

**THE INTERACTION BETWEEN PHYSICAL SPACE AND WAY OF LIFE IN  
LOW-INCOME SETTLEMENTS: CASE OF BUSTEES AND RESETTLEMENT  
CAMPS IN DHAKA**

**A THESIS**  
**SUBMITTED TO THE DEPARTMENT OF**  
**INTERIOR ARCHITECTURE AND ENVIRONMENTAL DESIGN**  
**AND THE INSTITUTE OF FINE ARTS**  
**OF BILKENT UNIVERSITY**  
**IN PARTIAL FULLFILLMENT OF THE REQUIREMENTS**  
**FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN**  
**ART, DESIGN AND ARCHITECTURE**

**By**

**Shihabuddin Mahmud**

**May, 2001**

I certify that I have read this thesis and in my opinion it is fully adequate, in scope and quality as a thesis for the degree of Doctor of Philosophy.

---

Asst. Prof. Dr. Emine Incirliođlu (Principal Advisor)

I certify that I have read this thesis and in my opinion it is fully adequate, in scope and quality as a thesis for the degree of Doctor of Philosophy.

---

Dr. Asuman Erendil (Co-Advisor)

I certify that I have read this thesis and in my opinion it is fully adequate, in scope and quality as a thesis for the degree of Doctor of Philosophy.

---

Prof. Dr. Sevgi Akture

I certify that I have read this thesis and in my opinion it is fully adequate, in scope and quality as a thesis for the degree of Doctor of Philosophy.

---

Asst. Prof. Dr. Zuhul Ulusoy

I certify that I have read this thesis and in my opinion it is fully adequate, in scope and quality as a thesis for the degree of Doctor of Philosophy.

---

Asst. Prof. Dr. Feyzan Erkip

Approved by the Institute of Fine Arts

---

Prof. Dr. Bülent Özgüç, Director of the Institute of Fine Arts

## ABSTRACT

### THE INTERACTION BETWEEN PHYSICAL SPACE AND WAY OF LIFE IN LOW-INCOME SETTLEMENTS: CASE OF BUSTEES AND RESETTLEMENT CAMPS IN DHAKA

Shihabuddin Mahmud

PhD in Interior Architecture and Environmental Design

Supervisor: Assist. Prof. Dr. Emine Incirlioğlu

Co-supervisor: Dr. Asuman Erendil

May, 2001

The last two decades of the twentieth century have witnessed fundamental changes in our way of life. This change is due to the economic and political restructuring on a global scale that has left hardly any single nation untouched. One of the major impacts of globalization is the rapid urbanization and the uneven development experienced in the form of mega-cities. The study illustrates the interaction between the way of life of the inhabitants in low-income settlements and physical spaces in one of the mega-cities, Dhaka. The factors that affect the physical organization of spaces and its quality are evaluated with respect to the survival strategy of the low-income dwellers. In this respect, the physical characteristics of three types of low-income settlements in Dhaka are investigated; namely resettlement camps, legal bustees and illegal bustees. Besides the housing and neighborhood characteristics, the economic, social and cultural status of people living in those areas are examined by means of questionnaires, in depth interviews and personal observation. The questionnaires aim to evaluate the daily interaction of people with public and private spaces. The differences observed in the characteristics and quality of spaces in those settlements occupied by people with similar backgrounds give us the chance to analyze the factors, which may account for these differences.

**Keywords:** low-income settlement, bustee, resettlement camp, way of life, neighborhood, home-based enterprise, and home-transformation.

## ÖZET

# DÜŞÜK GELİRLİ YERLEŞİM ALANLARINDAKİ YAŞAM BİÇİMLERİ VE FİZİKSEL MEKAN ARASINDAKİ ETKİLEŞİM: DHAKA' DAKİ BUSTEE'LER VE YENİDEN YERLEŞİM KAMPLARI

Shihabuddin Mahmud

Güzel Sanatlar, Tasarım ve Mimarlık Fakültesi

Doktora

Tez Yöneticileri: Yrd. Doç. Dr. Emine Incirlioğlu,

Dr. Asuman Erendil

Yirminci yüzyılın son yirmi yılında yaşam biçimimizde önemli değişiklikler meydana geldi. Bu değişim hemen hemen her ülkeyi etkileyen, global ölçekli ekonomik ve politik yeniden yapılanmanın sonucudur. Küreselleşmenin en önde gelen etkilerinden birisi mega-kentler biçiminde ortaya çıkan hızlı kentleşme ve dengesiz gelişimdir. Bu çalışma, bir mega-kent olan Dhaka'da, düşük gelirli konut alanlarında yeralan fiziksel mekanlar ile yaşam biçimleri arasındaki etkileşimi gözler önüne sermektedir. Mekanların fiziksel düzenlenmesi ve kalitesini etkileyen faktörler düşük gelirli insanların hayatta kalma planları çerçevesinde değerlendirildi. Bu bağlamda Dhaka'daki düşük gelir grubuna ait üç tür konut alanının fiziksel özellikleri incelendi. Bunlar yeniden yerleşme kampları, yasal bustee ve yasadışı bustee olarak üç grupta ele alındı. Yerleşim özelliklerinin yanı sıra bu alanlarda yaşayanların ekonomik, toplumsal ve kültürel durumları anket, görüşme ve kişisel gözlem yoluyla incelendi. Anketler, kişilerin kamusal ve özel alanlarda gündelik etkileşimini değerlendirmeyi amaçlıyor. Benzer toplumsal konuma sahip kişilerin bulunduğu yerleşim yerlerindeki mekanların özelliklerinde ve kalitesinde göze çarpan farklılıklar, bu farklılıkları açıklayabilecek faktörleri inceleme olanağını sunmaktadır.

**Anahtar Sözcükler:** Mega Kent, düşük gelirli yerleşim, bustee, yeniden yerleşme kampı, yaşam biçimi, yerleşim birimi, ev bazlı işler, ev dönüştürme.

## **ACKONWLEDGEMENTS**

Foremost, I would like to thank Dr. Asuman Erendil and Asst. Prof. Dr. Emine Incirlioğlu for their inestimable support, assistance, encouragement and tutorship, without which this thesis would not have been completed.

I would like to thank Prof. Dr. Sevgi Akture for her patient and valuable criticism by which the thesis has been drastically changed and became a more up to date one. I would also like to thank Asst. Prof. Dr. Zuhul Ulusoy, Asst. Prof. Dr. Feyzan Erkip and Dr. Cemal Injerou for their valuable advice and criticisms. In addition, I would like to extend my gratitude to Mrs. Tahmina Afroz Momen for her friendship and encouragement throughout my studies.

Special thanks to Mr. & Mrs. M. A. Momen, who even deserve more as have given me all their efforts for my collecting data and other information during my stay in Dhaka and throughout the study. Endless thanks to my dearest mother and father, Mrs. Begum Momtez Shahab and Mr. Shahabuddin Ahmed who have shown me infinite patience, tolerance, and given me full support in all respects.

I dedicate this work to my newborn son Tahsin Nawar Mahmud who ultimately became an inspiration for the completion of this thesis.

## TABLE OF CONTENTS

<b>SIGNATURE PAGE</b>	<b>ii</b>
<b>ABSTRACT</b>	<b>iii</b>
<b>ÖZET</b>	<b>iv</b>
<b>ACKNOWLEDGEMENTS</b>	<b>v</b>
<b>TABLE OF CONTENTS</b>	<b>vi</b>
<b>LIST OF TABLES</b>	<b>xiii</b>
<b>LIST OF FIGURES</b>	<b>xiv</b>
<b>1. INTRODUCTION</b>	<b>1</b>
1.1. Aim of the Study	6
1.2. Scope of the Study	7
1.3. The Structure of the Study	11
<b>2. THEORETICAL FRAMEWORK OF THE STUDY: SPATIAL IMPLICATIONS OF GLOBALIZATION AND VIEWS ON STRUCTURING URBAN AND RESIDENTIAL SPACES</b>	<b>13</b>
2.1. Globalization and Its Impact on Urban Areas	13
2.1.1. Spatial Implications of Industrialization and Globalization and Different Views on Structuring of Space in Urban Areas	19

2.1.2. The Neo-Marxist and Neo-Weberian Approaches to Urban Structure and Residential Segregation of Different groups	26
2.2. The Housing Production and Consumption Theories of Low-Income Households in Developing Countries	30
2.2.1. Government Policies on Housing for Low-Income Households in Developing countries	34
2.2.2. The Articulations of the Housing System in the Third World	38
2.2.3. Assisted Self-Help Approaches to the Provision of Housing for Low-Income Households	44
2.2.4. Rental Housing as a Possible Option for Low-Income Households and their Residential Preferences	47
2.3. Factors Affecting Residential Areas and the Way of Life	52
2.3.1. Aspects of Way of Life that Affect Residential Spaces	55
2.3.1.1. The Meaning of Communal Life and Neighborhood Identity	58
2.3.1.2. The Qualitative Aspect and the User Satisfaction of the Households	63
2.3.2. The House Form and Space Organization of the Dwelling units in Low-Income Settlements	66
2.3.2.1. Courtyard	68
2.3.2.2. Veranda	70
2.3.2.3. Path	71

2.3.2.4. Roof top Space	71
2.3.2.5. Space in between Buildings	71
2.3.3. Home as a Space for Income Generation for Low-Income Households	72
2.3.3.1. Income Generation at Home as an Indicator of Life Style and Its impact on Physical Spaces	76
2.3.3.2. Extension and Self-Initiated Transformations of Domestic Spaces	79
<b>3. RESIDENTIAL SPACES AND HOUSING IN BANGLADESH</b>	<b>84</b>
3.1. The Housing Policy and Urbanization in Bangladesh	84
3.1.1. The Emergence of Bangladesh and Its Policies on Urban Settlements	86
3.1.2. Urbanization and Housing Problems in Bangladesh	90
3.1.3. Housing Policies for Low-Income Settlements and Urban Residential Pattern	93
3.2. Dhaka as an Islamic Mega City	97
3.2.1. The Evolution of Residential Spaces and Residential Segregation in Dhaka	99
3.2.2. Low-Income Housing Provision and Delivery Systems in Dhaka	102
3.2.2.1. Classification of Low Income Housing in Dhaka	105
3.2.2.2. The Characteristics of Bustees and Resettlement Camps as Major Low-Income Settlements and Their Locations in the City	112

<b>4. CASE STUDY IN DHAKA: THE INTERACTION BETWEEN PHYSICAL SPACE</b>	
<b>AND WAY OF LIFE IN LOW-INCOME SETTLEMENTS</b>	<b>119</b>
4.1. The Method of the Study	119
4.2. The Method of Choosing Particular Study Areas	121
4.3. The Evolution and the Physical Characteristics of Low-Income Settlements	123
4.3.1. Badal Mia Bustee (Private Bustee)	124
4.3.2. Babupara Bustee (Illegal Bustee)	127
4.3.3. Ershad Nagar Camp (Resettlement Camp)	129
4.4. A Comparison of the Households in terms of Social Structure in the Three Low-Income Settlements	133
4.4.1. Reason of Coming to Dhaka City	134
4.4.2. Households Mobility in the City	135
4.4.3. The Ownership Pattern and the Preference in Choosing Settlement	137
4.4.4. The Demographic Characteristics of the Households	140
4.4.5. The Households Distance from Job and Other Facilities	145
4.4.6. Income Levels and Income Generating Activities in Settlements	147
4.4.6.1. Job Providers for Income Generation in the Settlements	149
4.4.6.2. Types of Home Based Jobs in Three Settlements	152
4.4.6.3. Sublet as an Option for Income Generation	154
4.5. The Analysis of Physical Characteristic of the Residential Spaces and Its Uses in Three Low-Income Settlements	155
4.5.1. The Impact of Income Generating Activities on Physical Spaces	156
4.5.1.1. Flexibility in Changing Spaces for Home Based Jobs	157

4.5.1.2. Flexibility in Changing Domestic Spaces	162
4.5.2. Privacy as an Element of Physical Quality	166
4.5.3. Physical Characteristics of Housing Units	168
4.5.4. Household Facilities as an Element of Physical Quality	173
4.5.5. Physical Characteristics of the Adjacent Outdoor Spaces	177
4.5.6. Physical Characteristics of Three Settlements	184
4.5.6.1. Spaces for Children Play	185
4.5.6.2. Spaces for Sports and Games	185
4.5.6.3. Spaces for Educational Facilities	187
4.5.6.4. Spaces for Health Facilities	188
4.5.6.5. Spaces for Recreational Facilities	189
4.5.7. Spaces for Meeting both in the dwelling and in the Settlement	190
4.5.8. Spaces Provided for Spare time Activities	196
4.5.9. Spaces for Festivals and Occasional Activities	198
4.5.10. Inhabitants' Evaluation of Physical Spaces and its Facilities	202
4.6. Evaluation of the Findings in terms of the Factors Affecting the Physical Characteristics of Housing and Neighborhood Spaces	210
4.6.1. Income and Occupation of the dwellers are Important Factors in Affecting quality of Physical Spaces of the Settlements	210
4.6.2. Education Level of the Inhabitants as a Factor in Quality of Physical Spaces	213
4.6.3. Family Structure and Density as a Factor in Organization of Physical Spaces	215

4.6.4. Cultural Factors in Changing Quality Physical Spaces	218
4.6.5. Duration of Stay in a Settlement as a Factor in Evaluating Quality of Physical Spaces	220
4.6.6. The Neighbors Relation as a Factor in Organizing Physical Spaces in the settlements	222
4.6.7. Facilities Provided by the Government and Other NGOs as a Important Factor in Evaluating Quality of Physical Spaces	223
4.6.8. Initial Space Organization as an Important Factor in Evaluating Quality of Physical Spaces	225
4.6.9. Tenure Security and Flexibility of Changing Spaces as an Important Factor in Evaluating Quality of Physical Spaces	226
4.7. The Factors that Affecting the Physical Organization of Space and the Way of Life in Three Settlements	228
<b>5. CONCLUSION</b>	<b>231</b>
<b>THE LIST OF REFERENCES</b>	<b>241</b>
<b>APPENDICES</b>	
<b>Appendix A1</b>	<b>251</b>
<b>Appendix A2</b>	<b>252</b>
<b>Appendix A3</b>	<b>253</b>
<b>Appendix B</b>	<b>254</b>

<b>Appendix C1</b>	<b>258</b>
<b>Appendix C2</b>	<b>259</b>
<b>Appendix C3</b>	<b>260</b>
<b>Appendix D1</b>	<b>261</b>
<b>Appendix D2</b>	<b>262</b>
<b>Appendix D3</b>	<b>263</b>
<b>Appendix E1</b>	<b>264</b>
<b>Appendix E2</b>	<b>265</b>
<b>Appendix E3</b>	<b>266</b>
<b>Appendix F</b>	<b>267</b>
<b>Appendix G</b>	<b>268</b>
<b>Appendix H</b>	<b>269</b>
<b>Appendix I</b>	<b>270</b>
<b>Appendix J1</b>	<b>271</b>
<b>Appendix J2</b>	<b>272</b>
<b>Appendix J3</b>	<b>273</b>
<b>Appendix K</b>	<b>274</b>
<b>Appendix L1</b>	<b>275</b>
<b>Appendix L2</b>	<b>276</b>
<b>Appendix M</b>	<b>277</b>
<b>Appendix N</b>	<b>278</b>
<b>Appendix O</b>	<b>279</b>
<b>Appendix P</b>	<b>280</b>



## LIST OF TABLES

Table 1.1. Dhaka among the World mega cities in the year 2010	9
Table: 2.2. Neighbourhood Characteristics based on Three Ideals	61
Table 3.1. Housing Tenure in the Third World Mega Cities	103
Table 3.2. Housing Systems Corresponding the Dhaka Situation	104
Table 3.3. The Low Income Housing Provision and the Percentages of the Residential land in Dhaka	106
Table 3.4. Land Ownership Pattern of Private and Illegal Bustees	116
Table 4.1. Dwellers Residential Mobility and the Tenure Status	136
Table 4.2. Reason for Choosing the Particular Settlement	139
Table 4.3. The Percentages of Population According to Income Group in Dhaka	148
Table 4.4. The Types of Shops and Commercial Enterprises in Ershad Nagar	151
Table 4.5. The Percentage of Home based Jobs in Low-Income Settlements	153
Table 4.6. The Types of Home based Jobs and the Space in Badal Mia Bustee	158
Table 4.7. The Types of Home based Jobs and the Space in Babupara Bustee	159
Table 4.8. The Types of Home based Jobs and the Space in Ershad Nagar Camp	161
Table 4.9. Previous Home-based Work	165
Table 4.10. The Types of Indoor Activities and Spaces	172
Table 4.11. The Adjacent Outdoor Spaces in the Dwellings	179
Table 4.12. The Percentages of Meeting Spaces in three Settlements	193
Table 4.13. The Evaluation of the Necessary Facilities and the Problems in Settlements	207
Table 4.14. The Reason for Changes or Alternations of the Dwelling Spaces	221

## LIST OF FIGURES

Figure 2.1. A Model for the Internal Structure of a Colonial City in South Asia	22
Figure 2.2. From Spatial Specialization to Spatial Polarization	25
Figure 2.3. Housing Production in Capitalist Countries	32
Figure 2.4. Major Sources of Housing for Low-income Dwellers	33
Figure 2.5. Housing system in Interrelated factors	39
Figure 2.6. Provisional Model of Housing System	41
Figure 2.7. Bid-rent Function for Residential Location	50
Figure 2.8. The Housing priorities of Bridge headers, Consolidators and Middle-Income Groups	51
Figure 2.9. The Home in Relation to other Factors	53
Figure 2.10. Four Courtyard Spaces with Similar Principle in Different Countries	69
Figure 2.11. Preparing Samosas at home for Sale	75
Figure 2.12. The Use of Spaces for Income Generation at Home	77
Figure 2.13. Self-help Extension and Transformations on a House	80
Figure 3.1. Levels of Urbanization in Bangladesh and the Projection of 2020	85
Figure 3.2. Geographical Location of Bangladesh and its Urban Centers	87
Figure 3.3. The Courtyard Space and the Male and Female Domain in Bangladeshi Traditional House	96
Figure 3.4. The Types and the Physical Structure of Bustees in Dhaka City	108
Figure 3.5. Types of Housing Delivery System in South East Asia	109
Figure 3.6. The Types of Squatter Housing in Dhaka	110
Figure 3.8. Types of Public Assistance Housing Systems	112

