and private agencies involved in different spheres of land and housing development process for the urban poor starting from decision making to the implementation process.

Slum settlements- literally, slum is defined as the substandard of housing developed on the legally owned land. In this study, Duaripara area which has been taken as a case is owned by the government. The inhabitants have no ownership right on the land but they are legally permitted to live in this settlement. As officially they have been given some sort of tenure security, this study area has been defined as slum settlement.

List of Acronyms

ADB Asian Development Bank

BBS Bangladesh Bureau of Statistics

CBO Community Based Organization

CI Corrugated Iron

CNG Compressed Natural Gas

DAP Detail Area Plan

DCC Dhaka City Corporation

DESA Dhaka Electric Supply Authority

DMA Dhaka Metropolitan Area

DMDP Dhaka Metropolitan Development Plan

DSMA Dhaka Statistical Metropolitan Area

DWASA Dhaka Water Supply Authority

FAR Floor Area Ratio

GPS Geographic Positioning System

HBB Herringbone Bond

HBFC House Building Finance Corporation

LGED Local Government Engineering Department

MT Motorized Transport

NHA National Housing Authority

NMT Non Motorized Transport

RAJUK Rajdhani Unnayan Kartripakkhya

REHAB Real Estate and Housing Association of Bangladesh

SIP Slum Improvement Project
SMA Statistical Metropolitan Area

SP Structure Plan

SPZ Strategic Planning Zone

TOR Terms of Reference

UAP Urban Area Plan

UNCHS United Nations Centre for Human Settlements

UNDP United Nations Development Programme

UNICEF United Nations Children's Fund

USD US Dollar

PART I

1.1 INTRODUCTION

1.1.1 Background and Introduction to the Research Problems

The level of urbanization in Bangladesh is still low, only 23%, but the total urban population is very large, nearly 29 million in 2001. This is, in fact, one of the largest urban populations in the world (National policy forum, 2001). The growth of urban population in the country has been very rapid during the last three decades (nearly 7%) annually) and still continues to maintain a high growth rate through a diminishing trend. Urban population growth in this country, particularly in Dhaka is predominantly due to migration of people from the rural areas (ibid.). The increasing rate of migration from rural to urban areas, besides urban area expansion and natural population growth, has added a challenging dimension to the existing characteristics of the urban structure. Obviously to accommodate this mounting pressure of urban population it would be imperative and even unavoidable to provide or to extend civic facilities and services including housing, transport and communication, water supply, drainage and sewerage, electricity etc. The set up and maintenance cost of the urban infrastructure demands a handsome amount of investment by the local govt. authorities like municipalities/ Pourashava (for small or big towns) or City Corporations and by the development authorities (for large cities). Whilst the urban system, which is complex in nature, in Dhaka is itself a confined system in relation to its resources, capacities (e.g., technical know how) and institutional strengths (e.g., manpower, coordination etc.). It offers the urbanites a number of limited basic services like water supply, waste management, road transport and so forth. Nevertheless, compared to the total demands these services and facilities are far from being adequate in terms of both quantity and quality. With the high urban growth, the management of urban spatial growth has become a challenging task for the Dhaka development authority- RAJUK (Rajdhani Unnayan Kartripakkhya-capital development authority) in charge of planning and development for megalopolis Dhaka.

This phenomenon has been echoed by a number of urban planners/experts. According to Siddiqui (2000),

'although the urban population growth rate has slightly decreased in the recent years, it is assumed that the city authorities will not be able to take the extra burden of providing civic amenities to its inhabitants unless some useful intervention is taken on the current trend of urbanization (Siddiqui, 2000, pp. 1-36).'

As time passed by, the administrative boundaries of the municipalities and big cities like Dhaka, Chittagong, Khulna, Rajshahi etc. have been expanded to accommodate and take the challenges of urbanization without proper assessment of whether the existing capacity of services could support the increased population (National policy forum, 2001). The expansion of urban boundaries has been a very common practice for most of the local govt. bodies and this phenomenon may be a result more of political interests. Especially, this happens before the local govt. election just to increase the number of voters within the electoral jurisdiction like city or pourashava or thana¹. The following table provides a synoptic view about how areas of major cities have been expanded during 1981-1991.

Table 1.1.1 Area variation in major cities of Bangladesh

City	Area in Sq. Km		Area increase over
	1981	1991	10 years (%)
Dhaka Mega city	402	1353	236.57%
Rajshahi SMA	86	377	338.37%
Khulna SMA	74	267	260.81%
Chittagong SMA	698	986	41.26%

Note: SMA- Statistical Metropolitan Area

Source: BBS, 1991

Evidence shows that in most cases the newly expanded urban areas have grown spontaneously (without necessary civic services and facilities) with a minimum intervention by the concerned planning agencies. Therefore, in most cases extended urban areas have been developed as urban sprawl.

¹ The lowest tier in police administration in Bangladesh. It is also termed as the third highest tier of local govt. in Bangladesh. There are 525 thanas in Bangladesh, 10 of them fall into Dhaka Metropolitan Statistical Area.

The income base of municipalities

The municipalities, city corporations and development authorities have their own legislative power and authority to delimit the territorial boundaries in response to the needs of the increased urban population. From the existing and extended urban areas they suppose to estimate the potential amount of revenue earning for different fiscal years. In fact, revenue earning merely defines their scale of economic dependency on the central govt.

Box 1.1.1 Dependencies of Dhaka City Corporation (DCC) on external funding sources

One of the major income earning sectors of DCC is holding conservancy and street lighting tax, which has never been, realized 100% through their existing revenue earning mechanism. Siddiqui (2002) showed that in year 2000, the expected amount of revenue was USD 65.81 million, but only 66.68% were collected. Consequently, it borrows money for development activities/long-term investment from external sources only if it is found to be feasible through cost-benefit analysis. In the last decades an average of 35% of total DCC income depended on government or external sources. This indicates DCC's continued dependency on external sources (Siddiqui, 2002).

But the revenue earning, in general, of the city corporations and pourashavas from land, housing properties and infrastructure are very low not only from the newly defined urban fringe but also from the core areas of cities (Siddiqui, 2002). Thus it poses question about their self-sufficiency and autonomous nature. Partly the reason is land value, house rent and so on in the urban land market have been increasing substantially due to the interplay between scarce supply of land and higher demand of it. But the true value of these taxable items has not been documented or upgraded with the passage of time. Therefore, these local govt. bodies continuously have been loosing income from these taxable items. It is becoming a regular phenomenon that these public agencies have to depend on the block grant and assistance from the central govt. or external sources in order to adjust their yearly deficit budgets. It is worth noting that if these so called autonomous bodies remain dependent on the central govt. or on external sources, then the cost incurred on the area expansion and construction of housing, utilities and service facilities etc., will be somewhat unbearable by the central govt. at some point of time in a near future (Williams, 2004).

The extent of control over the actual development of city corporations and development authorities is limited and their financial and institutional strengths are weak. The socio-economic characteristics of the inhabitants in Dhaka are diverse and dynamic. There has been a dilemma about which type of urban planning strategy was appropriate for the highly urbanized Dhaka- either more intensification of development which leads to a compact city development or simply urban spatial growth.

Poverty and urban growth

The dimension of urban poverty presents a major challenge for the govt. The urban population growth rate- well above the national population growth rate of 2.5% per annum- placing serious pressure on urban land, utilities, services and shelter (LGED, 1996). Most of the urban population growth is taking place in the larger cities which have become the main locations of extensive poverty. Most of the migrants are poor and hence the urban areas remain numerically dominated by the poor. The migrants have originated largely from the economically depressed areas of the country (National policy forum, 2001). Rural push (landlessness, unemployment and vulnerability to natural hazards) and urban pull (employment opportunities) factors continue to encourage the migration of the rural poor to Dhaka city despite declining standards of urban infrastructure and services. The problem is particularly acute in Dhaka city where it is estimated that around 48% of the total population live below the poverty line with 32% below the hard core poverty line (Fukuoka conference, 2000). According to some newspaper reports in 2005 around 6 million people live below the poverty line in Dhaka city which is 50% of the total population.

Slum settlements

Most of the poorest population in the city lives in more than 3,007 densely populated slum and squatter settlements in substandard physical and social conditions. Access to safe water is extremely limited and some 55% of Dhaka's poor have no access to sanitary latrines- relying on open latrines and defecation in fields, ditches, rivers or bucket latrines. Health conditions in urban slum settlements are acute with an estimated 30% to 46% of the population ill at any given time (LGED, 1996). Low literacy rate and lack of skills aggravate the poor conditions. Security is precarious, with threats of evictions from

land owners or from anyone who having control over the slum, and violence is endemic. Women, especially single mothers, are disadvantaged by their low educational levels, lack of skills, low incomes and threat of violence. Children, the aged and disabled are especially vulnerable to the poor living conditions in the slums. Only 3% of Dhaka's urban poor own their own plot of land and nearly 90% live in single rooms (ibid.) in very poor quality shelter for which many pay very high rents. The average per capita living space for the urban poor of Dhaka city is only 2.8 sq. meters. There is an urgent need for low income housing in Dhaka- totaling approximately around 146,000 units each year (ibid.).

Urban planning

In matter of control and supervision of the formalized plans prepared by the concerned local govt., such as city corporations, and development authorities the situation is often quite different. Most major cities do have some degree of municipal planning, with formally agreed plans and strategies for economic and population growth, transport, land use and so on. However, the extent of control over the actual development varies considerably. In Dhaka the amount of informal development exceeds that of regulated development despite the existence of planning documents (Williams, 2004). Since when Dhaka obtained of a city status, two master plan projects have been undertaken and implemented for greater Dhaka region adopting a conventional and rigid master planning approach with a land use plan for a 20 year period. These planned efforts never produced any distinctive change in the urban life and could not give a comprehensive solution for conventional urban problems like housing/shelter, transportation and so on. The causes of failure, in terms of stated goals and objectives, of these planned efforts can be explained as a resultant of the following factors,

- i. Imbalanced land ownership pattern and land speculation in urban Dhaka
- ii. Lack of understanding of the people's mobility behaviour and socio-economic context
- iii. Emphasis on plan making not on implementation
- iv. Wishful understanding about the resources like manpower, money, coordination among the govt. agencies etc. required for plan implementation etc.

During the last decade, because of the failure of previous plans and in response to the rapid rate of urbanization and with a high ambition of managing urban growth, a spatial approach to growth i.e., strategic planning approach has been considered and adopted as one of the most context specific and flexible planning schemes for socio-economic and physical planning. Hence, based on this approach a number of elephantine planning and development projects were undertaken in 4 major metropolitan cities such as Dhaka, Chittagong, Khulna and Rajshahi. RAJUK have been the responsible public agency for the preparation and implementation of Dhaka Metropolitan Development Plan (DMDP) for Dhaka metropolitan area (DMA) for the period of 1995-2015. It comprises the following tiers-

i. Structure Plan (SP) (1995–2015) is a long term strategy for 20 years for the development of the metropolitan Dhaka sub-region. The plan identified the order of magnitude and direction of anticipated urban growth, and formulated a broad set of policies to achieve the overall plan objectives.

ii. Urban Area Plan (UAP) (1995–2005) is an interim mid-term strategy for 10 years for the development of urban areas within RAJUK's administrative area.

iii. Detail Area Plan (DAP) is more detailed planning proposals for specific sub-areas of Dhaka which is an ongoing project. The selected sub-areas were those with a high priority because of urgent problems, or in a process of rapid change.

The SP provided a long-term strategy with broad brush policies for developing Dhaka's metro area which has been divided into 26 strategic planning zones (SPZs) with a target population of 15 millions. The UAP provided an interim mid-term strategy for the ten years to 2005, for developing urban areas within RAJUK's boundaries. The DAP provided more detailed planning proposals for specific sub-areas of Dhaka, while so far RAJUK has prepared only one DAP and twenty five are under preparation. This study is an analysis of the implementation aspects of three tiers DMDP by looking into the housing provision for the urban poor in Dhaka. More specifically, this is an analytical and contextual investigation of the policy options, mid-term strategies and physical planning and development on the ground, for housing the urban poor. DMDP is a multi sector oriented plan which demands a strong coordination with other agencies in public and private spheres. Therefore, the role of different actors has been analyzed in their socio-

political context. Political decisions and thereby politicians play an important role in decision making of physical planning process as many of them are official part in some public agencies. Thus politicians are important actors in planning practice.

In the ongoing projects of DAP, an imbalance is noticed between socio-economic transformations and the way DAP have been implemented. It requires a more in-depth inquiry about the scale of involvement of the actors in different aspects of planning, development and decision making process. Both the visible and invisible role of actors are addressed and analyzed critically in order to apprehend the reasons behind slow or inadequate response to the rapid socio-economic characteristics of housing the urban poor. The concerned development authority has not enough institutional strength or capacity to exert control over the practice and regulations that are shared in DMDP. In addition, there are institutional complexities where overlapping duties and responsibilities between different governmental agencies play a role. It has been argued that

the present institutional framework and capacities of institutions of urban sector are major constraints to urban development (Mohit, 92).

In analyzing the housing scenario of the urban poor a light is also projected on the overlapping interface of responsibilities between the public agencies.

1.1.2 Research Questions

The urban poor are the integrated part and parcel of urban life. Nevertheless, they are usually ignored and their voices are not taken into consideration when development plans, big or small, are in the process of formulation and implementation. The present study is based on the facts that there is still a big gap between what is outlined in the documents and the practices in the reality. The present scenario and practice of socioeconomic and physical planning especially in case of housing development seems to be reinforcing the obvious physical and social segregation between the urban poor and other income classes of the society. This study is an endeavour to find out the differences in the process of planning and implementation in providing housing facilities, for the urban poor, as stated in DMDP and the situation on the ground. In so doing I needed to identify

and analyze the individual roles and responsibilities of the identified actors involved, directly or indirectly, in different spheres of decision making and implementation process of housing. Presumably, the actors include land developers, the intervening public agencies like RAJUK, DCC, National Housing Authority (NHA), Dhaka Water Supply Authority (DWASA), Dhaka Electricity Supply Authority (DESA); and the politicians. The specific research questions that are the central focuses for this study are as follows,

- 1. Higher level officials like chairman, members etc. are employed through indirect political process to the organigram² of RAJUK. How do the politicians (by their decisions) influence the housing development process for the urban poor in Dhaka city?
- 2. What are the relations between the actors involved in decision-making processes of housing the urban poor as underscored in DMDP?
- 3. How far recommendations regarding housing scheme for the urban poor is practical in terms of urban land speculation, land value, public transport system, mobility behaviour of the slum dwellers and so on.
- 4. What is the role of the plan when it is not being efficient- is it just rhetoric to show the donors that they are very much up to date to prepare sound plans and through this process they try to ensure further development assistance from the donors?

1.1.3 Objectives of the Study

General objective of the study

To find out the difference between planning and implementation process as outlined in DMDP and the reality on the ground based on the role played by and relations between actors in housing development for the slum settlers of Dhaka city.

² Hierarchical distribution of the officials employed in an organization

Specific Objectives

- 1. To identify the responsibilities and roles played by different actors involved in housing development process for the urban poor in the urban fringe of Dhaka as outlined in DMDP.
- 2. To analyze the process and relations among different actors involved in decision-making of housing the urban poor in Dhaka.
- 3. To analyze the recommendations of housing the urban poor in DMDP in the light of real (e.g., urban land, mass transport, mobility pattern of the urban poor etc.) context.
- 4. To assess the value of role of planning in the light of its achievement for housing the poor.

1.1.4 Structure of the Thesis

This study is consisting of three parts e.g., Part I, Part II and Part III. Part I: the first section of the first part deals with background and introduction to the research problems, research questions, objectives of the study, organization of the thesis. Phase two of this part sheds light on the theoretical perspective and analytical framework of the investigation. This phase is aimed to apprehend the internal agency of the slum dwellers and their invisible social networks, traditional praxis related to housing as well as to describe the controversies and implications of urban growth and the need for housing in response to the increased urbanization. The third phase of this part is focusing on the research methods employed to this study in order to have relevant data and information to provide a healthy basis for analysis aimed to avoid any biasness in drawing inference. This phase includes the type of methods used for analysis, the sampling technique, the rationale for case study method, the sources of data used and major challenges and limitations of the study. Part II: The first phase of this part is concerned with a profile about Dhaka city and the study area to provide a sound basis of information pertaining to contextual setting, socio-economic conditions, housing scenarios and major challenges related to the development associated to this area. The phase two of this part describes about the urban land speculation, urban public transport system and DMDP in the light of housing the urban poor. The third phase is a discussion about urban housing and organizational efforts by the public agencies which relate to issues like the urban poor and the traditional housing practice, community based organizations (CBO) as agency and political clientelism, mobility pattern of the slum dwellers, past efforts for housing the urban poor and actors' play and coordination among them. The fourth phase ascribes a range of issues related to politics and governance. Specifically this segment discusses the organigram of RAJUK and the process of politicization, the interface of interrelations between employees in the public agencies and politicians, urban governance and corruption and finally donor's assistance in the development projects. *Part III:* At the end, third part is a summary of main findings which helps drawing a conclusion for the investigation. Like other research this portion also emphasizes on the implications for future research by analyzing the contribution of this study to the existing luggage of knowledge.

1.2 THEORETICAL PERSPECTIVE

Theories considered as relevant for this study are the scope of this present chapter. The broad based understanding and conceptual/analytical framework of this study is based on the essence of following theories and concepts,

1. Structuration theory 2. Actors oriented approach and 3. Controversies about urban growth

1.2.1 Structuration Theory

The concepts of structure and agency have been applied in the explanation of environmental aspects, social issues, urban phenomena and societal changes in the practice of geography. Until recently, either structure or agents are seen as more influential in creating a particular phenomenon; this has created a lot of conflicts among social scientists.

If we look at the different paradigms of geography, we can see that the concepts of structure and agency have been used to explain the dynamics of a society and social change. Until the late 1970s, no attempts were made to combine both the role of structure and agents in the production of a particular phenomenon or in analyzing social change. But there was a thrust among scholars in the search for a more flexible and less deterministic conception of structure and agency to explain a social phenomenon. Booth (1994) mentioned that a great deal of efforts have been taken to focus on the structural with actor oriented analysis to view the development process. Positivist approaches tried to explain social phenomena through natural laws. They paid little attention to the role of human agency and social structures. Humanist approaches take the individual as the focus of their analysis. On the other hand, structuralists viewed the social world giving emphasis to the concept of structure being in control over or limiting the actions of individuals. Giddens wanted to overcome these divisions by proposing his Structuration theory in 1984, as a 'middle ground' theory which filled the age-old gap between structure and agent in the production of social phenomena. He gives equal importance to both concepts. In this theory, social structures and human agencies are combined to show that structures are not alone for action. This theory provides a tool to see how individual

decisions or reasoning are made or influenced either by the individuals themselves or the prevailing structures in a society. In this way, it helps to establish an analytical framework from which to view social phenomena.

Human agency, Structure and System

Long (1992) says the notion of agency attributes to the individual actor the capacity to process social experience and to devise ways of coping with life, even under the most extreme forms of coercion. Within the limits of information, uncertainty and other existing constraints (e.g. physical, normative or politico-economic), social actors are 'knowledgeable' and 'capable'. They attempt to solve problems, learn how to intervene in the flow of social events around them, and to monitor continuously their own actions, observing how others react to their behaviour and taking note of various contingent circumstances (Giddens, 1984, pp. 1-16). Giddens's theory of structuration notes that social life is more than random individual acts, but is not only determined by social forces. To put it in another way, it is in one hand not merely a mass of micro level activities, on the other hand nobody can not study it by only looking for micro level explanations. Giddens suggests instead that human agency and social structure are in a relationship with each other and that it is the repetition of acts of individual agents which reproduces the structure. This means that there is a social structure- traditions, institutions, moral codes and established ways of doing things; but it also means that these can be changed when people start to ignore them, replace them, or reproduce them differently. For Giddens, human agency and social structure are not two separate concepts or constructs, but are two ways of considering social action. There is a duality of structures so that on one side the structure is composed of situated actors who undertake social actions and interaction, and their knowledgeable activities in various situations. At the same time, the structure is also the rules, resources and social relationships that are produced and reproduced in social interaction. Structuration means studying the ways in which social systems are produced and reproduced in social interaction. Giddens defines structuration as "the structuring of social relations across time and space, in virtue of the duality of structure" (Giddens, 1984, p. 376). Different theorists have used the concept of structure differently, some have considered political institutions and organizations as structures while some others have considered the social structures alone as structures (Sztompka, 1994). Giddens defines structures as certain kinds of *rules* and *resources* that enable people to do things (Giddens, 1984). The rules which Giddens defines are not like normal rules. Cloke (1991) points out that the resources Giddens refers to is the power invested in authority and property to enable and constrain certain social interaction through the exercise of control over the people and material resources. Giddens defines resources as *allocative* and *authoritative* resources. He accepts that "resources are the media through which power in exercised".

In this study, the slum inhabitants, mostly from the rural areas, have their own human agency which may be characterized as their knowledge, skills to be employed mostly in informal business activities (which are semi-skilled in nature) and capability of doing things for their sustenance within the constraints of resources and imbalanced power structure. Here structure is the established ways of doing things within the feudal power structure or patron-client relationship.

It is postulated that in the shanty towns rural migrants learn skills to make an urban living (Huque, 1982). These slum dwellers have their own social structure, traditions, institutions and established ways of doing things. Here the concept of structure means the rules and scarce resources positioned within the institutions. This slum settlement is controlled by some powerful local elites who have strong relations with the politicians or by politicians themselves. The social structure in this regard can be explained in this manner: the occupier (who takes the control on this slum settlement) appoints some musclemen (intermediaries) who are in charge of collecting monthly rents from the slum dwellers. In order for tenure security for a shorter period of time, the dwellers pay the monthly rent at regular basis. Within this feudal power structure, the slum inhabitants negotiate with the intermediaries for living in this slum. The slum settlers have voting right within the city territory and this is why very often they are used (sometime forcefully) by these intermediaries to participate in political activities like the electoral procession and so on during the time of national and local govt. elections. Over the years all these activities have become the norms and established ways of living within the social institutions of slum areas and these have become an accepted part of their livelihoods. The duality of structure here is the situated actors (slum dwellers) who

voluntarily undertake knowledgeable activities (like taking part in political activities etc.) in various situations for temporary tenure security. At the same time for temporary tenure security there exist some established rules (coercion), norms which are produced and reproduced within the social and political interactions and systems in the slum area (as shown in figure 1.2.1).

Giddens emphasizes space- proximity or distance and how these are mediated by technology, social structure and time – continuity and discontinuity and the organization of the activities across time. Giddens also notes how practices are enduring, and how they are reproduced. In matter of time and space, though the slum inhabitants live in urban areas they do have strong linkage/connection with their families and relatives in the rural areas as they help their families by sending money and also by providing information about the jobs (field survey, 2005).

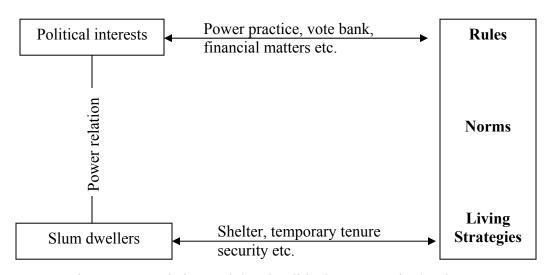


Figure 1.2.1 Existing social and political structures in the slum area

A time-space relationship has been existing within the structure of social institutions between the slum dwellers and their relatives living in the village. As a result, social action and reaction as "tacitly enacted practices" become "institutions or routines" and "reproduce familiar forms of social life" (Giddens, 1984, p. 131). Giddens makes this point as follows,

'The basic domain of study of the social sciences, according to the theory of structuration, is neither the experience of the individual actor, nor the existence of any form of social totality, but social practices ordered across space and time.

Human social activities, like some self-reproducing items in nature, are recursive. That is to say, they are not brought into being by social actors but continually recreated by them via the very means whereby they express themselves as *actors*. In and through their activities agents reproduce the conditions that make these activities possible' (Giddens, 1984, p.2)

This argument provides Giddens with a means of integrating human social action within the larger systems, structures, and institutions of which we are a part. It is the continual repetition of social actions and interactions in fairly regular and habitual forms that constitute what may appear to be the larger social forms. Structure is not outside social action, but exists only because of social action. So, Giddens approach to social action is that of praxis, regular pattern of enacted conduct by active actors who interact with each other in situations in habitual, reflexive, reflective, and more conscious ways.

According to Giddens, systems are "patterns of relations in groupings of all kinds, from small, intimate groups, to social networks, to large organizations" (Giddens, 1984, p.131). That is, it is the pattern of enacted conduct, the repeated forms of social action and interaction, or the "enduring cycles of reproduced relations" (Giddens, 1984, p.131) that form social systems. In the slum area the systems may be described as, people from different origins, different parts of rural areas, form small community based organizations (CBOs) for their welfare. For instance, in the study area they have a small cooperative society where individuals deposit their savings at a regular basis and invest the collective amount of money to small scale business like purchasing rickshaws and so on. On daily basis these societies rent the rickshaws to people living in this slum community. At the end of a certain period like a month or a year members of such cooperative society share the benefits. A complementary question may be asked what kind of change does this cooperative society bring to the livelihood of the people. Apparently it could be said that the changes are very little to bring a large scale improvement in their livelihoods. Even though such tiny changes have nothing to do with the tenure security, housing etc., obviously this little change can be explained in terms of generating employments and income to survive within the feudal social and political structure. The slum dwellers have accepted their lives under feudalistic structure where they can use limited part of their agency only to make a small change through generating income.

The slum inhabitants maintain a good relation in matter of information dissemination regarding employment opportunities and so on, not only among themselves but also with people living in other slum/squatter settlements. Thus they form an *invisible social network*. In any case, it is the pattern of relationships and repeated forms of interaction themselves that form the systems for Giddens. For him structure is somewhat more specific and detailed and refers to practices which are structured along certain lines. These are:

Procedural rules- how the practice is performed.

Moral rules- appropriate forms of enactment of social action. Laws, what is permissible and what is not. Not ultimate values, but appropriate ways of carrying out social action and interaction.

Material resources- allocation of resources among activities and members of society. Means of production, commodities, income, consumer and capital goods.

As far as procedural rules are concerned, in this slum area it becomes the rules that the settlers have to participate in different political activities in different time. This is in order to ensure and to secure temporary tenure. So the permissible act under the moral rule is monthly payment of house rent to the musclemen and thus it becomes the appropriate way of carrying out social action and interaction.

The value of Giddens's systems and structures is to provide a means of bridging the structure-agency gap, focusing on systems and structures as patterns of enacted conduct. That is, praxis does not exist apart from structure, and structure is enduring patterns of action guided by rules and resources.

1.2.2 Actors Oriented Approach: The central importance of agency, knowledge and power

During the 1970s the structuralist paradigm dominated geography inquiry. Ley (1980) says "Marxian analysis in Geography has maintained a model of mechanism in which the actors themselves have to say: they become puppets who dutifully act out the roles prepared for them by theorists". The structural approach didn't consider human values, concepts, perception and culture. Later it was understood how important human agency is in explaining a social phenomenon. With the change of focus in development discussion,

a need for an actor oriented approach was felt and it was reflected in the development thinking (Fazeeha, 1999). Long (1992) in his actor oriented paradigm says "A more dynamic approach to the understanding of social change is therefore needed which stresses the interplay and mutual determination of 'internal' and 'external' factors and relationships, and which recognises the central role played by the human action and consciousness". From this view, we can understand how important human actions are in understanding a change. However, in understanding a particular social phenomenon, it is necessary to view both the role of structures and actors (in terms of agency). In this way, structuration theory functions as a middle ground theory which emphasizes the role of both structure and actors (Fazeeha, 1999). Long (1992) notes that it is important also to emphasize that 'agency' must not simply be equated with decision-making capacities. Effective agency requires organizing capacities; it is not only the result of possessing certain persuasive powers or forms of charisma. The ability to influence others or to pass on a command rests fundamentally on 'the actions of a chain of agents each of whom "translates" it in accordance with his and her own projects...and power is composed here and now by enrolling many actors in a given political and social scheme (Long, 1992, p. 23). In other words, agency and power depend crucially upon the emergence of a network of actors who become partially, though hardly ever completely, enrolled in the project of some other person or persons. Effective agency then requires the strategic generation of a network of social relations and the channelling of specific items through certain 'nodal points' of interaction (Long, 1992, pp. 23-24). In the context of this study, apart individual connection, the nodal point of interaction is also small CBO (e.g., cooperative society etc.).

1.2.3 Controversies about Urban Growth

It is well known and documented that the ongoing urbanization process presents both challenges and opportunities. However, there is a disagreement among researchers on urban issues about whether this rapid spatial and demographic growth and change could lead to sustainable economic and social development. The rapid and complex nature of urban growth, which exceeds the capacity of national and local governments to plan and organize this transformation, is one of the major factors that contributed to the negative

attitudes on urbanization. Devas and Rakodi (1993) pointed out the anti-urbanists arguments are to a larger extent based on the distorted nature of the urbanization process that results in:

'Serious problems of urban unemployment, under-employment, the emergence of large low income informal sector, highly unequal patterns of income and wealth, with public resources being wasted on providing high standard of facilities for the urban elite, serious problems of congestion, pollution and environmental degradation in the cities, the loss of cultural and spiritual values and tradition within the urban melting-pot, and the ever present threat of civil disorder from a discounted urban population'.

Undoubtedly, most of the cities in developing countries have been facing these serious challenges. But the controversy becomes more apparent when one considers what kind of policies and interventions should be applied and how it should be implemented. To cope with the challenges posed by urbanization, governments, international as well as national agencies and institutions have developed, adopted and implemented varying policies, strategies, programs, methods and approaches. One of the first and earliest responses to urbanization was to attempt to control urban growth by supporting rural development initiatives. Many development professionals and most governments have taken the view that the economic pull factors of cities were the primary causes for urban migration. Accordingly, policies have been directed to slow down the growth of big cities by stimulating rural development and reach more balanced regional growth. Some interrelated questions could be asked concerning policies to slow down urban growth.

Another question is whether it is possible to divert the population growth to other smaller or intermediate cities. According to Hall (1987), 'whatever can be done to divert growth to other cities and regions, the rate and, above all, the absolute size of the increment in large cities will continue to be very great'. Adequate political interventions, administrative policy options and their implementations are required in order to divert the increasing population.

A second question is whether the desire for a higher income is the prime motivation for migration? If so, it is a paradox to observe in many parts of the world that people continue to migrate to cities where exists widespread unemployment and poverty?

A third question is whether natural disasters are one of the most influencing factors that are causing rapid rural-urban migration. Bangladesh is a flood prone country with seasonal occurrences of storms like cyclone, tornado etc. During the rainy season flood mostly hit the low lying areas of the country. People in the rural areas are severely affected by such kind of natural calamities. Experiences have shown that despite many efforts to mitigate natural disasters, migration to the cities continues unabated. This may generate question about the insufficient interventions by the government for mitigating natural hazards.

The above mentioned questions imply that there has been a serious gap and lack in understanding the causes of urbanization- whether they have been push or pull factors or combination of both or what else, the relationship between the growth of cities and economies of scale, the great diversity of problems and the capabilities to solve them.

Implications of urban growth

Although cities are culturally rich, politically dynamic, immensely productive, creative and innovative, they are also considered breeding grounds for poverty, violence, pollution and congestion. The rapid rate of urbanization in most developing countries has not been accompanied by the provision of basic urban services. Because of this failure and due to complex process of urbanization associated with lack of means, both in financial and institutional terms, urbanization has put tremendous stress on the existing urban services. This stress could be caused by the increase in density, congestion of the city as well as increasing intensity in the utilization of existing urban services and infrastructures (Gossaye, 2001). Over the years city governments, planners and managers have made attempts to meet this challenge, but with few exceptions their efforts have proved generally inadequate. Increasing homelessness and the expansion of slum and squatter settlements, inadequate employment opportunities and infrastructure, increasing poverty and a widening gap between rich and poor, environmental degradation and pollution can be regarded as the implications of rapid urban growth. They all suggest the failure of most city authorities' efforts to bring the situation under control. One important argument that should be raised in this connection is many of the problems outlined above and their impacts on health, ecosystems and economic productivity result not only from the urbanization process itself or because most city government in developing countries have not the power, resources and trained staff to provide their rapidly growing population with land, shelter, services and facilities, but also from political factors (ibid.). Business minded politicians, their substantial influence in administrative decisions and corruption in the administration of the city government have aggravated the situation instead of solving the problems due to rapid urbanization.

1.2.4 Conceptual Framework

The conceptual framework, based on the above mentioned theories and conceptions, describes about how structure and actors interact in creating a distortion between external (theoretical options) and internal/local structure (realistic options). At the same time, it shows the mutual relationships among external structure, local structure and urbanization process. This relationship explains how far the external structure is capable enough to face the challenges posed by rapid urbanization and also demonstrates the scale of actual response at the local level in line with the urbanization process. This framework provides a synoptic view about the effect of urban growth, along with other factors, on the distortion between theoretical practices concerning housing and the reality on the ground. It is necessary to consider the importance of the structures in the society to see, through the power invested in the institutions, how they constrain or enable the actors in making choices. In this study, I have divided the structures in two parts i.e., one is external structures and the other is internal or local structures to assess the reality based upon the positions of two extreme corners, as shown in figure 1.2.2. By assessing these two structures, it is possible to delimit the extent of distortion between the policies, strategies and plans regarding shelter/housing for the urban poor and the real picture on the ground.

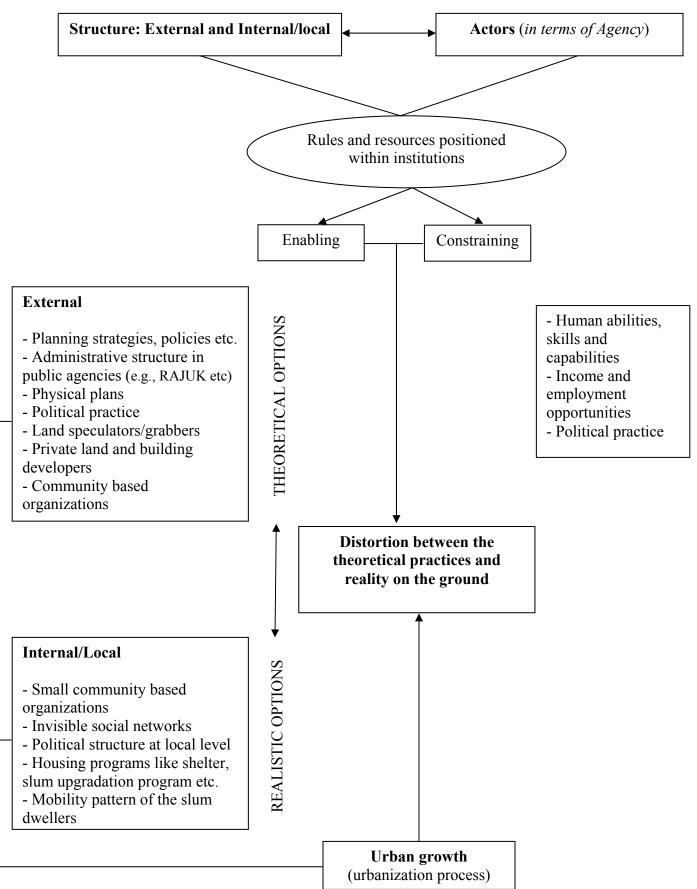


Figure 1.2.2 Conceptual framework of the study

1.3 RESEARCH METHODS

1.3.1 Introduction

Research methods have been defined as tools to be used for answering specific questions and for solving different scientific and practical problems (Siyoum, 2005). Yin (1994) has noted that there are several different ways of collecting and analyzing empirical evidence. Nevertheless he says, "this does not imply that the boundaries between the strategies- or the occasions when each is to be used- are always clear and sharp." Another interesting issue with respect to urban studies is the object of study: whether the emphasis should be on the social and cultural reality or the physical or material reality. According to Nevanlinna (1996), although in recent years it has been reduced to a great extent, there have been differences in points of view between disciplines oriented towards social or physical reality. Nevanlinna (1996) has also pointed out that cities stay alive as long as man fills them and makes use of them. They do not live in their own right, but through human beings, whose shelter and home they are. They change in the course of history and even die when they are destroyed by nature or man. Thus according to her, to understand a city, beyond the history inscribed in its monuments, is to recover the particular way of life of its inhabitants. Similarly, she argued that the traditional approach of social studies in which the built city has been perceived as a 'given' with little significance in the social sphere, denies the interdependence and interaction of social and spatial realities. At the same time in many parts of the world there is a wider recognition of interrelations of built structures with people lives (Gossaye, 2001). Precisely, in order to emphasize the management of city growth, higher priority has been given in plan making with the least thinking of and somewhere no virtual connection with the reality especially in the phase of implementation.

1.3.2 Qualitative and Quantitative Methods

Qualitative research uses a naturalistic approach that seeks to understand phenomena in their context-specific settings, such as "real world setting [where] the researcher does not attempt to manipulate the phenomenon of interest" (Patton, 2002, p. 39). Qualitative research, broadly defined, means "any kind of research that produces findings not arrived

at by means of statistical procedures or other means of quantification" (Strauss and Corbin, 1990, p. 17) and instead, the kind of research that produces findings arrived from real-world settings where the "phenomenon of interest unfold naturally" (Patton, 2002, p. 39). This method is concerned with how the world is viewed, constructed and experienced by social actors. It provides access to the motives, aspirations and power relationships, existing in a societal context, that account for how people, places and events are represented. These are flexible methods of data collection that can be made to suit any society and enable the researcher to thoroughly understand the context of the society (Mikkelsen, 1995). Unlike quantitative researchers who seek causal determination, prediction, and generalization of findings, qualitative researchers seek instead illumination, understanding, and extrapolation to similar situations (Hoepfl, 1997).

Qualitative analysis results in a different type of knowledge than does quantitative inquiry because one party argues from the underlying philosophical nature of each paradigm, enjoying detailed interviewing and the other focuses on the apparent compatibility of the research methods, "enjoying the rewards of both numbers and words" (Glesne & Peshkin, 1992). This means that such methods like interviews and observations are dominant in the naturalist (interpretive) paradigm and supplementary in the positive paradigm, where the use of survey serves in opposite order. Although it has been claimed (Winter, 2000) that quantitative researchers attempt to disassociate themselves as much as possible from the research process, qualitative researchers have come to embrace their involvement and role within the research. Patton (2002) supports the notion of researcher's involvement and immersion into the research by discussing that the real world is subject to change. However, both qualitative and quantitative researchers need to test and demonstrate that their studies are credible. While the credibility in quantitative research depends on instrument construction, in qualitative research, "the researcher is the instrument" (Patton, 2002, p. 14).

Researchers who use logical positivism or quantitative research employ experimental methods and quantitative measures to test hypothetical generalizations (Hoepfl, 1997), and they also emphasize the measurement and analysis of causal relationships between

variables (Denzin and Lincoln, 1998). To illustrate the meaning of quantitative research for its use of explaining social problems, Bogdan and Biklen (1998) note:

Charts and graphs illustrate the results of the research, and commentators employ words such as 'variables', 'populations' and 'result' as part of their daily vocabulary...even if we do not always know just what all of the terms mean...[but] we know that this is part of the process of doing research. Research, then as it comes to be known publicly, is a synonym for quantitative research.

Quantitative research allows the researcher to familiarize him/herself with the problem or concept to be studied, and may generate hypotheses to be tested. In this paradigm: (1) the emphasis is on facts and causes of behavior (Bogdan & Biklen, 1998), (2) the information is in the form of numbers that can be quantified and summarized, (3) the mathematical process is the norm for analyzing the numeric data and (4) the final result is expressed in statistical terminologies (Charles, 1995).

Generally, quantitative research "...supported by the positivist or scientific paradigm, leads us to regard the world as made up of observable, measurable facts" (Glesne & Peshkin, 1992) though their assumption that "social facts have an objective reality" and "variables can...be identified and relationships measured" is problematic. The notion of 'measuring' means to understand, for example, educational issues by performing an operation called 'measurement' on the physical world by the observer (Crocker & Algina, 1986). However, one may perceive measurement as necessarily objective, quantitative and statistically relevant.

A quantitative researcher attempts to fragment and delimit phenomena into measurable or common categories that can be applied to all of the subjects or wider and similar situations (Winter, 2000). In his/her attempts, the researcher's methods involve the "use of standardized measures so that the varying perspectives and experiences of people can fit into a limited number of predetermined response categories to which numbers are assigned" (Patton, 2002). For example, a quantitative researcher may prepare a list of behaviors to be checked or rated by an observer using a predetermined schedule or numbers (scales) as an instrument in his/her method of research. Thus, a quantitative researcher needs to construct an instrument to be administered in standardized manner

according to predetermined procedures. But the question is if the measuring instrument measures what it is supposed to measure. In the broadest sense, devising a test (Crocker & Algina, 1986) or the validity of an instrument is on focus. The significance of this test is to ensure replicability or repeatability of the result.

In social science research there is ample evidence of the use of either quantitative, qualitative or both research methods. Depending upon the strengths and weaknesses of these methods a controversy arose over the justification of using qualitative, quantitative or both methods in social science research in general. This controversy is centered on the scientific traditions with which the two methods are associated. Different methods have particular areas of strength and hence collect different forms of pragmatic material. It is the substance of the question to be answered that must guide the selection of methods not vice versa. Therefore, the appropriate methods in a research will depend on the objectives, the research questions set and on the nature of study within a specific context. Both these methods have different contributing power to generate data/information and are regarded as complementary, not competing knowledge of generating scientific knowledge (Siyoum, 2005). Hence, the choice of method depends on which method is more likely to provide a more comprehensive, clearer, complete description of reality to answer the research questions we are stating³. The main difference between qualitative and quantitative forms of knowledge is that qualitative research technique is concerned with "understanding human behavior" from the perspective of the particular people involved, while quantitative research technique is mainly interested in "discovering facts about social phenomena" (Furze et al., 1996). On the other hand, qualitative methods are more often appropriate for capturing the social and institutional context of people's lives than quantitative methods. Denzin (1998) describes that qualitative method is useful when one looks into a problem deeply and quantitative method is useful when one wants to look into the problem widely.

In this study I have used a composition of both qualitative and quantitative methods though major emphasis has been given to the qualitative methods during data collection and analysis. I used semi structured questionnaire for the slum dwellers. According to my

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³ http://www.essaybank.co.uk/free_coursework/543.html quoted in Siyoum, 2005

objectives I wanted to know about the nature of involvement of slum dwellers in political activities, about their social network, the level of engagement in slum based CBO (cooperative society), their mobility pattern, house rent, monthly income, opinions regarding the level of participation in DMDP and so on. That is why I used both quantitative and qualitative parts in the questionnaire. While interpreting and analyzing the questionnaires, descriptive statistics have also been used partially due to overcome limitations of qualitative method of analysis and partly due to describe properly some important aspects of the study. For instance, information like mobility behaviour of the slum dwellers, their locational choice and determinants, household information etc. were properly described with descriptive statistics. On the other hand, I used 'interview guides' for the professionals of different public and private agencies which are directly or indirectly involved in the housing process. In this study these agencies have been defined as actors. The expected answers to the questions in those interview guides were qualitative like explanations, opinions and perceptions of different aspects related to housing affairs in DMDP. Thus through face to face interview process views, thoughts, opinions of the professionals from these agencies were taken and their role in the housing provision, planning process etc. was understood to perceive the theoretical practice and reality.

1.3.3 Case Study Approach

This study is concerned with the provision of housing for the urban poor according to DMDP, the role of the actors in the formulation and implementation phase, the difference and its causes between recommendations in DMDP and reality. To achieve the targeted goals and objectives the case study method was adopted taking 'Duaripara' slum area as a case. In comparing case studies with other research strategies Yin (1994), one of the proponents of the case study method, mentioned that

'the case study is but one of several ways of doing social science research. Other ways include experiments, surveys, histories, and the analysis of archival information. Each strategy has peculiar advantages and disadvantages, depending upon (i) the type of research question, (ii) the control an investigator has over

actual behavioural events, and (iii) the focus on contemporary as opposed to historical phenomenon.'

In his answer to the question when and why a researcher should select the case study strategy, Yin (1994) continues,

'in general, case studies are the preferred strategy when 'how' or 'why' questions are being posed, when the investigator has little control over events, and when the focus is on contemporary phenomenon within some real-life context.'

Another quality of the case study method is that it provides opportunity for the investigation to apply a range of data collection techniques and use evidence from multiple sources (figure 1.3.1)

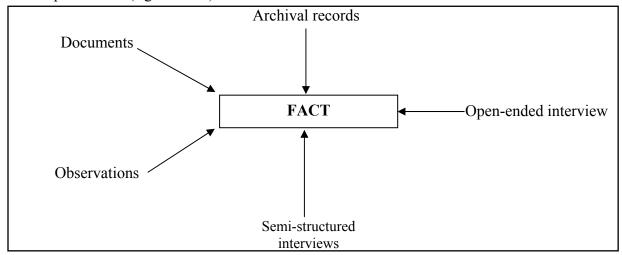


Figure 1.3.1. Convergence of multiple sources of evidence

Source: Modified from Gossaye, 2001

Although the case study method has many qualities and advantages in conducting empirical study, it has also some limitations. It seems that the main criticism of the case study method is related to the question of how to make a generalization from a single case. In answering this question, Yin drew an analogy between scientific experiment and case study method and argued that in both cases the investigator's goal is to expand and generalize theories (Yin, 1994). According to Yin (1994), quoted in Gossaye (2001),

'In fact, scientific facts are rarely based on single experiments; they are usually based on a multiple set of experiments, which have replicated the same phenomenon under different conditions. The same approach can be used with multiple case studies......the short answer is that case studies, like experiments,

are generalizable to theoretical positions and are not to populations or universe. In this sense, the case study, like the experiment, doesn't represent a sample, and the investigator's goal is to expand and generalize theories (analytical generalization)'.

It has been mentioned elsewhere that the main purpose of the investigation of this study is to make a better understanding about the housing process for the urban poor and the involvement of actors in different facets of that process and therefore how reality is being distorted from the plans/recommendations and to make a contribution to our existing knowledge bank. It is obvious that a better understanding and contribution of knowledge regarding this phenomenon involves conflicting political interests which demands in depth inquiry. Thus I think such a complex and interrelated phenomenon can be understood and described through this case study approach. On the other hand, this approach gives me an opportunity to verify the differences between two worlds of documents and realities and underlying causes.

1.3.4 Sampling Technique

Sampling is the scientific way of drawing inference about a population without being studying the entire population under study. Considering the resources available like manpower, money etc., time and so forth for some studies sampling is understood as one of the best practices to collect information. In order to reduce costs, sampling rather than complete enumeration for census is often used in statistical surveys. Depending upon the nature of the population being studied and the socio economic context, a careful design of the sample size and right selection of sampling technique is important in order to have representative and generalized information required for the study. In fact, the selection of a sampling method depends on a number of aspects, such as study design, population characteristics, availability of sampling frames, data collection method and costs. A properly designed sample survey will provide the users with accurate parameter estimates for the variables to be studied.

Considering the resources and time I had for conducting the field work and the nature (e.g., homogeneity/heterogeneity) of the population, an appropriate sample size was taken, for conducting a semi structured questionnaire survey, which best describes the

population under this study. As some of the most important purposes of conducting questionnaire survey are to learn the mobility behaviour of the slum dwellers, factors that are affecting locational choice for shelter, existing internal agency in their societal system and so forth, the household was taken as the main unit of sampling. According to the main bread winner of each household, three different types of households were identified namely, 'male headed', 'female headed' and 'composite household'. In composite household members from the same family or close relatives or kins or persons from the same origins live together and share their daily necessities and expenditures. In such type of household usually a senior member take the responsibility of taking care but each member share more or less equal amount of money for daily expenditures. Given the nature of the households, non random judgmental sampling technique was chosen for conducting questionnaire survey. According to Babbie (2004),

'judgmental (or purposive) sampling is a type of non-probability sampling in which you select the units to be observed on the basis of your own judgement about which ones will be the most useful or representative......sometimes it is appropriate to select a sample on the basis of knowledge of a population, its elements, and the purpose of the study'.

Since I had the prior acquaintance about the study area and the nature of households, it helped me to choose the sampling technique and hence the sample size for this study. A total of 60 households were surveyed for 3 categories of households which were in proportion of their distribution. In most of the slum and squatter settlements of Dhaka city, male headed households are dominant followed by female headed and composite households. In this study, while selecting sample size weight is given in proportion to the frequency distribution of each type of household as is shown in table 1.3.1.

Table 1.3.1. Distribution of sample size according to the nature of household

Household	Sample size
Male headed household	30
Female headed household	21
Composite household	9
Total	60

Before going to the final survey, a semi structured questionnaire (administered by me) was prepared for pre-testing to effectively uncover any peculiar defects in the questionnaire. I conducted pre-testing of questionnaire on 5 households and after that some parts of the questions were adjusted in order to get right information from the respondents. For instance, initially I thought that the inhabitants of this slum had been living there for a long time. Accordingly I kept a wide range of answers for the duration of stay like 3-4 years, 4-5 years, 5-6 years etc. for this question. After conducting small pilot survey, I came to know that usually they don't live in this slum for a long span of time as I had thought. Afterwards I kept the answer open. There are some distinctive advantages of semi structured questionnaire which gives flexibility to the respondents to skip to another question if he/she doesn't have interest or idea in a particular question. In a semi structured interview, it is permissible to stray from the subject area and ask supplementary questions⁴. During the survey some supplementary questions helped me to get more information about the study.

The particular time of conducting the questionnaire survey was very important in the sense that I had to look for the spare time of the respondents (household heads). Through out the weekdays (from Saturday to Thursday) head of the households usually didn't have spare time as they were busy and engaged in their own jobs. Even in weekly holiday i.e., Friday they were busy during the first half of the day. Friday afternoon and evening (roughly from 2 pm to 6 pm) were the only spare time slots of the household heads (field survey, 2005). Most of the inhabitants of this slum are Muslims and after taking *Jumma*⁵ prayer in Friday they take lunch along with other family members and take rest at home. Therefore, these were the only time slots when I conducted questionnaire survey. Thus each week I was able to conduct survey on 6-7 households as each survey took 30-35 minutes to accomplish. In total I had to spend 9 weeks to complete survey on 60 households.

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⁴ http://www.herts.ac.uk/natsci/Env/envman/CourseProject/prj3/prj39.html, accessed 12 May, 2005

⁵ Weekly biggest prayer for the Muslims

In the case of qualitative sampling, the basis of selecting public (RAJUK), private agencies (land developers and private consulting firms) and civil society organization for conducting interviews were as follows,

- i. Level of involvement of the private and public agencies in the housing process for the urban poor.
- ii. Scale of concern of the civil society organization- Centre for Urban Studies (CUS) in matter of shelter provision for the urban poor, environmental awareness and conservation and so on.

Selection of the study area

It is obvious enough, I think, that the major reason for selecting Dhaka as a case for this study is not only because it is the only megalopolis in Bangladesh to begin with such a large scale development plan for the entire RAJUK jurisdiction but also its experience represents the national government's response to the unprecedented rate of urbanization. The investigation is limited here on the role of actors, from both private and public agencies, in the housing process for the urban poor. DMDP will result in relocation of thousands of households, who are now living in the slum areas in different parts of the city, to the fringe areas with a certain degree of tenure security. Therefore, adequate and thorough exposition of this plan, housing issue in particular, requires information on the slum areas where the majority of the urban poor are living.

Case study area

Like the inhabitants of other slums of Dhaka city the inhabitants of Duaripara slum are highly mobile in terms of moving from one place of residence to another and their mobility behaviour depends on the distance to the work places and travel cost (field survey, 2005). Some of the main reasons for the growth of this slum are nearness to the garment factories and availability of public land. This is a very old and comparatively bigger slum located in the north-western semi fringe (under Mirpur Thana) of Dhaka city. The existing socio-economic characteristics, business and political practice in this slum

area give a widened view about the extent of implementability of the policy options, physical plans etc. in DMDP.

1.3.5 Data Sources

Multiple sources of data have been used for the purpose of studying different dimensions of the research object. The study is, therefore, based on primary data generated from field surveys, interviews, observations, informal discussions and secondary data from official records, newspapers, previously conducted studies, book publications, maps/images, journal articles, reports and assorted other documents. It is worth noting that although the data sources vary in their role and relevance throughout the study, they complement each other (Gossaye, 2001).

Primary Data

The primary data collected through intensive field work gave me the socio-economic and demographic data, about housing conditions of slum dwellers as well as about their mobility, participation in the planning process, involvement in the political activities, internal agency and other relevant qualitative data used to exemplify the nature of survival and existing structure in the community as a response to internal politics.

Questionnaire Survey

A questionnaire is a data-gathering device that elicits from a respondent the answers or reactions to pre-arranged questions presented in a specific order. Questionnaires are flexible and adaptable to a variety of research designs, populations and purposes. Questionnaire surveys are a form of research whose quality depends on the frankness of the subjects' responses. They need to be designed and carried out carefully so that they provide a genuine reflection of the attitudes and beliefs of a group of people⁶. I adopted the judgmental sampling technique for the household survey and carried it out with the help of informant-cum-assistants. As proposed I did it to obtain an overall knowledge of the process and post scenario of DMDP and relocation of the slum dwellers in the urban

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⁶ http://ec.hku.hk/acadgrammar/report/repProc/sections/methods/two2-3.htm?question.htm, accessed 7 November 2005

fringe and partly to assess the implementability of the recommendations in UAP. When conducting these detailed investigations, a short introduction was given to each of the households about the background, importance and usefulness of the study. This was followed by completing the questionnaire, taking observation notes, and concluding the interview with a tour round the house and surrounding spaces with additional questions on what could be observed. In addition to the formal process of collecting data, using semi structured questionnaire, I had the opportunity to observe the community in an informal manner. I visited the study area frequently and interacted with the residents. Sometimes they were very eager to take photographs with me which gave me another opportunity to discuss with them in an informal manner.

Semi structured questionnaires include both open ended and close ended questions. Open ended questions enabled respondents to freely express their opinions and views without prejudices, and hence obtain adequate information in relation to the objectives set for this study. Meanwhile, the closed ended questions apart from reducing time consumption, made it easier for data analysis and processing factual information.