Figure 4.1. The Location of Three Settlements in the City Map	122
Figure 4.2. The Map of Badal Mia Bustee	126
Figure 4.3. The Map of Babupara Bustee	128
Figure 4.4. The Map of Ershad Nagar Camp	131
Figure 4.5. The Layout of Government Assisted Dwellings	132
Figure 4.6. Household's Reason for Coming to Dhaka City	135
Figure 4.7. Household Status of the Previous Settlements	137
Figure 4.8. Ownership Pattern of the Households	137
Figure 4.9. Monthly Rent in Bustee and Ershad Nagar Camp	138
Figure 4.10. The Family Structure of the Households in each Settlements	141
Figure. 4.11. The Distribution of Age group and the Percentages of Sex	142
Figure 4.12. The Relation between Education and Sex group in the Settlements	143
Figure 4.13. Total Income of Each Family and the Comparison with Income chart	149
Figure 4.14. The Self created and Organization provided home based jobs	150
Figure 4.15. The Percentage of Sublet in the Settlements	155
Figure 4.16. The Reason for Modifying Domestic Spaces	164
Figure 4.17 The Changes done for keeping Privacy	167
Figure 4.18. The Sizes of the Dwellings in the Settlements	170
Figure 4.19. Different Sources of Water Supply	174
Figure 4.20. Different ways of Cooking in the Settlements	175
Figure 4.21. The Percentages of Legal and Illegal Electricity Supply	176
Figure 4.22. Alternative Spaces for Garbage dumping	176
Figure 4.23. Toilet facilities in the Settlements	177

Figure 4.24. Path as a multiple space	181
Figure 4.25. Activities in Space between buildings	182
Figure 4.26. Uses of Courtyard/ Backyard spaces	182
Figure 4.27. The Uses of Veranda	183
Figure 4.28. Percentages of Different Spaces for Children Play	185
Figure 4.29. The Spaces for Indoor games and Sports facilities	186
Figure 4.30. Educational Facilities in the Settlements	187
Figure 4.31. The Health Facilities in the Settlements	188
Figure 4.32. The Recreational Facilities in the Settlements	190
Figure 4.33. The Households Evaluation of Individual Dwellings	205
Figure 4.34 The Reasons for Households Staying in or Moving out of the settlements	209
Figure 4.35. The Household's Duration of Stay in the Settlements	217
Figure 4.36. The Percentage of Different Religion in Each Settlement	219
Figure 4.37. The Household Relation with Neighbors	223
Figure 4.38. The Factors that Affect the Physical Organization of Spaces in the Low-income settlement	229
Figure 5.1. The Households Mobility between Different Settlements	238

## **1. INTRODUCTION**

The twentieth century is noted humankind's numerous cultural advances and scientific achievements that have significantly changed the way of life for people everywhere. Probably nothing, however, can be compared with the speed of change since the 1980s in how goods are manufactured, how people, ideas, and capital travel, and how nations and cities perform their roles. Therefore, the last two decades of the twentieth century have witnessed fundamental changes in our way of life, the perception of our home and the world, and indeed our future (Lo and Yeung, 1998).

The transformation of our time has been the economic restructuring on a global scale that has affected almost every nation. This change also has been accompanied by the waves of technical innovation and rapid development in tele-communications and mass media. The two tendencies, economy and communication, have been mutually reinforcing, such that the world has become much more interdependent in its parts and globalization process have been penetrating every nook of the world. The impact of globalization has been experienced and still being experienced by First world and Third World cities by the virtue of their rapid migration. on one hand, the migration is accelerating due to economic opportunities in the Third world urban areas and the cities are becoming mega-cities. On the other hand, in the First world, the more specialized money market and stock-share made those cities more finance and capital oriented World cities. As a result, the uneven development has been experienced both in national and international level.

One of the impacts of globalization is the economic opportunities and perhaps the unusual growth especially in the Third World cities. As the city is unable to house all

the incoming population, the proliferation of slums and squatter settlements become an important provision of housing in Mega cities. However, the most striking features of these cities are informal economy and informal housing. Vaa (1997) points out that, illegal housing and unregistered economic activity are the two main elements of the informal city. They are often taken to be overlapping as the informal sources of income generation and unauthorized settlements are two distinct phenomena, even if they are empirically correlated.

World shelter conditions have changed dramatically since the beginning of the twentieth century. People in developed areas are better housed now than they were at the turn of the century; and people in developing countries are now living in poorer conditions and conditions have worsened during the past two decades (Patton, 1988). In spite of a variety of definitions and inconsistent figures, experts (Heligman and Chen, 1994; Hardoy and Satterthwaite, 1995; Gilbert and Guglar, 1989) estimated that from one-fifth to one-half of the inhabitants of developing countries live in makeshift shelters, shantytowns, and various forms of poor quality housing. Although the trend of globalization and open market economy accelerated the urbanization process in the Third World mega cities, the shelter condition is very unsatisfactory so far.

Tannerfeldt (1995) pointed out that housing is a highly visible dimension of poverty especially in the Third World cities. The urban poor often have no land tenure, have no access to basic infrastructure, and receive no services. The poor often pay more than the relatively well off for basic services such as water supply, sanitation, and waste collection in such cities. Today, the mushrooming of squatter and slum settlements is one of the tragic characteristics not only in the mega cities of the Third World, but can be seen in the industrialized world's cities also. Therefore, urban

poverty is both a local and global issue. To explain the impact of globalization on urban form, Radwan (1997) pointed out that every first world city has a third world city within it (immigrant shelters and slums), and similarly, every third world city has a first world city (the modern skyscrapers, bank, the fashion houses) within it.

Housing has a long lasting positive impact on socio-economic upliftment of a family, children's education, income generating activities, improving family's health awareness and moral values. It has become an essential task to improve the housing condition, firstly, because improved housing is required to improve health with better living conditions and secondly, for many urban poor housing is often a means of income generation. Although owning of a house is considered to be a basic human right, the economic conditions never permit most inhabitants of our mega cities to be a house owner. In most developing countries the housing problem has been two-fold: the majority of the people moving to the urban areas have lacked the necessary asset and financial holdings in order to acquire a "decent" house; the designated government agencies and bodies have not provided sufficient housing units, which are affordable for the poor majority in urban areas. While the public authorities are silent, it is the private entrepreneurs who often arrange housing for them. However, this arrangement is often considered as non-housing from the viewpoint of official policy and planning. Unfortunately, what is still missing in most of the cities of the Third World is sound quantitative and qualitative information of all the various types on housing being available to this particular people.

While discussing the squatters as important housing provision and their right of existence for low-income households, a number of questions may arise: how

successful are the poor in building their own homes; what are their main priorities for them and what are factors that affect their housing conditions; up to what extent the public authorities act in the interests of the poor to improve their way of living; how these squatter and slum dwellers get the tenure security and how do they adapt and adjust with the new urban setting; whether and how they get an identity in the city? Probably these questions would provide not merely a description of Third World housing conditions, but an explanation of why such conditions persist.

The report presented by UNCHS (1985) points out that the rapid population growth far outstripped the ability of governments to provide housing, community services, and even basic infrastructure, and low incomes prevented people from acquiring decent housing. Unfortunately, millions of people huddled in shabby accommodation with minimum services and facilities and these settlements are known as squatters or slums (almost for every Third World city there is a local name). Today, the squatters are perhaps an immediate solution for accommodation for many urban poor migrants or even for low-income people. However, the environmental problem and the way these settlements are evolved and changed urban forms are important political issues. In addition, the nature and qualitative aspects of such settlements are important for understanding the changing policies of government as they contribute a major share in urban economy for many Third World Cities.

A number of studies (Hardoy and Satterthwaite, 1997; Gilbert and Guglar, 1989; Mahbub, 1999) on slum and squatters illustrate several policies. Although until 1970s the slum clearance was one of the important public policies, a growing understanding of the dynamics involved in the development and expansion of squatter settlements

has led to a number of innovative housing schemes today. Various developing cities, particularly with the intention of improving the environmental quality of squatter settlements by housing authorities, have accommodated a good number of households. Assisted self-help housing is another public policy (which is apparently another version of government site and services projects) that has been implemented in many Third World cities and has attracted major attention.

Human relation with space is inevitable. How basic needs and cultural background shape up physical spaces and similarly how limitation of space change peoples' habits and behaviour are the subjects that need a sound qualitative and quantitative research (Kent, 1990). Many research on human and settlements have evaluated social, cultural, ritual, climatic and morphological factors as the most dominating. However, when the land is illegally occupied and when there are tremendous scarcities of land in urban areas, the factors that influence physical spaces change. Perhaps, the dominant factors that have substantial impact on physical spaces would tell us why one settlement or residential space is different than the others.

A widespread phenomenon in Mega Cities in developing countries is using homes not only for shelter, but also for income-generation through informal-sector activities. In such a situation, women can cook in her kitchen and sells meals at street corners. A family store or workshop can also be located at home (Sinai, 1998). The greatest difficulty in the study of such home-based work is the absence of reliable statistics at the national and international level; firstly, because they are not exposed in public and are performed in the domestic spaces; and secondly households have the intension in denying such work at home. However, a vast number of studies (Tinker, 2000; Sinai, 1998; Ameen, 1999; Gulati, 1990) on home working particularly for low-income

households has indicated that such activities are essential as a survival strategy and women play important role as contributor in family income. Moreover, it can be important to learn how they create such spaces (when they are scarce) and how they change or extend their dwelling units for income generation without getting any help from public authorities.

In conclusion, the introductory discussion gives hints on how globalization played a role in restructuring the urban forms and how people generate their income as well their accommodation when external helps are limited in today's mega cities.

### **1.1. Aim of the Study**

The aim of this study is to investigate the interaction between the way of life and the characteristics of physical spaces in low-income residential areas. How people's basic needs as well as cultural traits shape up physical spaces and how the physical characteristics and organization of space affect people's behavior are the main concerns of this thesis. In other words, space is considered in a dual sense; as an influence on human action and way of life as well as the end-result of this action.

As the interaction between human action and space is inevitable, it can be claimed that human action affects spaces and this effect is more pronounced when the space is for living purposes, leading to a certain way of life. For low-income households residential spaces are changing as the interaction between physical spaces takes place for basic needs i.e., comfort, suitability, privacy, security, identity and social status.

This study summarizes and evaluates the types of low-income settlements and their spatial characteristics and asks the following questions. Why is one settlement different than others when they are for households of same economic status? Can income alone determine the similarities between income groups, if not, what are other factors that differentiate people and their living environment? Beside economic factors, can other factors improve environmental quality as such? What types of communal life and neighbor's relation they have; and whether and how they get identity as they are integrating with urban lifestyle; and in particular, how does a settlement bear the characteristics of a good neighborhood? How do political involvements and the intervention's of public authority upgrade the quality of physical spaces; to what extent the economic feasibility help in climbing the social status for these low-income households? What are the possibilities of using home for income generation; and what are spaces and the amount of spaces used, altered or changed for such activities at home?

In order to answer these questions and to accomplish this study, housing for low-income groups, housing theories and policies, government interventions and housing provisions for low-income are studied. Residential spaces are studied to evaluate the quality of physical spaces and their interaction with the households from a macro to micro level.

## **1.2. Scope of the Study**

Dhaka, the capital city of Bangladesh, has long been regarded as one of the fastest growing cities in the world. At present the city accommodates nearly 10 million inhabitants. Heligman and Chen (1994) in projecting population size of urban

agglomeration found Dhaka as one of the megalopolises in the year 2000 and pointed out that;

“ In 1950, New York and London were the world’s only megalopolises. By 1970, eight new megalopolises had arisen. Three were in the more developed regions, but five were found in the less developed regions. Eight more megalopolises are projected for the year 2000, and all are expected to be from the less developed regions: 6 of the 8 will be located in Asia (Dhaka, Karachi, Bangkok, Istanbul, Tehran, and Bangalore), 1 in Africa (Lagos, Nigeria), and 1 in Latin America (Lima, Peru) (1994:18)”.

Various studies and surveys (Dogan and Kasarda, 1988; Girardet, 1993; Brunn and Williams, 1993; Masini, 1994; Tannerfeldt, 1995, Lo and Yeung, 1998) clearly indicate that the rapid growth of Dhaka’s population is mainly caused by migrants’ inflow from vast rural areas. By the year 2010 Dhaka’s population will be 17.6 million and 32.65 percent of the urban population of Bangladesh will reside in Dhaka alone (see Table 1.1). Today, more than 50 percent of Dhaka’s population is migrants. A large number of them were driven to this capital city by their poverty at their village homes and due to the self-employment opportunities. Dhaka alone attracts the major portion of the migrants, compared to any other city of the country. The destitute condition of the poor in-migrants couples with the severe shortage in the supply of residential land and formal housing has led to mushroom growth of slums and squatter settlements in the city.

Like other Mega Cities, housing is a serious crisis in Dhaka and the government is unable to provide adequate housing for the poor. People make their own squatter settlements on government or unauthorized land and at present nearly 30 percent of the city’s population live in over 3000 unauthorized or unregulated slum or squatter settlements (Mahbub, 1999). *Bustee* is the most commonly used word for slum and squatter settlements in Dhaka. Unlike other developing countries, *bustees* can be seen

anywhere within the city boundary and sometimes in areas of high land-rent. In Dhaka, a number of different *bustees* can be seen and they all have different spatial characteristics. *Bustees* are subject to continuous destruction and construction as eviction of such settlements is still a prime concern for the legal authorities.

**Table 1.1. Dhaka among the World mega-cities in the year 2010**

**(Source: El-Shakhs and Shoshkes, 1998:236).**

The outcome of *bustees* is due to a number of interrelated forces. Rahman, M. (1999) pointed out that, though *bustee* started to be formed with the dwindling fortunes of the city in early 19<sup>th</sup> century, the process became alarming only since independence in 1971. The growing land problem and unemployment vis-à-vis increasing population in the rural areas were aggravated by natural calamities and oppression by the new socio-political elite. 1974-75 famines drove a large number of the rural poor to the urban areas fighting for jobs, food

and shelter. In the 1980s a number of industries were opened up due to foreign investments particularly in textile sector and for subcontracting, that ultimately pulled a good numbers of workers from other districts. 90 percent of the migrants get accommodation in the Dhaka's bustees. This worked as a chain reaction as global economy opened up; landowners started to make bustees, as there was a high demand for it as cheap accommodation near industries, especially in the outskirts of Dhaka City.

McAuslan (1999) illustrated that low-income patterns in urban Bangladesh prove that access to shelter and land is limited to the relatively small percentage, who can afford to pay the price. In Dhaka, an estimated 70 percent of the urban households are low-income, with 28 percent middle income and 2 percent high-income. Islam (1996 a) also pointed out that most striking feature of Dhaka's bustee is the unfair distribution of residential areas as 70 percent of the city's population is forced to be squeezed on to only 20 percent of the city's residential land. However, today *bustees* became unique in their essence, as they don't correspond to the contemporary meaning of slum or squatters, yet constitute the most popular settlements among the majority of low-income households in Dhaka. These settlements have existed for decades but are dynamic in the sense that they are in a continuous motion of change in order to adapt and integrate with Dhaka City both politically and socially (Mahmud and Duyar, 1999).

Today, a number of different *bustees* can be seen in the inner district, intermediate zone and in the peripheries occupied by low-income households. In addition, they are different in terms of physical characteristics and the way of living. Thus, it became an important research study to understand what are factors that made them physically

distinguishable and different both in form and structure. The policy of resettlement in 1975 to regain valuable public land in the center was the first initiative to provide shelter for illegal slum dwellers. After 25 years, how these low-income households have survived and how they have improved their economic and physical condition opens another branch of research that can be comparable to the former *bustee* type.

### **1.3. The Structure of the Study**

The study consists of five main chapters. In the first chapter, the aim and the scope of the study are introduced. In the second chapter, the literature review summarizes the low-income housing, its systems, policies, provisions and the theories for developing countries of the Third World. In addition, articulation of the low-income housing systems and their respective policies enables us to understand the influencing factors. Understanding the residential segregation among different income groups occurs in urban space helps us to visualize both urban spatial structure and the transformation of urban structure. Residential domestic spaces in individual dwellings and the meaning of communal life and neighbourhood are studied in order to understand how the quality of spaces can be measured and what makes them different from one another. Finally, why and how income-generating activities occur in low-income settlements and how the need for working spaces in the dwellings change the physical quality are studied.

In the third chapter of the thesis, housing and residential spaces in Bangladesh are examined with reference to the theoretical framework and the case studies from Third World Mega Cities. Dhaka and its residential pattern as a case study, and more precisely the evolution of low-income housing and location within cityscape are documented thoroughly. The types of low-income housing and their delivery systems

enable us to understand the social and physical characteristics of the settlements both in the inner and in the outskirts of the City.

In the fourth chapter, the empirical study carried out in Dhaka City is presented by means of the findings and personal observation to show the physical characteristics of spaces and the way of living. To accomplish this survey, three low-income settlements were chosen from three different zones of the city; namely, inner zone, intermediate zone and the periphery. Moreover, these settlements have originated from different housing policies and they have different ownership patterns. Two *bustees* were chosen from inner and intermediate zones and resettlement camp from the periphery. Besides the questionnaire (see Appendix B), a set of questions has also been prepared for in-depth interviews with the actors who are involved with the development of three low-income settlements.