In-depth Interviews

The prime concern of conducting in-depth interviews, with the help of pre-set interview guides, was to identify the role (in context of planning, business and politics) of actors concerned (directly or indirectly) with the housing process for the urban poor. In the sphere of public agencies, as far as DMDP is concerned, the most responsible body is RAJUK (in constant cooperation and coordination with other govt. bodies like DCC, DWASA, DESA, NHA etc.). The tasks of DAP were allocated to 5 private consulting firms and they were given 2 years for the preparation of DAP. The private land developers are concerned but they are not directly involved in DMDP. According to the housing policy, 1999 (revised) the govt. will act as enabler in matter of housing process. In line with the housing policy it is explicit that the housing process is partially depending on the private land developers in constant cooperation by the govt. Hence it was very important to identify the existing roles played by these land developers in the real estate market. Apart these three spheres, there was a civil society based organization

called CUS which mostly conduct research work on urbanization, problems in slum and squatter settlements, institutional response etc. In total I have interviewed three town planners from RAJUK, one professional (like *urban planner-cum-GIS expert*) from each 5 consulting firms, one urban expert (in urban slum and urbanization) from CUS and two real estate officer from two private land developers (Basundhara Pvt. Housing Ltd. and Eastern Housing Ltd.). The selection process of these land developers relied upon their level of involvement in the land and housing development process on the real estate market. These two land developers are among the biggest real estate developers operating in Dhaka. However, the in-depth interviews have given me the opportunity to cross-check the information and to chalk out the roles of hidden actors to a large extent.

It is obvious that politicians have a good deal of engagement in different sectors including land and housing process. Thus it is worth noting that many of the most important but hidden and widely known actors are politicians. The role of the politicians and their influence in the phases of DMDP came out from the interviews of the respondents with these public and private bodies. Indeed an attempt was made to prepare the interview guides in such a way that could help figuring out their involvement and motives in the housing process (Appendix 1 *Interview guide*). For example, from some of the questions, as given below, from the interview guides for RAJUK and private developers respectively it was possible to cross-check the information and to have a synoptic view of political interests,

- 1. (a) Can you please tell me about the decision making process for re-housing the urban poor? Please describe in light of the official organigram and practice at RAJUK.
- 2. (a) From RAJUK side what do you think about the delay in implementing low cost housing scheme for the urban poor? Please explain in terms of financial, institutional, political and other aspects, what you think is relevant.

The DMDP team decides the locations for and to make plans for housing the urban poor. As chairman of RAJUK has substantial influence on this team, naturally it could be logically said that the ultimate decisions taken may be associated with political and

financial interests. From above the mentioned question 1 (a) it is possible to explain that there are some political interests in housing the urban poor. While answering question 2 (a) institutional (bureaucratic) and political aspects of RAJUK are found responsible for the delay in implementation. Land value always increases with the passage of time and naturally such delayed process shall be acted like a positive catalyst for increasing land value. Therefore, these questions could expose the relationship between the delays of implementation and associated financial and political interests.

In order to get the views and opinions of the experienced individuals who are directly engaged with DMDP and housing processes, town planners, architects, GIS experts, real estate experts and researchers (academicians) in universities were contacted and interviewed. The arrangement of the meetings was made through direct contact by telephone or personal visit to the respective persons. The time and schedules were decided according to their convenience. During the discussion, the interviewees were given the chance to answer as freely as possible. The average length of time spent for each interview was around 30-45 minutes per person. To make it a relaxed and comfortable discussion the answers were not recorded but short notes were taken on the spot and reports were written in a note book immediately after the end of each meeting. It is worthwhile to mention here that initially I had faced problems to get an appointment for interviews with the professionals from RAJUK and I had to wait for several days before obtaining an appointment. I think it would have been even more complex and difficult to get them interviewed without personal acquaintance.

Informant-cum-assistants' Interview

Informant interviews are meant to obtain special knowledge from selected respondents on matters related to the subject of study (Nichols, 2002 quoted in Siyoum, 2005). In this study I have rephrased the term informants as informant-cum-assistants because they also helped me as translators while conducting the questionnaire survey. For this study I used 2 informant-cum-assistants to help me. Like other investigators it is also a challenge for me to select the informants for the study as there is always a possibility that he/she may be a marginal member of the community and having or providing biased information. According to Babbie (2004),

'Usually you'll want to select informants somewhat typical of the groups you are studying. Otherwise, their observations and opinions may be misleading......informants' marginality may not only bias the view you get, but their marginality status also limit their access (and hence yours) to the different sectors of the community you wish to study'.

I selected two persons from the community as informant-cum-assistants. One was a male who have been working as a caretaker in this slum community and the other one was a female who have been working as a health worker. Both of them have been working for about 6 years and are employed by DCC. I think the challenge of selecting these informant-cum-assistants was easier and was overcome, to a greater extent, by the following reasons,

- 1. They were inhabitants of this slum community
- 2. People trusted them and respected them because in any crisis situation they had been always beside the slum dwellers to help them. For instance, few years ago some of the houses in this slum were destroyed by fire and at that time these two workers demonstrated along with the slum inhabitants to give them financial support from the city corporation. This phenomenon have been reflected in a voice of a female slum inhabitant,

'We had very little to survive when our houses were burnt. But they helped us a lot in that crisis and you can say like how we are now has a great deal of contribution of their honest efforts'

As the Informant-cum-assistants are a community resident they are in a position to know very well about the community. Theoretically, informants can be young or old, or from a variety of socio-economic levels or ethnic groups⁷. Selection of informant is very important because he/she should be someone who not only understands the situation, but also able to think about it. A good informant will be able to express thoughts, feelings, opinions, and his or her perspective on the topic⁸.

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⁷ http://www.aces.uiuc.edu/~PPA/pdf files/Informant1.PDF accessed 7 November 2005

⁸ http://www.aces.uiuc.edu/~PPA/pdf_files/Informant1.PDF accessed 7 November 2005

There were some occasions where the slum inhabitants showed some frustration and anger towards the fact of being interviewed. This is because many public and private bodies including DCC, Non Govt. Organizations (NGOs), research organizations etc. conduct survey on the slum dwellers on a number of issues. But at the end without having any effect the slum dwellers don't get any positive result or positive change for their livelihoods. During the survey a person showed his frustration by quoting,

"I know I may be wasting my time by giving you the information. I can guess that at the end studies like this will hardly bring a positive change in my life!"

However, as the caretaker and health worker were faithful to the slum dwellers, they had good acceptance to them. They gained such faith over the last 6 years by means of their honesty by performing their assigned responsibilities. It was a positive factor for me as the information I got from them was carrying a greater degree of reliability. It was mentioned earlier that while conducting questionnaire survey they assisted me to translate the questions to local dialect to make the respondents understood clearly and accordingly I recorded their answers.

In an informal environment and with some unstructured but related questions I conducted in depth interview with these informants by asking some questions from the questionnaire. They gave me important information like institutional and financial aspects for social and infrastructural service provisions in this community, social and power relations, ongoing political activities and their benefit, use or abuse of the slum dwellers as vote bank before the local election and so forth. This method of interviewing, characterized by flexibility and openness instead of standardization, provided a great deal of knowledge. The focus of the interviews that I carried out varies to a large extent depending on the type of experience individuals had.

Personal Observation

In addition to in-depth interviews and questionnaire survey, personal observations were conducted in order to supplement the data acquired by other methods. These observations had been conducted while administering questionnaires, interviews and generally used to understand and explain about the apparent social, environmental, cultural and economic situations among the people in the community. Moreover, a camera was used to keep a visual document of these situations in the study area. Personal observation is especially important as the researcher has a chance to observe things that the respondents might not think important for the study but which might be crucial aspects of the problem under study (Siyoum, 2005). Through observation, for instance, two distinct classes of house having marginal infrastructural facilities were found on the edges of this slum area. During my several visits to the study area one thing I noticed that there was a good social interaction among neighbours and even they helped each other in matter of crisis and shared daily needs. This small but significant solidarity among them can be recognized as one type of agency of the people.

Secondary Data

In order to triangulate the study and supplement the primary data collected by different methods, secondary sources of data have been consulted. Secondary type of data, published or unpublished, had been collected from various public and private offices that had direct contact with the issues at hand. The most dominant hub of secondary data related to DMDP (starting from structure plan to ongoing detail area plan), political practice, involvement of politicians in decision making phases etc. was RAJUK. Different demographic, socio-economic, housing etc. reports for the urban poor in DMDP jurisdiction were collected from the decadal census reports of Bangladesh Bureau of Statistics (BBS), from annual reports on slum dwellers by Local Govt. Engineering Department (LGED). There were no recent comprehensive studies on the slum/squatter settlements of Dhaka city except by LGED which was done in 1996. Though I have to rely on the data of that time, in most of the cases by analyzing the trend of the data I have drawn a recent picture of the situation by means of projection (extrapolation) and own judgement. Few reports about the status of ongoing DAP were collected from some of the private consulting firms, responsible for execution of DAP. Evidence of higher influence and involvement of the elite or politicians in land and housing development process was collected from the offices of daily newspapers, weekly magazines. In general, the necessary data for this study were collected from published and unpublished thesis, articles, research reports, internet web and other relevant reports.

1.3.6 Data Analysis

As mentioned above, this study has employed different methods and multiple data sources to identify the role of actors and to identify the relationship between politics, business and planning (e.g., housing the urban poor). This empirical data collection technique requires a kind of mixed data analysis approach. In doing the qualitative analysis based on the evidence from primary and secondary sources, I have made efforts to understand and correctly interpret the contents of the data. Whenever appropriate, relevant references to the sources are made and appropriate footnotes are given. While the observatory notes express my own view, other notes taken during interviews and conversations represent the views of the interviewees about the subject of discussion.

To make some simple statistical analyses such as frequencies, correlation and other summary of statistics, and produce statistical tables and graphs from the data generated from questionnaire survey, the SPSS software was used. Different GIS based mapping techniques and software, like Arc View 3.2, IDRISI, were used to produce the maps required for analysis and description.

1.3.7 Data Validity and Reliability

All full fledged research aim to be valid and reliable in terms of approaches taken for data collection, analysis and so forth and this one is no exception. Kirk and Miller (1986) cited in Kitchin and Tate (2000) defines validity as the degree to which the findings of survey are interpreted in a correct way and reliability is the degree to which the findings of research are independent of any accidental circumstances. Also, validity according to Gorbich (1999) is the ability with which the results of a study can be verified against the stated objectives.

Triangulation is typically a strategy (test) for improving the validity and reliability of research or evaluation of findings. Mathison (1988) elaborates this by saying,

'Triangulation has risen an important methodological issue in naturalistic and qualitative approaches to evaluation [in order to] control bias and establishing

valid propositions because traditional scientific techniques are incompatible with this alternate epistemology'.

Patton (2002) advocates the use of triangulation by stating that "triangulation strengthens a study by combining methods. This can mean using several kinds of methods or data, including using both quantitative and qualitative approaches". The aim of triangulation is to study the research object in two or more ways. This approach ensures objectivity, reliability and validity in both quantitative and qualitative research. Reliability refers to whether the same results would be produced by a different researcher or research procedure. Validity is the property of being genuine in portraying attitudes and characteristics. Attempts were made throughout the research process to check personal biases and to strive for the most accurate and truthful product. Patton (1990) suggests several ways of enhancing the reliability and validity of data analysis. This research have followed multiple triangulation processes as itemized: First, in data triangulation two or more data sources are used such as primary source (e.g., interview, questionnaire etc) and secondary source (e.g., published documents) from different public and private agencies and from slum dwellers. Due to unavailability of recent socio-economic and demographic data of slum/squatter settlements I have used only available source of data by LGED which was published in 1996. But the quality and validity of those data were enhanced by projecting the data up to 2005 and by using the knowledge and experience from the field. Second, with the triangulation method two or more research methods took centre stage, for example, two or more data-collection methods like the questionnaire survey, interviews, literature study or two or more data analysis methods such as content analysis and SPSS became the cornerstone for the study. *Third*, in theoretical triangulation (structuration theory, actors oriented approach etc.) this involved elucidating research material starting from different ideas and interpretation to see where the data would fit in⁹. Thus I have collected information from multiple and different sources to address the research questions and this in no small way enhanced the validity of this study. According to Decrop (1999), qualitative research, often blamed for lack of tenets of good science, will be strengthened by way of triangulation.

⁹ http://web.isp.cz/jcrane/IB/triangulation.pdf accessed 27 April, 2005

Sources of errors in the field of social science research, or development studies in particular, might represent threats on a study's reliability and validity. This kind of errors or biases may be produced during the data collection process (like in sampling method) or in the entire research design. The bias can be accentuated by different cultural norms and interpretations, language differences, filtering of information if information is obtained through research assistants or interpreters which may overshadow sampling errors (Mikkelsen, 1995).

Despite the fact that eventual errors might affect the findings and hence the study, I have tried to minimize them in a number of ways. The informant-cum-assistants are from this study area and they were well instructed as well as they have a good acceptance in the community. Moreover, they speak the same language, though the dialect is not so different from my own dialect, and thus very much familiar to the respondents which helped me to collect exact and appropriate information required for this investigation. This features enhanced, to an extent, the reliability and validity of data. Before going to the field for questionnaire survey, a pre-test or pilot study was done to know if the sequence of the questions were appropriate and if the wording of the questions were appropriate for obtaining adequate information. This test helped a lot in the sense that I obtained some feedback from the respondents in some questions and accordingly I corrected them and therefore prepared the final version before starting the final questionnaire survey. Also being a researcher I assured all the respondents for the anonymity and confidentiality of all supplied information from them at the beginning of every interviews and this made them more willing to answer all questions. This, in fact, leaded towards more trustworthiness of the data that I collected through.

1.3.8 Problems, Challenges and Limitations of the Study

Every empirical research is associated with some kind of limitations or challenges faced during the process of data collection. During questionnaire interview, the respondents were asked about some on-going political activities in the slum area. Although they gave their true response, they were afraid of the musclemen. These musclemen collect monthly rent from slum dwellers and ensure their temporary tenure security. It's a kind of trade-

off between the slum dwellers and musclemen. In fact, musclemen are appointed and nurtured informally by the elites or politicians. For political interests the slum dwellers are used or abused as urban vote bank and thereby there is a persistent competition and conflict between the elite and powerful political parties to take the control over such slum areas. In this strand, despite appropriate measures were taken to overcome any unexpected situation, it was a sort of challenge for me to conduct questionnaire survey as they might have believed I was the agent from other political parties. But a great of deal of care was given while devising questions related to political affairs and all the questions relating to political interest were mostly indirect and soft sounding. For example, in answer to the question 'who collects the monthly rent' most answers came: 'musclemen'. When they were explicit and used the word musclemen, it was easier for me to ask the next question like 'does the person who collects monthly rent encourage you to take part in political activities'.

One of the major challenges I had to face, during the field investigation, is related to the bureaucratic procedure existing in most government offices. Consequently, it became difficult in some situations to conduct in-depth interviews with some of the officials in public offices. As a result, I had to take a number of appointments, sometimes, with the government officials before I finally conducted interviews with them.

As I had to conduct questionnaire survey only on Friday in a limited time from 2 pm to 6 pm, it was a big challenge for me to accomplish the survey within the limited span of allocated time. This have resulted me in that I had to limit myself to a moderate number respondents for the questionnaire survey. It deemed to me that it would have been better for the study if I would have more time and resources for conducting field investigation.

Due to unavailability of data and information on socio-economic and demographic aspects of the slum dwellers and on some other issues of housing, sometimes I had to depend on the available but back dated study reports. However, in order to ensure the quality and hence enhance the reliability, those data and information were extrapolated based on the trend of socio-economic characteristics and personal field experience.

All these challenges will somehow have more effect on the outcome of the study. However, I attempted to overcome all these challenges and have tried to present an as possible as true picture of the problems.

PART II

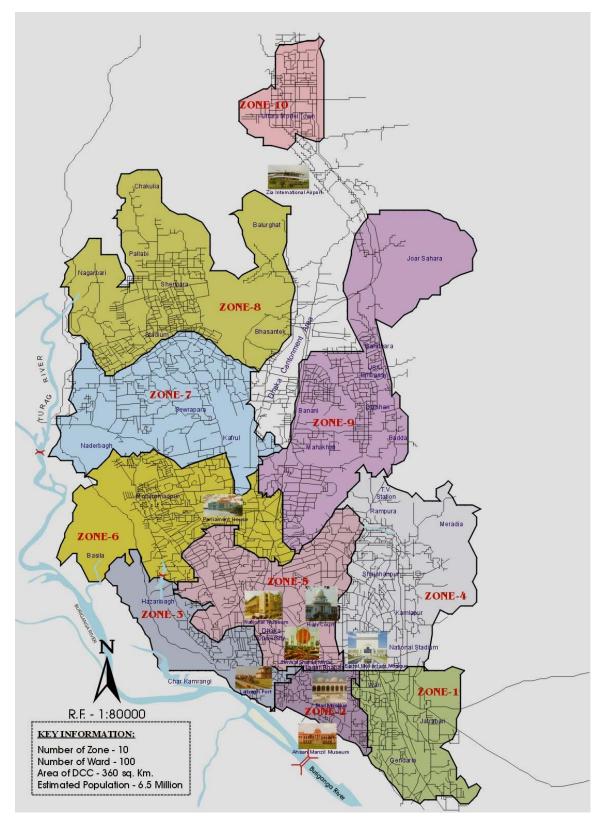
2.1 MEGALOPOLIS DHAKA AND THE STUDY AREA

2.1.1 Context: Dhaka

Dhaka is the capital and primate city of Bangladesh. It is dominant in terms of population concentration, economy, trade and commerce, education and administration. Dhaka has a number of different area definitions. DCC, for instance, has a clear administrative boundary and its area can easily be measured as shown in map 2.1.1. At present DCC has an area of 360 sq. km (140 sq. miles). The population of DCC area in the 2001 Census was 5,378,023 (BBS: Bangladesh Population Census, 2001). The second definition is Dhaka Metropolitan Area (DMA), the function of which is the police administration for the maintenance of law and order. DMA is only slightly larger than DCC area. DMA consists of 14 sub-units known as thanas with an average size of 10 sq. km. ranging from 3 to 37 sq. km. and population ranging from 130,000 to 750,000. A third definition is Dhaka Statistical Metropolitan Area (DSMA), which in 1991 had an area of 1353 sq. km. (522 sq. miles). The population of DSMA in 2001 Census was 9,912,908 (ibid.). DSMA is also regarded as Dhaka Mega city. It comprises of DCC and the entire Narayangani town, Bandar, Keranigani, Savar, Tongi and Gazipur Sadar Thanas (Talukder et al., 2003). The fourth concept is that of the RAJUK area, which in fact is a planning area and is larger than either DCC or DSMA as shown in map 2.1.2. The present planning area of RAJUK covers nearly 1530 sq. km. (590 sq. miles) (DMDP, 1995). Within the area of RAJUK (or DSMA) there are five other municipalities apart from DCC, such as Narayangoni, Savar, Gazipur, Tongi and Kadamrasul and stretches over rural areas administered by Union Parishads¹⁰. The RAJUK area stretches over the administrative districts¹¹- Dhaka, Narayanganj and Gazipur (Talukder et al., 2003).

¹⁰ Lowest tier local government unit in the rural areas

Second highest tier of local govt. in Bangladesh; there are 64 administrative districts in this country



Map 2.1.1 Different administrative zones under DCC

Source: www.worldbank.org/html/fpd/urban/city_str/fukuoka/day1/sessionii_1/1_DHAKAPRESENTATION.PPT+map+dhaka+city+corporation&hl=no&gl=no&ct=clnk&cd=1 (accessed April 20 2006)



Map 2.1.2 Planning area (SPZs) of RAJUK

Source: Siddiqui, 2000

According to the Fukuoka conference, 2000 the salient characteristics of Dhaka city can be featured as following way,

- Growth rate of population: 3% per year
- Population density is 222 persons per hectare within the DCC area and 71 persons per hectare for the metropolitan area
- Total garments and household workers (women) are 0.8 million
- Per capita income: US\$ 500
- 5% of households are at a high income level and share 37% of total income while 50% of households are at low income level sharing 12% of total income.
- There are about 3,007 slums and squatter settlements in the city. Around 30% of the population live in the slum areas.
- The physical condition of the area is characterized with very little flood-free land.

Living environment of the urban poor

In Dhaka, as in urban Bangladesh generally, the urban infrastructure has not expanded commensurate with the growth in population. These deficiencies in urban infrastructure and services impact particularly on the urban poor and this is reflected in their poor living, working and environmental conditions. Dhaka's poor have minimal access to basic services and many of those services are obtained through informal channels. About 55% do not have access to sanitary toilets and only 25% have access to electricity, mainly through illegal channels. In contrast, 80% households of Dhaka city have access to electricity through legal channels. About 60% of the households collect firewood and straw for cooking. The poor spend about 10% of their total expenditure on fuel and lighting compared to the 6% spent by the average urban households and they spend around 2% of their monthly expenditure on water. Many of the urban poor depend on public water supply points outside the slum and it is not uncommon to see slum inhabitants, primarily women, queuing for water. About 40% of Dhaka's urban poor use tube wells, each of which caters to 100 to 200 families (LGED, 1996). From the trend of change in different aspects of their livelihoods it can be assumed that at present the situation and its dimension is more or less same as it was documented in 1996. Due to

intense land pressure in Dhaka, the poor are often forced to live on low lying land which is prone to frequent flooding.

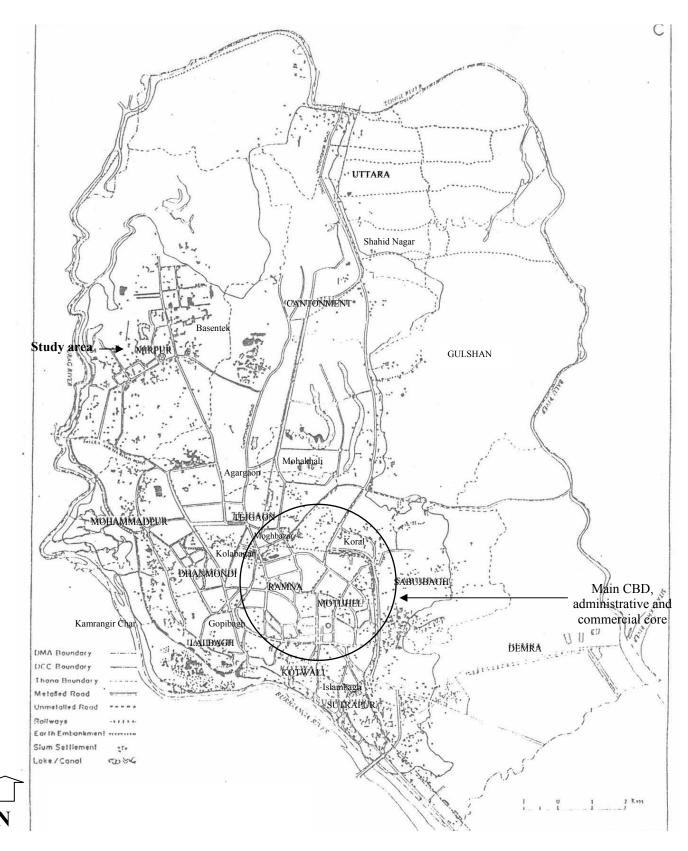
Locational pattern of slum and squatter settlements

Although slum and squatter areas tend to be found throughout the city, there is a relatively clear pattern in the location of these settlements. For instance the semi peripheral zone of the city has a large concentration of slum and squatter settlements compared with the inner zones. The western semi fringe of the city has the highest concentration of slum and squatter settlements due to land availability and proximity to the working places. Construction of the flood protection embankment has also accelerated the growth of slum and squatter settlements along the western periphery. Kamrangir char, Islambag and Shahid Nagar are places for slum and squatter dwellers. These areas are located close to some of the city's major commercial areas (as shown in map 2.1.3).

The inner city slum and squatter settlements are mostly small in size and are located in a scattered pattern depending on the availability of land. The exceptions are a few locations such as Agargaon, Mohakhali and Koral. Some other important concentrations in the inner part of the city are at Magh Bazar, Tejgaon, Kalabagan and Gopibagh.

Slum and squatter settlements are to be found in almost all functional land use zones of the city. They are found in planned and unplanned residential areas, commercial and industrial zones, cantonment, university and medical college campuses, along the streets, canals and railways and on embankment slopes. A significant number of them are even located in ditches, on bamboo poles in rivers and on low lying areas where floods occur every monsoon.

Map 2.1.3 shows that the overwhelming majority of slum and squatter settlements are located in a few places in the city. These are Mirpur, Bashentek, Agargaon, Koral, Mohakhali and along the embankment and rail lines. More than 85% of slum and squatter dwellers are living in these seven areas (LGED, 1996). All where in the urban fabric there are small scale industries, small scale employment opportunities and parallel existence of small scale slum/squatter settlements. At present though the number of



Map 2.1.3 Location of slum settlements in Dhaka Metropolitan area Source: Modified from LGED, 1996

slum/squatter settlements have been increased but the pattern of location of these settlements are same (field survey, 2005).

Population density in slum and squatter settlements

Slum and squatter settlements are the most densely populated residential areas of the city. The *Urban Poverty Reduction Project* survey showed that the density of population in slum and squatter areas was approximately 2,605 persons per hectare. The density appears to be increasing over time. In 1988, for example, the average density in the slums and squatter areas was 1,605 persons per hectare and this increased to 2,230 in 1991 (LGED, 1996). From this increasing trend it is projected that at present the average density in slum and squatter areas is 3,280 persons per hectare (taking growth rate: 45 persons/hectare).

The slum and squatter population

According to the LGED, 1996 survey, the number of people was living in slums and squatter settlements totalling to 1.1 million. Based on the population growth rate (6% per annum) in 2005 the number of people living in the slum and squatter settlements are 1.7 million (as shown in table 2.1.1).

The proportion of slum population varies quite substantially among the DMA's 14 Thanas. For example, Motijheel thana has the lowest incidence of slum population where these residents account for 3.7% of the population, while in Mohammadpur thana the proportion is already high at around 46%. But in absolute terms, Mirpur thana (where the study area is located) has the largest number of slum/squatter population, totalling 377,608 people.

Table 2.1.1 Distribution of slum/squatter population in Dhaka Metropolitan Area (DMA) by thana in 2005

Name of Thana	Estimated	Slum/squatter
	slum/squatter	population as %
	population 2005	of total
		population
Cantonment	93,940	23.9
Demra	141,834	13.2
Dhanmnodi	57,596	13.9
Gulshan	95,018	16.4
Kotwali	22,484	5.2
Lalbagh	151,844	18.3
Mirpur	377,608	28.6
Mohammadpur	299,376	45.9
Mothijheel	17,094	3.7
Ramna	78,232	19.4
Subujbagh	102,410	14.0
Sutrapur	108,108	17.1
Tejgaon	113,806	25.1
Uttara	41,734	18.7
Total	1,701,084	19.8

NB. Population estimated at 6% growth rate per annum-indicative forecast only

Ownership pattern of slum and squatter settlements

Of the 3,007 slums and squatter settlements, an overwhelming majority (77.42%) of the poor settlements are located on land owned by private individuals (42.2%) or under multiple private owners (34.8%) and others which include private organizations. About 21% are located on government and semi-government land, while a few settlements (1.2%) are located on land belonging to non-government organizations as shown in table 2.1.2

Table 2.1.2 Land ownership pattern of slum and squatter settlements

Owners	No. of settlements	Percent
Govt./semi Govt.	644	21.42
Non governmental organization	35	1.16
Private (single owner)	1270	42.23
Private (multiple owner)	1047	34.82
Others	11	0.36
Total	3007	100

Source: LGED, 1996

Still overwhelming majority of the slum and squatter settlements are located on private owned land. Regarding the private ownership of slum and squatter settlements, there are some facts which need to take into account. These may be,

- i. There is substantial number of litigations regarding land ownership dispute and some times the vacant (or khas) land of the govt. or of the private individuals is illegally occupied by the elites with the help of powerful politicians. It is not uncommon where litigation goes year after year to determine who the actual owner of the land is.
- ii. Private individuals are more interested to build slums/squatter settlements to gain more financial benefits in the form of house rent, black money from the drug business and commercial sex etc.

But the recently grown slum and squatter settlements show a different kind of land ownership pattern where most of them are being developed on govt. own land. This is because in and around Dhaka almost all the private owned land is built up and occupied.

2.1.2 Contextual Setting of Duaripara Slum Area

Duaripara slum is located in the north-western part of Mirpur Thana in DCC. This area may be demarcated as semi fringe area of Dhaka. It is located in ward¹² no. 6. This is one of the oldest slums of Dhaka and has been built upon the govt. owned land. Adjacent to this study area there are some slum settlements (as shown in map 2.1.3) which reaffirms one of the highest concentrations of such type of settlements particularly in this thana. From the care taker of this slum I came to know that at present about 15,000 people are living in this slum.

Table 2.1.3 A synoptic view of the study area

No. of households	Total population	Area (in acres)	Ward no.
3000	15000	10	6

Source: field survey, 2005

¹² Lowest administrative boundary of city corporation

2.1.3 Occupation of the Inhabitants in the Study Area

Out of 60 households, surveyed, in this slum most of the household heads (41.7%) are engaged in garment industry as workers. The garments industries are located 1-2 km. from the slum area which is a walking distance. One of the principal reasons of living in this slum is close proximity to the work places. In general, average distance from this area to work places is 2 km. Among the female headed households, surveyed, maximum inhabitants (71.4%) are engaged as garments workers (field survey, 2005). The total registered number of garment manufacturers and exporters are about 2,700 in this country. Among these, about 1,932 factories are located in Dhaka while about 155 and 415 factories are located in Naryanganj and Chittagong respectively. These 2,700 garment factories having about 1.5 million workers are earning 73% of the country's total foreign currency¹³. Among the male headed household rickshaw pulling (40%) is the most dominant occupation followed by garment factory work (see table 2.1.4). A number of productive activities are found in this slum and these are in garment factories, rickshaw pulling, building construction as day labor, household as maid servant, service, informal sector business, begging etc.

Table 2.1.4 Occupation pattern of the slum dwellers according to household's nature

	Occupation				Total			
НН Туре	Garment worker	Rickshaw Puller	Day Labor	Maid Servant	Service	Business (informal sector)	Begging	
	7	12	5	-	-	3	3	30
Male headed	23.3%	40.0%	16.7%	-	-	10.0%	10.0%	100.0%
	15	-	-	5	1	-	-	21
Female headed	71.4%	-	-	23.8%	4.8%	-	-	100.0%
	3	3	1	-	-	2		9
Composite	33.3%	33.3%	11.1%	-	-	22.2%	-	100.0%
Total	25	15	6	5	1	5	3	60
	41.7%	25.0%	10.0%	8.3%	1.7%	8.3%	5.0%	100.0%

Source: field survey, 2005

N = 60; Missing case = 0

53

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¹³ http://www.epb.gov.bd/garments.htm accessed on January 11 2005



Picture 2.1.1 Female garment workers on their way to work place

2.1.4 Housing Scenario in the Slum/Squatter Settlements

Slum and squatter settlements in Dhaka consist mostly of densely constructed huts, usually arranged in rows and often containing multiple families. Ninety percent of Dhaka's urban poor households have only 1 main room. Sixty five percent have less than 9.30 sq. meters. Approximately, 40% live in kutcha¹⁴ houses. Only 5% of the urban poor live in permanent housing, compared to 50% of Dhaka's residents as a whole (LGED, 1996). The poor frequently pay rent for these crowded shelters, either to landlords and their intermediaries on private land or to de facto landlords and their intermediaries on public land. From the field survey it was found that in Duaripara slum on an average each household pay USD¹⁵ 14.33 per month which is about 24% of their monthly income (field survey, 2005). Some of the households pay as much as USD 14 per month in an inner city slum which is about 22.5% of their total income. A poverty study found that 57% of the urban poor paying USD 5 per month (approximate 7.5% of total income) per household, with many of these (nearly 30%) paying more than USD 8 per month (approximate 12.5% of total income) (LGED, 1996). In general, house rent in such settlements is still high compared to their total household income.

15 1 USD = 67 Taka

54

¹⁴ Usually made of mud paved floor, wall of bamboo and CI sheet in the roof.

2.1.5 Community Based Organization (CBO)

An analysis of CBO in the slum areas shows three main types of CBO. *First*, CBOs might be formed by the slum/squatter leaders or by the musclemen who might reside inside or outside the slum. Such CBOs are unlikely to be in anyway accountable to the members and might resist slum upgrading if this cuts across their political and economic base in the slum. *Second*, CBOs can be formed by political parties. They might take on responsibilities for protection and for management of schools and mosques. *Thirdly*, there are CBOs formed as a result of NGO activity, which are generally more accountable and charged with a development mandate which might include social and economic activities as well as protection.

2.1.6 Summary

In greater Dhaka region, there are different area definitions of administrative boundaries of the public agencies. There are substantial portion of areas which are overlapped with each other's operational jurisdiction which demands a persistent level of cooperation and coordination among them in case of developing infrastructure facilities and its maintenance. These public agencies are unable to provide utilities and service facilities to the urban poor. In the slum areas urban poor, in general, pay more on fuel wood, water, electricity etc. compare to the other income group of Dhaka city whereas density of population in these settlements is fairly high. Most of the poor live in kutcha houses and only a very few have permanent housing. On an average, the inhabitants in Duaripara slum pay more house rent than even middle income people in the inner city areas. There is relatively a clear pattern of slum and squatter settlements and the determinants of such pattern have been classified as close proximity to the work places, availability of vacant land, flood free areas etc. Study revealed that most of the slum and squatter settlements are owned by the private owners (both single and multiple). The main reason for development of slum and squatter settlements under private ownership is to gain high financial benefits. The study area is located in the semi fringe area where the concentration of slum is among the highest within a few kilometer of distance. One of the most obvious reasons of such concentration is development of garment factories in and around Mirpur thana. This is why most of the inhabitants in the study area are engaged in garment factories as workers.

2.2 URBAN LAND, TRANSPORT SYSTEM AND DMDP

2.2.1 Urban Land Speculation

In most of the third world cities, there are no investment opportunities which are as profitable as land. Combined with the inability or unwillingness of governments to take serious measures to stop speculation (by creating equally profitable investment opportunity, enforcing adequate tax regulations or by land ceiling) this has led speculation to take excessive forms (Baken and Linden, 1992). Dhaka city is not different in this context; according to the experts, speculators in the land market hold significant amounts of land especially in fringe areas and this reduces the supply of land. Less than 30% of the households of the city own more than 80% of the total land (Fukuoka conference, 2000). Currently one prime land developer holds 2,278.22 acres of lands among which only 126.72 acres have been developed so far (Farzana, 2004). Map 2.2.1 gives a general view about the extent of land acquisition (speculation) in the fringe areas by private owners in comparison with the public agencies like RAJUK. Most of these chunks of land don't even have any road connection, not only to other parts of the city but also to the neighboring areas. So far, there are many land development projects run by the private developers in the fringe areas of Dhaka (table 2.2.1) which shows a great deal of interests for investment by these developers. Even when knowing that the missing infrastructure facilities will be provided by public agencies after a long span of time, they have been acquiring land from individual land owners.

A recent report on the low lying fringe areas of Dhaka revealed that most of these lands are in the grip of private housing developers and individuals. It is said that the land grabbers are so powerful that they can acquire any amount of land by adopting any fair or unfair means. They have already started housing projects by filling these low lying areas. There are ordinances on the preservation of low lying areas or water bodies within the city which have very little effect in practice. This was a big concern for the experts because if these low lying areas (which have been serving as a natural drainage for the city) are filled up, in a near future a substantial part of Dhaka will be water-logged. In regard to the preservation of water bodies, a question was asked to the *Minister for water*

resources, about it and how these land grabbers could be stopped speculating land. He replied,

'Here we are talking about very influential land developers who are widely known as land grabbers. There seems to be no way to stop them' (Khan, 2005).

He was also asked about the environmental impacts of such indiscriminate land filling and he said,

'In a country where a home minister has to file a general diary with police station for protection from land grabbers, we can do little' (Khan, 2005).

Table 2.2.1 Location and status of land development projects by the private developers in some fringe areas of Dhaka

Location	Completed projects	Ongoing projects
Savar	11	3
Mirpur	7	2
Gazipur	5	3
Purbachal	-	1
Keraniganj	1	2

Source: REHAB, 2004

Apart from the above mentioned speculators, there are different classes of underground operators active in the field. They are also the land grabbers who illegally and at times forcibly occupy vacant government land or even private land. Once occupied, they either set up slums or sell out the land in a clandestine manner, taking advantage of the numerous loopholes in the law. The lands grabbed in illegal ways are most often not used for development but kept for speculation. Recently a parliamentary body revealed that several real estate developers and others in the name of associations and groups have illegally grabbed about 1,000 acres of state land in Dhaka and its environs (The Daily Star, 2003). Thus, the land speculation and land grabbing are reducing the availability of developable lands in the fringe of Dhaka.

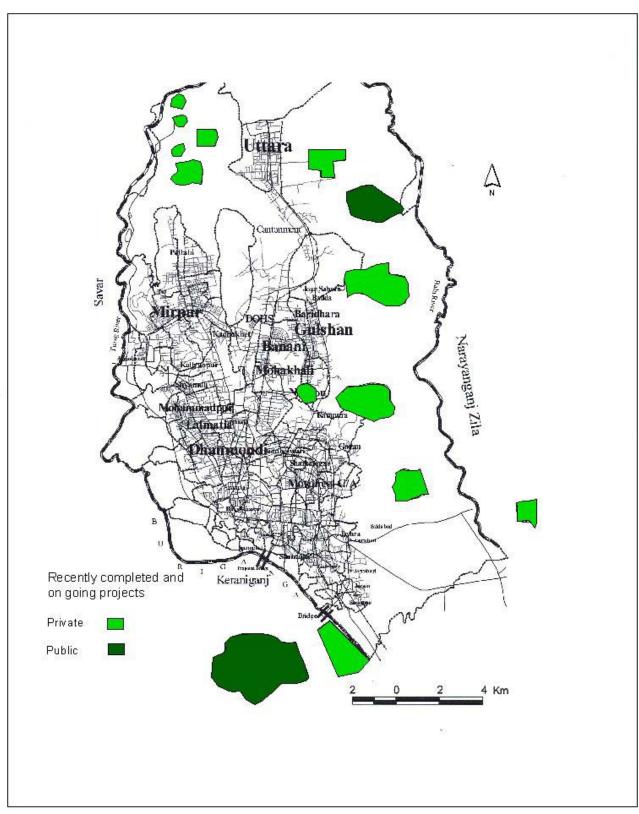
From the interviews with the land developers, it was found that in the fringe areas land acquisition from the land owners is very much difficult and challenging as this fully depends upon the consent of the individual land owners. There is also an association of land ownership dispute. Though the private developers do not have any legal permission to acquire land from the individual landowners, still most of the lands in the urban fringe are in the grip of them. RAJUK have the legal provision to acquire land under any development project and so on by means of Acquisition and Requisition of Immovable Property Ordinance, 1982. Nevertheless, from the interviews with the urban planners at RAJUK it was known that RAJUK have stopped acquiring land. They gave reasons like the complexities related to land litigation, ownership's disputes and lengthy process of acquisition. The interviewees from the private developers have also pointed out that due to bureaucracy and political practice at RAJUK, it is very difficult to get permission for land development projects. However, when the projects are pursued by any powerful politician, it is much easier to get those projects permitted. RAJUK usually give permissions to those projects of land developers who have strong political connections. All these problems are caused by the corruption and weak administration of RAJUK, the lack of proper policy or lack of implementation of policies. However, all the developers described the process of land acquisition and building development in this way: First developers have to acquire a certain amount of land required for the project. According to them they usually pay more than the current land price in the market. On an average, the land price varied from 13 USD to 18 USD per sq. meter. Based on the acquired amount of land, they design a project and forward it to RAJUK for necessary perusal and approval. Then RAJUK evaluates the feasibility of the projects from different perspectives like land use compatibility, laws on preservation of water bodies and agriculture land and so on. If the project fits with all the requirement of the assessment, then it gets approved. Sometimes based on the same laws and assessment criteria some projects are permitted by RAJUK and some are not. Here political influence might play a big role. Nevertheless, from the developers' responses the following astounding features have come out,

i. None of the three interviewed developers revealed the total amount of land they own in the fringe areas and

ii. DMDP was being started preparing since 1995 and private land developers have started buying lands in the fringe areas after 1995. Despite having legal provision, RAJUK did not acquire any land, which they were supposed to, in line with the recommendations made for the housing provision of the urban poor and for other future development interventions. This means the private developers were given a room to buy lands in the urban fringe mainly for speculation.

There are some lands in the urban fringe provided by the "green field" development projects which are being purchased by individuals mainly for speculation. Sometimes the developers make use of techniques for acquiring land which are even illegal. The developers make the land owners agree to sell a piece of land with the help of local powerful people or musclemen who work for the developers in return of money. There is another technique which is called land blocking where developers purchase all the land surrounding the owner's land who opposes to sell. Then that parcel of land become valueless as it becomes a land locked plot and the owner is finally bound to sell that land to the developers.

It has been mentioned earlier that the land ownership pattern is highly unequal and skewed in Dhaka city as a whole. At the same time the land value in the core areas is so high that it is not possible to resettle the urban poor in to those areas. Even though there are some vacant government lands in many parts of the city, there is no effort from the government side to revive those lands for effective urban use. In Dhaka, two-thirds of vacant government land (e.g., *Bangladesh Railway's* vacant land) is not released for urban use. This under-utilization contributes to reduce the total supply of land in the city (Hasan and Kabir, 2002).



Map 2.2.1 Amount of land acquired by the private and public developers in and around Dhaka city

Source: Modified from Farzana, 2004

The following map (map 2.2.2) gives an idea about the land value in different parts of the city. Dhaka city does not have any regular geographical structure of land value pattern. There is no concrete vertical or horizontal hierarchy of land value as it is a very cumbersome task to differentiate between the core areas and semi fringe areas within the city. But the delineation of fringe areas is comparatively easier as the landscape in the fringe areas is characterized by distinguishable features like low lying areas, serving as natural drainage, poor (or even absent) road network system and so on. There are several central business districts in different parts of the city. Though there is no regular pattern of contiguity between low and high priced residential areas, there is existence of such contiguity in some locations as shown in picture 2.2.1. Nevertheless, despite the complexity of a geographical pattern of land values, it could be argued that the following factors determine land values of Dhaka city according to,

- 1. Either planned or unplanned residential areas
- 2. Road network system or coverage
- 3. Close proximity to the central business districts
- 4. Building density (like floor area ratio- FAR) and population density etc.

Land value in the fringe areas is already high and undoubtedly beyond the affordability of the lower middle class people. With the increased urbanization and scarce supply of land, there is no doubt that in a near future the prices will be increasing.

2.2.2 Transport System in Dhaka

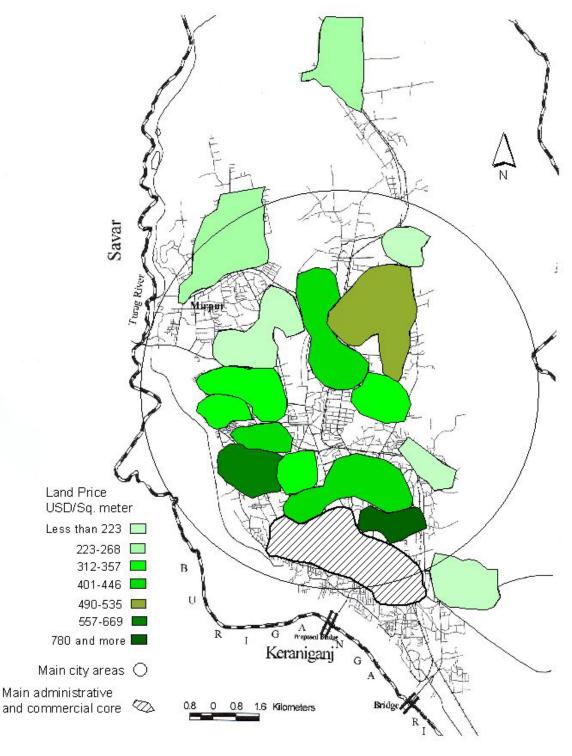
The transport system in Dhaka is predominantly road based with a poorly developed network where non-motorized transportation (mainly rickshaw) has a substantial share. There are only 200 kilometres of primary roads and too few secondary and collector roads (about 260 kilometres). Lastly, there are some 2,500 kilometres of narrow roads. There are many missing strategic links in the main road network and several areas have inadequate accessibility to the network. The north-south railway route through the city between Tongi and Narayanganj is mainly used for long distance travel and also serves some urban passengers (ADB, 2001). The maintenance of the transport infrastructure is inadequate because of poor management and lack of finance. The situation becomes



Picture 2.2.1 Contiguity of high priced residential and slum area

aggravated with the poor drainage conditions. During the rainy season, some major roads go under water and become useless for a number of days. Rickshaws are the dominating mode of public transport (picture 2.2.1). Predominantly, rickshaws are used by the middle and high income class people, not by the poor people. But the higher percentage of people using rickshaw as public transport reveals the poor service condition of the public buses.

Around 80% of total trips in Dhaka city are comprised of non-motorized transport (NMT) of which 60% are made on feet, only 5.9% trips are made by motorized transport (MT), and the average trip lengths of NMT and MT are 18 and 27 minutes respectively because of higher congestion (Karim, 1998).



Map 2.2.2 Land prices in different residential areas in Dhaka in 2003 Source: Modified from Farzana, 2004

Those who used to walk are the poor and they do so because majority of them live within walking distance to their work places to save transport cost. Trips made by public transport especially by buses are very low i.e., only 0.9% which also reaffirms the poor service quality of the public transport. At the same time fair in the public buses is much higher. In general, the total trips are made using rickshaw have been increasing continuously over the last 20 years and the cost of transport represents about 10.8% of total household incomes (Karim, 1998).



Picture 2.2.2 Dominance of rickshaws as public transport in the road (Source: ADB, 2001)

A World Bank study on Dhaka revealed that 35% of female commuters relied on rickshaws as their sole mode of transport. Personal safety and the avoidance of harassment are also major concerns for women public transit users. Women are especially vulnerable to attacks or sexual harassment when transporting heavy goods or accompanying children and this discourage women for using public means of transport. Finally, there are also cultural constraints which often prevent women from properly accessing public transport. From social and cultural point of views, it is often difficult

for women to share crowded buses with mainly male riders because of the religious dogma or social seclusion of women 16.

2.2.3 Dhaka Metropolitan Development Plan (DMDP), in the light of housing the urban poor

Finding a solution to the shelter and housing problem for the urban poor is one of the major official elements in the DMDP. The preparation of both a structure plan and an urban area plan requires community participation and in case of the DAP, the implementation of recommendations on the ground, requires a strong and active participation by the stakeholders at community level. Regarding housing the urban poor this section describes the policies in SP and mid-term strategies in UAP. At the same time it tries to focus on the functions under the DAP.

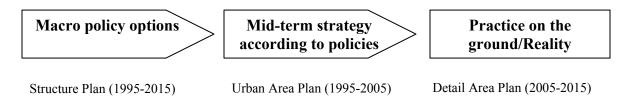


Figure 2.2.1 Three stages of DMDP

Structure Plan- SP (1995-2015)

About 54% of Dhaka's urban population are defined as falling into the low income category with below USD 74.63 per month. Of this total, it was estimated that 46.6% could not afford any improvement in quality of their housing. About 93% of all housing was provided through the private sector, of which 70% of all shelter was provided by the informal private sector, in which the majority were individual owner builders (DMDP, 1995). At this point of discussion it is important to mention what was recommended under the heading of 'Shelter and Housing' in the SP. It proposed that the Government should only intervene in an enabling capacity in the following ways:

Land – Remove existing impediments in the supply, transfer and regulations of land for shelter;

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¹⁶ http://www.itdp.org/read/DEALSGEN.doc accessed 13 February 2006

Facilitating Actions – Introduce supporting actions designed to increase the operations of land and housing markets in favour of the majority of low to moderate income households;

Environmental Impact – Introduce supporting actions designed to minimize the impact of the shelter sector on environmental conditions, maintain basic public health and minimize the impacts of natural hazards on shelters.

This enabling approach assumes a clear understanding of the comparative advantages and roles and consistent participation of the public and private formal and informal sectors at each stage of the development cycle of policy making, planning, design, implementation, and evaluation.

Urban Area Plan- UAP (1995-2005)

Based on the SP, more specific recommendations on housing have been given in the UAP. In the UAP, the total urban population was fragmented into 5 percentiles, according to monthly income, in order for more specific and practical recommendations to be made. Among other issues, UAP described mid term strategies on housing issue for each percentile of urban population. The following section describes those mid term strategies taken for housing these 5 categories urban population.

0-10 percentile

An analysis of the income (and expenditure) of the Dhaka households reveals that the first 10 percentile groups earn so little that they barely survive. Their daily activities are focused on bringing in enough money for food from odd jobs, begging and collecting/selling waste, to ensure that they stay alive. They sleep in the streets since they cannot afford to pay for shelter.

Recommendations for this percentile

Provision of a night shelter, sanitary facilities and food handouts against some services to be rendered by this group.

10-30 percentile

The next 20 percentile group (10-30) survives, but has no savings since all additional income is spent on clothing, health, education, and housing. The housing is nothing more

than sheds either constructed traditionally (e.g., made of thatch/straw, bamboo, mud etc.) or from waste materials on vacant plots of less than 10 m². Despite being squatters they often have to pay rent or levies in order to be allowed to stay. The residential areas are often located on sites that are either hazardous (along railway tracks), dangerous (flood prone), or unhealthy (next to waste dumps).

Recommendations for this percentile

It is recommended that there will be a reduction in the levies paid by introducing or guaranteeing some form of secure tenure and also by encouraging and facilitating community participation in the provision, operation and maintenance of an affordable level of basic services provision and access. This approach is likely to create a sense of 'ownership' on the part of the community and to provide a platform for improvements in living standards and environmental conditions. By designing specific sites of new urban land for this group, in suitable and accessible locations in the urban fringe, the number of existing sites, which are often unhealthy, hazardous and dangerous, may be reduced gradually and eventually eliminated altogether.

30-50 percentile

The next 20 percentile (30-50) are above threshold or deep poverty and may have some savings that can be used to improve their living conditions. They require safety for their investments and small upgrading loans. Experience in Bangladesh and elsewhere suggests that given the right political and institutional framework and motivation this group is capable of organizing itself in community and neighbourhood groups, and in mobilizing community resources and effort. Through partnership with municipal, district and public sector (and private sector) infrastructure and community and social services delivery agencies, this group is capable of the implementation, operation and maintenance of tertiary levels of infrastructure and community and social provision. The Government should promote and support these initiatives by providing technical knowledge, design services, and/or site supervision, as well as food for work incentives, as appropriate.

Recommendations for this percentile

The Government should acquire land in the fringe areas, or elsewhere, if deemed affordable, and by land filling to between 1 and 1.5 metres below high water level to make available a range of subsidized plots (10-20m²) with secure tenure.

50-70 percentile

Those who fall within this group are able to acquire small plots and to develop their shelters gradually from shacks into small but permanent structures. According to the findings recorded in the field surveys under the land control study, this process is ongoing on a large scale but has a very long implementation time.

Recommendations for this percentile

In the urban fringe areas, or elsewhere if deemed affordable, a range of options exist, from improved 'site and services' and 'guided land development' to the 'land consolidation scheme'. Improved 'site and services', and 'guided land development' schemes should be envisaged for new populations moving into the area, while the 'land consolidation' scheme would facilitate adjustment or regularization of existing small and/or irregular plot boundaries, resulting in developable plots. Housing loans on preferential interest and repayment terms would further induce earlier development and have a beneficial impact on the labour market and economy by increasing income generation and job opportunities.

70-100 percentile

For the 70 percentile upwards the market is open for formal development schemes by RAJUK and by the private sector. With the present schemes of *Dhanmondi*, *Mirpur*, *Gulshan*, and *Baridhara*, as well as some smaller ones, this section is already well served. The slow development of *Uttara* is indicative of the saturation of the upper market.

Recommendations for this percentile

Since this section of the population is capable of meeting its own housing requirements the role of the public sector should be reduced to one of moderator or manager by providing at-cost major off-site infrastructure and by setting building standards and planning regulations that should be met. In some cases, adjacent lower income

settlements may be served by the infrastructure of these formal developments (cross subsidy).

Detail Area Plan- DAP (2005-2015)

The recommendations in UAP regarding the housing for different percentile of urban population (from the lower income to lower middle income people) can be summarized as follows,

Table 2.2.2 Summary of the recommendations in UAP

Target group	Recommendation/ Mid term	Tools for implementation		
	strategies in UAP			
0-10 percentile of the	i. Night shelter, sanitary	i. Identification of this group		
urban population	facilities	geographically		
10-30 percentile of	i. Tenure security	i. Community participation		
the urban population	ii. Relocation in the urban	ii. Land banking scheme		
	fringe areas	iii. Identification of this group		
		geographically		
30-50 percentile of	i. Land acquisition in the	i. Land banking scheme		
the urban population	urban fringe areas	ii. Identification of this group		
	ii. Subsidized plots with	geographically		
	tenure security			
50-70 percentile of	i. Adoption of different land	i. Community participation		
the urban population	development techniques such	ii. Identification of this group		
	as site and services schemes,	geographically		
	land readjustment (LR),	iii. Upgraded land ownership		
	guided land development	inventory		
	(GLD)	iv. Upgraded land value		
		information		

The 70-100 percentile of the urbanites belong to the upper class and they have been well served by the private housing developers and RAJUK itself. The analysis of this study is confined from 0 to 70 percentile groups who are recognized as lower and lower middle

class people. In line with the recommendations in UAP, the major functions of DAP can be exemplified as follows,

For the 0-10 percentile of urban population (who are hard core poor) night shelter and sanitary facilities will be provided. Therefore, under the detail area planning scheme one of the prime tools to implement this strategy is to identify this group geographically. For the inhabitants in the 10 to 50 percentiles, the planning strategies are: they will be relocated to the urban fringe areas and will be given subsidized plots with secured tenure. In order to implement these strategies, the unavoidable and essential tools are: strong participation of the stakeholders, land banking scheme by RAJUK and of course identification of these groups in terms of location. For the inhabitants of the 50-70 percentile, different land development techniques (including guided land development, land consolidation etc.) are recommended for which the necessary tools are: strong participation of the land owners and their consent, upgraded inventory of land owners and upgraded land value information.