In the last and the final part of the research, a comparison between three residential areas is made by analysing the questionnaires and by personal observations. The analysis of the findings has been designed in two stages, first to evaluate the characteristics and quality of physical spaces in three different settlements, and secondly, to evaluate the factors that shape those physical spaces. The analysis of these findings gives us the opportunity to discuss how characteristics of space and human action interact to create different spaces; and how these findings can give us insight for the improvement of housing condition of low-income households in developing countries.

## **2. THEORETICAL FRAMEWORK OF THE STUDY: SPATIAL IMPLICATIONS OF GLOBALIZATION AND VIEWS ON STRUCTURING URBAN AND RESIDENTIAL SPACES**

### **2.1. Globalization and Its Impact on Urban Areas**

Many factors can be advanced for the rapid growth of the cities in different parts of the world. The main factor, which has contributed to this trend, is related to the pervading forces of globalization since the late 1960s. The world economy has changed in fundamental ways with the new international division of labour and with globally integrated production. In the global economy, the importance of national boundaries has decreased due to economic interactions; and the acquisition and accumulation of functions determine the centrality and the role of a city in the national and global context (Chen and Heligman, 1998).

Globalization, economic development and urbanization are interrelated forces that are reflected spatially in our cities. The new logic of production, employment, and distribution has caused a reordering of the urban hierarchy and economic links between places and it has engendered changes in land-use and social occupation. As global economy of the capitalist world is in search for cheap labor, the Third World cities gained importance. Industries started to change location from first to third world countries and mostly labor intensive and offshore industries evolved through their favorable location for international trade. Spatial changes also occurred in developed capitalist countries, including declines in manufacturing and increases in service employment. Along with the concentration of economic control in multinational firms and financial institutions there was a rapid growth of the producer services sector within cities at the top of the global hierarchy. These tremendous transformations in

economic restructuring within the world cities of the developed world and the Third World mega-cities have given rise to the uneven development and an increasingly isolated mass of impoverished people (Fainstein, Gordon and Harloe, 2000).

According to Davies and Herbert (1993) one of the major forces for spatial changes are recent innovations in communication such as the fax, electronic mail, internet, cellular phones and instant telecommunication, which have made people more global than ever. This has meant a decrease in the friction of space, increasing the number of alternative location for businesses and residences. As the industries started to travel to their suitable locations, the space gained importance for such functional networks, including imports and exports, and international finance, thereby determining its extensive and key external linkages to the rest of the world (Dogan and Kasarda, 1988). Masini (1994) points out that although technological improvement flourished the Third World cities to mega-cities, it did not virtually help the majority of people with better living conditions and better job possibilities. Unfortunately, in most of the developing countries, the migration flows to urban areas exceed the job supply and the unemployment end up in the informal economy and proliferation of urban slums and squatters creating problems for urban development.

It is possible to create a sequential typology of industrial and employment transformation in which many cities can be placed. This typology typically follows economic stages from a handicraft and lower-order service structure to a more formal commercial-industrial based structure, ultimately reaching an information processing, higher-order service structure. Dogan and Kasarda (1988) described this economic transformation in three stages that made enormous spatial transformation in our cities. In the first stage, informal economic activities dominate with low costs of entry,

family ownership of enterprises, and labour-intensive technologies. During this pre-industrial phase, urban economic activities are confined to traditional sectors such as crafts and food distribution by small family enterprises, artisan, petty traders, food vendors, and other lower-order service providers. In the second stage (in which many giant cities of the Third World today are), economic activities are partially transformed from family enterprises to corporate production units. Within the context of 'economies of scale' capital grows in importance relative to labour, and wage or salary employment expands. With technological advancement and capital accumulation, development of an extended trading network and industrial concentration further stimulates urban growth, often creating a primate city. In this industrialization stage, primate cities specializing in manufacturing activities constituting the powerful export-base industries had multiplier effects, creating new job opportunities and attracting new waves of rural migrants seeking employment in urban centres. During the third stage, large-scale production units move to peripheral areas and are replaced by knowledge-intensive firms by employing well-educated, skilled persons. Fainstein, Gordon and Harloe (2000) described that in this stage the higher-order, knowledge-based services are exported nationally and internationally as the function of major cities gradually transform from goods-processing and lower-order services to information-processing and higher order services. The technological advancements have given rise to unemployment especially in labour-intensive industries and the formation of 'underclass' as an impoverished or marginalized group has emerged. Although this sequential model represents the historical pattern of western urban industrial and employment transformations, there is evidence that some Third World cities also follow similar sequences today.

The industrialization strategies in most of the countries from the 1950s through the late 1970s were in very general terms geared towards transferring one technological-institutional model, that of Fordist mass production. The change in the mode of production, namely the shift from Fordism to post-Fordism in the 1970s witnessed radical changes in the economic and spatial organizations of society. The increased spatial mobility of capital at the regional, national and international scales is the most prominent facilitator of new economic and spatial organization of the global society. The combined effects of globalization and decentralization have constituted the fundamental pressures for spatial changes worldwide. In addition, a consequence of such mobility is the substantial impact on families and their way of life in our cities (Kayasu, 1997, Massey and Meegan, 1982).

The 1970s and 1980s have consequently been a troubled period of economic restructuring and social and political readjustments. Thus, flexible accumulation is marked by a direct confrontation with the rigidities of Fordism. Many manufacturing industries started to transform from labour intensive production to more mechanized and computer aided production with a shift to 'economies of scope' to maximize profit. Gibbs and Jenkins (1991) mentioned that the increase of economies of scale, however, is no longer the main objective and there have been technological changes towards product flexibility to respond rapidly to different market niches in the world. Advances in control techniques and microprocessor system have developed for not only in plant design but also for information and optimization to adapt production to changing market demand. So the use of computer-integrated manufacturing and computer-integrated processing (similar to CAD/CAM developments) took the place of manual labour and the result is unemployment. Storper (1996) pointed out that although Fordism was based essentially on mass production, other species of

productive activity such as small-scale batch production and skilled artisanal industry continued to prosper throughout the post-Fordist period. The small-scale industries and flexible production units geared mostly by subcontracting that eventually restructured the spatial organization both in developed and developing countries. Webber (1991) explained that although there is no evidence that the multinationals are losing their dominance, the formation of complex and increasingly automated subcontracting relationships and the internal and external organization of firms have changed significantly. Therefore, the hierarchical structures towards smaller operational units have been accompanied by external transactional arrangements, which are aimed at achieving economies of scope.

So, a new period in the development of the capitalist system seems to appear right after the crisis faced during Fordist mass production and the model is no longer operative over wide segments of the capitalist world. Most importantly, the structures of international competition, which evolved over the 1970s and 1980s no longer, permit its reimplantation. So, the basic background conditions for regional industrialization strategies in the 1990s in the both developed and developing economies have been altered. However, the 1980s was virtually named as 'lost decade' as the developmental trajectory was marked by social and economic distortions; relative and absolute impoverishment of large segments of the population; rapid rural-to-urban migration and creation of the 'dangerous classes' in the cities. During this time the hyperinflation, increasing indebtedness, bloated bureaucracies, and industrial undertakings with borrowed funds resulted in the lack and the unmet needs of the basic requirements of the population. As an integral part of this process, enormous urban centers arose, eroding the quality of life in the mega cities, and the

increase in uneven developments reflected in dual structures in cities (Storper, 1996; Fainstein, Gordon and Harloe, 2000).

What actually happened is the classic *Keynesian trap*, highly productive industries were inserted into economies, lacking the income growth to support continued expansion of consumption of their products. Limited wages and credits also hindered the industrial investment for the local people. There are many competing interpretations and undoubtedly, technology plays an important role. The appropriate technology theorists attributed the surplus almost entirely to the use of imported technologies and they conclude that such technologies deserve rejection in favour of those that are more labour-intensive. Thus, the argument holds that the capacities of capital-intensive industries leave huge surpluses of labour that are ready to be exploited and therefore the wages and consumption power remain perpetually restricted. So the debate has gone further to blame one another as some believe that due to the industrialization, development was obvious both in economic and social terms and the other believes that it is nothing but one way of exploitation of the underclass. The right has blamed its failures on the policy interventions and the endorsed markets that include both the national and the international lending institutions. The left assigns blame to the transnational corporations and claim that they are profit takers as they refuse to reinvest in the countries in which they have once produced and they are the ones who exploited Third World workers in order to lower costs and raise profits at home (Storper and Scott, 1989). This view rejects the claim that imperial forces have been all-important in the developmental experiences of many countries. For one, it was mostly the policies of the industrializing countries themselves that insisted on using imported technologies for the developing countries and that further pushed them to the debt. Storper (1996) explained this situation as

other form of *imperialism* that has been once experienced by these Third world countries.

In conclusion, globalization indeed is the prime factor by which emergence of Third World Mega Cities accelerated and the uneven development of the cities dramatically altered the urban forms. The question can be further raised as discussed above that up to what extent the industrialized countries are concerned about the well being of these cheap labor of the Third world, their social, economic and environmental conditions? The rapid industrialization in the Third world by foreign investors although is seen as a catalyst for emerging mega-cities and urban development, the exploitation of industrial labor, and also changing their consumption habits can be seen as another form of post-imperialism.

### **2.1.1. Spatial Implications of Industrialization and Globalization and different views on Structuring of Space in Urban Areas**

To understand the urban structure and its dynamic transformation, one has to know the pre-industrial cities, the effects of industrial revolution and the impacts of capitalism on urban land. Economic specialization and commercial expansion, in particular, industrialization, were the driving forces behind the transformation of urban structure. In the advent of the Industrial Revolution in the nineteenth century, cities were essentially small-scale settlements based on mercantile economy and a rigid social order stemming from the tradition of medieval feudalism.

Ahrentzen (1989) points out that the work and residential spaces had the momentum until industrial revolution. The overall structure of a city was the existence of a fringe population of the very poorest of the proletariat and a central core area inhabited by

the city's elite due to high rent in the central location. However, after the industrial revolution the spatial form of urban structure has transformed radically and this can be explained by the principle of factory-based industry and the resulting physical and psychological separation of home and work place; the impact of intra-urban transportation innovations; the expansion and differentiation of central business districts (Knox. 1987). Therefore, the new urban structure became increasingly differentiated, with homes no longer used as workplaces and residential areas graded according the rent and income groups. Social status, newly ascribed in terms of money, became synonymous with rent-paying ability, so that, neighbourhoods were, in effect, created along status divisions.

Flanagan (1990) points out that the city, as a physical environment, exerts an effect on human behavior and relationships with physical space can be an ecological idea. So, urban ecology can also be understood in a somewhat more restricted sense, having to do with the process and patterns by which the spatial features of urban areas emerge and the ways in which various population and functional elements in the city arrange over its limited surface. The ecological approach first developed in order to investigate the way various city functions evolved and to give ideas about the factors that are effective for spatial changes of our cities. An explicit model of the city pointed out by Burgess in 1925 shows the patterns of urban growth and the forces that shaped the urban environment by concentric zone hypothesis. In his model the urban function and the residential patterns has been discussed and how the elite groups are changing residential spaces with the working class of the periphery has been elaborately discussed. In his model, the working class has been shown within the proximity of the city center (which is still valid in many Third World cities today) for job accessibility and the migrants can only afford the cheap rental accommodation in

the zone of transition. The CBD (Central Business District) is the dominant element in the metropolitan community and when CBD expands the other zones are pushed further and further outwards. Thus the residential areas are under the process of invasion and succession. This model reflects the development of Chicago in particular but not valid anymore due to drastic changes after industrial revolution where the industries have moved from its central locations (Brunn and Williams, 1993).

An extension and the criticism of the Burgess model by Homer Hoyt also concentrated in US cities and suggested a sectoral pattern of the urban form. The shape of U.S. cities had already begun to change dramatically over the course of the first four decades of the twentieth century, producing a more decentralized urban pattern. In 1945, Harris and Ullman's *multiple nuclei pattern* describes rapidly growing cities that were annexing or incorporating formerly outlying and independent townships. They argued that, as the cities are developing faster than ever, no single concentric zone or sectoral model can fit or be applied to such amalgamations of population. This model however, resembles many Third world cities as new satellite towns are evolving today. However, all three models are not anymore valid at least for developed nations as the new trend of globalization and industrialization has changed in to more flexible production.

Along with industrial revolution one has to also analyze the colonial city pattern where today's offshore industries once have taken place. For example, the Indian subcontinent was a British colony for about two hundred years and still bear the colonial influences in their urban structures.

**Figure 2.1. A Model for the Internal Structure of a Colonial City in South Asia**

**(Source: Brunn and Williams, 1993: 360)**

Brunn and Williams (1993) points out that the urban pattern of Indian cities can be explained as hybrid model being neither Western nor Indian nor the same as other world regions (see Figure 2.1). The basic and important features of such models are the need for trade and a minimal port facility and costal location, which were prerequisites for colonial-city site. A walled fort adjacent to the port is not only a military outpost but also the nucleus of the colonial exchange (see Figure 2.1).

The urban structure of MDCs (more developed countries) and LDCs (less developed countries) are different and many cities in the LDCs follow somewhat different patterns. The preceding models of Chicago school apply primarily to cities of the MDCs (more developed countries) and to American cities in particular. Although the new trend of industrialization and opening up of the global market have drastically changed the urban pattern of LDCs, the marginal economy, enormous population and cultural traits can be some obstacles for not changing to its full extents.

Brunn and Williams (1993) illustrated a more frequent model that corresponds the LDCs is the inverse of concentric zone pattern. Unlike most cities in the MDCs, social class is inversely related to distance from the center of the city. The reason firstly because lack of an adequate and dependable transportation system, which restrict the elite or upper class to reside near work places and secondly, the functions of the city which are dominated by the elite and concentrated in the center of the city. Davies and Herbert (1993) criticized this idea and mentioned that due to global economy, many of the LDCs have begun to industrialize especially in the last 30 years and their urban form resembles the multiple nuclei pattern for such cities. Moreover, in LDCs the city centers tend to be too congested and with little land or few advantages and therefore, they are no more suitable for heavy industrial plants. Although industry has been primarily urban oriented, the newer and larger industrial establishments tend to locate not in the city centers but in the periphery or suburban areas.

There has been considerable debate as to whether the process of urban growth in today's Third World cities is similar to or qualitatively different from that, which took place in Europe and the United States during the 19<sup>th</sup> and 20<sup>th</sup> centuries. Some sociologists (Flanagan, 1990; Davies and Herbert, 1993) claim that what happened to the developed countries some 40 years back in the developed countries are realizing by the developing nations today. To understand this, Hall (1984) proposed a five-stage (under conditions of limited economic and technological development) development of urban growth, focusing on how a city gains or loses its importance and the way it becomes a Mega-City. He argues that substantial rural-to-urban migration is toward a primate city where the bulk of the nation's industrial activity is located. With the spread of transportation arteries, the second stage brings heightened

industrialization throughout the region and results in the formation of secondary cities as alternative magnets for rural migrants, though the primate city continues to grow rapidly. Eventually the primate city core becomes so densely settled that “spill-over” to the suburban rings begins. In the third stage, suburban slipover accelerates and the principle areas begin to grow faster than to lose population while its suburbs continue to grow. The city’s degree of primacy declines as secondary cities become increasingly attractive to industry and migrants. Finally, during stage five, population loss of the primate city core accelerates and its immediate periphery suffers relative (though not absolute) population losses to secondary cities and non-metropolitan areas.

Hall (1984) further suggested that many of the least developed countries are in stages one and two, newly industrializing countries such as Mexico, Brazil, and Korea and those of southern and Eastern Europe are in stages two and three; most northern and western European countries in stages four or five, and the United States and Great Britain clearly in stage five. His model is consistent with traditional regional growth theory in that it posits that eventual declines in primate cities translate into gains by subordinate urban agglomerations.

Kunzmann, (1998) claims that the concentration of economic power of the developed nations causes the uneven development of our cities by the virtue of global economy today. The *spatial polarization* in the World Cities can be seen as a result of such implementation. Here, polarization means the existence of territorial units that benefits from certain trends and urban regional competition, and others that have to bear some or all of the negative implications of specialization and spatial differentiation. The diagram shows the transition from spatial specialization to spatial

polarization and uneven spatial development. Webber (1991) claims that the search for surplus profits is essentially a matter of exploiting certain classes. In earlier waves, that uneven development had been spatial: first, the difference in development between town and country; and later, differences in levels of development between countries of the core and of the periphery. There is much empirical evidence that ongoing economic developments tend to favour spatial polarization within the world city regions due to the globalization. Moreover, the social fragmentation is obvious due to changing values. The spatial differentiation process separates respective privileged and underprivileged urban classes and the result is uneven development in spatial formation of the cities. Land value and property prices tend to explode in certain locations and thus class differentiation arises with the power of investing and settling (see Figure 2.2).

**Figure 2.2. From Spatial Specialization to Spatial Polarization (Source: Kunzmann, 1998: 56).**

The above discussion is not merely a comparison between MDCs and LDCs but about the mechanism by which we understand the way urban spatial development occurs

within the context of globalization and technological innovations that further create uneven developments in our cities.