2.2.4 Summary

This part of the discussion work described the connection between land speculation in the low lying urban fringe areas, existing public transport system and recommendations regarding housing the urban poor in DMDP. Private housing developers have been acquiring/grabbing land in the urban fringe either by fair or unfair means. Despite having legal provisions, RAJUK have stopped acquiring land. Most of the land in the fringe areas is in the grip of private developers or powerful members of the elite group. They have been filling these low lying areas for different housing projects. Even though there are ordinances or statutory laws to preserve the water bodies or low lying areas in the urban fringe, which have been serving as natural drainage for the city, practically they have very little effect. Most of the urban poor try to settle close to their work places as majority of them walk to go to their work places. The most obvious reasons to live close by the work places are very poor public transport system and higher cost of it. Difference of average time length of trip between NMT and MT is very negligible because of congestion in the road. Whereas, RAJUK recommended in DMDP to resettle the urban poor in the fringe areas of Dhaka a solution which requires a good, easy and affordable

transport network linking together the different parts of the city. Obviously, the settlement policy in DMDP would be impossible to implement without a proper public transport system. Therefore, this part focused on such missing links which are interrelated with each other.

2.3 URBAN HOUSING AND ORGANIZATIONAL EFFORTS

2.3.1 Housing Situation in Urban Dhaka

The urban poor have little access to urban land and they mostly build their houses on vacant private and government land and thereby become squatters in the city. Most of them are living in self-made houses locally known as *jupri*. These houses are made of low cost housing materials like CI sheet, bamboo, straw and polythene and are highly vulnerable during the rainy season. Only 18% of the poor households in Dhaka city are living in semi-structured houses with permanent walls (Hossain, 2004). The overwhelming majority (73.8%) of these poor urban dwellers used to live in single room houses. In many cases, more than five members of the households live in one congested room (ibid.). The majority of households (54%) have no kitchen or cooking facility and they cook either in their living room or in open spaces. More than 65% of the households have no access to sewerage systems and share pit latrines that they dig themselves temporarily or use open drains beside the roads. Only 17.8% of the urban poor have access to municipal waste disposal facilities and the rest of them dispose their waste generally to the marshy land adjacent to their settlements, which also pose serious challenges to the living environment (ibid.).

2.3.2 Housing Situation in the Study Area

The Duaripara slum can be divided into two parts according to the type of construction: *i. row housing* and *ii. floating shelters*. For row housing, the DCC provides minimal infrastructural facilities, such as drainage, hand pump tube-well, and herringbone bond (HBB) road whereas maintenance of these facilities are very poor or even absent. Most of the houses has semi-pucca structure and have been standing no more than shelters (Picture 2.3.1). Semi-pucca structure is a type of construction where walls are made of bricks or thatch or bamboo and roofs are made of CI sheet. Though the slum is owned by the govt. there are as such no micro-credit or loan facilities for house construction from its side. One or two NGOs have been giving micro-credit with an exorbitant interest rate to the inhabitants for the construction and maintenance of their houses. For each

household these NGOs offer USD 15 for a period of one year with an interest rate of 12%. They also have been providing health services to the women and young ladies (adolescent) of this slum. They educate women about family planning, how to take care babies, food and nutrition and other health related aspects and encourage them to use contraception like condoms, birth control pills etc. From the informant-cum-assistant (who was a govt. health worker) it was known that the NGOs are, in fact, doing a good business and making money in the name of health service. Because they sell vitamin tablets, condoms, birth control pills and so on at much higher price compare to the normal market price. Normal price of condom, for instance, in any medicine shop is taka 2 (3 cents) whereas they have been selling it at taka 3 (4.5 cents) to taka 4 (6 cents) (field survey, 2005).

In the floating shelter, there is not even any marginal level of facility neither from the govt. nor from the NGOs. These shelters are built on canals, with their bamboo architecture resembling stilt housing from the hilly areas of Bangladesh (Picture 2.3.2).



Picture 2.3.1 Typical row houses in Duaripara slum

Irrespective of location (either in row house or in floating shelter) and household size, the average number of room for each household is found 1.2. About 3 persons are living in a single room (which average size is 8.9 Sq. meter) which portrays the very unhealthy living condition of the households. Despite a very low per person occupancy rate (2.63 sq. meter/person), the monthly house rent is USD 1.61/sq. meter which is quite higher for such low standard housing compared with the other residential areas and other income groups in Dhaka city (field survey, 2005). A study shows that per square meter house rent for the high income group is USD 1.98 and for the middle income group it is USD 1.10 (Nabi et al., 2003).



Picture 2.3.2 Floating houses of bamboo architecture

The average size of the household is found 3.38. Though there is a positive strong association (r=0.84) between household size and household area, the per person occupancy rate reveals a deplorable quality of living standards (field survey, 2005).

2.3.3 Community Based Organization (CBO) and Politics

About 28% of the urban poor are members of different community based political organizations, cooperatives and voluntary organizations (Hossain, 2004). When forming

this kind of community based organization, the homogeneity or heterogeneity of origin of the individuals does not play a major role (field survey, 2005). Most (64.6%) of them are registered city voters and about 55% cast their votes in the last city corporation election (Hossain, 2004). Their level of involvement with city politics is also determined by the household structure like male or female headed household or composite household etc. The single headed or composite households who have recently migrated to the city are not interested in city politics. They are mostly interested in earning as much money as possible so that they can support their other family members living in their rural district of origin. About 27% of the poor participate in action politics like picketing during strikes, joining public meetings and joining party meetings (ibid.). Despite participating, either willingly or forcefully, in different political activities and maintaining contact with the elected bodies from different political parties, they can not even achieve their expected goals like tenure security. The political leaders use them for their interests and generally ignore their claims. While talking with the informant-sum-assistants it was found that before election the political leaders come up to the slum settlers with an electoral agenda and promise to implement those if they are elected. Hence, they influence the poor by means of lump-sum money to work for them before the election. Once they are elected they don't even bother what they promised to the slum inhabitants or what was documented in the electoral agenda.

The poor live in the slum and squatter settlements under the persistent fear of eviction. The influential elite persons or political leaders assign some muscle-men or intermediaries to collect the monthly rent to ensure their temporary tenure security. At the same time, these political leaders use the slum settlers as a large supply of votes during the elections. A patron-client relationship exists between settlers and political leaders which can be broadly categorized as 'political clientelism'. The poor consider themselves as vulnerable and powerless; as such they are not interested to attend the protests against the urban government where political leaders play the major roles (field survey, 2005). Basically they have accepted such practice and feudal social structure and pay more attention to earn money for their survival.

During the survey, it was found that more than 90% of the household members were engaged in the cooperative society at Duaripara slum. All the members living in this slum

are eligible for membership in the cooperative society. Twice a week, each member of the society deposits a fixed amount of money to the common fund of the cooperative society. All the money from the members is invested into the informal business sector like buying rickshaw, compressed natural gas (CNG) driven auto rickshaw etc. Usually they rent these rickshaws to the members (who has been depositing money for at least 4 months) of the cooperative for a period of one week or on monthly basis. The members share a part of the profits and the rest is used for further investment. When needed, the members are eligible to draw their share of profit and they use this money for their daily sustenance. The members are even allowed to take loan with a minimal interest rate (e.g., 4%) from the cooperative society given that majority members have given their positive consent. In this regard, at least four members have to be the guarantors for the member who is in need of taking loan (field survey, 2005). If the borrowers are intending to leave the slum, he/she have to re-pay the money to the cooperative society.

The total contribution of the urban poor to the urban economy is very significant, although this remains to be fully accounted and recognized. Most of the households, surveyed, make regular or occasional remittances to their dependants in the rural areas, thus helping the rural economy to some extent. The amount of money as well as frequency of sending money vary to a greater extent and depends upon the needs of the relatives back in the villages and also upon the senders' financial ability. Slum dwellers constantly disseminate job related information to their relatives living in the villages and hence create an *invisible information network* among themselves. They are also in touch with other people living in other slum areas in order to get job related information. The basis for such connection is mostly being the same geographical origin (field survey, 2005). Therefore, it could be concluded that between the slum areas an invisible network exists which may be addressed as an element of their limited power of agency.

This slum is owned by DCC and the dwellers do not have to pay any rent to DCC. But they have to pay monthly rent to the musclemen (locally known as 'mastans') assigned by the elite person cum politicians who eventually have been taking control over the slum. It has been mentioned earlier that the slum dwellers have been paying such rent to buy temporary tenure security from such powerful politicians. There is much evidence about conflicts between the powerful politicians from different political parties regarding

the control and command over the slum areas. However, most of the households have one earning member and only in few households have two. On an average, their monthly income varies within the range of USD 45 to 75. For the greater welfare of the slum dwellers, the slum based cooperative society has to maintain a very good relationship with the political leaders. Hence, sometimes members of this slum have to take part in different political activities as dictated by the politicians. Most of the slum dwellers are city voters or in other way they are made voters for greater political interests of the politicians attached to this slum. So, slum dwellers have been using their agency in one hand for income generating activities and on the other hand they are making a 'space of negotiation' with the politicians for buying temporary tenure security (field survey, 2005).

2.3.4 Mobility Pattern of the Urban Poor

Basically the urban poor are highly mobile in terms of choosing their residence. The dimension and pattern of their mobility depends highly on close proximity (e.g., for the study area the average distance is 2 Km) to their workplaces (field survey, 2005). In a particular place the average length of stay of the slum inhabitants depends on the nature of the work and the distance to the work place. Even though in some cases the distance to workplace is higher, most of the inhabitants of the study area prefer to go to their work place on feet as shown in table 2.3.1. About 74% of the inhabitants go to their work place on feet (field survey, 2005).

Table 2.3.1 Relationship between distance to work place and mode of travel

Distance to work places (in Km.)		Mode of travel to		
		work place		
			Public	Total
		On feet	bus	
0.5-2.5	Frequency	35	6	41
	% of Total	58.3%	10.0%	68.3%
	Frequency	9	10	19
2.5-4	% of Total	15%	16.7%	31.7%
Total	Frequency	44	16	60
	% of Total	73.3%	26.7%	100%

Source: field survey, 2005

N = 60; Missing case = 0

The distance to work places of most of the inhabitants (68.3%) varies from 0.5 to 2.5 km which demonstrates their tendency to live close to the work places. From the field survey it is found that 43 out of 60 households surveyed, have been living in Duaripara slum for 0.4 to 1.5 years and only a few have been living for more than 1.5 years (table 2.3.2). This figure may signify a high mobility in terms of locational choice of living place. The garments workers followed by rickshaw pullers are found comparatively much more mobile compare to other occupants. The garment industries are located in different parts of the city. For a woman/man having some sort of sewing training it is not a difficult task to get a job in the garment industries. Once they become a skilled worker, they can switch to other companies given a better monthly salary. So depending upon opportunity, monthly salary and other financial benefits, the garments workers switch to other garment industry at other different locations. And if the distance of the new work place is too far from where they live, they also change their living places. So it could be summarized that the dynamics of the household mobility mainly depends on the location and distance to the work places.

Table 2.3.2 Year of living against the occupation of the inhabitants

	Occupation							
Year of living	Garment worker	Rickshaw Puller	Day Labor	Maid Servant	Service	Business (informal sector)	Begging	Total
0.4-1.5	20 (33.3%)	11 (18.3%)	2 (3.3%)	4 (6.7%)	1 (1.7%)	4 (6.7%)	1 (1.7%)	43 (71.7%)
1.5 and above	5 (8.3%)	4 (6.7%)	4 (6.7%)	1 (1.7%)	0	1 (1.7%)	2 (3.3%)	17 (28.3%)
Total	25 (41.7%)	15 (25%)	6 (10%)	5 (8.3%)	1 (1.7%)	5 (8.3%)	3 (5%)	60 (100%)

Source: field survey, 2005

N = 60; Missing case = 0

About 42% inhabitants in Duaripara slum work in the garment industries, which are located within their walking distance. There are many large garment factories very close to this area and this is why a number of slums, including the study area, have been developed, mainly around the garment factories (Image 2.3.1).

Consideration of the mobility behaviour of the slum dwellers is one of the prime concerns in the issue of community participation and decision regarding relocation of the urban poor settlements. UAP recommends the relocation of the urban poor settlements with tenure security to the fringe areas. Hence, it is necessary to know the mobility behaviour of the urban poor, their opinions in this regard and associated factors resulting from such mobility pattern. Mobility behaviour and associated factors are those pre and basic studies which help determining

- i. the strategies in order to ensure maximum participation from the slum community
- ii. spatial choice as an option for housing to relocate the urban poor.

2.3.5 Housing Efforts by the Public and Private Agencies

Being one of the basic requirements, the need for housing for different income strata is reflected in different policies taken by the government. Unfortunately, the government's achievement is so to say insignificant compared to the total housing needs and demands. The total record of land development, housing construction, plot allotment etc., may not have benefited more than 200,000 households throughout the country (GOB, 2001). So far a number of housing related projects have been undertaken both by private and public organizations but in most cases these projects served higher and upper middle income group of people. This part of the discussion describes land and housing development initiatives in the private and public level and how these initiatives help to improve the housing situation of the urban poor and other income groups.

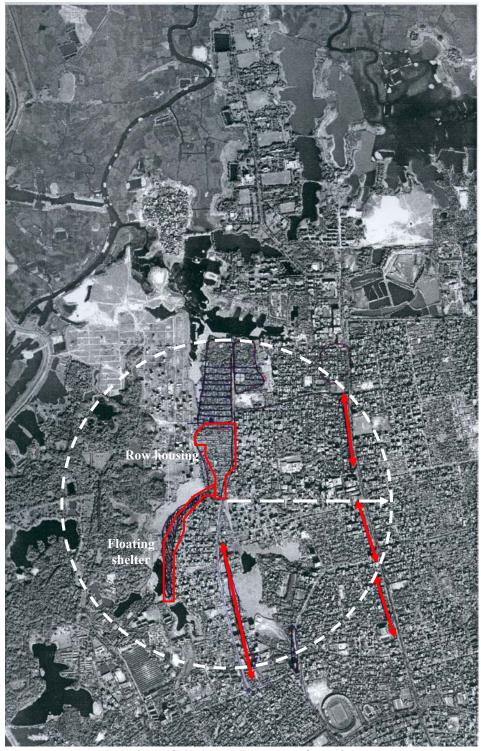
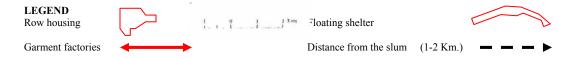


Image 2.3.1: Location of slums and garment factories (source: IWM, 2003)



Housing Land Supply

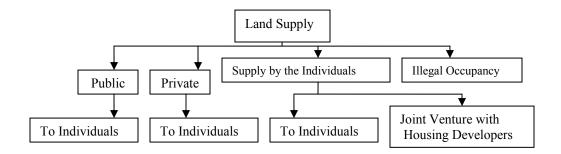


Figure 2.3.1 Land supply sub-systems in Dhaka

Source: adapted from Farzana, 2004

Public sector

Ideally, the public sector has been carrying out land development projects for a few purposes: to rehabilitate the Muslim refugees from India after 1947, to resettle the squatters after the migration of a large number of people to the capital (Chowdhuri and Faruqui, 1990) and to provide residential plots to the general people. The government policy is to act as an enabler in order to increase access to land and other supporting facilities especially for low and middle-income groups and the construction of housing will generally be left to the private sector and the people themselves (National Housing Policy, 1993). Housing land provision by the public sector mainly serves high-income and powerful people and some of the main reasons of such phenomenon are corruption and lack of fairness and transparency in plot distribution (Box 2.3.1). Some people even accuse RAJUK the most prominent government organization involved in land development, for being a center of corruption and an organization that serves only the interests of the rich and powerful (Islam, 1996).

Box 2.3.1 Allocation process of residential plots by RAJUK

In 1st January, 2003 RAJUK invited application from the public in order to distribute residential plots in Gulshan, Banani and Uttara residential areas. Accordingly RAJUK received 582 applications from the public for 100 plots to be distributed. RAJUK was supposed to allocate the plots by a fair means like conducting a raffle draw. But when the result was published it was found that all the plots had been allocated to the powerful

politicians (for instance minister, member of the parliament, mayor of the city corporation etc.) or those who had strong linkages or relations with the powerful politicians of the political parties. Among the above mentioned residential areas Banani is recognized as the most 'posh area'. This is why the result showed that the politicians who have strong and powerful position in the party and also in the govt. structure had been given plots in Banani area. There were even some cases of competition and contestation between the powerful politicians to get at least one plot in this posh area ¹⁷¹⁸.

RAJUK and NHA under the Ministry of Housing and Public Works are involved in housing land provision. NHA has so far taken a few land development projects in Lalmatia, Mohammadpur, Kalyanpur, Mirpur. The purpose of these housing land development projects was to rehabilitate refugees and squatters as well as to provide housing plots to government employees and general public. These housing land projects consist of residential and rehabilitation plots (for previous land owners), health centers, schools, mosques, parks, play grounds, etc. NHA has provided almost 10,000 residential plots until 1998. The size of the plots provided by NHA varies from 117.25 sq. meters to 469 sq. meters¹⁹. The smaller plots have been provided in the refugee rehabilitation schemes. Comparatively lower prices of these plots were payable in installments and on hire-purchase basis.

RAJUK started land development projects since the 1960s for the middle and highincome people. Dhanmondi, Gulshan, Banani, Baridhara, Uttara etc. are the residential areas developed under the land projects of this organization. It has supplied about 10,000 residential plots to middle and high-income households (Seraj, 2001). The properties of a residential land development project of RAJUK are given in table 2.3.3.

¹⁷http://www.prothom-alo.net/v1/newhtmlnews1/category.php?CategoryID=1&Date=2005-10-

^{23&}amp;filename=23h1 accessed 23 October 2005

¹⁸ http://www.prothom-alo.net/v1/newhtmlnews1/category.php?CategoryID=1&Date=2005-03-

 $[\]frac{31\&\text{filename}=31\text{h1}}{19}$ accessed 31 March 2005 1 Katha = 67 sq. meter.

Table 2.3.3 Plots and prices of an ongoing project of RAJUK

Size of Plots in Sq. meter	Total Number of Plots	Price (USD per Sq. meter)
201	2890	34
335	2977	36.8
502.5	1133	39
670	992	45

Source: Farzana, 2004

Private sector

Since the 1960s private sector companies have been involved in the market. Developers purchase lands in fringe areas from individual owners and sell to individuals after developing housing plots. The size of the plots provided by the private developers generally varies from 134 Sq. meters to 335 Sq. meters while the price of plots varies widely with the location of projects as well as the position of plots within the project and the size of the plots. The unit price of the plots varies from USD 2,239 to USD 8,209. It should be mentioned here that the price of bare lands acquired by the developers to develop as housing land is only USD 12 per Sq. meter to USD 34 per Sq. meter (Farzana, 2004).

Housing Supply

There is a variety of housing delivery subsystems in Dhaka. The private sector, composed of a predominant informal sector and a small formal sector, has supplied 93% of total housing (BBS: *Household Income & Expenditure Survey*, 2001). The informal sector includes the provisions of both sub-illegally and illegally constructed housing. Sub-illegal housing supply includes the housing constructed on legally occupied land but violating building codes. The slums are also developed in the same way. The individuals develop very low quality slums on own land with legal title but the construction is illegal while squatting is a housing supply system where the land is illegally occupied.

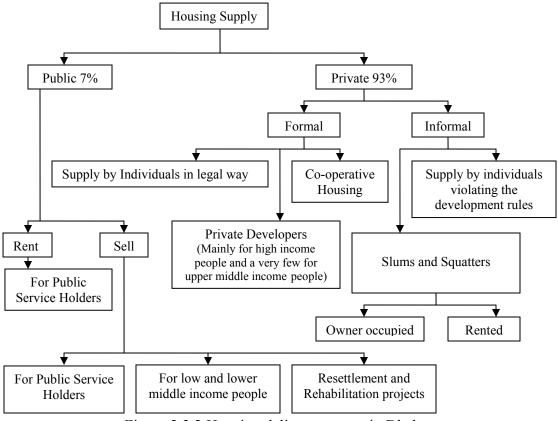


Figure 2.3.2 Housing delivery system in Dhaka

Source: BBS: Household Income and Expenditure Survey, 2001

Public sector

Under the Ministry of Housing and Public Works, RAJUK, Public Works Department (PWD) and NHA are involved in providing housing for civil servants as well as for the general public. However, the contribution of public sector is not very significant. Housing provision by the public sector was first initiated only for the upper class government employees in the early 20th century. After the end of British colonial rule in 1947 housing was provided for the general public who were mainly the Muslim refugees from India²⁰.

RAJUK has developed 42 five-storied apartments at Banani, and staff quarters at Malibag, Banani, Uttara and Badda for public service holders. Recently it has constructed 260 high-income apartments for bureaucrats in Gulshan and Banani.

²⁰ http://www.pwd.gov.bd/index.html accessed January 30 2006

PWD was established in 1854. Before 1947 it provided housing only for high govt. officials like ministers but since the early 1950s it started to provide housing for all strata of public servants. The housing provided by PWD has been able to accommodate only 10% of the total public service holders in Dhaka (DMDP, 1995). The housing provided by PWD only contribute to the rental market as the public service holders only can rent out these houses during the period of their service. Compare to the house rent in the rental market house rent provided by PWD is little cheaper. That's why during the service period public service holders try to rent out the housing units provided by PWD. NHA was established in 1958 with a different name and after a few reforms has recently got the present structure and name. Until 1999 this organization provided 18,268 single houses with minimum requirements for the rehabilitation of homeless people and refugees and 2,969 flats in multi-storied buildings for lower middle-income people in Dhaka (Farzana, 2004). But these housing efforts were negligible compared to the total housing demand for low income people. However, after the completion of those single houses and multi storied buildings it was found that many owners of those lower income households had sold their allotted housing units to some well-off people and went back to the slum or squatter settlements where they used to live before. The housing project in Mirpur is the glaring examples of such type (table 2.3.4). Some of the main causes of this incidence may be explained in following ways,

- Mirpur was located in the fringe of Dhaka from where distance to work places was very far and mass transport system was very poor.
- ii. As those low income people used to live in low rental houses in the slum areas, they thought it's a life time opportunity to earn a big amount of money by selling those housing units.

Private housing developers

At present above 200 real estate companies are involved in the housing market of Dhaka while in 1988 there were less than 20 developers. This means that each year on average 7 new real estate companies have emerged. At present there are 93 developers who are member of the Real Estate and Housing Association of Bangladesh (REHAB), an umbrella organization for developers. Currently all the members of REHAB which

Table 2.3.4 Selected housing and shelter improvement projects in Dhaka funded by the donor agencies

Name and	Project	Funding	Implementing	Fund size	Implementation	Beneficiaries
location	objectives	agency	agency	(in USD)	period	
Resettlement	Resettling	UNDP-	Housing and	2.85	1987-90	Squatter
of 2600	2600	UNCDF	settlement	million		dwellers
squatter	families		directorate (now			
families at	with core		NHA)			
Mirpur, Dhaka	houses and					
	services					

Source: GOB, 2001

account for about 90% of the market share are collectively delivering about 2,000 housing units per year. During the last 20 years the members of REHAB have created homes for almost 20,000 families who are mainly of the high-income group (Seraj, 2001).

Table 2.3.5 Highest and lowest size and price of apartments in ongoing housing projects in different locations of Dhaka

Location	Size of Apar met		Price of Apartments (USD per Sq. meter.)		
	Lowest	Highest	Lowest	Highest	
Banani	127	221	288	321	
Baridhara	105	279	341	375	
Dhanmondi	110	270	297	401	
Elephant Road	102	156	241	273	
Gulshan	123	548	291	418	
Green Road	70	163	241	273	
Lalmatia	92	200	257	297	
Mirpur	70	130	237	241	
Mogbazar	78	157	NA	NA	
Mohammadpur	74	145	249	281	
Niketon	84	198	237	337	
Segunbagicha	90	170	241	294	
Shamoly	77	105	225	241	
Shantinagar	84	166	241	265	
Siddeshwary	82	165	257	273	
Uttara	113	255	241	289	

Source: Farzana, 2004

To depict the housing supply situation of private housing market, the size, price and location of the apartments in all ongoing projects in the year 2003 are listed as shown in table 2.3.5 and figure 2.3.3.

Figure 2.3.3 shows that majority of apartment projects are concentrated in Gulshan, Dhanmondi, Uttara, Lalmatia and Niketon areas which are recognized as the residence of high income group people. Housing developers provide housing for high and a few for upper middle-income people and housing projects are mainly concentrated in upper-middle and high-income residential areas where road accessibility is better (as shown in map 2.3.1) as well as land and apartment price is very high.

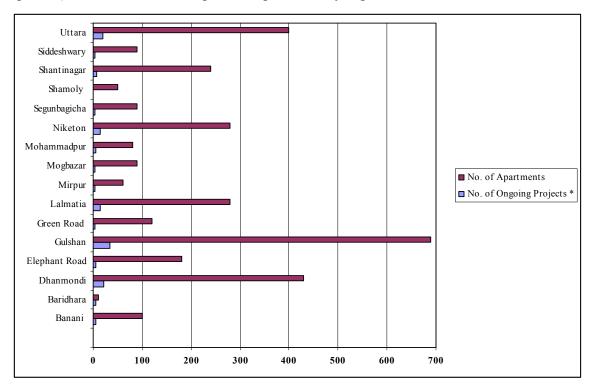
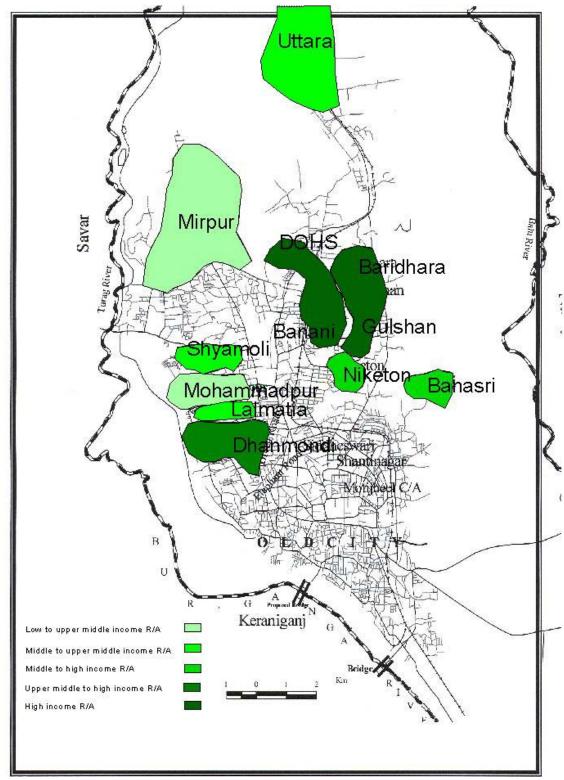


Figure 2.3.3 Number of ongoing projects and apartments by the private developers Source: Modified from Farzana, 2004



Map 2.3.1 Residential areas of Dhaka City according to different income groups

Source: Modified from Farzana, 2004

2.3.6 Housing Delivery Sub-system in Dhaka and Housing the Lower (urban poor) and Middle Income Households

As discussed above, in Dhaka, there are three housing supply sub-systems. These are public housing, housing by private developers and self constructed housing. The supply sub-systems also include slums and squatter settlements. This section explains the contribution and suitability of housing supply sub-systems for the lower and middle-income households.

Table 2.3.6 Public housing for different income people

Public Sector	High Income	Middle and Low	Refugees and Squatters	
Housing Providers		Income	Resettlement	
NHA	-	2,969	18,268	
RAJUK	260	420	-	
PWD	Rental Units for 10% of Public Service Holders			

Source: Seraj, 2001

In documents, the main target groups of public sector are the destitute people who are refugees, homeless and slum dwellers/squatters though their contribution could not make any noticeable improvement of the deteriorating housing situation (Choguill, 1988). Until 1989, the public sector contribution was only 7% of total housing stock (DMDP, 1995). Almost all of the housing units for low and high income people, as mentioned in table 2.3.6, have been allocated to top level civil servants and the military (Seraj, 2001).

The remaining option for being a homeowner is to construct own house on own acquired land. In a study by Hoek-Smit (2000), it is mentioned that with a minimum plot area of 195 sq. meters in Dhaka city, a building plot in the lowest income area which is already urbanized would exceed ten times the annual income of upper middle-income households. The residential plots developed by both private developers and RAJUK are cheaper than the above. This is because private developers and RAJUK acquire and develop plots in comparatively a large area. Therefore, the average cost of earth work like land filling in such large area is comparatively cheaper.

In the high priced housing market situation, it is not possible for most of the middleincome households to own a house in Dhaka and for the urban poor it is even beyond their dreams. Hence the only accommodation choice left for lower and middle income households is to rent the housing supplied by individual landowners given the fact that 65 percent of total housing stocks in Dhaka are rental units (Hoek-Smit, 2000). This statistics also supports the view that the major housing option for middle-income people in Dhaka is rental housing.

The ever increasing demand for rental units also indicates the inability of limited income households to own a house. From 1970 to 1977 housing expenses in the city increased at a relatively gradual rate. From the mid 1980s there was a momentum of increasing housing expenditure and between 1988-89 and 1990-1991 there was an abnormal and steep increase in the cost of housing related to food and general trend because of political unrest followed by a huge financial crisis. As housing expenditure has a greater influence on the total living cost, following diagram (Figure 2.3.4) affirms the concomitant sharp increase (since 1990) in the general living index. Until today the cost of living index shows an upward trend.

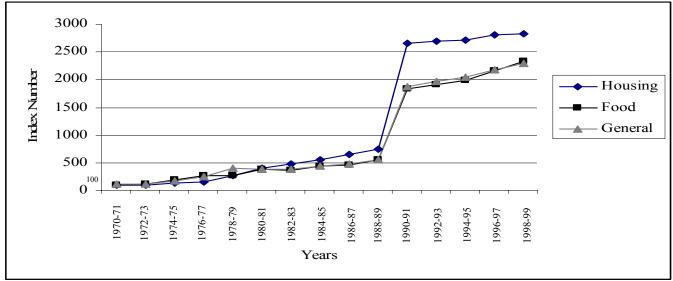


Figure 2.3.4 Cost of living index of Dhaka city (base year 1969 as 100)

Source: Bangladesh Bureau of Statistics, 2001 (Bangladesh Population Census 2001)

Slum improvement project (SIP) and agency of the urban poor

SIP is a UNICEF-funded, community-based effort in Bangladesh to improve the slum environment, provide primary health care, and empower poor women living in these communities. Beginning in the mid-eighties, the first phase took place in 57 slums in 5 medium-sized towns. The second phase started in 1990 and by 1994 had grown to

include 25 cities and towns and 185 slum clusters, reaching 40,000 women. The program emphasized community involvement with a special focus on an "enhanced role for women in project activities." Activities aimed at connecting existing urban services to slum communities and improving institutional capacity to work with the urban poor. The project emphasized interagency collaboration. A three level national, city and community management structure was the basis of the program²¹.

The case study on the SIP in Dhaka metropolitan city, by the Local Government Engineering Department (as of 1991), was undertaken to highlight some of the innovative socio-economic programs implemented for urban slum dwellers, as well as some lessons learned from them. The overall achievement of the SIP was satisfactory, as the model made a breakthrough in providing an integrated package of basic physical, social, and economic infrastructure services to the urban poor. Of all SIP components, the microcredit program has been found to be particularly successful and most attractive. Many poor households had increased their income using this facility. The SIP had significantly raised levels of health awareness among slum dwellers, resulting in significant reductions in the incidence of numerous diseases. The SIP had empowered poor women through community involvement, particularly through the savings and credit program, thereby raising the overall status of women in families and communities.

Some of the components of the project were barely able to reach the poorest of the poor, who remained virtually outside the reach of SIP credit and savings programs. The land tenure issue was not yet been comprehensively addressed by the SIP. With physical infrastructure development, the non-physical needs such as human resource development, social mobilization, community organization, and participation, which are all vital for project stability, needed to be further developed²².

Housing loan by HBFC

There are few institutions available for providing loans for shelter development for urban and rural poor, while there are no institutions at all, which provide loans to landless poor

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²¹ http://web.mit.edu/urbanupgrading/upgrading/case-examples/ce-BG-slu-html accessed 31 January 2006 http://www.virtualref.com/uncrd/242.htm accessed 31 January 2006

people. The House Building Finance Corporations (HBFC) provides concessional loans generally at 5% interest at the Thana level and 11% in urban areas (like in Dhaka, Chittagong). As a prerequisite to eligibility for a loan, the candidate must own land, which can act as a guarantee of at least 20% of the investment needed for shelter construction. HBFC however, provides loans primarily to middle class candidates, that is, loans starting at USD 3,582²³.

Asrayon project: home for the homeless

The Asrayon project was launched in May 1997 after a devastating cyclone that rendered 290,000 people homeless in the coastal areas of the southern part of Bangladesh. The project aimed at providing homeless and landless families with homesteads and promoting income generation and poverty alleviation activities to make them self-reliant. In addition to providing homes to the homeless, Asrayon also seeked to provide education, health, nutrition and family planning, credit facilities, income generation activities and community development. Thus Asrayon's overall objective was not only to provide shelter but also to create self-employment for the poor and homeless. Until February 2000, 1591 homes had been constructed and 15,910 families rehabilitated; 160 community centres were constructed, 226 cooperative societies were formed, and over USD 1.19 million disbursed as micro-credit to about 9000 rehabilitated families. Asrayon's aim was to provide each homeless family with a dwelling house, one tube-well for 10 families, one small homestead plot, agricultural land and other facilities. The Project Asrayon was ultimately designed to provide shelter to 50,000 destitute families at a cost of USD 24.48 million by June 2002 (GOB, 2001). This project was directly managed by the Prime Minister's Office, other agencies involved in the project such as Asrayon Bastobayon Sangstha, Armed Forces Division, Directorate of Cooperatives and concerned District and Thana Administrations. But at the end this project was terminated in mid way and not allowed to continue anymore and obviously this happened due to political reasons. In 2001, a new political party came into power and the funding for this project was terminated. At each shift of political government it is not an uncommon

²³ http://www.questiournalists.com/pdfs/was.doc accessed January 30 2006

phenomenon to change (whether it is relevant or not) all plans, strategies of development projects etc. or to stop the ongoing projects started by the previous elected government.

2.3.7 Interplay of Actors and their Coordination

Within the RAJUK's jurisdiction, there are some actors who have been playing parallel and uncoordinated functional roles under the heading of urban planning and development. The coordination between these government and private organizations is one of the most necessary components for the implementation of DMDP. Coordination is a compulsory pre-requisite not only in the case of implementation of DMDP, but also for the other development projects. This is because the administrative zones defined by each public agency are overlapped to a higher extent as have been described in part 2.1.1.

In Dhaka city, for instance, there are 16 governmental/autonomous organizations directly involved, and about 30 other organizations indirectly, in urban development activities. Despite having an institutional arrangement for coordination among the first 16 bodies, real coordination has not yet been possible (National policy forum, 2001). Within the RAJUK's jurisdiction, particularly the issue of urban housing (starting from the land development to the building construction) the main actors are: RAJUK, DCC, DWASA, DESA and private real estate developers.

In Dhaka the vital functions of area planning, development and permissions for building constructions are assigned to RAJUK. The major functions that are performed by RAJUK according to the *Town Improvement (amendment) Act, 1987* may be summarized as follows,

- 1. This is the only organization with clear responsibilities for planning and management at Dhaka city but its coordination role is not clear.
- 2. Master planning, development and building control, and development through land and estate development; area improvement and major road improvement.
- 3. Creation of planned townships areas and supporting infrastructure in coordination with other concerned public agencies.
- 4. Development control, including security and approval of plans submitted by individuals and organizations regarding their purpose of land use within Dhaka.

DWASA is the responsible public agency for providing drinking water and sewerage service. With parallel to RAJUK and DWASA, DCC is the only elected municipal government, is also assigned to both urban planning and water supply provision along with managing all the city dwellers' civic demands. DCC has a town planning unit in charge of the task of preparing master plans and site development schemes. Whereas RAJUK takes the overall charge of Dhaka city's physical planning. On the other hand, RAJUK never consults DWASA while giving permissions for constructing multi-storied buildings, although DWASA has to provide water and sewerage connections to those buildings as soon as the construction of the super structures are completed. While interviewing the urban planners at RAJUK they described the practice of coordination with other infrastructure and service giving public agencies. According to the urban planners, any physical plan of any project (for example, residential area development project) is supposed to be sent before the implementation for the opinions, necessary feedback and permission of concerned public agencies like DWASA, DESA, DCC, Roads and Highways etc. But the actual practice is that regarding any project RAJUK just inform other concerned public agencies for providing necessary utilities and service facilities even after implementation of the project.

In the Daily Star on 9th of May, 2004 an article was published highlighting the lack in coordination among the planning authorities. In that article, Haque (2004) stated that

"Dhaka has too many planning authorities and they have very little coordination among them".

He commented on RAJUK's role as a *real estate developing organization* instead of a city planning organization. He mentioned that Dhaka city is governed by the DCC, whose broader responsibility is to provide utility and amenity services to the city dwellers but they are more interested into building new shopping areas in the vacant urban lots, at times in the play ground and parks, because of the increasing demand for shopping²⁴.

DWASA has also problems with DESA, since a power cut by DESA severely affected DWASA's water pumping operations, and these bodies have no organizational

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 $^{^{24} \}underline{\text{http://www.thedailystar.net/2004/05/09/d40509150276.htm}} \ \ \text{accessed 9 February 2006}$

mechanism for sitting together and resolving those problems. The most common example of lack of coordination is, of course, the constant digging and filling of the city roads for providing under-ground utility services by various organizations at different times of the year, causing immense suffering to the common people and permanent damage to the roads. Though there were some efforts from the govt. side for promoting coordination among the public agencies, evidence showed that at the end all the efforts ended up unfruitfully (Box 2.3.2).

Box 2.3.2 Level of coordination of the urban planning organizations in Dhaka

Over the years coordination attempts were made by creation of coordination committees patronized by the Ministries and their underlying national scale departments. In 1996 two separate coordination committees were constituted in order to ensure better services through coordination among the planning organizations in the city. Unfortunately, the two coordination committees themselves are functioning isolated from each other. The first coordination committee was headed by the Minister of Local Government Rural Development and Cooperatives (LGRD) as convener. The Mayor of DCC was the coconvener committee. The main objective of the committee was to co-ordinate different line departments/organizations in Dhaka City. At present, the coordination committee is now dealing with traffic congestion, water supply, drainage, health facilities and other problems in the city. This is regarded as the first step to establish the proposed metropolitan government in the city. Nevertheless, the committee has been guilty of being politicized. The Minister of Housing and Public Works heads the second committee which has a number of bureaucrats from the major urban planning organizations in Dhaka city: such as RAJUK, DWASA. The committee members are mostly engineers and architects. Due to the absence of people's representatives it has been guilty of being a bureaucratic committee. Despite having all allegations against them, the first coordination committee performed better as it was successful in ensuring some functional coordination between the concerning urban planning organizations during the construction of some underpasses at a few busy locations in the city. The coordination committee had also tried to eliminate the water logging in some places in the city. Later, due to lack of legal bindings the committee failed to take decisions (Siddiqui, 2000).

In reality, there is no functional coordination between the urban scale service giving agencies. There is also absence of coordination between the private agencies like real estate developers and urban public agencies like RAJUK. I noticed only form of contact between public and private agencies in the case of, for example, approving land development or housing project. Nevertheless, regarding management and maintenance of the civic utilities and services, the level of coordination between the public agencies is distressingly poor.

2.3.8 Summary

This part described the overall housing situation in the study area. It focused on the community based organization by the slum dwellers and the use of their agency. They use their agency not only for generating income but also buying temporary tenure security to live in the slum. It shows how politicians have been using CBO (here cooperative society) and slum dwellers in different political activities and therefore in favour of their interests. As slum dwellers are highly mobile in terms of choosing living places and mobility mainly depends on distance to the work places and travel cost. This part also discussed the importance of the mobility behaviour for suggesting the space/location for re-housing the urban poor. Most of the land development and housing projects, both by the public and private sectors, are targeted for the upper and upper middle class people. Only a few projects by the public agencies were found where some refugees and slum/squatter dwellers were resettled. Even though there were some instances of low income housing scheme by the government, at the end those were not sustainable. In the urban areas even though there are few provisions for housing loans by the governmental agencies (like HBFC), there is no access to this facility for the urban poor. In case of inter-agency functional coordination, pictures are disappointing. Despite overlapping responsibilities and jurisdictional areas, in matter of planning and management there are no evidence of coordination between the concerned urban planning and service giving agencies in Dhaka.

2.4 POLITICS AND GOVERNANCE

2.4.1 Organigram of RAJUK

The organizational structure of RAJUK is hierarchical and the chairman holds supreme power and authority in all decision-making activities (see appendix 2). One of the pressing problems of governance is the politicization of the public bureaucracy, with its adverse effects on performance (Khan, 2003). Here goes the story of politicization process of RAJUK and its effects. The chairman is appointed to RAJUK for a limited period of time usually from 1 to 2 years. While discussing about the appointment procedure of the chairman with one of the urban planners at RAJUK, it was revealed that this appointment is mostly political. The government choose someone at the level of senior joint secretary from the other departments/ministries and appoints him/her to RAJUK. The governmental official who have very good relations with the ruling government party or who has been known as a good supporter of that party for a long period of time, is awarded and privileged by receiving such supreme and strategic position in an important public agency like RAJUK. At the same time, by giving such positions, government indirectly wants to get the assurance that whatever may be the bureaucratic problems; every sort of decision is within the favour of their party's In terms of educational qualification, the governmental official like the interests. chairman may have enough education but the fact is that very often they don't have the relevant educational background and experience which is required to drive and guide such a big and important urban planning organization. The current chairman of RAJUK has come from Bangladesh Railway and he is a civil engineer by profession. Being an engineer working experience in the railway department is very much different from what is performed in the supreme urban planning organization like RAJUK. The previous chairman was also from Bangladesh Railway. There is a relevant governmental department named Planning Commission where urban planning professionals work at the ministerial level. Professionals from the planning commission naturally should hold the position in an urban scale planning organization like RAJUK. During the last two regimes no planning professional was appointed as a chairman at RAJUK.

The next persons in the structure, in terms of power and authority, are the members and there are five categories of members for the five divisions, namely

- i. Member (Administration and Land)
- ii. Member (Estate)
- iii. Member (Finance)
- iv. Member (Development) and
- v. Member (Planning).

The most noticeable thing is that here too all these important posts are appointed indirectly by political influence by the ruling government party for a limited period of time (i.e., 1-2 years). Because of the recent political change in the govt., all the members and chairman have been recently appointed. In addition, many of the members may not have relevant experience or enough expertise to execute their assigned responsibilities at RAJUK. The members usually come under deputation from other governmental departments like Bangladesh Railway, Planning Commission, Department of Land Record and Survey and so on. Though the members are the heads of their respective divisions, the final decision come from the chairman. It is the normal custom that the chairman assigns responsibilities and assignments to the members and accordingly they perform their responsibilities and hence convey the instructions to the subordinate level. Eventually, all the decisions are taken at the supreme level by the chairman.

RAJUK works under the *ministry of housing and public works*. The minister has a substantial influence and power over RAJUK's activities and decisions. According to the organizational structure and official decorum, though the chairman holds the supreme authority in accepting or rejecting any decision for RAJUK, in reality he has to depend on the green signal given from the supreme authority of concerned minister.

2.4.2 Different Actors: an interface of interrelations

The urban planners from RAJUK and an urban expert from CUS gave the reasons for delays in preparing DAP as to bureaucratic behaviour and lack in political will. It was not because of fund since funds are secured by the donors while preparing SP and by the govt. of Bangladesh for DAP. The process of selecting private consulting firms was lingered even though applications from the consulting firms were invited long before.

The terms of reference (TOR) of DAP were ready for the private consulting firms. The interviewees of RAJUK described the process of selecting those consulting firms as political since there was substantial influence of powerful politicians of the ruling govt. party. In documents, though the DMDP team holds the authority for such selection based on the compatibility of individual firms along with other decisions (like relocating the urban poor to the fringe areas etc.), eventually the final decisions were taken under the influence of politicians, upper level officials at RAJUK and at the concerned ministry. There is an instance that one of the members of DMDP team opposed to the decisions (like relocation of the poor in the urban fringe, implications of land development techniques for different income groups etc.) taken by the team which apparently seemed impractical in the current socio-economic context. Since there was much political influence in the decisions, he did not agree and thus did not give his consent in those decisions. Afterwards he was kicked off from the team and a new member was appointed in his place. The fact is that the relationships between the powerful politicians (like minister, MPs etc.), govt. officials and private consulting firms is based on financial dealings. An opinion survey conducted in 1992 among household heads in Dhaka City found that 68.25% of the respondents paid bribes to concerned officials to get services (Aminuzzaman, 1996). It is worth noting that a major portion of the allocated money for preparing plans, for instance DAP, goes to the pockets of powerful politicians and the govt. officials and very little of it has any actual use. This argument have been established by the deviation between TOR of DAP (format of financial proposal, step wise activities of DAP) (see appendix 3) and the functions that are being performed on the ground. In *format of financial proposal*, though a certain amount of money have been allocated for conducting survey on land price, land ownership information and most importantly for ensuring community participation, all these components of it were found missing during the preparation of DAP.

Regarding the land banking scheme, the urban planners opined that it should have existed and been practiced at RAJUK. Without it, in a near future RAJUK eventually have to pay much high price (than what it would have paid) for acquiring lands in the urban fringe areas from the individual land owners, private developers or so called land grabbers or speculators. Some of them described the other side of the story regarding acquiring lands

by RAJUK. Most of the politicians are doing business and they are the big business men in the city and through out the country. Many of them are the owners or have a major share in many real estate developers or in any consulting firms. Since by means of power they can influence the decisions taken at RAJUK, they try to influence decisions in favour of their business interests. The results of a survey for a sociological study on corruption found that 62% of respondents believed that the primary responsibility for corruption in Bangladesh lay in the hands of government officials (Zakiuddin, 2002). A study revealed that incidences of corruption are highest in land administration, the police and the lower judiciary²⁵. Most of the land in the urban fringe is in the grip of such kind of politicians or of so called 'elite'. It is a rule of thumb that with the passage of time the land price will be increasing and in Dhaka at a very high pace. So the phenomena like lack of practice of legal mechanism (for instance land banking scheme etc.), lingering of total DMDP process and so on can be explained as a business association between the politicians and higher level officials at RAJUK.

The urban expert of CUS described that RAJUK did not consider the importance of preservation of low lying fringe areas and agriculture land. According to his research knowledge on the slum dwellers, he mentioned that decision regarding housing provision for the urban poor to the fringe areas is impractical as the prime determinants of choosing residence by the urban poor are close proximity to work place and transport cost. At present there is very limited working opportunity in the urban fringe (mostly agriculture based) and there it will take long time to grow urban scale employment opportunities. He is skeptical about the resettlement of the poor to fringe area as it requires effective and cheap public transport system as well as transport infrastructure which are absent. Moreover, there is no indication in DMDP who will provide such infrastructure facilities and by when.

The professionals from the private land developers were asked about the reasons for being delayed to prepare DAP. They answered this question by putting blame on political will and bureaucratic aspects which are interrelated to each other. They criticized the RAJUK's decision regarding the housing scheme for the urban poor as impractical. This is because, in one hand, most of the land or housing projects by RAJUK and other public

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²⁵ http://www.ti-bangladesh.org/documents/HouseholdSurvey200405-sum1.pdf (accessed 7 October 2005)

agencies mainly served the upper-middle and upper class people of the society. On the other hand, the process of allotment of the plots is highly political and this is far away from being fair.

According to them, they have been acquiring lands since 1995 in the urban fringe at a cheap price compared to the inner city areas. It is an open secret that such kind of developers has to maintain a very good relation with the MPs, ministers, powerful politicians of the ruling govt. party so that they can use these connections in favour of their business interests. While describing the approval of land and housing development projects they told that in order to be approved there must have a financial dealing between the politicians (who is pursuing in favour of the land developers), the officials at RAJUK (who will eventually approve) and the real estate developers themselves.

From the interviews with the private consulting firms it was revealed that the private consulting firms have not been performing their functions according to TOR. It could be assumed that they will make up this flaw by making a financial deal with the powerful politicians and super level officials at RAJUK.

The total process and relation among different actors involved in decision making process of housing the urban poor, for example, can be diagrammed as shown in figure 2.4.1.

2.4.3 Development Projects and Donor Assistance

The DMDP, which is under the project of *Preparation of Structure Plan, Master Plan and Detail Area Plans for Dhaka*, is one of the UNDP's aided projects implemented in co-operation with UNCHS/HABITAT in Dhaka. This is a five year project with a total project cost of USD 2.41 millions, of which the UNDP contribution is USD 2.06 millions which is 85.6% of the total amount (DMDP, 1995). For any kind of large-scale development project by the development authorities, or local govt. like city corporations, municipalities etc., bilateral or multi lateral donor agencies always contribute a major share. Municipalities obtaining larger grants supported under different donor-driven projects allocate large portions of expenditure on *physical infrastructure*, a compulsory component of such projects. Development of most of the local government's

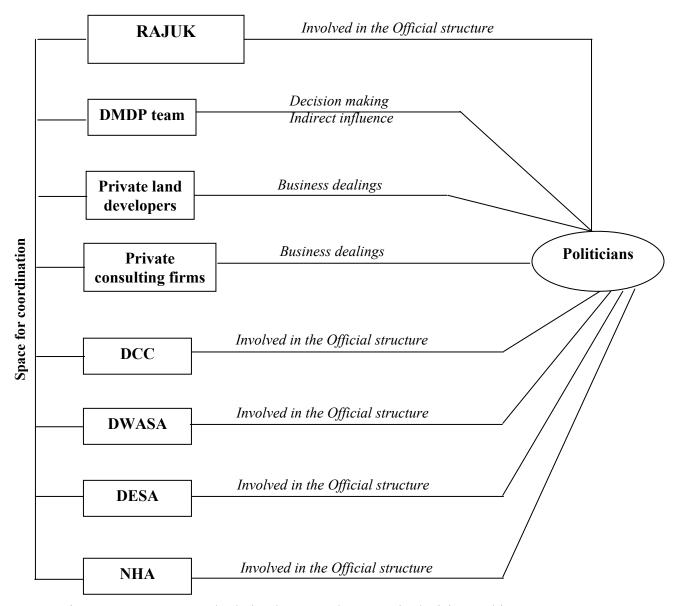


Figure 2.4.1 Process and relation between the actors in decision making process

new infrastructure is financed through foreign aid and government grants. Urban government owned funds for the majority of the bodies are not even sufficient for the maintenance of existing infrastructure (Chowdhury et al., 2004). An inventory of donors' contribution in different projects (since 1992) as development assistance for addressing and solving existing and emerging urban issues is presented in table 2.4.1.

The donors are the major contributors to public funds. Their fiduciary requirements vary widely. Where donor agencies support defined projects, they have to assure their own

stakeholders that the funds are used for legitimate project purposes, efficiently and effectively. This has to be balanced against the need for recipients to develop their own project management capacity and to take ownership and responsibility for fiduciary outcomes. Most bilateral donors, such as UK-DFID, purchase themselves planned inputs such as consultants, training and equipment, put their own contractors or consultants to

Table 2.4.1 Development projects undertaken by the donors' funding.

Project title	Project cost in million USD	Donor agency	Implementation period	No. and municipal unit	Progress
Slum improvement project (1 st phase)	3.63	UNICEF	1988-96	4 City corporations, 21 Municipalities	100%
Secondary Town Infrastructure Improvement Project I	32.4	ADB	1992-2000	10 Municipalities	100%
Rehabilitation of Infrastructure of Towns affected by 1998 Flood	10.85	ADB	1998-2000	103 Municipalities	100%
Secondary Town Flood Protection	19.77	ADB	1992-1998	5 Municipalities, 1 City Corporation	100%
Urban Basic Service Delivery	5.55	UNICEF	2001-2002	22 Municipalities	100%
Technical Assistance for preparation of Urban Governance & Improvement of Infrastructure	0.30	ADB	2001-2002	22 Municipalities	100%
Secondary Town Infrastructure Improvement Project II	56.9	ADB	1996-2003	2 City Corporations	94%
Municipal Services Project	100.77	World Bank	1999-2003	2 City Corporation	45%
Urban Poverty Alleviation through Local Participation	22.44	UNDP & UNICEF	1999-2006	3 City Corporations 8 Municipalities	11%
Urban Governance & Improvement of Infrastructure Project	73.88	ADB	2002-2008	22 Municipalities	Ongoing

Source: Chowdhury, 2004

manage the projects and require accounts, reports and audits to comply with their own rules. Most multilateral donors, on the other hand, such as World Bank, Asian Development Bank (ADB) and UNDP, are moving towards national execution. This puts the formal responsibility for management in the hands of the implementing agencies,

which manage projects in accordance with their own legal and regulatory frameworks. In practice, governments often prefer to delegate foreign procurement back to the donor, both to save expenses and to protect themselves against domestic pressures. Also national execution is normally accompanied by capacity building efforts that increase fiduciary assistance while leaving the responsibility with national projects directors (World Bank, 2002). Despite such formalities, legal and regulatory framework, the outcomes of such development projects has very little implications in reality. Nevertheless, somebody may argue with regard to the responsibilities of the donors. Some projects in the past show that the donors only have interest on annual or periodical monitoring or interim financial and progress reports very often which have a little connection with the reality on the ground.

2.4.4 A Synoptic view of Corruption on Urban Governance

Here in this section I have described the nature of corruption in Bangladesh. It reinforces and reaffirms the statements made by the interviewees and arguments which I have made in different sub sections. Though the corruption is a big phenomenon, here the description is confined only on the administration, process and involvement of people in such a process.