### **2.1.2. The Neo-Marxist Approaches to Urban Structure and Residential Segregation of Different Groups**

The early ecologists understood that urban land-use patterns were the result of competition among various elements of the urban population. Marxists argue that urban patterns, like all areas of social relations in society, are the result of the basic economic process of capital accumulation, profit making strategies, and particularly urban manifestations of the class struggle. So, the competition for urban space is ultimately decided by the economic resources of different income groups. Although the ecologists assumed that competition obviously produce benefits for all members of society in the processes of societal growth and change, Marxists' argued that competition generates division in social classes and so in physical forms (Flanagan, 1990). Similarly, Castells (1985) pointed out that Marxist approach to residential differentiation requires a more general theory of the city in capitalist societies. The structure of the modern metropolis cannot be conceived simply as a product of technological changes such as transport improvements, innovations in construction techniques and forms of communications that facilitate decentralization, specialization and segregation in urban areas. In the Marxist approach urban patterns of production consumption; exchange and administration are linked to evolving processes of capital accumulation and circulation of surplus value.

The ecological approach largely consisted of the examination of spatial patterns of residential spaces and differentiation. According to the ecologists, an analysis of residential differentiation should concern itself with answering three questions such as

where do various groups locate in the city; what are conditions like in these areas; and, how and why are these groups located where they are? However, the weakness of ecological approach has been its failure to adequately answer the third question. The phenomenon by which residential segregation in urban form occurs and the way accumulation of capital brings class divisions is not discussed in such approaches. Moreover, the ecologists do not consider the effects of economic, political and cultural factors, which give cities their unique evolutionary patterns.

The processes of social fragmentation in the built environment give rise to some basic assumptions of residential differentiation. Harvey (1985) points out that, residential differentiation is to be interpreted in terms of the reproduction of the social relations within capitalist society; residential areas (neighborhoods, communities) provide social interaction from which individuals are to derive their values, expectations, consumption habits, market capacities, and states of consciousness; and the fragmentation of large concentrations of population into distinctive communities serves to fragment class-consciousness in the Marxian sense. Therefore, residential differentiation produces distinctive communities, and however one can expect a desegregation of this process. Working class neighborhood, for example typically produce individuals with values conducive to being in the working class. However, these values are deeply embedded as they are in the cognitive, linguistic and moral codes of the community.

The work of Castells (1977) as one of the main critics of Marxist approach, defines the urban system as a unit of collective consumption. In order to survive, a capitalist system must reproduce its means of production, its labor power and its relations of production. People's settlement as a collective consumption is more important for

specifying the identity of urban systems. As cities grow in size and complexity, collective goods become more and more necessary. The residential needs of people also change according to family cycle. Since there is an endless variety of individual needs, priorities, and possibilities of residential needs, large organizations can never adequately cater for all. Therefore, large organizations, such as the state, always have to standardize procedures and products but the main components of the housing process have to be left to the users themselves.

Harvey (1989) suggested that the dominant mode of social and economic organization after the Second World War produced a specific built up environment and spatial form in the urban areas. Within the advanced economies of Western countries, there exists distinct residential segregation. Large manufacturing plants are, functionally and spatially separated from housing. With long-distance transportation networks it became possible to reside in far distant places and thus suburbs and new satellite towns have evolved. Knox (1987) points out that in modern cities although few characteristics are still inherited both socially and morphologically, the spatial form has altered radically due to industrialization and urbanization in particular. As the major components and functions of the cities and spatial relationships greatly altered, the social geography of the city also has turned inside out. Occupational clustering has given way to residential differentiation in terms of status and family structure; power and status in the city is no longer determined by traditional values but by wealth; ownership of land has become divorced from its use; workplace and home have become separated; and family structure has been transformed from an extended, patriarchal system to the small, nuclear family unit.

Dogan and Kasarda (1988) pointed out that such models of urban growth and decline in the developed nations have been sharply criticized by neo-Marxian and other class-based theorists. Unparalleled to the Western experience, the evolution of Third World cities constitutes a unique pattern of urban development. Colonial heritages, extreme poverty, ruling class hegemony, rapid population growth, and dependency on the economies of capitalist nations generate huge primate cities, which dominate Third world economies and discourage or prevent indigenous development of secondary cities. The result, they argue, is increasingly greater spatial inequalities in Third World nations as their primate cities disproportionately grow at the expense of other parts of the country. The main reason for such spatial changes of the Third World cities are for attracting both domestic and foreign investors and to go with the same pace with other industrialized countries.

Economic specialization and commercial expansion, in particular, industrialization, were the driving forces behind the residential change or differentiation. These advantages not only brought unprecedented opportunities for the mass consumption of all kinds of new products and the collective consumption of new public goods (roads, sewers, parks, schools, and the like), but also brought the opportunity to create and to accumulate personal wealth. The process of invasion-succession can be an important factor in a capitalist society where residential movements are done according to land rent. It can be a controversy to discuss whether class or neighborhood consciousness plays the primary role for such segregation. Today, especially in Asian cities, urban authorities no longer zone their cities according race, but implicitly according to income and housing density. African cities also are moving closer to this pattern, whereby income determines where people can live. In Latin America zoning laws operate effectively for the elite groups of the society. As a consequence, beautifully

planned elite *barrios*, the equal and better of the colonial townships are clearly separated from the low-income settlements. Many authors argue that (Gurgler, 1997b; Vaa, 1997; Marcussen, 1990) planning has become popular in Third World countries as a method of protecting elite groups from the incursions of squatter settlers.

Residential differentiation on space is interwoven with class divisions, different modes of consumption and the reproduction of social relations. The role of the state is reflected in the spatial patterning of public housing and the effects of various forms of intervention in land and property markets. The key point to stress, however, is that theory of spatial structures and spatial relations must be linked to wider theories of social and economic structure. Social and spatial relations interpenetrate each other and spatial patterns are not just the passive imprint of wider social forces (Knox, 1987).

In conclusion, the rapid urbanization and the massive residential growth can be seen as an impact of globalization in many Third World cities. Consequently, how the housing production and consumption pattern have changed and altered the urban form and what are possible alternatives for obtaining a house for the low-income households will be discussed in the following chapters.

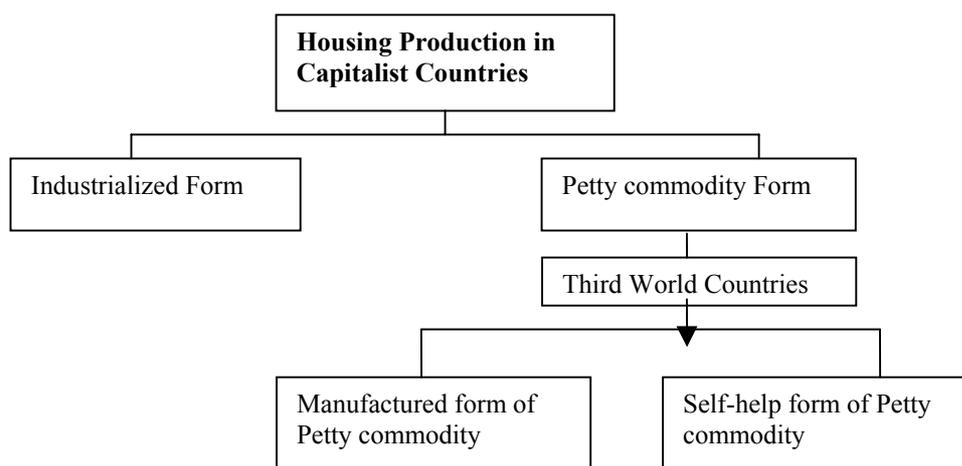
## **2.2. The Housing Production and Consumption Theories of Low-Income Households in Developing Countries**

Neo-Marxist theorists describe housing as commodity under the capitalist mode of production because it behaves like other commodities and is produced, exchanged, and consumed in a cycle determined by production. To understand it well, Marxist

analysis of the relationship between exchange-value and use-value of a house has to be discussed within the context of housing production and consumption theories. In this approach, a house would not be a commodity, if it were a use value for its owner, that is, a direct means for the satisfaction of his own needs and that use value lies outside the sphere of political economy. When the house is produced for commercial purposes it has an exchange value, however, in this approach every house has a potential for both use and exchange value whether it is legal or illegal (Marcussen, 1990).

The conventional view of squatting in developing countries involves the illegal occupation of public land and the construction of shelter by users themselves. Thus, the settlements are outside the legal system and often politically autonomous but under a permanent threat of demolition. This user construction is occurring partly because private capital does not find such a sector attractive for investment in view of the insecurity associated with possible demolition.

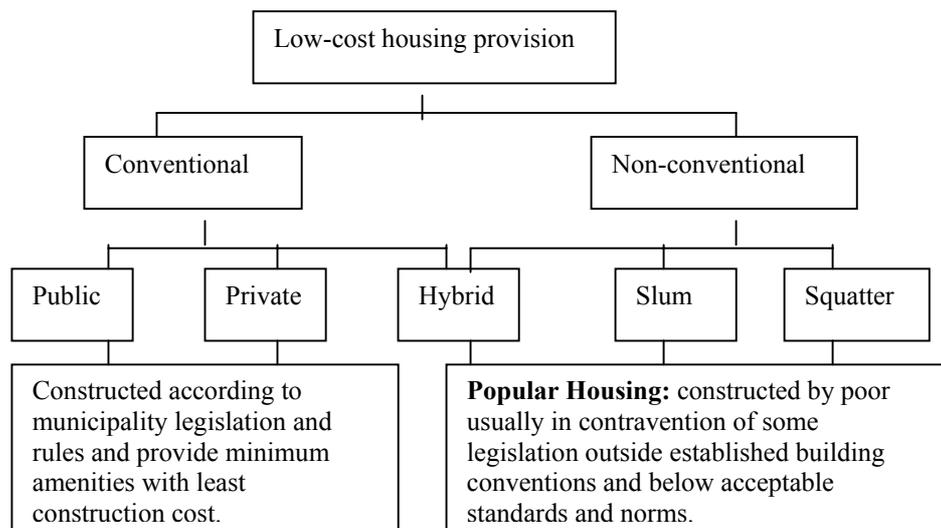
Unauthorized settlements do not consist solely of self-help, owner-occupied housing. One finding from recent years is that housing in the informal settlements have become commercialized, and that these settlements have an increasing proportion of renters and of absentee owners. Both small-scale and large-scale landlordism may be important components; and in some settlements, rental accommodation is the major form of tenancy. A variety of housing sub-markets have emerged and these sub-markets are changing over time, depending on political, social, and economic factors at neighborhood, city and national levels (Vaa, 1997).



**Figure 2.3. Housing Production in Capitalist Countries (Source: Marcussen, 1990:21)**

Marcussen (1990) in search for the production and consumption mode of low-income housing in the capitalist society has detected two forms of housing production: the industrialized form and the petty commodity form. In the Third World countries, this petty commodity form further can be categorized as the manufactured form of petty commodity production, and the self-help form of petty commodity production. The manufactured form involves small entrepreneurs and traditional craftsmen to a great extent, on a demand for high-quality housing among upper income groups. Under the self-help form, the users are the builders and people build their houses out of local and cheap materials with only small amounts of commercial investments. Short supply of the formal housing system with high rental prices pushed self-help construction of the squatter settlements and this become the most important housing production and consumption sectors for the low-income households in many Third World countries (see Figure 2.3). Now the question is whether squatter housing constitute a real estate market as it already proposed a big rental market in urban economy today.

The characteristics of conventional and non-conventional housing represent the extremes of the dichotomy (see Figure 2.4). However, the main criticism in this model is, it is not intended that all housing which is not conventional must be considered as non-conventional, or vice versa. The hybrid categorization is intended to cover those units of shelter, which incorporates features from both of the major sectors. In most instances, the housing is similar in appearance to that of the non-conventional sector but contravenes fewer legal standards; as a result, the units become socially and politically more acceptable. On the contrary, in cities where building standards are defined, but loosely or inconsistently enforced, hybrid housing may be quite extensive, providing it is socially accepted or officially tolerated (Drakakis-Smith, 1997).



**Figure 2.4. Major Sources of Housing for Low-income Dwellers (Source: Drakakis-Smith, D. 1997:44).**

The housing debate mainly concentrated in the mode of production and consumption and the policies of economy. The concept of ‘real estate’ and the public and private consumption is an outcome of accumulation of wealth in the capitalist society.

In some countries with the accumulation of capital and with the financial and ideological backing of the state, owner-occupation is becoming the dominant form of housing tenure. Harvey (1985) suggested that owner-occupation may have certain advantages for the capitalist system such as, owner-occupation is typically associated with expansion of single-family housing and it has desirable multiplier effects; owner-occupation tends to divide and fragment the working class; owner-occupation is basically a form debt encumbrance, and repayment of the debt demands work discipline and job stability; and owner-occupation creates the dominant ideology of private property ownership. Furthermore, owner-occupation gives the household the feeling of a stake in society and encourages social stability. However, the classical Marxists opposed to the idea of owner occupation in that it makes the households mobile and thus the development may be hindered.

### **2.2.1. Government Policies on Housing for Low-Income Households in Developing Countries**

For the millions of poor in developing areas of the world, urban areas have always been a means for improving their quality of living and environment, besides getting better jobs and incomes. Development specialists have long held that state programs should respond to the basic shelter needs of the urban poor, especially when those needs are not being met by the private sector. After decades of state efforts, however, there is a growing belief among urban policy scholars that public housing programs have generally not served well the needs of the urban poor in Third World countries. And this situation provides opportunities to assess the various effects of direct state involvement in housing the urban poor under alternative political systems and to suggest how their policies might be improved.

Because of most Third World's underdeveloped economy and the limited purchasing power of most low-income people, the commercial housing market has not grown rapidly enough to accommodate the vastly expanded population of the cities. Consequently, the burgeoning numbers of urban poor have found shelter primarily through housing units they have built themselves. In recent years, opinions have changed significantly on housing provision, especially for low-income households in the Third World countries. In the 1960s and into the 1970s, despite the fact that historically housing had been an individual responsibility, many governments came close on viewing the provision of housing for the poor as a responsibility of the state sector. Gilbert (1994) points out that today almost all Third World, governments have a state housing agency and at least a verbal commitment to the construction of shelter for low-income people.

At HABITAT I, the United Nations Conference on Human Settlements held in 1976, aided self-help was the frame of reference for the recommendations to national governments. The overwhelming majority of attending countries endorsed these measures to improve uncontrolled settlements and to integrate their inhabitants into the national development process. However, endorsing a policy doesn't necessarily mean that a government has the will or capacity to implement it. Most countries have undertaken individual projects based on Habitat recommendations, often attracted by the possibility of acquiring soft loans from international agencies (Vaa, 1997).

Nientied and Linden (1985) pointed out that a growing understanding of the dynamics involved in the development and expansion of squatter settlements has led to a number of innovative housing schemes in various developing countries. Certain physical infrastructure is not possible to provide by individual households and

therefore, government intervention is obvious not only for making the land recognized but also for providing basic requirements such as drinking water, sewerage and electricity. Government "sites-and-services" scheme with the basic necessary infrastructure and with the intention of improving the environmental quality of squatter settlements has received wide acknowledgement in many developing countries. Hardoy and Satterthwaite (1997) opposed the idea of government's intervention and claimed that although these projects are one sort of tenure security for the households, often impossible for them to afford the housing cost and also the structure of such housing do not fit with their requirements.

Government policies relating to slums and squatter settlements were first declared in the World Housing Survey in 1974. Broadly, three groups of countries were identified by the policies they tend to follow: 1) laissez-faire policies, 2) policies of eradication, 3) progressive policies, or policies which recognize the potentials for improvement and social integration of squatter settlements (Marcussen, 1990). The laissez-faire policy has been stopped due to uncontrolled sprawl of squatters. The policies of eradication were then implemented and still in practice in many Third World cities. However, this policy is criticized by different level of social classes while the government unable to provide adequate housing. The squatter upgrading projects are also implemented but are unsuccessful in most cases due to the lack of funds and inflexibility by public authorities.

Hardoy and Satterthwaite (1997) pointed out that in many countries government initiated large public programs for accommodating low-income people during the 1960s, 1970s and early 1980s, but only a few governments now support such programs. Virtually three problems dogged these programs: first, the unit cost was

high and therefore few units were built relative to the need, in many instances less than 20% of the units originally planned were built. The second is that middle- and upper income groups were often the main beneficiaries. The third was that even where low-income households were allocated public housing, they often informally rented the units to others because the size, design, and location ill-matched their needs.

The states housing policy for the low-income households especially for South Asian countries can be divided into three phases. In the first phase, from 1952 to 1971, the dominant policy was to demolish slum and squatter settlements and replace them with public housing. From the mid 1950s, the bulk of the tasks of housing the low-income were transferred to local states. In the second phase, from 1972 to 1988 the dominant policy was to upgrade slum housing. Despite such policy many local states were slow in recognizing the housing stock of the urban poor and frequently demolished such housing stock until the mid 1980s. In the third phase, 1988 onwards, several authors took a fresh look at low-income urban housing in the Third World. One of their main policy recommendations was that governments should stop trying to provide standard housing for the poor, and instead should use their human potential by permitting and enabling them to house themselves (Sen, 1998). Nientied and Linden, (1985) points out that, in practice, implementation of this recommendation implies the execution of two main types of projects: upgrading of existing squatter settlements and creation of so called 'site and services projects'. Ideally, the two approaches are executed simultaneously: the squatter upgrading intends to deal with existing, but poor and illegal housing; sites and services are intended to increase the housing stock and thereby remove the need of the poor to resort to squatting.