Information obtained from the Finance Division of the Ministry of Finance shows that over a period of twenty-two years, i.e. between 1971 and 1993, USD 26.86 billions were lost in the public sector due to misappropriation of public funds and theft (Alam, 1996). However, this huge amount of money, which is substantial for a resource-poor and aid-dependent country, is only the tip of the iceberg if one takes into consideration all cases of corruption that have been reported by the Bureau of Anti-Corruption over the same period (Khan, 1979). It is usually known that almost all kinds of corruption are perpetuated in politics and in the administration. It can be assumed that all such kind of misappropriation is occurring in arena of politics, public administration through different kinds of development projects, for example, and all these arenas are inter-linked to each other. As one scholar noted,

'Project corruption permeates both public and private sector contracting. A substantial commission must be paid to secure large public sector contracts in Bangladesh' (Kochanek, 1993).

A recent report of the United Nations Development Programme (UNDP) titled "Corruption and Good Governance" found that bureaucratic corruption and inefficiency are taking a heavy toll on the Bangladesh economy, causing hundreds of millions of dollars' worth of loss in terms of unrealized investment and income (Mustafa, 1997). The report pointed out: "If Bangladesh would improve the integrity and efficiency of its bureaucracy, its investment would rise by more than five percentage points and its yearly GDP rate would rise by over half a percentage point" (Mustafa, 1997).

The existence of patron-client relationships reinforces corrupt practices in all spheres of public dealings. Almost all political regimes in Bangladesh have been corrupt. Only the nature and extent of corruption varied depending on the nature of the regime, its key leader and his popular power base. Corruption in the public service is extensive and all-pervasive. Corruption in the political arena has emboldened public servants to become unabashedly corrupt and not bother about it at all (Khan et al., 1995).

Buying political influence and buying votes are common manifestation of political corruption in many countries including Bangladesh. As money is needed to be active in politics and participate in elections, financial needs and pressure make politicians easy prey to accept payoffs unless they are wealthy enough to undertake such activities. It has been argued that the loss of ideological focus in France and Italy was caused by need to finance politics which gave rise to 'Businessman Politicians' (Meny, 1996). This is also the case in Bangladesh. The survey of the Members of Parliament (MP) indicates a growing involvement of MPs who have connection with business and engage in business with the state (Ahmed, 2004).

2.3.5 Detail Area Plan (2005-2015): a rhetoric

Under the detail area plan the total DMDP jurisdiction is divided into 26 SPZs. The preparation of DAP for these SPZs are assigned to 5 private consulting firms to be completed within 2 years. The firms are,

- 1. Development and Design Consultant limited
- 2. Sheltech Private Consultant limited
- 3. Engineering and Planning Consultant
- 4. Data Expert Limited
- 5. Goni Bangla Private Consultant limited

However, this section of the discussion deals with the level of deviation between what have been recommended in SP and UAP and how DAP is being prepared at the execution level. Based on the interviews with the professionals, this part describes the ongoing functions that are being performed on the ground under DAP scheme.

The major challenges embedded in the preparation of DAP were,

- 1. Ensure tenure security
- 2. Acquisition of land in the urban fringe
- 3. Implementation of different land development techniques for different income group of people
- 4. Upgraded inventory of land owners in the DMDP jurisdiction
- 5. Community participation and
- 6. Resettling the urban poor to the new locations in the urban fringe and
- 7. Night shelter and sanitation facilities for the floating urban poor

One of the objectives of the interview guides was to get the answers focusing on the major challenges embedded in the DAP. The project director of DAP at RAJUK was interviewed in order to know the functions that are being performed by the consulting firms, in the light of above mentioned challenges. There was not at all any plan or provision of night shelter and sanitation facilities for the floating urban poor. About tenure security she replied they did not have yet any thinking or plans. During the interview she always tried to mention about the ongoing physical feature survey for the SPZs with the application of state of the art GPS, Total Station (TS) etc. When she was asked about the stakeholder participation at the community level, she ignored it as if it was not an important element of DMDP. To her physical feature survey is more important than the stakeholders' participation. According to her, at the very beginning the name of this plan was 'Dhaka Metropolitan Area Development Plan and Management' but due to fund constraints from the donor side the management unit was removed from

the total process. Is this means that donors are responsible up to the level of plan preparation and hence giving guidelines but not at the management level when the plan will be executed after the preparation of DAP?

In the TOR of DAP, it is explicit that each consulting firm have to conduct a land ownership survey in order to implement different land development techniques for different income group of people. Likewise, in TOR priority was also given to prepare an upgraded inventory of land value for the different SPZs of Dhaka. While interviewing the professionals from the private consulting firms, they were asked about the status of preparation of land ownership's inventory and of conducting land value survey. According to them, they have been only preparing some GIS based thematic maps of the available information and published documents pertaining to land owners and land value. They supposed to take stakeholders' consent and their opinions regarding their intent of involvement into the process of the land development techniques. For instance, in order to apply land readjustment techniques, the prime determinants are inventory of land owners and their persistent participation and consent to get involved into the process. If all these determinants are absent in hands, then it is impossible to apply such techniques on the ground. In reply to the question why such participation was not ensured at the field level, they said they were not given the instructions to ensure such type of participation. It is worth mentioning that in all their responses they tried to focus on the ongoing physical feature survey with the application of modern techniques and equipments. While being there at those consulting firms, all of them tried to show me their costly and modern GIS set up for conducting physical feature survey.

In regard to the stakeholder participation in the overall planning process and particularly in DAP, the assistant director of research and documentation at RAJUK (who previously was a member of the DMDP team) said that in the issue of community participation is more a question of rhetoric than a reality because a very few meetings were arranged and only with the members from the Union Parishad²⁶ (who are elected for a certain period) and without any participation from the grass-root level, such as villagers²⁷ or people from

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²⁶ In the rural areas the hierarchy of administrative unit is: Thana/Upazila Parishad – Union Parishad – Village.

²⁷ Some rural areas fall under DMDP jurisdiction.

the urban fringes. Those meetings were mostly a formality just to let them know about the ongoing planning process.

He criticized the RAJUK's decision regarding land acquisition. At present RAJUK has no land banking provision to meet future needs or to face the challenge of rapid urbanization. Nevertheless, sometimes, with either government or donor funds, it acquires land when any project is on the verge of execution. For instance, after the preparation of DAP, RAJUK will start acquiring land in the fringe areas in order to implement DAP. This is seemingly contradictory because development organizations such as RAJUK should practice land bank scheme so that when needed, they could get the required amount of land without facing any land litigation problems, landownership disputes, and without paying exorbitant rates per unit of land.

Regarding coordination of RAJUK with other actors like DCC, DWASA, land developers the answers of the interviews can be summarized as there is no level of coordination between these public agencies not even under the umbrella of DMDP. Whenever, level of coordination is almost absent, it is highly ambitious to assume that there will be such meetings where the concerned public agencies will discuss how the cost of infrastructure in the urban fringe will be shared and recovered.

2.4.6 Summary

The organigram of RAJUK is hierarchical and in terms of power and decision the chairman holds the supreme authority. Though this is an autonomous body, institutionalization of autonomy and democracy is far away from being implemented. There has been firm evidence of politicization of the organizational structure of RAJUK. Members and chairman are appointed through indirect political process and many of them have not enough educational aptitude or experience to be appointed in such posts. Above all these official formalities, major decisions regarding development projects depend on the decision of the minister for housing and public works. Public and private actors have made an interface of business dealings. In matters of land acquisition, land development and housing projects, development projects and so on these actors always seek mutual financial benefits. No matter what is documented, through illegal persuasion they always influence the decision in favour of their interests. Now it's widely known

that the politicians are the major actors both in the public and private agencies. A major portion of the development projects in Bangladesh are financed by the bilateral or multi lateral donors. A substantial amount of money is invested in different development projects which outcome is hardly seen in the reality as most of the funds are misused or misappropriated. Apparently, it could be assumed that the actors always have keen eyes on those funds to grab for their own interests. The evidence of corruption and discussions of the interviewees reaffirm the phenomenon. The way DAP is being prepared, it should be said more of rhetoric. The issue of tenure security, community participation and night shelter provision is absent in the total process of detail area planning. There has been no effort to prepare upgraded inventory of land owners and land price etc. without which implementation of land development techniques (like land readjustments, guided land development etc.) are impossible. Moreover, in the present context of land price, mass transport system, land speculation etc. resettlement of urban poor to the fringe areas is very much theoretical.

PART III

3.1 CONCLUSION

3.1.1 Discussion and Conclusion

The discussion in this final part is based on the research objectives that are attained in the light of the corresponding research questions and also I have attempted to fit the findings of the study into the pre-existing fabric of knowledge. It discusses the theoretical recommendations regarding housing scheme for the urban poor documented in DMDP and their practical implications in line with different current urban issues. It demonstrates the role and connection between actors, in broad sphere of planning, business and politics, in making such deviation of what is recommended in DMDP and concomitant situation and happenings on the ground. The theoretical and conceptual framework of this study is designed based on the theory of structuration, actor's oriented theory and challenges and controversies of urban growth in order to apprehend the societal structure and system of the urban poor, the use of their agency under feudalism or political clientelism and at the same time government's strategies regarding low income housing in response to the increased pressure of urbanization.

The skewed landownership pattern in Dhaka city where the planning agency like RAJUK has very little control may be addressed as the transposition of a feudal system upon the modern urban fabric. Due to some unknown reasons, two-thirds of government vacant land in different parts of the city, under the ownership of *Bangladesh Railway*, is not released for urban use. Perhaps this is one of the important reasons for scarce supply of land in the city areas and therefore to extend the physical development work in fringe areas. Most of the land in the urban fringe area in the grip of private land developers and so called land speculators. Such urban fringe areas has a very poor and some where even absence of road network system to be connected with the core and other areas of the city. Most of the private developers have been buying land at a cheaper price in such fringe part of the city since 1995 when the preparation of DMDP was started. Since 1995 obviously the price of land has been increased by many folds. However, it is very clear that they have been buying those parcels

of land just for the purpose of speculation. Despite necessity and having legislative authority, RAJUK have stopped acquiring land. But it can be assumed that very soon RAJUK have to acquire land from such land grabbers at an exorbitant rate in order to implement the low housing scheme as have been proposed in DMDP. Such higher acquisition cost will not only be a burden for RAJUK as an organization but also on the central govt. Nevertheless, from these different incidences it could be easily explained that most of the land developers have a strong financial or business dealings with the higher officials at RAJUK as most of the owners of the private developers are politicians or have strong linkage with the powerful politicians.

In general public transport system in Dhaka is poor. It has been mentioned in part 2.2.2 that 80% of trips are made by the NMT of which 60% are made on foot. Rickshaw is the dominant mode of public transport system and most of the poor inhabitants in the study area walk to their work place which implies their propensity to live within the walking distance to the work places. Public bus service is inadequate in number and poor in quality. Majority of the women in the lower class are engaged as garment workers not only in Duaripara slum but also in Dhaka city, in general. In one hand, there are cultural constraints which often prevent women from properly accessing public transport. From social and cultural point of views it is often difficult for women to share crowded buses with mainly male riders because of the religious dogma or social seclusion of women. On the other hand, road network system is poor not only within the urban fringe areas but also in the city areas. In this strand, it is very relevant to inquire: with the existing transport system and socio-cultural peculiarities, how far it is practical to relocate the urban poor to the fringe areas of the city. Undoubtedly, it demands an efficient and cheap public transport and road network system which is associated with a bigger amount of investment. There is as such no indication in DMDP how and when the road network and public transport system will be improved particularly in relation to the proposal for low income housing scheme and who will finance for so

From the field survey it is found that the urban poor are highly mobile in nature in terms of duration of living to a particular place and selecting locations of these places for residence. Their selection of residence mostly depends on the distance to the work places and travel

cost. A very few of the slum inhabitants live in a particular place more than 2.5 years because, very often, they switch to other similar jobs in different locations. Accordingly, they also choose and change their places for residence in another location from where they can walk to their work places. In DMDP and elsewhere there is no such basic study which can be used as a basis not only for determining the locational choice of housing but also the economic value of such choices. At this point, a complementary question may be posed how it can be feasible to recommend fringe areas as the space for relocating urban poor without having a comprehensive study of the nature of their mobility or without providing a cheap and effective mass transport system.

In the private sphere, there is no example where private developers have had any land or housing development project designed for the poorer section of the society. The target groups of the land developers are upper middle and upper income class people. There are very few examples by the public agencies like NHA where low income housing was designed especially for the urban poor. Only NHA have provided some low housing settlements where some refugees and low income people were resettled. Otherwise, the concerned public agencies mostly provided housing facilities for the upper level government employees though most of them have to live in such houses by their own rental accommodation. As far as the housing scheme by RAJUK is concerned, it only serves the upper-middle and upper income class of the society. There is some evidence where RAJUK acted like a commercial organization and was mostly interested to construct shopping centres and other commercial complexes from where the economic rate of return is higher. In terms of distributing residential or commercial plots, there is overwhelming proof of corruption. Out of such corruption, the powerful political leaders of the political parties like MPs, ministers, their relatives etc. are getting the undue benefits. According to the policies in DMDP, RAJUK will act as enabler to providing land and housing facilities for the urban poor. If it's true and this policy is implemented, based on the corrupted practice and history of plot distribution it is very difficult to believe that low income housing plots will be allocated among the poor.

Local govt, should be autonomous and self sustaining. But the scenario in the case of Bangladesh is very disappointing and reverse. All the local level bodies like pourashava, city corporation etc. are fully dependent on the block grant from the central govt. as the revenue earning from their territorial jurisdiction is distressingly low to be self-sustained. The general rule is that any type of infrastructural and civil services and facilities like roads, housing projects etc. constructed by the other public agencies should be handed over to the concerned local govt. bodies like city corporation for maintenance. It has been shown that the revenue earning in DCC is already low due to the devaluation of the taxable items like land etc., bribes, corrupted employees, mismanagement and so on. DMDP is based on the principle of urban spatial approach to growth. This means to face the challenges posed by the increasing pace of urbanization, the boundary of Dhaka city will be expanded and likewise civic services and facilities like roads, water supply, drainage etc. will be constructed for the increased population which demands a recurrent handsome amount of investment. If DCC have a very poor revenue earning from the existing city territory and if it have to depend on the block grant by the central govt. for a substantial amount of money to recover the yearly deficit budget, then in DMDP how it will be feasible to recommend and adopt spatial approach to growth as urban growth strategy for the greater Dhaka region?

According to the theory of structuration, in simplistic from agency implies skills, capabilities to survive in the daily life. The urban poor definitely have some agency which they have been constantly using to survive even in the feudalistic societal structure. In one side, they are using their agency for income generating activities and at the same they are involved in small CBO like cooperative society from where they are being benefited financially. On the other side, they themselves individually or through their cooperative society are maintaining a fair relationship with the politicians cum elite, who are taking control over the slum, in order to buy the temporary tenure security and therefore creating a *space of negotiation*. They have also established an *invisible information network* to disseminate job related information to the other people in different locations. The dependants in the rural areas are also being supported through sending remittances by the slum dwellers. In UAP, it is recommended that while providing housing facility, community participation will be ensured so that a sense of belongingness to the community can be grown and slum dwellers can indulge

themselves to use their agency. Despite their agency being acknowledged and documented in UAP, it has been totally ignored in the implementation phase. There is neither any evidence nor any effort of community participation in DAP.

Irrespective of category of households (like male, female headed or composite), the slum dwellers have accepted the feudal societal structure. Within this structure, they are trying to survive with the survival opportunities available to them. They are using their limited agency mainly for generating income. Though they have brought a little change in their lives by using their limited form of agency through forming cooperative society, maintaining an invisible network with other slum dwellers, sending remittances to their families etc., within the political clientelism such tiny change have a very limited effect in their livelihoods.

In different parts of the city, there are some governmental vacant lands which can be used for further urban development work. Despite having a good amount of space for future development, it has been recommended in UAP that the urban poor would be relocated to the fringe areas. So there is a deliberate movement leading towards an apparent social and geographical segregation between the people (upper-middle and upper class) in the city core and poor in the urban fringe. Thus, in fact, there may not have been any attempt to concretize the principles of the plan.

From the discussions in different parts of this study, it can be reaffirmed that the politicians are the most pervasive actors in the development field. They are in the official structure of the public agencies, they are doing business being an owner of the private developers and private consulting firms and they are the decision makers being the heads of a ministry and so on. They are not only making money from the slum settlements but also using them as a large supply of vote during the election. By means of legal (official) or illegal means every kind of decisions are made or influenced in favour of their business interests. The financial and business dealings between the politicians and higher level employees at the other public agencies can be considered as one of the biggest hindrance in the development field. To say about organizational coordination, the level of

cooperation among the public agencies like RAJUK, DCC, DESA, DWASA, NHA is very disappointing and strictly speaking absent. The implementation of DAP of DMDP requires multi-lateral and multi-stage coordination among these agencies without which the total DMDP process will become a myth rather than a reality. It is difficult to believe with the business dealings between the politicians and officials of the public agencies and present level of coordination among the public agencies it will be possible to implement the DAP.

Can we say that plans such as DMDP may be only undertaken to adopt Western ideology, in order to show the level of modernity the country has, but without any attempt to apply it in the socio-economic, institutional and political contexts? This may be seen merely an attempt to mislead the experts, donors and monitoring bodies in the effort to secure a significant amount of money through development cooperation. There is persistent level of corruption into the different stages of DMDP starting from SP, UAP and in the DAP. There is no specification of tenure security like how it will be ensured and which public agency will take the responsibility and in so doing which other public agencies shall coordinate with. In fact, the issue of tenure security is not documented at all in DAP whereas it is regarded as one of the most important elements in the total process of DMDP. Application of land development techniques is far away from being implemented as there is no basic studies like attitude of the land owners towards participating land development process, lack of basic data like upgraded inventory of land owners, land price etc. Considering the overall situation a very basic question should be raised whether the plan for itself and whether it is for modernity?

The Finance Division of the Ministry of Finance shows that between 1971 and 1993 USD 26.86 billion were lost in the public sector due to corruption. Before DMDP, two master plans were prepared with a hope that city will be developed in a planned manner and the urban growth will be controlled by the development authority. During the following 40 years those plans had very little implications in reality as Dhaka city have been growing up incrementally. DMDP have been prepared with a total cost of USD 2.41 millions of which majority contribution comes from the multilateral donor- UNDP. In different times

the development projects have been taken with expenditure from the public funds. But whenever there is any effort to assess the reality in terms of effective use of such money, a very little portion of the money is used or maximum portion is misused and the reality is far away from what were documented in those projects. Rather the cost of debt is increasing over the head of the poor people. In Dhaka city, about 30% inhabitants of the total people are living in the slum areas and they have been paying a higher amount of money for house rent, getting civic amenities and facilities like water, electricity, house rent and so on. So the failure of any plan has a greater impact on their livelihoods. This implies that whatever may the objectives of the plans or of the development projects, their role in reducing poverty, in a broader sense, is negligible. In a resource poor and aid dependent country, if such practice continues going on, then the poor will be first victim and thus the total country will have to face a new challenge of increasing poverty. Furthermore with the current political practice, from the politicians (irrespective of their positions in the ruling govt. or in opposition side) it is very difficult to expect that they will bring a positive change in the lives of urban poor. Because all the 'business minded' politicians are involved, more or less, in money making process through exploitation of the urban poor.

At the end, based on the discussions above and while attempting to measure the gap between the myth and reality of the plan like DMDP and to find the connections between planning, business and politics should we perhaps describe the total phenomenon as organized inefficiency for securing the business and economic benefits of the national 'elites'?

3.1.2 Some Concerns and Future Footsteps

There is no doubt that slum settlement is one of the most profitable business sectors for the elite businessmen and politicians. Even NGOs are doing business in the name of social welfare. From this study, one of the most noticeable things is discovered that the slum dwellers have accepted, to a greater content, the patron-client relationship and feudalistic social structure. This phenomenon, in particular, have arisen some questions which remain to be answered: why they have accepted such societal fabric and why they

are not interested to change and raise their voice against such political clientelistic structure of the society. From this study it has been reaffirmed that slum dwellers have agencies, under coercion which they can not use in full spell. Which factors are hindering them to use their full agency? Obviously, all these unanswered questions warrant some further in-depth research.

In DMDP, there is a distinct attempt to physically segregate the poorer section of the society from the richer class. It is well known that the middle and upper income class of the society very much aware about the aggravated situation about the poor in slum/squatter settlements. Nevertheless, they keep their nose away from this problem. It seems like they have made an invisible circular boundary to separate themselves from the urban poor and from the urban problems. In this position, what should be the role of the civil society or the state, in general, to revive the moral value of the society?

Over the days, political practice and corruption are becoming universal phenomena in many sectors including development. What should be role of the central government to curb such malpractice? I think this is a very basic study by looking through the lens of housing the urban poor and by linking together a range of issues from different corners like planning practice, politics and business. In this study, I have drawn a connection among these three spheres which are exerting a great impact in the proliferation of urban problems and urban poverty rather than to solve those. There is a need for an in-depth study on the implementability of other development projects including DMDP in the current socio-political and governance context. There is an urgency to know the level of democracy and its practice in the urban governance system which warrants some more studies.

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APPENDICES

APPENDIX 1: Questionnaire Survey and Interview Guides

	Norwegian University of Science	Questionnaire No.
	and Technology (NTNU)	Date:
	Department of Geography	

Housing the Urban Poor: Planning, Business and Politics A Case Study of Duaripara Slum, Dhaka city, Bangladesh QUESTIONNAIRE SURVEY FOR THE INHABITANTS OF DUARIPARA SLUM

The purpose of this questionnaire is to explore the housing condition, mobility behavior, agency and level of participation of the inhabitants at Duaripara slum. The study is purely for academic purposes and the information provided will be treated as confidential and can not be traced to the persons who provided them. Thanks in advance for your cooperation. (Put cross (X) mark on the box) 1. Age:years 2. Sex: □ Male □ Female 3. Occupation: 4. How far is your work place from this place?km. 5. What is the mode of travel to go to your working place? □ On foot □ Public bus □ Rickshaw □ Other:..... 6. Family size: 7. How long you have been staying in this slum? 8. And why did you choose this location to live in? 9. How many rooms do you have? 10. What is the total size (in sq. ft) of your room (s)? 11. Do you have voting right? □ Yes □ No

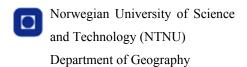
If yes, do you use this right during the election?

□ Yes □ No
And when you have been registered as voter?
If you do not use your voting right, please tell why
12. Who is the owner of this slum/squatter settlement?
☐ Govt. (Public) ☐ Private owner
If it has public ownership, occupation of the person who has been maintaining this area
□ Business man □ Service holder □ Politician □ Other:
If it has private ownership, please mention the owner's occupation
□ Business man □ Service holder □ Politician □ Other:
13. How much money (in Taka) do you pay as monthly rent?
14. Who collects this monthly rent?
15. Does the person who collects monthly rent encourage you to take part in political activities?
□ Yes □ No
16. Do you take part in the political activities?
□ Yes □ No
17. Do you take part either □ Willingly or □ Somebody encourage/influence you
Please explain what kind of benefit (s) do you get out of such participation in any of the
either cases i.e., willingly or not.

18. How many contributors do you have in your family and what is your average monthly
family income?
□ Less than 3000 Taka
☐ Between 3000 and 5000 Taka
□ Above 5000 Taka
19. Do you have other family members, who are dependent on you elsewhere?
□ Yes □ No
What kind of things do you send them?
☐ Money ☐ Anything else (goods, food, cloth, books etc.)
If money, please mention the amount of money and time interval:
20. How do you get information regarding any type of job?
21. Do you have any connection/communication with the people in other slum areas?
□ Yes □ No
If yes, what is the basis of this connection?
□ Same origin
□ Other
22. Are you engaged with small community based organization (CBO)?
□ Yes □ No

23. Please explain why you are engaged/not engaged in such CBO
24. Did you have any participation during the preparation of DMDP or you have any consultation or meetings with the personnel of DMDP?
□ Yes □ No
If yes, please explain how did they inform you regarding meetings and participation?
And what kind of opinions they took from you during the participation?
25. If you are given housing facilities (with secure tenure) to the fringe areas, then do you
agree to move there?
□ Yes □ No
If yes, please explain why
If no, please explain also why

26. Any other comment (s) that you would like to make in addition to the information					
you	have	given	above:		
			• • • • • • • • • • • • • • • • • • • •		
	•••••				



Serial No.

Date:

Housing the Urban Poor: Planning, Business and Politics

A Case Study of Duaripara Slum, Dhaka city, Bangladesh

INTERVIEW GUIDE FOR THE PROFESSIONALS OF RAJUK

A Case Study of Duaripara Stum, Dhaka City, Bangtadesh
INTERVIEW GUIDE FOR THE PROFESSIONALS OF RAJUK
(All the information collected here will be used for academic pursuits only)
1. Designation of the interviewee:
1. Do you think that preparation of detail area plan (DAP) is going at per to the schedule?
If no, please explain why.
2. If the preparation of DAP is behind the schedule, don't you think such delay will
increase the land value in the urban fringe which will ultimately increase the total project
cost?
3. What is the amount of land RAJUK have acquired in the fringe areas of Dhaka under
land banking scheme?
4. Do you think that the land so far RAJUK have acquired is adequate compare to the
total housing demand as estimated?
5. Can you please tell me about the decision making process for re-housing the urban
poor? Please describe in light of the official organigram and practice at RAJUK.
6 How do DAILIV goordingto with other natura like DCC DWASA land developers and
6. How do RAJUK coordinate with other actors like DCC, DWASA, land developers and land owners in case of acquisition and land/housing development?
rand owners in case of acquisition and rand/housing development!

7. And tell me how such coordination is performed?

- 8. If you have any contractual agreement with the collaborators in terms of coordination and preparation of Detail Area Plan (DAP), please tell me about the status of progress according to the time frame of contract.
- 9. Please tell me about the functions that are being performed in DAP by the private consulting firms.
- 10. If RAJUK is not able to acquire the required amount of land until recently, what do you think that what kind of problems it might face in acquisition and housing development process?
- 11. Can you please tell me about how slum dwellers of Dhaka city were taken into the process of participation while preparing DMDP?
- 12. According to the proposals in DMDP as the slum inhabitants will be relocated in the fringe areas, how they will be given tenure security.
- 13. What were the opinions of the slum dwellers regarding moving to the fringe areas?
- 14. Do you think that in matter of housing the urban poor, the recommendations made in DMDP reflect the opinions of slum dwellers?
- 15. Who will provide the cost for infrastructure like roads, electricity, sewerage line, water supply etc. under the new housing scheme at fringe areas and how this cost will be recovered?
- 16. From different studies it is reflected that housing location of the urban poor is mostly determined by the location of their employment. Based on previous projects' experience, how do you evaluate the extent of success of re-housing (with tenure security, if at all considered) the urban poor in the fringe areas?



Serial No.

Date:

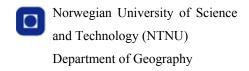
Housing the Urban Poor: Planning, Business and Politics

A Case Study of Duaripara Slum, Dhaka city, Bangladesh

INTERVIEW GUIDE FOR THE PROFESSIONALS OF PRIVATE CONSULTING FIRMS

(All the information collected here will be used for academic pursuits only)
1. Designation of the interviewee:
2. How many strategic planning zones this consulting firm has been working for?
3. How this firm is procuring land ownership information?
4. From where this firm is getting upgraded inventory of land value? If there is lack in upgraded land value inventory, is this firm conducting any land value survey?

- 5. In terms of reference (TOR) it is mentioned that land development techniques will be applied for different income groups of people. For the implementation of land development techniques like land consolidation, guided land development etc. persistent participation of the stakeholders and their consent is the most prime requirement. How people from different income groups have been taken into such process of participation?
- 6. Please explain about the types of job this consulting firm have been performing under detail area planning scheme.



Serial No.		
Date:		

Housing the Urban Poor: Planning, Business and Politics A Case Study of Duaripara Slum, Dhaka city, Bangladesh INTERVIEW GUIDE FOR THE PROFESSIONALS OF PRIVATE LAND DEVELOPERS (All the information collected here will be used for academic pursuits only)

1. Designation of the interviewee:	1. Des	ignation	of the interviewee:					
------------------------------------	--------	----------	---------------------	--	--	--	--	--

- 2. Did you have any kind of discussion with RAJUK regarding land and housing development for the urban poor? If yes, explain what about that discussion was.
- 3. From RAJUK side what do you think about the delay in implementing low cost housing scheme for the urban poor? Please explain in terms of financial, institutional, political and other aspects, what you think is relevant.
- 4. How many low cost housing development projects have been completed by this developer or in the process of completion?
- 5. Please tell me about the different processes involved in housing projects starting from land acquisition to building construction, if any.
- 6. From whom do you purchase land- from land owners, land brokers or from land contractors and how do you negotiate the land price?
- 7. According to your recent record on land value, what is the price (in Taka) of per katha land in the fringe areas?
- 8. Does this developer have any chunk of land in the fringe areas of Dhaka? If yes, please mention the amount.
- 9. When did this developer buy that aforementioned amount of land and what was the price of per katha of land?



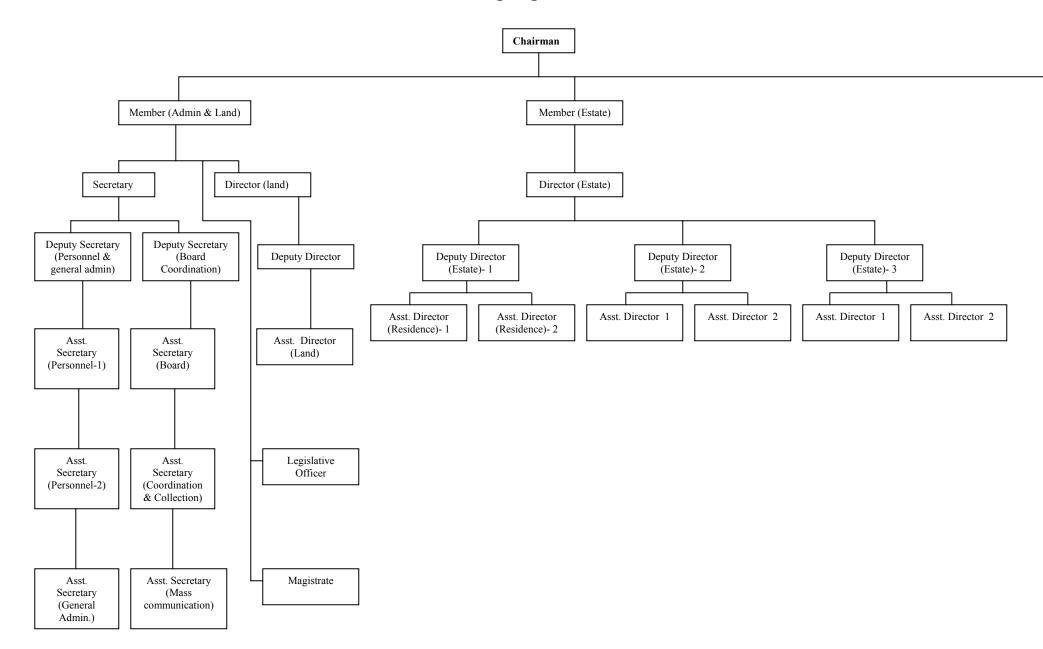
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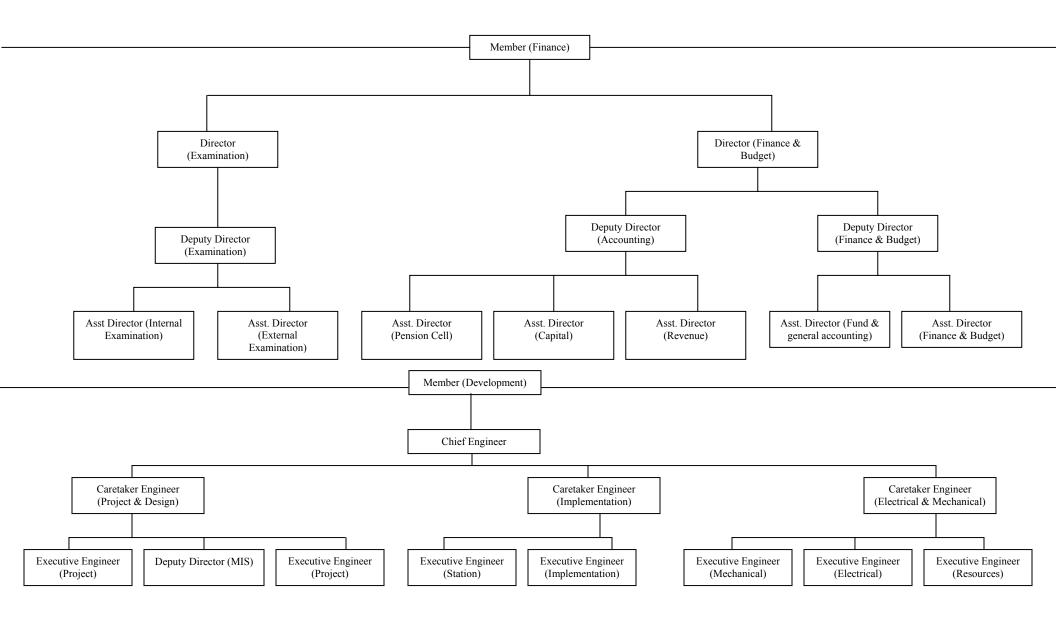
Housing the Urban Poor: Planning, Business and Politics A Case Study of Duaripara Slum, Dhaka city, Bangladesh INTERVIEW GUIDE FOR THE PROFESSIONAL OF CENTRE FOR URBAN STUDIES (CUS)

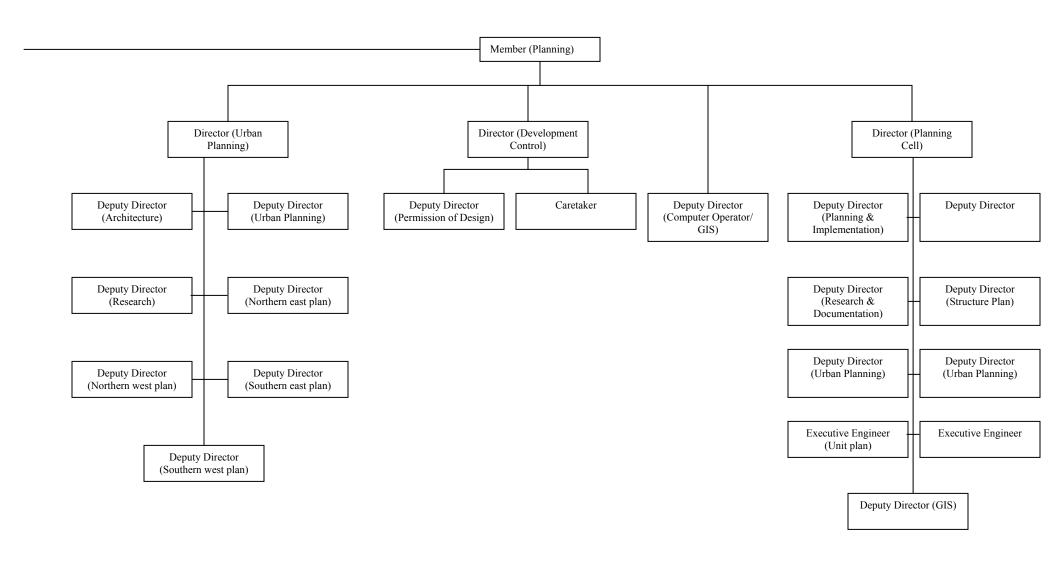
(All the information collected here will be used for academic pursuits only)

- 1. Designation of the interviewee:
- 2. Please tell me about the level of participation of CUS during the preparation of DMDP and afterwards.
- 3. Can you please tell me about CUS's suggestions regarding the housing solution for the urban poor and proposal in DMDP?
- 4. What do you think about the delay of implementing the housing provision for the urban poor as outlined in DMDP? Do you think this is because of political interest, financial constraint, lack of institutional strength or some other reasons?
- 5. Since you have studied on different aspects of livelihood of the slum dwellers, based on that research knowledge can you please tell me what slum dwellers think of housing in the fringe areas?
- 6. From RAJUK side what do you think about the delay in implementing low cost housing scheme for the urban poor? Please explain in terms of financial, institutional, political and other aspects, you think relevant.

APPENDIX 2: Organigram of RAJUK







Source: RAJUK

APPENDIX 3: Terms of Reference of DAP (Source: RAJUK)

i. Format of financial proposal for the Private consulting firms for the preparation of DAP

BID DOCUMENT FOR PREPARATION OF DETAILED AREA PLAN (DAP) FOR (DMDP) AREA including the termination of the contract and recovery of the consequential costs arising out of any delay caused by the termination of the contract.

3.1.8. Capability of Bidder and Team Members

- A corporate experienced statement, describing the background of the consulting firm, the legal administrative structure of each organization involved and their prior and current work experience in such detail as to demonstrate its technical and managerial capability to perform work similar in scope and complexity to that specified in this Terms of Reference. Bio-data and professional experience statements for each named team members should be incorporated in the proposal.
- 3.1.9. Submission of Proposals
- Two separate envelopes containing the Technical and Financial proposal must be sealed and addressed to the Chairman, RAJUK.
- Content of the Financial Proposal

Financial proposal should be prepared as per specified format (4.1) in the firm's own letter head

The Financial Proposal should include the following:

- a. A detailed breakdown of all the proposed cost which should be expressed in Bangladesh AKA within the limit as announced by the RAJUK.
- The expected distribution of inputs, in terms of personnel and supporting staff and facilities envisaged.
- A statement detailing personnel policies regarding salary, social charge, overhead, fee and tax Note: For the purpose of the bid, consultants are requested to submit the input in terms of man-months. The official working hours in the Government Ministries are 0900 hrs. To 1600 hrs.

FORMATS

4.1. Format Of Financial Proposal

SL	Items of work	Unit	Volume	Rate	per Acre	To	tal
No			work	In Fig.	In word	In Fig.	In Word
1.	Construction and Installation of Bench Mark (BM)/Ground Control Points (GCP) Pillars approximately in 1-km grid covering the project area (10"x10"x4") RCC Pillars are to be constructed marking unique identification number. Coordinate x, y of these pillars along with z value is to be marked on base map for future reference. Topographic, Physical feature, land use, survey are to be done with reference to these GCP. These GCP also used as tiCS for respective mouza sheet along with Temporary Control Point (TCP).	nos					
2.	Topographic Survey (as per specification of tender schedule). Topography survey GPS and Total station will cover the item of Location/ alignment of all roads, flood embankments and other drainage divides. Location & alignment of all drainage and irrigation channels/canals showing depth and flow of direction. Closed boundary/ outline of homestead, water bodies, swamps, forest etc. junctions, Spotheights or land levels at roughly 10m	acre			-,		

Signature of Bidder

írman, RAJUK

BID DOCUMENT FOR PREPARATION OF DETAILED AREA PLAN (DAP) FOR (DMDP) AREA intervals in normal cases, with denser intervals for undulations; contour at 0.3 meter interval. Crest levels not exceeding 50m along all dykes, roads and drainage divide. Physical Feature Survey Location and dimension of existing all structures, with height, floor, type and use of structure. Location of all existing exposed light/electric, telephone posts and towers, gas, water, sewerage line. Engineering Infrastructure Survey acre Location of all existing and proposed infrastructures (water, waste disposal, electricity, gas, telephone, road, communication, transport and traffic along with capacity, maintenance and management aspects. acre Land Use Survey Land use by type : Residential (high, middle, low density) Commercial (market, shop, workshop) Industrial (low, moderate, hazardous) Institutional (educational, health, administrative, service) Mixed use (planned, spontaneous) Recreation (active, passive, indoor) Religious (mosque, temple, church, others) Cultural (indoor, outdoor) Vacant (underutilized, temporary use for other purpose) Borrow pits Agriculture, forestry Waste disposal (authorized, unauthorized) Water body (private, public use) Base map preparation Mouza map with topographic, physical feature, engineering infrastructure survey information and enlargement to the scale 1: 1980 will be the base map. The base map has to be print on Mylar or any other stable media and copy (digital and hard) would be handed over to the project office for approval in specific sheet size. SOCIO-ECONOMIC SURVEY Household Survey(5%) per 100 Demographic, family size, age group, education, income, occupation, ownership pattern, land value, availability of urban facilities and

2/02

Signature of Bidder

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Project Director

Ogairman, RAJUK

A	BID DOCUMENT FOR PREPARATION services.	1		1			1
îi	Study carrying out housing sector (affordability of utility, density control) study (with. Slums & Squatter's Settlement and preparation of land use recommendation and plan	acre	14				
iii	as per TOR Carrying –out Investment &	acre		-		-	-
(iv)	Employment study(formal, informal) Transport sector study (Hierarchy, network and circulation pattern)	acre		-			-
V	Environment preservation (open space, water body, historical place)	acre					
vi	Drainage ,waste management (household, commercial, industrial, clinical)	acre					
(VIII.)	Land development technique for various economic group	acre					
Viii)	Community participation, Institutional and legal aspects of plan implementation.	acre					
ix	Identification of critical planing	No of					
10.	issues. Data base	case					
	Development of relational data base for using GIS having all topographic, land use and other project related information required by RAJUK, GIS mapping of proposed plan and maps of project in different scale and size as per client's requirements and specifications including incorporation of CS/RS plot and mouza boundaries.						111 72
11	Consultation	No of particip ants					
12	i) Basic salary; ii) Social Charge (Insurance, Paid vacation, Retirement fund)	Man Month					
	iii) Overheads(Administrativ e and Business costs)						
	iv) Fee(Profit Margin of the Bidder)						1
L		D 21 5	0	1	-		نـــــــــــــــــــــــــــــــــــــ
		Page 21 of 4	_ ^	10	1)		7.10

13.	Mapping and Planning (Composition	sheet
	&Printing)	
	a. Mouza Map	
	One copy print Sheet size (30"x40") Scale original	
	b. Survey Map 1. Scale 1:1980 (1"=165') 11. Sheet size (30"x40")	
	III. Paper Mylar and Ammonia. c. Base map. l. Scale 1:1980 (1" = 165') II. Sheet size (30"x40")	
	III. Paper Mylar and Ammonia. <u>d. Proposed Plan</u> 1. Scale 1:3960 (1"=330) (30"x40") 11. Scale 1:1980 (1"=165' (30"x40") 11I. Scale 1:990 (1"=82.5')	
	Sheets (30"x40") IV. Paper Mylar and Ammonia	
	TOTAL SHEETS (30"x40") SIZE	

Note:

- Above Quoted rates should be inclusive of the cost of salaries, wages, Management, Transportation, Contingency, Incidental and other related cost including printing and binding of maps and reports VAT & TAX.
- 2 If necessary more items may be included.

4.2. Format of Base Map:
 Basic issues and formats those needs to be addressed in the Base Map.
 Base maps will be prepared on the enlarged Survey maps (mouza map) at scale 1:1980 (1"=165') and. indicate following features.

Physical features	Illustrated
Physical features a. River b. Khals c. Drainage Channels d. Ponds/Tanks/Ditches e. Marshlands/Flood f. Building/Structures g. Roads h. Railway Line and ROW i. Railway Stations j. Bus/Truck Terminals k. Flood Works l. Bridges/Culverts m. Electric Mains and Row	Illustrated Indicate direction and depth of flow Indicate direction of flow Natural and improved with flow direction indicate them Land liable to flooding during monsoon Pucca/semi pucca structures & stories Pucca/HBB/ Kuthcha, earth etc. Indicate right of way Indicate the alignment and junction points. Indicate the place and area Indicate right of way and any areas that are covered by the electricity system. Embankments, pump stations, sluice gates Length, width, conditions of abutments and wing walls.
n. Utility Substations o. Deep Tube well Stations p. Mouza, Union/ward, q. Thana and District Boundary	 Indicate location, covered area, and type of structure. Electric, gas and telephone etc. Electric, waters works, wastes disposal and treatment, gas and telephone etc. WASA deep tube weil stations and

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Signature of Bidder

ii. Step wise activities of DAP for the Private consulting firms

BID DOCUMENT FOR PREPARATION OF DETAILED AREA PLAN (DAP) FOR (DMDP) AREA

6.0. Step Wise Activities of DAP

STEP 1. MOBILIZATION, RECONNAISANCE SURVEY, PROJECT DESIGN AND SUBMITION OF INCEPTION REPORT

STEP 2 COLLECTION OF MAPS, BASIC STATISTICS AND INFORMATIONS

To start the planning process the existing situation of the planning area has to be represented in a set of maps and in a collection of basic statistiCS and information.

Step 2-I Collection of Mouza map:

Original CS, RS mouza maps will be collected from DLR/ DC office by the consulting firms for
respective DAP Area. Distortion due to rapping or pasting clothes/tape in the mouza maps will not be
accepted. Collected mouza maps will be submitted to RAJUK for quality check before scanning and
digitizing Collection of CS, RS maps for all Mouzas that form the DAP area.

Step 2-II Collection of Geo-physical maps and reports Includes:

- · Geology (sedimentation, stratification, fault lines, lineaments etc.)
- · Hydrology (contour lines, water bodies/courses, embankments, pump house, related structure etc.)
- Soils major type
- · As a first 'overlay' to the, base map the geo-physical situation of the planning area has to be given.

Step 2-III Collection of Topographical maps and reports Includes:

- Physical features (land/water, urban/rural, built-up/open, landmarks, bridge/culvert, and embankment/floodwall, sluice gate)
- · Infrastructure (drainage, roads, public transportation and utilities)
- Land use (in broad categories such as residential, industrial, commercial, agricultural, flood flow, etc. each differentiated according to density and quality)
- As a second overlay the existing topographical features has to be shown:
- · Most of the information can be derived from existing sources (desk research).
- At this stage field visits by the planning team are useful to get a general impression of the character and the quality of the planning area.

STEPS 2-IV Collection of Basic statistics: present activities

- Number of inhabitants/households, differentiated according to income level/type/density and quality of housing
- Production and employment (formal/informal, number and size of establishments, type of production/activity, income/education level)
- Public services (education, health, security etc.) and utilities (drinking water, sewerage/sanitation, garbage disposal, gas, electricity, telecommunication); administrative institutions
- · Commercial activities (shops, markets both formal and informal)
- · Transportation facilities (roads, public transportation, parking facilities, waterways, railway, foot path)

Step 2-V Development 1995-2001

 For the most important statistics are the historic development over the last census period (1991-2001), with implicated annual growth rates.

Step 2-VI Submission of Inception Report

~ 1

Chairman, RAJUR

Signature of Bidder

BID DOCUMENT FOR PREPARATION OF DETAILED AREA PLAN (DAP) FOR (DMDP) AREA Preparation and Compilation of Base Map and Demarcation of Project Boundary/Area/ Location.

GEP 3-1 Geo-referencing of Mouza Maps (1 kilometer grid)
Geo-referencing of mouza maps comprises the following items:

STEP 3-Il Selection of Ground Control Point (GCP)

At least 4 nos of GCP (Tie) should be selected in ground for each of mouza sheet for conducting GCP survey. The joint team of RAJUK and consulting firms will select the GCP. Geo-referenced (x, y, z) permanent Bench Mark (BM) pillars uniformly distributed covering the project area have to be established to carry out the total topographic, physical feature and land use survey. Design, drawing of BM pillars have to be approved by the Project Director (PD)

STEP 3-III GCP Survey.

GCP survey will be carried out using GPS based static survey technique. The positional accuracy level of
GCP survey must be <± 1meter. Survey data (GPS) and Total Station data) will be stored in BTM
(EVEREST 1830) Projection (Northing Easting ellipsoidal/PWD height in meter) system in an available file
format. However, conversion into Arc/Info format will be made with data stored in format All GCP survey
data both soft and hard copy will be submitted to RAJUK immediately after completion of GCP survey.

STEP 3-IV Scanning of Mouza Maps.

 Scanning of mouza maps will be carried out using drum scanner. Flat bed scanner is not allowed for scanning of mouza maps Rotation and alignment must be maintained during scanning of mouza maps. After scanning all scanned files in digital format will be submitted to Project Director (PD) for preservation.

STEP 3-V Digitization of Mouza Maps.

On screen digitisation method will be used for digitisation of mouza maps. Arc/Info software will be used
for this purpose. Feature wise manuscripts will be developed for digitising the mouza maps and all features
will be stored as layer coverage with a separate ID or code number of respective features in the GIS
database. To keep uniqueness of all features the ID or code numbers of respective features will be finalised
as per suggestion and discussion with Project Director (PD).

STEP 3-VI Manuscript 01: Point Features.

 This manuscript will contain all point features like boundary and other pillars, traverse stations, GT stations, benchmarks etc. Every point will contain a numeric user ID representing feature type.

STEP 3-VI manuscript 02: Polygon Features

 This manuscript will contain all polygon type features or closed boundary like water bodies, land uses, and topography. All features will be closed polygon and every polygon will contain a numeric user ID representing feature type.

STEP 3-VI II. Manuscript 03: Line Features.

This manuscript will contain all line type features like administrative boundaries, roads, drainage, electricity, water, gas and sewerage line, bridge/culvert, embankment/flood wall, sluice gate, water ways, will ways etc.

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Signature of Bidder

Clearman, RAJUI

BID DOCUMENT FOR PREPARATION OF DETAILED AREA PLAN (DAP) FOR (DMDP) AREA STEP 3-IX Edit Plot Checking of Digitized Coverage

After digitisation of mouza maps edit plots will be produced containing all the features in different colours.
 The digitised mouza maps will be checked and verified by superimposing on the original mouza maps using the light table. This checking will be done with the joint team of RAJUK and the respective consulting firms. By this edit plot check all possible errors (missing arCS, dislocated arCS, wrong or missing polygon labels, tie location and ID etc) will be solved and final digitised mouza maps will be prepared. After finalisation of digitisation of mouza maps, all data both soft and hard copy will be submitted to Project Director (PD)

STEP3-XJoining of Mouza Maps and Demarcation of Study Area.

- Joining of mouza maps will be done using Arc-Info based GIS software where surveyed GCPs will be used
 as TIC point. Afterward all Geo-referencing mouza sheets will be joined and Mouza map will be prepared
 using Arc View software. The geo-reference mouza maps will be prepared in original mouza scale. This
 map lay out will be submitted to Project Director (PD) in hard and soft format.
- Study area will be demarcated by joint team, duly approved and signed by Project Director (PD) which will be considered as project area.

STEP 3-XI Preparation of GIS Map Lay Out,

A standard map layout will be developed with consultation of Project Director (PD). Scale, Paper size and
Grid for preparation of map lay out will be as prepared as specified in the TOR, Legend for features in the
map will be selected from the available symbol palettes in Arc/View will be used to develop a standard
layout. BBS geo-code may be used for administrative unit.

STEP3-XII. Submission of Study Area Map

Study Area Map (Digital copy in ARC/INFO format & Hard Copy) along with report stating the status of
collected information, procedure of establishment of permanent Ground Control Point (GCP) and
Temporary Ground Control Point (TGCP), Scanning, digitization and compilation of Mouza Map,
demarcation of study area boundary including the technical specifications have to be submitted.

STEP 4. SURVEY ACTIVITIES (Field Survey information in original format have to be submitted to the Project Director (PD) at the end of every week.)

Step 4-1 Topographical Survey

- Topographic survey will cover the following features:
- Land levels/ spot level for contours at .5 meter intervals with denser intervals for undulations.
- Alignment and crest levels (not exceeding 50meter) of road, embankment, dykes and other drainage divides.
- · Alignment of rivers, lake, canal and drainage channels etc
- · Outline of bazaars, water body, swamps etc.

Step 4-II Physical Infrastructure Survey

- All existing structures position and dimension
- Cross section, long section, type, width, length and name of road, road level above datum, flooding, land slopes, borrow pit.
- Identification of any bridge or culvert on the road and their length, width and span of the bridge, condition of abutments, condition of the dyke, wing walls abutment.

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Signature of Bidder

Clairman RAJUI



- Type, size, depth, inlet and outlet location of drain along with flow direction width and depth of the canal, place of encroachment.
- Type of sewer system, size, type and location of sewerage line, location of bins, identification of any
 other sewerage collection system.
- Identification of the water supply system, location of deep tubes well, overhead water tank and its
 capacity, catchment area of overhead tank.
- Identification, location and capacity of electric substation, telephone exchange, Titas gas subs station of Treatment plant and waste disposal facilities.
- Identification, location and capacity of electricity, telephone, gas, and waste disposal and treatment system.

Step 4-III. LANDUSE SURVEY UPDATING

 Land use information have to be extracted from physical feature survey as per specification of TOR After completion of data processing and draft mapping, land use survey have to be updated through field verification.

STEP 4-IV SOCIO ECONOMIC SURVEY

STEP 4-IV.I House -hold Sample survey will be done using the approved Questionnaire based on specified Questionnaire format indicated in TOR. Sample size will be minimum 5% of total household.

STEP 4-IV.II Case Studies will be conducted highlighting the issues like housing for disadvantaged group, informal economic activity, traffic congestion, drainage, water logging, unauthorized encroachment, waste disposal, play ground and park, stakeholders participation for planning and development control.

Step 4-IV.III Inventory of survey will have to be prepared as per format. Data processing, analysis of survey data, mapping and reporting will be made as per requirement of TOR.

Step 4-IV.IV Submission of Survey Report along with maps and chart (physical feature, land use & socio-economic) for approval.

STEP 5 HIGHER LEVEL FRAMEWORKS

After completion of the picture of the existing situation at the start of the planning process, information
has to be collected on the framework offered by higher level plans. For Detailed Area Plans policies and
guideline of the Structure Plan and the Urban Area Plan have to be followed. But previous higher level
plans may also contain the interest and value of future planning may also be taken care.

Step 5-1 Previous higher level plans

Statements relevant to the planning area have to be summarised from previous higher level plans (1959).
 Dhaka Master Plan and 1981 Dhaka Metropolitan Area Integrated Urban Development Plan). Successes and failures of these plans have to be discussed, with lessons for present planning to be learnt from these

Step 5-II Relevant Structure Plan and Urban Area Plan information

- Demographic and socio-economic projections and targets (taking into account different income levels, investment levels, formal vs. informal sector, etc.)
- Major elements/principles of the drainage system including flood flow and sub-flood flow zones.
- Major roads/public transportation network
- Other major infrastructure elements (pipes and cables, drinking water and sewage treatment plants, deep tube well, solid waste, clinical waste, industrial waste, commercial waste disposal, gas and electricity substation etc.)
- Special functions (airport, cantonment, police and BDR headquarter etc.)
- Agriculture, flood-flow, sub flood-flow, retention pond, water protection and nature preservation zones

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Hazardous zones (natural and man made).

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