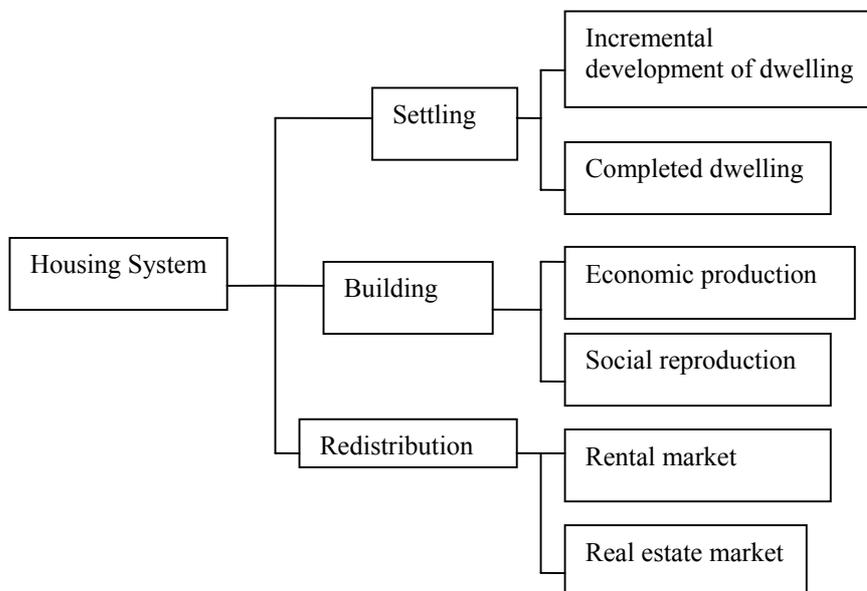
The housing policies of the low-income in developed countries are different than that of housing policies of the developing countries. The economic condition of a nation is probably the prime factor for such differences. Affordability of low-income housing is also crucial in many advanced industrialized countries. Different subsidy schemes, rent control and property development programs along with mortgage or credit system solved and are still solving housing deficiencies of low-income in many developed countries. Unlike United States, in Europe for example, subsidized council housing is the main accommodation for the low-income people. In some countries, the occupier can also buy these government houses by paying in installments. Finally, the government intervention in controlling the rent especially in the private sector is another way of accommodating the majority of the low-income population (Orlebeke, 2000).

### **2.2.2. The Articulations of the Housing System in the Third World**

The understanding of housing system can be discussed in many different ways. Many authors and housing experts (Drakakis-Smith, 1997; Marcussen, 1990; Patton, 1988) have analyzed the low-income housing within the context of its settling, building and redistribution mechanism. The low-income housing whether conventional or non-conventional correspond these three systems.

The settling for example can be divided as incremental development and completed dwellings in private sector mostly. The analysis of building is concerned with the organization of building processes in relation to the spheres of social and economic reproduction. Redistribution is a form of providing housing among households and commercial redistribution of dwellings takes place either on a real estate market or on a rental market (see Figure 2.5). The value of property will change according to the

location in a city and also the commercial value of building will change with improvements or deterioration. On the housing market, the commercial value of real estate and the rental market are mutually reflected. Most capitalist countries maintain a stock of housing in public or semi-public ownership allocated to users on conditions more or less detached from current conditions on the real estate market. In the absence of a market in owner-occupied housing, redistribution takes place on the basis of social relationships, inheritance from one generation to the next. These constrain settling processes and hence spatial mobility of the households. Low-income households unable or unwilling to involve themselves with house building and thus will seek rental accommodation. It has been noticed that even the informal settlements are becoming commercialized because of the heavy demand and for an increasing proportion of tenants. Today, in many developing countries, the quick return of the investments encouraged many landowners to develop rental market for low-income migrants.



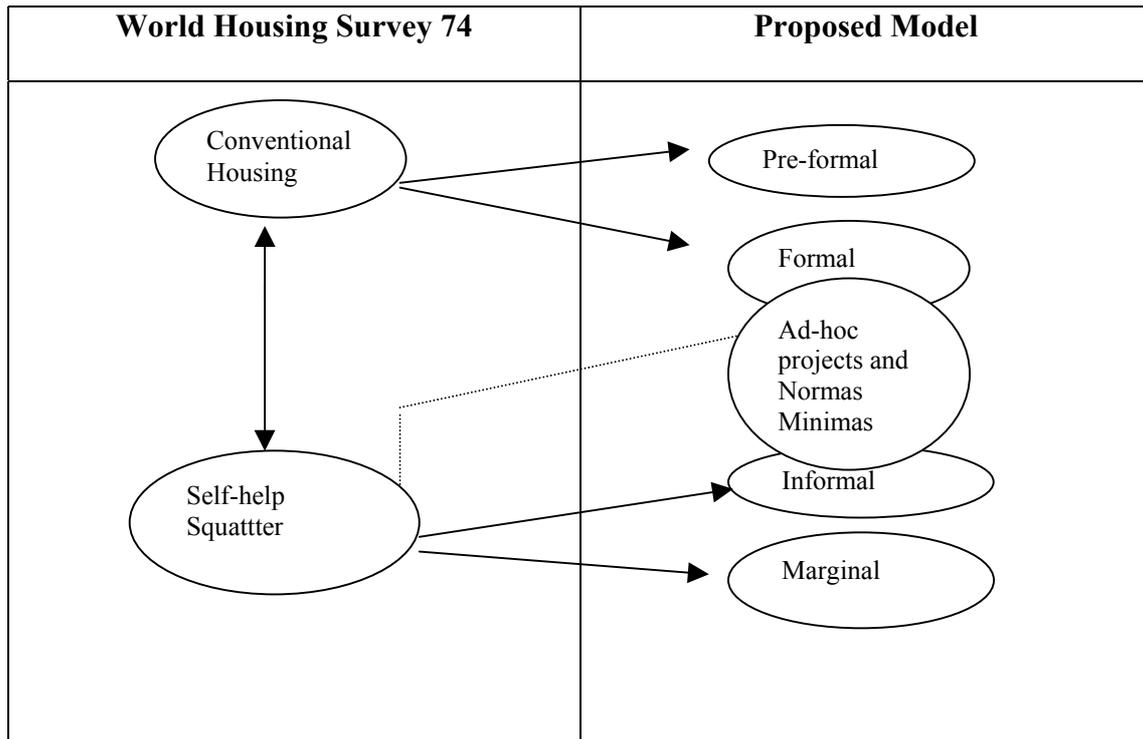
**Figure 2.5. Housing System and Its Interrelated factors (Source: Drakakis-Smith, 1997:46; Marcussen, 1990:41).**

The examinations of the delivery systems for the low-income households in the Third World countries have identified several crucial elements. The first is that housing cannot be dismissed as a mere 'social overhead' and all the decisions on housing investment in the Third World are closely correlated with the level of economic development and with political attitudes. The second factor, which emerges from the overview, is the heterogenous nature of low-income housing supply in developing countries. However, the individual household responds to such changes by revising the initial need for job proximity and by a desire for security of tenure and, by aspiration for 'modern' amenities and facilities.

Third world housing systems are characterized according to the declaration of World Housing Survey (WHS) in 1974 with the articulation of conventional and non-conventional housing system. However, the characteristics of squatter housing have been defined as extra-legal land occupation with sub-standard physical qualities. Squatter housing is thus characterized as the most familiar type of non-conventional housing constructed by the urban poor (Marcussen, 1990). Turner's (1976) fundamental concept is a dichotomy as 'heteronomy versus autonomy', and established in terms of production system such as small-scale versus large-scale. In relation to World Housing Survey, dichotomy as conventional versus squatter, Turner's 'heteronomy versus autonomy' is displaced and both 'squatter' and small-scale construction is included in non-conventional type within autonomous category.

In relation to the Housing Survey in 1974, dichotomy 'industrial/manufactured' corresponds to conventional type and 'self-help/auto-construction' corresponds to squatter housing type. Therefore, to express squatter housing both Turner's view and WHS explained the same system but have emphasized at different levels, as one gave

importance in production system and the other was more concerned about the legality of the construction system. However, the model that has been derived from WHS, is a more elaborate analysis of the housing system that fits the housing situation of many Third World countries today (see Figure 2.6).



**Figure 2.6. Provisional Model of Housing System (Source: Marcussen, 1990:42).**

Marcussen’s (1990) provisional model of five different housing systems corresponds to the major low-income housing especially in Asian, African and Latin American countries today. The main characteristics of these housing systems are as follows:

**a) Marginal Housing System**

Marginal housing system is defined as an extra-economic system structured by social relationship with regard to settling, building and redistribution. Spatially marginal housing is organized in small colonies, each of which has certain leadership. Members

of the colonies are low-income households and the percentage of recently arrived migrants is higher than city averages. Colony leaders initiate land occupation. Households may have to make payments, but this payment should be understood as 'tribute' to the leader or 'entrance fee' to membership of a community rather than as purchase of building sites. Buildings are auto-constructed with non-commercial or the most inexpensive materials available. Spatial mobility is high among marginally settled populations however, when a settler leaves a settlement for good he cannot sell his house as such, what he may sell is the materials from which the house is built. The occupation of sidewalks or footpath with primitive tents is in this category and can be seen widely in India, Pakistan and in Bangladesh and known as Jhuggis or Jhupries.

#### **b) Informal Housing System**

This system comprises permanent settlement formation on unserviced land and extralegal housing production within limits set by the investment capacity of households and small entrepreneurs without access to credit facilities. The informal system also comprises a rental sector, but not a real estate market. Land status can be classified under four headings and can be seen in the mega-cities of the Third World: 1) pirate subdivisions (Sind Desert in Karachi), 2) peasants' subdivisions (Cairo and New Delhi), 3) land renting (Krachi, Dhaka, Addis Ababa), 4) land invasion or popular settlement (in most Latin American cities).

#### **c) Ad-hoc projects and Normas Minimas**

These are projects for low-income people to provide site and services or squatter upgrading by the state or by non-government organizations (NGOs) and are based on the state's ability to dispense with formal rules and regulations to enable sub-standard settlements. Examples are Land Sharing Projects of Bangkok and site and service

projects in Jakarta. Normas Minimas also comes with ad-hoc projects, which means minimum rules and regulations. Normas Minimas was first invented in Latin America to enable private entrepreneurs, to establish set of quality norms, to make projects corresponding to typical site and service project. As norms are adapted according to the specific housing situation, this type of housing system corresponds both informal and formal housing system.

#### **d) Formal Housing System**

This system is widely seen in advanced capitalist countries. In this system settling, production and redistribution are subsumed under a generalized market in which the state intervenes with economic and social policies and with spatial planning. In Asian and African developing countries, formal housing systems, more or less directly copied from European systems, were introduced and changed at various stages of the colonial and post-colonial periods. It was introduced to serve the ruling classes and their immediate associates, which means that new patterns of diversification and segregation were superimposed upon the existing patterns of indigenous housing systems. In many countries public housing allocated as rented housing or under tenant purchase schemes, was a key element in official state policies in capitalist countries. Urban living spaces were divided, in WHS terminology, into areas of 'conventional housing' and areas of 'squatter housing'. Whatever the intension of government, the formal housing system would not be comprehensive. The examples of formal housing for low-income generally means the public housing that are occupied for a limited period of time in many Third World cities.

### **e) Pre-Formal Housing System**

This housing system is complex and in certain sense residual category within the proposed model of housing systems. These are historical buildings and in the course of time become slum or tenement slum areas in the city core. This category directly related to European colonial system. Today, in many Third world cities, these housing areas are mainly occupied by low-income households in the old centers and are subject to urban renewal projects. Examples are vast historical cores of Delhi, Cairo, and other cities of Islam, Arab and Indian settlements in Africa, Chinese settlements in South Asia.

Although Drakakis-Smith's (1997) five types of low-cost housing (see Figure 2.4) corresponds Marcussen's (1990) housing system (see Figure 2.6), it only emphasizes the construction type and its legal norms and regulations. Marcussen's (1990) low-income housing, on the other hand, is more comprehensive and successful in describing the phenomenon of the Third World more elaborately. Drakakis-Smith's (1997) conventional and non-conventional concept is unable to correspond the formal and informal housing system as such. Because informal housing can be both conventional and non-conventional. Hybrid, on the other hand, neither have a clear definition nor coincide the government upgrading projects. The main contradiction still remains in the case of private housing system as it may fall in both conventional and non-conventional type.

### **2.2.3. Assisted Self-Help Approaches to the Provision of Housing for Low-Income households**

The inefficiency of demolition and relocation in meeting the housing shortage became obvious, as official housing statistics documented mounting shelter deficits. Since the

1960s, the official negative view of slum and squatter settlements began to be questioned. Surveys and case studies from all parts of the developing world documented that squatters were people much like others, who were well integrated in the urban economy and who had by their own effort developed settlements fitting their incomes and housing preferences. Based on empirical work (Nientied and Linden, 1985) by social scientists, an alternative housing strategy was being formulated, where self-help housing was seen as the solution to the housing shortage, rather than a problem to be eradicated. The role of governments would not be to building houses, but to providing inexpensive land, basic services, and security of tenure (Kirdar, 1997).

One of the problems of assessing the potential of self-help housing lies in the different meaning that people give to it, reflected in the concepts such as self-built, self-provision, self-promotion, illegal and informal housing. Mathey (1997) distinguished the difference between autonomous solutions and assisted self-help. To him, autonomous solutions are also often referred to as spontaneous self-help and not planned by official planners but prepared by the users themselves. On the other hand, assisted self-help housing is characterized by the intervention of the state, or other agencies, with the aim of overcoming certain recurrent shortcomings in autonomous building activity. This assisted self-help has been advocated as preferable to other previously introduced, hence often named 'conventional', housing strategies.

Opposed to Mathey's (1997) idea, Hardoy and Satterthwaite (1995) claimed assisted self-help as 'non-conventional' but introduced by public sector in order to reach larger number of beneficiaries with limited budgets. Although there are many variations, the most typical solutions include site and services schemes, core housing and slum-or

squatter-upgrading projects. They all have in common the participation of the future residents in the production process. Traditionally, participation was understood as a purely physical labor contribution, but the importance of administrative tasks has been recognized increasingly. The roots of assisted self-help housing can be traced to Europe and North America, where it was presented particularly in the periods of economic stagnation.

Assisted self-help housing strategies, as alternatives to conventional mass housing schemes, were the leading debate behind the resolutions passed in the Vancouver Habitat Conference the United Nations organised in 1976. Their point of reference was a number of progressive publications of Third World housing at the time, which suggested that slum dweller and squatters be accepted as valid members of the community and as potent partners in the development of the city (Kirdar, 1997).

The main arguments in favour of self-help housing policies can be summarised in the following way:

1. Self-help housing production is assumed to be much cheaper than state or market-provided housing because the residents are able to make the best use of local resources, can save the profits otherwise pocketed by builders and suppliers, and are much more flexible than state agencies.
2. Officially defined standards often inherited from the European colonisers—have little meaning in self-provided housing (popular housing) in the South. The users can assess their changing requirements for space much better than any bureaucrat can.

Moreover, self-builders are familiar with the site and can better adapt to the specific topographic and climatic conditions of the location.

3. The architectural quality of a self-built house is considerably better (no monotony, personalised design) than that of official housing because the construction and design is determined by the aspired use value, and not by the exchange value as in the case of commercial builders who only have an interest in maximising profits. Apart from appearing aesthetically more pleasant to by-passers and neighbours than monotonous mass housing to others, individual's solutions can be a means to self-fulfilment and personal pride (Hall, 1984).

#### **2.2.4. Rental Housing as a Possible Option for Low-Income Households and their Residential Preferences**

Many low-income urban households in developing countries will never have the option of homeownership because the price of urban land exceeds their means. On the other hand, when the governments and international development agencies on the increase in owner-occupied housing among low-income families may be ill placed, as their ultimate goal is to provide more shelter with limited resources.

Despite the strong motivations for low-income households to own rather than rent, rental housing accounts for a substantial proportion of the total housing market in most Third World cities. For example, more than half of the urban households rent housing in Cairo, El Salvador, Bangkok, Hong Kong, Bogotá, Dhaka, Addis-Ababa, New Delhi, and Mexico city. There is good reason to believe that as most Third World cities will experience double or triple increase in size over the next twenty to thirty years, rental markets will assume an increasing share of the housing supply.

Gilbert (1994) has shown that tenants do not always choose to rent because it is not suitable to their needs, cheaper, or of better quality but in most cases, they rent because there are limited ownership opportunities. This contention can be supported to examine the constraints on home ownership opportunities for the urban poor. Today, access to land for the poor is becoming more difficult, as land prices are rising in real terms in many Third World Cities. In addition, land invasions by squatters have become less widespread because of scarcity within city limits, and illegal purchases of land are becoming more commonplace. The result is that where land costs rise, the proportion of households that can afford to become homeowners diminishes.

Vaa (1997) points out that as homeownership is becoming more difficult, renting is likely to be the pre-dominant form of housing for low-income households. Therefore, rental markets should be promoting and government intervention of controlling the market is necessary. Efforts should be made to stimulate the production of rental housing such as the rental of rooms in a small house, and more formal rental units, such as apartments. At the initial stages of the progressive model, homeowners are inclined to add a room or two in order to generate rental income. At these stages of the housing investment process, rental opportunities can be expanded most significantly without any policy intervention. The symbiotic relationship between owners and renters reflects the coming together of powerful market forces.

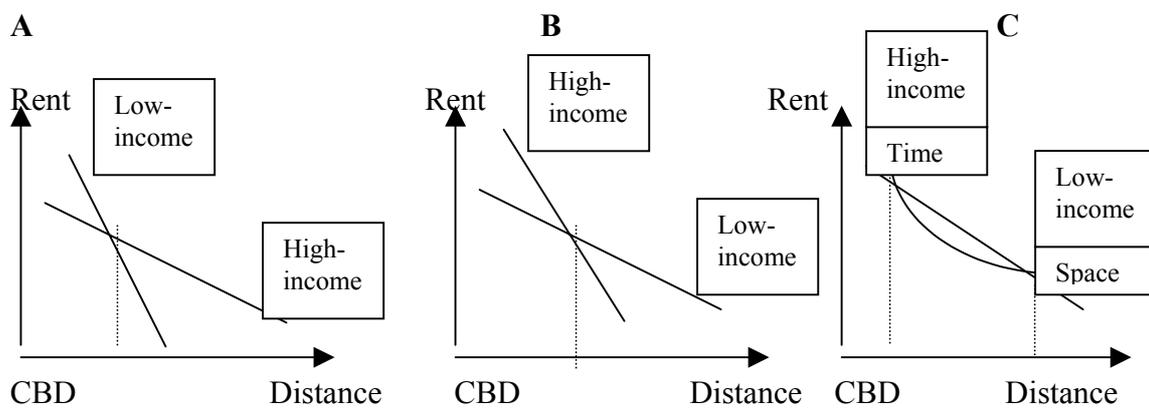
Increasing the supply of rental units by encouraging homeowners to rent out rooms and add rental units may be the most efficient way to increase shelter in Third World cities. Two factors underlie this argument. First, adding rental units to existing

housing means that no additional land costs, which can account for 50 percent of total dwelling costs, are incurred. Labour and materials are the only major inputs. Second, as a result of higher-density development, homeowners and renters combined on the same lot can better afford basic services such as water and sanitation. Thus, the prospects for cost recovery of infrastructure investment are greater than in less dense, low-income communities. Among policies appropriate to expand the supply of rental housing some credit programs can be targeted to owners who add on rental units. In addition, homeowners can be guided in the design of their houses so those rental units can be added on later as family income permits (Patton, 1988; Gugler, 1997a).

Residential mobility and its specific reasons have drawn attention especially for low-income as rental housing become the only option for many households in our mega cities. The mobility can be discussed with the view of new migrants settling in the city space. The economic reason probably is the prime factor for people for being mobile in their initial stages, however, good healthy environment are other reasons but comes after economic stability for low-income people. In viewing residential mobility two concepts, place utility, and action space are proposed. A household achieves a certain utility at its present location and perceives utilities at alternative locations. If the household perceives higher utilities at other locations, then, if possible, the household will move in order to maximise their utility. A household's action space is defined as those areas of the city, which the household had regular contact with and to which it could assign place utilities (Bassett and Short, 1980).

Richardson's (1977) trade-off model shows the residential location or preferences among high and low-income households, as utility maximization is still the prime focus of concern. This model has two directions of thought; first, poor or

comparatively low-income groups would live close to the city centre while the high-income households would live in the periphery. Thus low-income households would have a higher bid rent as close to the city centre than the higher income households. The reason for the low-income to live close to their work places is for reducing transport costs while the high-income households were located on the periphery because of their high-income elasticity of demand for space as shown in Figure 2.7 (A). For Figure 2.7 (B), the high-income are assumed to have a higher valuation of time than the low-income and thus have steeper bid-rent function close to the city centre. Figure 2.7 (C) describe the situation wherein the high-income have a concave bid-rent function that bisects the bid-rent function of the low-income and thus the high-income class are located close to the centre and also beyond the intermediate location of the low-income. In this distribution, the high-income households located in the central city areas are assumed to place a higher valuation on the time while the high-income on the periphery place greater emphasis on space. However, this rent function may not always work on simply a trade-off between accessibility and space but also includes a trade-off between space and leisure and between accessibility and environmental quality for low-income dwellers in most of the Third world cities.



**Figure 2.7. Bid-rent function for Residential Location (Source: Bassett & Short, 1980:30)**

Turner (1982) established the relation between housing priorities of the low-income migrants and different status that is changing over time and economic stability. He argues that marginal groups are integrated through self-help housing activity. However, when a migrant job seeker arriving from the countryside, identified as bridge header, lodging with relatives or renting a room in a centrally located tenement for a while. Once he has obtained a secure income and perhaps married, he would become a consolidator. Then he would build a shack of his own, extend and improve over time according to the growth of his income and his family.

**Figure 2.8. The Housing Priorities of Bridge-headers, Consolidators and Middle-Income groups (Source: Gilbert and Gugler, 1989:173).**

Figure 2.8. illustrates how and where a bridge header, consolidator and a middle-income will prefer residential location. However, Turner (1976) failed to visualize today's mega-cities, where changing social status with narrow economic sources is almost impossible.

### **2.3. Factors Affecting Residential Areas and the Way of Life**

The house is not just a structure but also an institution created for a complex set of purposes. Building a house is also a cultural phenomenon, and its form and organization are greatly influenced by social, physical and technological factors within the cultural milieu to which it belongs. Thus, the function of a residential area is much more than a physical concept. If provision of a house is the passive function of the house, then its active function is the creation of an environment best suited to the way of life of the people-in other words, a social unit of space.

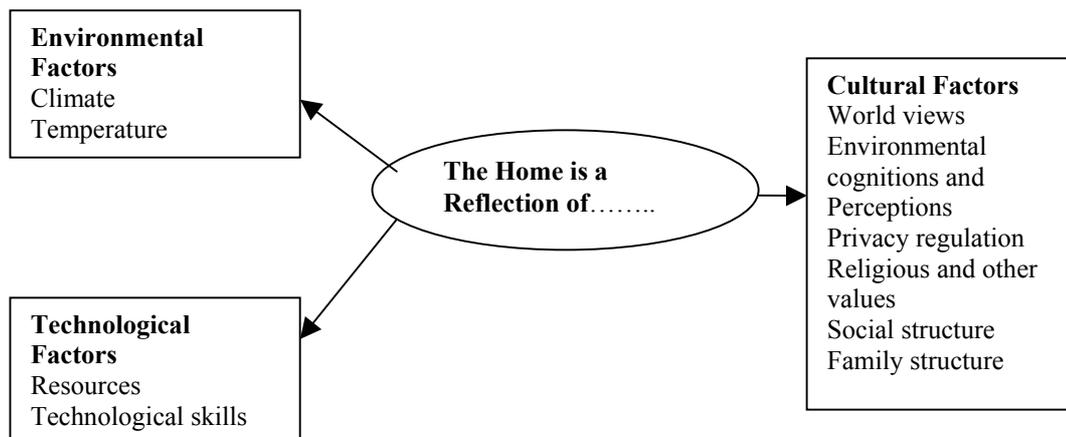
The different forms taken by dwellings within residential spaces are the consequences of complex phenomena for which no single explanation will suffice. All possible explanations, however, are variations on a single theme that people with very different attitudes and ideals respond to varied physical form and environment. Moreover, people tend to adapt to whatever circumstances they find themselves in (Hankiss, 1981). These responses also vary across places because of the changes and differences in the interplay of social, cultural, ritual, economic, and physical factors. The factors and response may also change gradually in the same place with the passage of time (Rapoport, 1969).

House cannot be seen in isolation from the settlement, but must be viewed as part of a total social and spatial system that relates to the way of life of a particular settlement. Men live in the whole residential spaces of which the house is only a part, and the way in which they use the settlement affects house form. Kent (1990) pointed out that, geography as well as architecture has usually separated the study of the house from the settlement, yet the need to look at the house as part of a larger system confirms that the house conveys little sense outside of its setting and context. Because the

living pattern always extends beyond the house to some degree, the form of the house is affected by the extent to which one lives in it and range of activities that take place in it. So, the important characteristics of a settlement are that it will have the highest interaction in social and physical terms.

The residential space and house form depend not only on one single factor. As distinct cultural differences lead to variations in the way of life, the house form will also respond according to the people’s needs, preferences and cultural values. Human behaviour and action in any environment is evaluated by the individual’s performance on space. The spatial interaction in any residential area can be understood in two steps; first, the dwellers interaction within domestic space and secondly, the interaction outside the domestic space but within the neighbourhood.

Altman and Chemers (1989) relate home as a reflection of cultural factors, environmental factors and technological factors (see Figure 2.9). Therefore, a home reflects, simultaneously, many facets of culture in an environment, each of which is correct at some level of analysis, but incomplete if some facet is missing.



**Figure 2.9. The Home in Relation to the other Factors (Source: Altman and Chemers, 1989: 156).**

A house is a *human* product, and even with the most severe physical constraints and limited technology man has built in ways so diverse that they can be attributed only to choice, which involves cultural values. Within the various economic and geographical constraints, biological, physical, and psychological makeup of men, and the laws of physics and structural knowledge, there are always numerous choices available. Men have a great propensity to symbolize everything that happens and then react to the symbols as if they were the actual environmental stimuli. Moreover, house form is not simply the result of physical forces or any single casual factors, but is the consequences of a whole range of socio-cultural factors seen in their broadest terms.

Rapoport points out that,

“the forms of houses are not determined by physical forces and hence can show great variety because of the relatively low criticality of buildings. This is the crucial argument: because physical criticality is low, socio-cultural factors can operate; because they can operate, purely physical forces can not determine form”(1969: 59).

Unfortunately, Rapoport (1969) and Altman and Chemers (1989) disregarded the political and economic dimension as an important reflection in the formation of home. Today, in urban areas, the form of housing is more concerned with its economic constraints rather than cultural heritage and the struggle for land especially for low-income relates to its political dimension. However, Castells (1977) brought and emphasized the economic factor of a house form and mentioned that house in particular and residential structure in general can be explained with four different factors such as, a) economic factors as the individual’s place in relations of production which largely determines his income, job security and credit worthiness; b) politico-institutional factors, preserve property values and social status; c) ideological factors

related to the way in which certain residential units become symbols of modes of consumption and ways of life and function to fragment class consciousness; and d) class-struggle factors related to residential mixing of social classes. To him these are also reasons for the formation of class stratification and residential differentiation.

The environment of residential spaces reflects many socio-cultural forces, including religious beliefs, family and clan structure, social organization, way of gaining a livelihood, and social relations between individuals. This is why solutions are much more varied because one aspect may be more dominant in one culture than it is in others. In addition, house forms, more than other artifacts, are influenced and modified by climatic forces, choice of site, availability, materials and construction techniques that what makes the difference in physical setting (Rapoport, 1984).

### **2.3.1. Aspects of Way of Life that Affect Residential Spaces**

The overall concept of way of life does not help us to determine how it affects the form of dwellings or settlements. Perhaps it is necessary to understand the important components of the way of life, so that the changes in the physical structure can be understood. There are thousands of different ways in expressing the design of a single house where same objectives can be met. So, the way house takes certain forms should be more important than the shape it has. Rappoport (1984) pointed out five important aspects of the way of life by which certain forms are taken place in physical space. Although these important aspects were mentioned for traditional and vernacular settlements, it is valid for the understanding of the way of life for any culture in an urban area.

**a) Basic needs:** The basic needs change among different cultures as people have different attitudes. For example, religious sanctions can affect eating and cooking habits, and there are many other examples of specific eating requirements greatly affecting house form. We see that the basic need of eating does not say much about the form and thus we need to know the specific manner of how and where eating and cooking are done. For example sitting is a basic need, however, the manner of sitting can affect house form as such habits change among different cultures.

**b) Family structure:** Family plays an important role in house form. As there are great differences in family structure, significant relation can be concluded with respect to house form. When we describe the family structure such as extended or nuclear, it affects greatly in house form as the members play different roles and as they have different daily requirements or demands. In addition, there are examples showing how house form differs between areas with polygamy and monogamy. Therefore, family structure does create differences in house form both in traditional and urban housing.

**c) Position of women:** The position of women in the house may take different forms as houses are usually in women's domain and as privacy is an important factor for women. In traditional Japanese house for example, kitchen is one of the few places which is women's domain and physically different from the rest of the house. The dwellings of the tribes of Senegal are all turned in their earth enclosure so that houses cannot be seen into from the entry and wives are protected from view. In Islamic culture men and women usually have separate domains. This duality of space in turn reinforces the seclusion and segregation of women. Thus, it is the women who's priorities and positions are the main concern in house form through the demands of

*pardah*, the harem, and so on, but in each case the specifics of the solution need to be considered (Chowdhury, 1998).

**d) The need for privacy:** Privacy is partly affected by the position of women and the desire for privacy may also take forms related to the separation of domains. This can be seen in India, Iran and Latin America, where the building traditionally face inwards, and seem independent of the climatic zone or site, occurs in both cities and villages. The concept of privacy in dwelling units has become a subject of growing concern as it has a generic process that occurs in all cultures. Altman and Werner (1985) refer to several ethnographical studies of different societies to show that privacy is a universal process that involves unique regulatory mechanisms. In addition, they refer privacy with three main functions: the management of social interaction; the establishment of plans and strategies for interacting with others; and the development and maintenance of self-identity.

**e) Social action:** Meeting with people is a basic need and a form of social action. What concerns us is where people meet, whether in the house, the café, the bath, or the street. The ease with which people can orient themselves in the city is important in helping them socialize. In the Chinese village, people meet in the wide part of the main street; in North Africa, it may be the well for women and the café for men; in the Bantu village it is the space between the animal pens and the walls of living compound. In Yucatan, the meeting places are the steps of the little village store, while in Turkey and Malaya it is the coffee shops. In France, most popular meeting space is the café and bistro, and in Indian culture the meeting place for women is usually at home and for men it can be the tea stall in the bazaar areas. Thus, meeting or socializing in the house gives shape or form to particular dwelling space. However,

meeting places can be classified according the purpose and the activities as they often take place in the private, semi private or public spaces.

When home environments are evaluated, or when they are chosen, altered or designed, people are choosing, manipulating or creating a particular environmental quality profile. When people change way of life, behaviors, or expectations, they are, in effect, trying to make a particular environmental quality profile more congruent, or less incongruent, with their preferences or needs. Different groups may see home environment differently: primarily as settings for family life, as indications of prestige and status or a safe haven. Thus, each emphasis leads to a different quality profile and are the result of household's behavior and individual decision-making.

#### **2.3.1.1. The Meaning of Communal Life and Neighborhood Identity**

When people have a shared culture, that is, shared norms of behavior and values, it generates the symbols of group identity. Each person wants to be treated as a unique and valuable individual but also have a simultaneous need to belong to something grater than him; something more than one; and feelings of something grater than self occur in the experience of community. A healthy community has a sense of where it should go, and what it might become. A positive and future oriented role image provides direction and motivation for its members (Manning, Curtis and Mc Millen, 1996).

Communal-life of neighbourhoods is important as they are changing drastically parallel to the substantial economic changes in many cities. This communal life is also changed for migrants, those who are in continuous process of changing their way of

life in an urban setting. People have lived in communities since prehistoric times and the survival functions of communities in contemporary times is much more complex than in the past and in many ways is less understood. Affiliation and bonding of community members with one another within a neighbourhood is important and one-way of acquiring identity. Because neighbourhood today serves many of the functions of the communal life in the past (although they do not house closely-knit communal groups), in many neighbourhoods, especially poor ones, reliance on neighbours may be essential in times of need, which for some is a daily demand.

The notion of communal life differs among developed and developing countries and represents many activities and human relationships. When communal life is determined by ghettos of ethnic groups in the developed countries, the income usually determines where to live and which particular communal life to choose for the people of developing world. The way people construct meanings around the places in which they live in, and the way designers make decisions about the residential needs of others, is necessary to conceptualize the communal life as having meanings that transcend the physical boundaries of a shelter (Altman and Werner, 1985).

The meaning of neighbourhood is also blended with communal life. While neighbourhood refers the physical setting, activities, and boundaries, the communal life refers the norms, values and common believes of a group of people. A neighbourhood can be defined in many different ways and each definition fixes an essential characteristics, such as, the presence of local institutions, official recognition, the type of housing they contain, the pattern of social interaction and organization that they exhibit, the ethnic, socio-economic, and demographic makeup of residents, a network of social acquaintances, a visually distinctive district, or a

clearly bounded geographical area (Brower, 1996; Altman and Wandersman, 1987). As different definitions serve different interests, the neighbourhood may be seen as a source of place-identity, an element of urban form, or a unit of decision-making. Similarly, Chaskin (1997) points out that neighbourhoods are recognizable and definable and they provide at least potential units of identity and action. They are, however, open systems in which membership and commitment is partial and relative, and the delineation of neighbourhood boundaries are negotiated and often driven by political considerations.

Although there exists a mere difference between the concept of a community and a neighborhood, Davies and Herbert (1993) differentiated them by size and mentioned that a community is a group of neighborhoods. Abughazzeh (1996) pointed out that neighborhood spaces in many contemporary communities, particularly in the Third World cities, often has the appearance of no man's land. So people's participation in designing neighborhood space is about giving people a genuine involvement in shaping and developing their communities. As neighborhoods are geographical locations in which people live side by side in a wide range of physical arrangements, the spatial proximity inevitably produces certain kinds of intrusions or annoyances among the neighbors that share the space.

What Rivlin (1987) means by neighbourhood's life is nothing different than communal life within the miniature social systems that are part of a larger social order with cultural background. The social organization of the neighbourhood creates patterns of authority and channels of communication. A neighbourhood defines its social identity, the shared rules of neighbourhood life, and the traditional means of dealing with proximity problems.

In the classification of neighbourhoods, Brower (1996) defined neighbourhood simply as open and closed and by determining the interaction with physical and social aspect. On the other hand, Warren's (1977) classifications based on three basic characteristics (see Table 2.2.) namely the type and amount of interaction among the residents; the sense of identity that residents have; and the amount of connection between the residents and the outside world. However, it is difficult to say if the western classification fits the neighbourhoods of the Third World cities.

**Table: 2.2. Neighbourhood Characteristics based on three ideals (adapted from Warren, 1977)**

<b>Types from three Dimensions</b>	<b>Identity</b> Sense of belonging	<b>Interaction</b> Active behaviour	<b>Linkage</b> Outside contacts
<b>1. Integral (Integrated: Internally and Externally)</b> Active with face to face contacts among the residents; residents also maintain connections to the larger community outside the neighbourhood.	Yes	Yes	Yes
<b>2. Parochial (Localized)</b> High interaction neighbourhoods that have little involvement with the outside world	Yes	Yes	No
<b>3 Diffuse (Inactive and Poorly Connected)</b> Neighbourhood lacking informal social interaction in which residents vary in their degree of connectedness to the outside world.	Yes	No	No
<b>4 Stepping-Stone (Short-term Stay)</b> Neighbourhood made up entirely of people whose allegiance is to outside groups.	No	Yes	Yes
<b>5. Transitory (Residual and Mixed)</b> Neighbourhood characterized by low interaction, a complete lack of identity, and high turnover	No	No	Yes
<b>6. Anomic (Disorganized)</b> Disorganized neighbourhood in which residents have no connection to each other or to outside groups.	No	No	No

**(Source: McAndrew, 1993:223)**

It has been documented that the contemporary neighborhoods are lacking social interactions with neighbors, firstly, because of heterogeneity in occupation and secondly, due to the occupation and income as in many respects decide where to

reside and whom to interact. Chaskin (1997) opposed this idea and claimed that it is not necessarily the income or occupation, rather the physical form of a neighbourhood. The physical form and design of a neighbourhood is important in understanding the degree of interaction among neighbours. It is possible to increase or to decrease the social interaction of neighbours by designing physical spaces in a neighbourhood. To emphasize the importance of physical forms, Erman (1997) pointed out that, neighbourhoods consisting of multi-storey apartments are less cohesive and have weaker sense of community than neighbourhoods with single-family dwellings.

Unger and Wandersman (1983) pointed out that an unpreferable neighbourhood is a settlement where the households' turnover is higher, not stable, and lower-quality housing is prevalent, which ultimately decreases the territorial marking, residential satisfaction, and the appearance of control. On the other hand, a preferable neighbourhood must provide support systems, social outlets, and an enhanced sense of security. However, a strong sense of community is positively related to length of residence, satisfaction with the community, and the number of neighbours one can identify and these are positive attributes for achieving a neighbourhood identity.

The idea of neighborhood identity suggests that people attach psychological, social, and cultural significance to specific space and they thereby bond themselves to an environment. Thus, identity implies certain bonding or mergence of a person and place such that the place takes its identity from the dweller and the dweller takes his or her identity from the place. However, attachment to a particular neighborhood may help to achieve an identity but the attachment takes undefined time for an individual.

To explain the components of identity, Proshansky, Fabian, and Kaminoff (1983) pointed out that,

“People's place attachment goes directly with space interaction in any residential area of an individual while identity refers to memories, ideas, feelings, attitudes, values, preferences, meanings and conceptions of behavior and experience which relate to the variety and complexity of physical setting that defines existence of every human being” (1983: 59).

Unlike high income, low-income households in our contemporary neighborhoods show a high degree of interaction among neighbors, but fail to provide identity due to lack of recognition in the illegal housing sector. Therefore, it is not the duration rather the legality or the tenure security that counts for achieving neighborhood identity.

#### **2.3.1.2. The Qualitative Aspect and the Users Satisfaction of the Households**

In housing research, qualitative aspects of environment in residential areas have gained great importance. Research interest has shifted from environmental performance to psychosocial and spatial quality characteristics, which can be measured by user's subjective evaluations (McAndrew, 1993). Altas and Ozsoy (1998) pointed out that, the emerging problem of housing is the growing demand for better quality housing and users are getting more conscious of quality issues in housing environments.

The QOL (quality of life) research in general indicates user's satisfaction in a residential area and in particular the way of life and the living conditions of a household. Today, various kinds of QOL research are now being undertaken as they reflect the growing trend towards the way of life research to assist planners in meeting the growing aspirations of urban residents to achieve a better quality of life. Seik (2000) in search for the households residential satisfaction in Singapore studied under

three broad life concepts; social life (e.g. friends, community, social activities); working life (e.g. career/family work, house work, job prospect); and family life (e.g. spouse, children, parents, relatives) as primary predictors and mentioned the secondary predictors as education, health, religion, wealth, leisure, housing, politics, environment, public services and safety by which one can at least find a general idea about the households residential satisfaction.

There are reasons why the findings of residential satisfaction studies should be interpreted with care. People tend not to extend themselves beyond what they feel is reasonable; they are bounded by their expectations and by the range of options that are currently available to them. Amenities that are taken for granted tend to be overlooked, while those that are at risk take on exaggerated importance. For example, residents in unsafe neighborhoods are more likely to mention safety as being important. In familiar settings, residents who have adapted to sources of dissatisfaction and stress tend to downplay their negative value. Another problem with residents' evaluations is that different subsets of residents tend to use different standards (Bruin and Cook, 1997).

A review of the qualities that residents' associate with satisfaction reveals a great many inconsistencies. Brower (1996) points out that in qualitative housing research, the results are controversial in many cases because a higher rating on one means greater satisfaction for some respondents but may not be same for others. For example, some people think that a good neighborhood must include a full complement of community facilities but others think that it is perfectly acceptable to rely on facilities from outside the area. Some think that a residential area must include different types of people; others think that all residents must be of the same class, income, race or ethnic

background. Again some think that neighbors must have strong social ties with one another, others believe social interactions more with people of similar status. These apparent contradictions spring from different images of a good place to live and images of different types of residential areas.

Hankiss (1981) pointed out that high quality of lifestyle does not always go parallel with the more satisfactions of the households in a residential area. Several quality of life research (Altman and Churchman, 1994; Chaskin, 1997; Bruin and Cook, 1997) have reported that despite poor quality living, people from low-income groups have higher user satisfaction than high-income groups. The high interaction with neighbors and having friends in the neighborhood are powerful predictors of residential satisfaction. However, the general way of evaluating the quality of housing spaces (both indoor and outdoor) can be with regard to user's satisfaction.

In order to measure the qualitative aspect of a home and neighborhood, Turkoğlu (1997) points out six criteria that are useful to understand the physical and social condition of home environment in a settlement. The six important criteria that influence the home environment are as follows: a) size and physical conditions of the dwelling; b) accessibility to the city center, work place, hospital, shopping and municipal service; c) availability and maintenance of social, recreational and educational services; d) social and physical environmental problems; e) climatic control of the dwelling; f) degree of interaction and satisfaction with neighbors. Here, Turkoğlu (1997) mainly illustrates the physical and locational advantages of a settlement but unable to mention the user's need and requirements.

Altas and Ozsoy (1998) pointed out that great demand for low-income housing in the Third World cities made the effort towards meeting the quantitative shortage of dwellings, and the qualitative aspects is generally neglected. So, the quality standards of dwelling for low-income households have not been satisfied to the required level. However, what are important criteria to become a preferable residential space for these low-income households includes a wide range of priorities, choices and preferences. Since low-income households of the Third World cities house themselves in different kind of substandard housings, it is necessary to first evaluate the most essential public utilities and services in their dwelling units and also at the neighborhood level first. It would not be difficult to construct a checklist by which the environmental conditions and the qualitative aspects can be measured. Moreover, physical quality of spaces is essential measure to understand individual dwelling space, flexibility of spaces, environmental quality and daily facilities. The degree of interaction between households will indicate social relationships, and the common spaces shared by the households will indicate the necessary and social activities performed.

### **2.3.2. The House Form and Space Organization of the Dwelling Units in Low-Income Settlements**

The space organization of the dwelling units in the Third World low-income settlements illustrates different structures and forms that may not fit the conventional understanding of modern urban housing. In most of the developing countries, where squatters are the major accommodation for low-income households, a similar pattern of cluster housing with outdoor courtyards can be seen. Unlike apartments, these squatters are generally low-rise single unit spontaneous structures with adjacent outdoor spaces. The space organization of such dwelling reflects the users need and

space requirements and the incremental developments are experienced with mutual understanding of the neighbors. In most cases, there is no defined boundaries or territory of the outdoor spaces as such and the spaces are used commonly with neighboring families. Thus, the living space of the households can extend well beyond the actual dwelling.

The outdoor of a dwelling space also differs according to the type of the dwelling unit. For example, there are certain outdoor spaces that cannot be provided in an apartment building. However, the physical shape of such dwellings also depends on cultural background and it is often seen that rural migrants are fond of single unit dwellings as this is their familiar type (Erman, 1997; Patton, 1988). The size and the shape of the courtyards and verandas are also important adjacent spaces. Since they are open or semi-open spaces, they are essential for daily activities especially in the region of hot and humid climates. Garden and rooftops are optional spaces but can be functional at the same time. For example, in South Asian countries rooftops are substitute spaces for courtyards (Samizay and Kazimee, 1993).

Privacy in the dwelling unit and how they are designed and maintained in the physical organization are important in measuring the quality of a dwelling. The room size must be proportionate with the household's size so that individual privacy can be maintained. Kitchen, dining and attached bathroom and toilets are also necessary spaces that are required for daily activities. Sunlight and ventilation are other important criteria for health that has to be considered during the construction and in the planning process of the dwelling. There are other services that are provided by the public authorities such as, water, gas, electricity, and sanitation and garbage collection. These services are essential to lead a healthy life in a neighborhood and in

absence of such services how the households satisfy their needs can be another point to be investigated. The most important characteristic of a dwelling unit is its flexibility. The flexibility of space is required for further development either for economic purposes or for individual households to be more comfortable.

So far we have discussed the individual dwelling spaces and for a residential area there are other services that shows the efficiency of a neighborhood. As the distance and the mobility are important to get such facilities, the low-income of Third World prefer to get all facilities within walking distance. However, health center, educational facilities at least for primary school, religious institutions, sport and recreational facilities, meeting spaces, park and greeneries are basic needs of a neighborhoods (Davies and Herbert, 1993). It is not necessary to have all these facilities within the neighborhood boundary, but how the inhabitants of a neighborhood get such services can be important in evaluating their interaction with physical spaces.

The adjacent outdoor spaces that are often found in a dwelling are more of a cultural reflection. It is also interesting to see that despite cultural differences and distant geographical locations, certain habits and household activities of the low-income exhibit similar connotations in many parts of the world.

#### **2.3.2.1. Courtyard**

Many studies (Newman,1973; Rapport, 1969; Pellow, 1992; Samizay and Kazimee, 1993) have evidence that the households of the traditional culture, despite geographical differences use courtyard or backyard as one of the most essential space in their dwelling spaces. Especially in agricultural based societies, courtyards are the most important place for multi-purpose activities and for economic productivity. By

migrating to the city, and by changing agricultural activities, courtyards may diminish in importance, yet one can see the substantial use of this space especially in the low-income settlements where the residential environment can be the traditional replication.

Courtyard spaces are meaningful spaces where purposeful action are taken and can take different shapes and forms. The courtyard plays significant role as various inter-family and neighborly interaction take place; it is there that arbitrations occur, cooking is done, children play, stories are told and family celebrations and funerals are held. Pellow (1992) observed African compound, a version of courtyard that has, as a self-contained building unit and the essential features are separateness and independence of the units. Although the courtyard spaces are circular in traditional Ghana, these spaces are generally of rectangular shape with similar principle in other countries (see Figure 2.10).

**Figure 2.10. Four Courtyard Spaces with Similar Principle in Different Countries (Source: Rapoport, 1969:82).**

Samizay and Kazimee (1993) studied the importance of courtyard in the Islamic society and pointed out that, although courtyards are used in other cultures, they have deep-rooted historical importance in Islamic residential architecture providing essential need for privacy. The patterns of activity throughout the day vary in quality

and intensity alternating in use by different members. Thus, courtyards are essential in a housing unit as it is the extension of the interior space accommodating domestic activities if the weather permits. So, it is therefore the hub of the family that epitomizes the entire dwelling and its life.

According to Saini (1980) the courtyard concept represents the simplest and the easiest form of shelter of people. This form of housing, whether individual or collective, retains some of the important elements of life of the hot climatic communities. The courtyards in modifying the microclimate of dwellings and to act as a buffer against the noise are important characteristics. Moreover, courtyard offers many advantages such as all or most rooms open into it; consequently, apart from security, it ensures absolute privacy. The courtyards also provide a safe play area for small children where mothers while continuing with normal household chores can directly supervise their activities. For adults, the courtyards provide a useful living and sleeping area at times when the weather permits. In short, the courtyard virtually becomes an extension of the house, where a number of household and economic activities take place for many households across different cultures (Erman, 1995).

#### **2.3.2.2. Veranda**

Veranda is another important domestic space and often regarded as semi-open space in a dwelling. This space also works as courtyard as a number of household activities can be performed. Moreover, it protects household from unfavorable climatic conditions. In an apartment building, veranda can be the most usable space for household activities also. In the low-income settlements, it has many uses and due to lack of usable spaces it is often changed into bedrooms or workshops.

#### **2.3.2.3. Path**

Path is the communication channel that connects two or more spaces in a neighborhood. These are semi-private or semi-public spaces around a house. As these spaces are free from traffic, it can be a gathering place for neighbors and a good place for social activities in a neighborhood. Although the main purpose of a path is passing on foot for pedestrians, it is often the most usable space for children to play and the vendors for selling goods. Due to lack of spaces in many low-income settlements, path is substantially used for many domestic, economic and recreational activities (Erman, 1995).

#### **2.3.2.4. Rooftop Space**

Like courtyard, rooftop is also important workable space in some cultures. In some indigenous housing, rooftops become spaces of architectural significance as they complements the space of courtyard in use and social function. In the countries with hot climate, rooftops can function as a sun deck for drying purposes and in the evening for social activities to escape the heat of interior spaces. Rooftops are also favorite places for the children to play different games. Roofs may link to other roofs into a complex network accommodating another level of neighborly interaction. However, these spaces are well defined and richly accommodated with privacy (Bulos and Teymur, 1993).

#### **2.3.2.5. Space in between Buildings**

Space in between buildings are negative or left over spaces in a settlement. To keep residential space greener and environmentally healthy it is necessary to keep certain amount of space free from construction in a neighborhood. Therefore, these

spaces between buildings are not necessarily mean leftover spaces, if they are properly designed and utilized. In the low-income settlements, space between buildings is extensively used for different purposes due to lack of habitable spaces. However, these spaces are often designed for common spaces as wet-cores from where households collect water. Ameen (1999) pointed out that spaces between buildings are positive spaces in low-income settlements as they put an important activity for the neighbourhood and as it serves as a meeting place for the settlers.

### **2.3.3. Home as a Space for Income Generation for Low-Income Households**

Home based jobs integrate two important concepts; housing as a way of life and job as an income generating activities. Therefore, income generation has an impact in the life style of a household who involves in such activities. Moreover, due to such jobs, certain living spaces will be changed or altered. Since there are economic and political dimensions of home based jobs, it urges a number of questions, especially for low-income dwellers for both developing and developed countries. Who are the job providers and how does production and consumption take place? How such jobs are accommodated in their domestic spaces and if the spaces are both flexible and suitable for the jobs? How is this going to affect the economy at a national level? What are the types of jobs and their characteristics? Does the income of home-based activities bring better physical quality in the housing environment or not?

As home is basically within the domain of women, the most active person in home-based job are also the women. Bose (1999) explained that the so called 'men' as bread winners and the 'women' as homemakers is not true where the income of these women is crucial for the basic survival of many low-income families in the squatters today. Chant (1997) pointed out that home-based work is a critical source of income

for women, especially in urban areas where rapid economic transition and relaxed cultural restrictions have led to increased family disintegration. The work of Beneria and Roldon (1987) on women subcontractors in Mexico City and the work of Eraydin and Erendil (1999) on the role of female labour in the clothing industry explore in depth the exploitative aspects of home-based work, including unpaid domestic work, underpaid homework, and the unpaid labour of children. These writers authors that processes of subcontracting atomise the labour force and minimize awareness among workers of their own power.

Kümbetoğlu (1992) and Bose (1999) pointed out that because of the inaccessibility of formal job and activities, the women of low-income households seemed to be encouraged for engaging in informal sector activities, for balancing and combining gender roles and work. These activities include various “works” done for merchants, employers, markets, neighbours and relatives, and they can be characterized by very low returns with over exploitation. Both the cooperative and small loans program would only be a short-term solution to an immediate problem, but such ideas are a first step in recognizing the presence and importance of women in the work force (Weiss, 1996).

For female home-workers as pointed out by Miraftab (1996), the spatial juxtaposition of paid labour and unpaid domestic work has a double effect. On the one hand, the incorporation of income generation into the domestic space undoubtedly makes it easier to juggle productive and reproductive responsibilities. On the other hand, the spatial juxtaposition and the temporal intermingling of different responsibilities obscures the work performed for pay and may diminish the perceived importance of women’s contribution to the family budget.

Gulati's (1990) new term of home based work as 'backyard employment' has received enormous importance in developing countries as an account for much of the growth of the urban informal sector. Development economists divided household manufacturing into subsistence manufacturing, artisans working in the home, artisans with workshops, and industrial home-work paid or in wages or by piece under a contract system. Since women from low-income groups usually engage in wage-work at or near homes, the home environment and the immediate neighborhood is linked to their shelter and economic needs (Kusow, 1993). Because women are almost universally the caretakers of their children and because homes are increasingly the site of their economic activities, women need security of tenure, if not ownership (Tinker, 2000).

Many studies (Gulati, 1990; Sinai, 1998; Raj and Mitra, 1990) emphasize a key role of the home space as the provider of economic activity for low-income households because such work provides the fundamental sustenance without which the household would perish. The home thereby becomes not merely a container of human life but an essential shelter for those life-sustaining activities. Kellett and Tipple (2000) pointed out that in low-income areas, the complex web of economic linkages which exists between home-based enterprises and housing allows all but the most destitute to make a living and have access to shelter. It is believed that there exist a symbiotic relationship between housing and home-based enterprises, because low-income households are able to consolidate their dwellings through the income earned; many households would not have a dwelling without their home-based enterprise; and many enterprises would not exist without the use of a dwelling (see Figure 2.11). Thus, home space plays an important part in the existence and operation of the informal

economy and also as the survival strategy for the low-income households in many cities.

**Figure 2.11. Preparing Samousas at Home for Sale (Source: Boris and Prugh, 1996: 75)**

Before the industrial revolution, work for most people was centered on their homes in the form of domestic industry and the household could be seen as a unit of production in an industrious home. Both Gugler (1997 b) and Davies and Herbert (1993) pointed out that the impact of capitalism after the industrial revolution, separate the industrial estate and residential district and faster transportation system also played important role in shaping up many cities. Although, the separation of workplace and residence have been realized in the western cities, self created enterprises as a source for income generation have again integrated the workplace with the home especially in low-income settlements for many Third world cities (Ahrentez, 1990). However, combining of work and family space enhances interaction with family members and create a certain way of life.

### **2.3.3.1. Income Generation at Home as an Indicator of Life Style and Its impact on Physical Spaces**

The focus of existing studies of home-based enterprises has been largely on the economic implications with little attention to how income generation activities and home spaces are integrated. In areas where infrastructure and social conditions permit integration of production process into individual homes, dwellings may undergo various types of modification. Modifications differ depending on the type of production, its spatial requirements, and the number and gender of persons involved in the activity. However, the accessibility of market centres, access to urban services, relative spatial control (privacy), and home tenure are key conditions that make some home-workers more feasible than others.

The households who involve in income generation may have different way of life than the household who don't use their spaces for income generation. The difference fully depends on the types of work, its working hours and the number of households involve. For example, the family members who run a restaurant or a grocery shop in their home may work for a certain time everyday and lead a certain way of life compared to the households who are involved in garments jobs or produce some goods at home to sell outside. Therefore, both time and space are important factors what makes their way of life different than others (Weiss, 1996).

Miraftab (1996) studied the low-income households of *maquila* workers in Mexico and concluded that households modify the existing space in one of two ways: either they use space for multiple uses, or they set aside space for paid work only. In the first case, families may recognize furniture to accommodate living and working activities simultaneously, or they may organize their time so that the same space can be used for

different purposes at different times of the day. For example, an existing family room or bedroom may be used as a workspace during the day and as living space during the evening or night. In the case of insufficient space, *maquila* households may convert living space into a designated workspace (see Figure 2.12). Because individually performed *maquila* work requires relatively little space and because it is sporadic and insecure, households rarely construct additional rooms for *maquila* work.

**Figure 2.12. The Use of Spaces for Income generation at Home (Source: Kellett and Tipple, 2000: 209)**

In order to accommodate home-based production, families often make incremental additions to their houses that ultimately lead to segregation of work and living spaces. How space is used and how it is valued and optimised is important in understanding the provide rights into how limitations of space affect income generation and standards of comfort and privacy of the dwellers. Does the use of the home as a workplace provide increased wealth and well being to low-income families, and in particular to women with child-care responsibilities? Does the invasion of production lead to an exploitation of family members and a deterioration of their living

conditions? Although home-based work serves the interests of the manufacturers by cutting down production cost and allowing them to tap into the cheap labour of married women, the integration of work into the home leads to exploitation of home-workers and to a deterioration of living conditions for their families (Shiferaw, 1998; Sinai, 1998; Kusow, 1993).

Differences in space modifications also depend on gender. Women often recognize living space to accommodate a mixed use of space for domestic and production tasks Miraftab (1996). Men more commonly create a specialization of existing space, separating production and living arrangements. For example, in most cases women located their sewing machines in the living room or in a large kitchen in order to be able to combine their work with supervision of children and to accomplish several tasks simultaneously. However, flexibility of spaces are important when home spaces are used for production of goods. The lack of spaces forces certain home-based work to choose spaces that are not suitable for such activities.

Bhatt (1987) explains the types of home-based jobs and their defined spaces in a housing unit in a low-income settlement in India. These jobs include basket weaving, agarbathi (incense stick) making, packaging and making household goods, embroidery, and food preparation, stringing flowers, casting construction elements in moulds and garments or tailoring. The most suitable place for such activities are either their courtyards or open verandas and in lack of such spaces, semi-private spaces such as paths or space in front of the dwellings are extensively used. This indicates that the difference between the spaces for homework between a developed and developing countries. While in the former case people can segregate the living space with

working spaces, in the later case, these spaces are overlapped with their most necessary daily activities such as sleeping, cooking and eating.

Kümbetoğlu (1992) pointed out that in Turkish *gecekondu*s the use of space for home based work restrict the area within the house and polluted air in the room's causes poor environmental conditions. As opposed to this idea, Kellett and Tipple (2000) concluded that housing conditions would have been worse without home-based enterprises and without money generating activities for low-income households. Gilbert (1994) investigated the physical quality and the flexibility of spaces for income generation in the apartments and in the compound houses. Apartment dwellers use homes for income-generation less than compound dwellers and households that use their homes for income-generation occupy more rooms, but their housing quality is not as good as the housing quality of the other households. This suggests that perhaps households who use their houses for income generation sacrifice the potential of improving housing quality, so that they can afford to occupy more rooms. As home based jobs increase the income, investment for improvements of the dwelling space is possible; however, further investigation is necessary to understand if other factors are more important than income in the quality of physical spaces in a settlement.

### **2.3.3.2. Extension and Self-Initiated Transformations of Domestic Spaces**

Residential transformation and self-initiated extensions are one of the most important phenomena in all Third World cities. Likewise, such transformations or extensions of the dwellings in low-income settlements are common due to many reasons. These home transformations or extensions are done by self-help (without the permission of legal authority) in order to acquire more habitable space; to be more comfortable; and for economic purposes as they use home for income generation.

**Figure 2.13. Self-help Extension and Transformations on of House (Source: Ameen, 1988: 54)**

Despite government's negative attitude, the maximum utilization of spaces by housing extension attracted many housing experts especially in government or public housing. The overview affirms that the low-income group, even under the agonies of limitations, could use their potentials and make vital improvements to their own house at no direct cost to the government. Transformation appears to contribute more than they take away; moreover, extensions in government-built housing demonstrated that there is considerable advantage arising from extension activity for the sustainability of cities in developing countries (Tipple, 1996). Transformation can contribute to the urban environment in several ways, which are congruent with the aims of sustainable development and the global strategy for shelter. Although illegal extension or transformation creates chaos and may hinder successful plans, many believe that such changes help to improve living conditions without public support; create more room within the limited space; services have generally been improved and additional space can be used for economic activities if desired and consumers of housing are becoming producers of housing to some extent. Thus, transformations or extensions are an

effective housing supply mechanism (see Figure 2.13). Sinai (1998) points out that although housing supply policies have concentrated on new starts, extensions have a major role to play in many countries. For example, in Kumsai during 1980s the major increase in housing stock did not come from new starts but from extensions to existing houses.

Another study done in *Bastuhara* (settlement for landless people) by Ameen (1999) shows that extension activity does not appear to make local housing conditions worse; rather, it has improved them. Improvements are evident in the amount of space available per household and per person, even though occupancy rates are still high. There are more services (water, sanitation, electricity) than previous situation although some are of poor quality and can be illegally connected. Shiferaw (1998) points out that despite the inefficiencies, transformation of existing housing provides more shelter and in this way the spaces are more efficiently used than any other form of buildings in Addis Ababa today. In Egypt, for example, through the extension activity, the second generation can remain in the neighbourhood and reductions in occupancy rates appeared. In addition, transformers are less crowded than non-transformers and with three to four habitable rooms now available, the children of opposite sex are able to sleep apart and the parents sleep away from children.

Tipple (1996) also supports the positive view on transformations as physical standards of the extensions are as good as or better than those in the original house in general. The main households improve their own housing circumstances, both in terms of the services they enjoy and the spaces available. For example, in Ghana and Bangladesh few of the houses sampled originally had toilets, but now 54% of the houses in Ghana and 87% in Bangladesh have them. A similar improvement has also occurred in water

provisions. Between 11% and 25% of the houses in Bangladesh, Ghana and Zimbabwe samples had a commercial use within the house. Working in the house has an effective poverty alleviation measure, where even poorly paid out-working can make a real difference. The opportunity to rent out additional rooms is important for many households' and ability to pay for and maintain their houses, or as a means of livelihood for the old. Self extension also create improvements in the dwellings, provide shelter for their relatives much better than the public systems could do and generate income through subletting extended rooms and using part of the house for informal productive and business activities.

Mahmud and Duyar (1999) compared Ankara's *gecekond* with Dhaka's *bustee* and found different features as ownership play a major role in the transformation of the dwellings. In Ankara's *gecekond*, the housing extensions are done with poor quality materials by the owner himself and as soon as the permission and the proper land title is given by the municipality, a total transformation by making apartment buildings are often realized. *Gecekond* landowners either make their apartment buildings by local *usta* (maison) or give the land to the small construction firms or builders. For *gecekond* landowners, making apartments are cost effective, as the landlord gets more return by either renting or selling them. In Dhaka's *bustee*, on the other hand, neither extension nor transformation is possible by the users because most of such dwellings are in the hand of private landowners. Housing extension can only be seen in the government housing due to loose control of the authority. As the extensions provide more spaces for income generation, the households who have extended their dwelling spaces for shops or rental purposes now have better economic condition than other households (Tipple and Ameen, 1999).

It can be concluded that governments can adopt an essentially permissive attitude towards transformers. Although the scale of activity shows that transformers can afford extensions, finance is overwhelmingly the most difficult problem they face in their incremental improvements; therefore, government funding or loans for such activity can be encouraged and introduced. If user initiated transformations can be officially recognized as an upgrading activity rather than as “building slums”, positive policies could follow and the process could be more efficient for all concerned.

Based on the theoretical framework, Dhaka city will be analyzed as a mega city and how its urban areas have transformed and how peoples’ way of life has changed due to globalization will be discussed in the following chapters. In addition, the classification of low-income and their housing provisions will be investigated. Also government reactions and attitudes for solving low-income housing will be simultaneously discussed.

### **3. RESIDENTIAL SPACES AND HOUSING IN BANGLADESH**

#### **3.1. The Housing Policy and Urbanization in Bangladesh**

In Bangladesh, there has not been any explicit policy on urban housing although the need for adopting such policies has been felt from time to time by the government, planners and academics. Some suggestions and recommendations are also available as outcomes of major studies, seminars, conferences and workshops. In December 1993, the government has finally approved the national housing policy.

While the government has not formulated a comprehensive policy on human settlements, it has nevertheless made some partial and sporadic proposals and programs that provide the guidelines. The most important outcomes of this policy are obviously the 5 year plans, the National Habitat Report on Human Settlements prepared for the Vancouver Conference in 1976 and the National Housing Policy of 1993 and the National Habitat II on Human Settlements prepared in 1996 for the Istanbul Conference (GOB, 1996).

Bangladesh experienced a very slow rate of urban growth in the first half of the century, reaching a level of urbanization of only 4.33 percent in 1951. Then two major political events: the establishment of Pakistan and India following the withdrawal of Britain from the Sub-continent in 1947 and the Liberation War of Bangladesh in 1971 were responsible for the rapid growth of urban population and urbanization in Bangladesh.

The fact that urbanization has been taking place very rapidly in the second half of the century is mainly because of rural to urban migration of people that can be linked with the impact of globalization and rapid improvements in communication (Islam, 1998; El-Shakhs and Shoshkes, 1998; Rahman, 2001). This rapid growth has taken place in the

largest urban centers and this resulted in “over urbanization”, creating mega-cities, with associated problems of housing shortage, slum and squatter proliferation, crisis in transportation, stress on socio-economic conditions and deterioration of living conditions. Parallel to increasing urbanization throughout the world, Bangladesh has also followed the same trend (see Figure 3.1).

**Figure 3.1. Levels of urbanization in Bangladesh and the projection of 2020**

**(Source: United Nations, 1987: 236).**

In Bangladesh, the housing conditions are unsatisfactory both in rural and urban areas with respect to per capita dwelling space and environmental conditions. However, today in urban areas housing conditions are even more degrading, characterized by higher degree of inequality.

### **3.1.1. The Emergence of Bangladesh and the Policies on Urban Settlements**

Bangladesh has a name 3,000s years of history but has been a nation only since December 1971. Previously East Bengal and more recently East Pakistan, the state of Bangladesh, under the leadership of Sheikh Mujibur Rahman, is attempting to overcome the centuries of neglect and the series of natural catastrophes that have left it all but prostrate and at the mercy of the world (Nyrop et al, 1975). The name Bangladesh means the land where Bengali people live and whose mother tongue is Bengali with a cultural background. The geographical location of Bangladesh is the south of Asian Continent with an area of 1,48,393 sq.km and occupies the apex of the arch formed by the Bay of Bengal into which all rivers flowing through the country drain. Bangladesh Stretches latitudinally between 20°34' and 26°38' north and longitudinally between 88°01' and 92°41' east. The country is mostly surrounded by India, except for a short-eastern frontier of 283.36 km with Myanmar (Burma) and a highly indented southern coastline with offshore islands in the Bay of Bengal.

Since 1000 BC the Ganges-Brahmaputra river delta has been a land of refuge for people fleeing the expansion of the empire. Although linked with the great empires of the subcontinent, the area maintained an extremely independent position. Its geography made it remote and inaccessible until the sixteenth century, when the Mug Hal emperors decided to exploit the region's agricultural wealth and to open the area to trade (Brunn and Williams, 1993).

The rate of urban growth in Bangladesh has been very rapid during the last several decades. This is obviously because of several factors, one of which is the slow rate of development of the rural sector and urban-biased investment policy of the past governments. Rural poverty continues to push the people from villages to the cities. This

process also partly accounts for the increase of poverty in urban areas (Rahman, G. 1999).

**Figure 3.2. Geographical location of Bangladesh and its Urban Centres (Source: Centre for Urban Studies, 1991:123).**

With the Independence in 1971, the new nation of Bangladesh was able (after over two decades of economic domination from West Pakistan) to plan its own future. In November 1973, the country's First Five-Year Plan was published. The period between the establishment of constitutional authority in early 1972 and the publication of the plan

in 1973 was one of feverish activity and of extremely high and idealistic hopes for the future of Bangladesh (GOB, 1996).

It would be unreasonable to judge any poor nation such as Bangladesh on its ability to deliver units of housing to its residents. Given the wide range of economic problems facing that nation, it was apparent that the actual provision of housing by the government was given fairly low priority. On the other hand, given the limitations on housing provision, it could be expected that the government would propose urban development and planning policies and people would provide their own housing.

After the independence, the planning procedures in Bangladesh became increasingly sensitive to the critical shortage of urban housing especially for the migrants from rural areas who started to find accommodation in any kind of shelter that was available. During this period after the proposal of the First Five-Year Plan (including the proposals on squatters), the instance of foreign assistance to Bangladesh for housing was first delivered.

In the early national planning history of Bangladesh, there were ideological debates about squatters among local and central authorities. The new nation was unable to improve the living conditions of all its citizens. However, there was an acknowledgement that financial resources were in short supply and the improvement of squatters would be difficult in the short-term. The massive scale eviction of squatters from the city center was first implemented in 1975 with an intension to provide land for the urban poor who would provide housing for themselves (Rahman, M, 2001).

In order to keep a balance in the growth of large cities and the rural settlements, the government has put forward the policy of decentralized urbanization and rural development. Several authors supported urbanization and Rahman, M. (1999) pointed out that the persistence of the rapid urban growth could be utilized significantly only if development is decentralized with a view that urbanization as a positive phenomenon rather than a negative one. However, the National Habitat Report 1976 had recommended establishment of RGP (Regional Growth Poles) and a number of growth centers as early as in 1976. The Habitat Report also recommended a policy of developing a hierarchy of settlements for balanced human settlements in Bangladesh. Then in the Second Five Year Plan, 1980-1985, the concept of 1200 growth centers (i.e., small towns) was advanced. This was however, modified with the decentralized administrative or Upazila (sub district) system and only 500 Upazilas were proposed for decentralized urbanization during the Third Five Year Plan, 1985-1990. The Zila (district) towns would also be developed as secondary towns to attract some part of the rapid growth of the four metropolitan centers. This policy of decentralization continued until the Fourth Five-Year Plan, 1990-1995 (GOB, 1996).

The National Physical Planning Project, Phases I and II, implemented during the 2<sup>nd</sup> and 3<sup>rd</sup> Five Year Plans by the Urban Development Directorate of the Ministry where UNDP/UNCHS also worked on the preparation of a National Physical Plan. The project made an analysis of the present urbanization conditions and some projections on future urbanization trends (GOB, 1990). The government adopted a policy of producing Master Plans for Zila (district) towns and was proposed for all-important centers according to the official plan. Unfortunately, this policy was neither adequately complemented by requisite number of planning personnel nor considered as a successful one.

The 1991 census records the urban population to be about 22 million spread over in 500 urban centres of Bangladesh (see Figure 3.1). El-Shakhs and Shoshkes (1998) pointed out that population of Dhaka alone would make up more than 35 % of the national population with an estimation of more than 12 million by the year 2005. However, other large metropolitan cities such as Chittagong, Khulna and Rajshahi will also experience unnatural population growth. In absolute terms, new urban population growth expected to be focused on Dhaka and to lesser extent on Chittagong. An obvious impact of this increase in urban population would be the increased demand for land, housing and urban services in all urban areas.

### **3.1.2. Urbanization and Housing Problems in Bangladesh**

As noted above, Bangladesh has experienced an extremely rapid growth in urban population in the recent decades. Unfortunately, there is no attempt to assist these migrants, particularly the poor in their process of settling in the city. The issues, such as, the migrants adjustment and adaptation process; the economic, social and psychological impact of rural to urban migration, are all areas of research which demands, in-depth analysis in the context of Bangladesh. It is obvious that economic factors have played a dominant role in the migration process, and at the same time, non-economic factors have also contributed significantly to this decision. There is a big gap in terms of opportunities between rural and urban areas in Bangladesh and it is difficult to expect a significant reduction in the density of migration in the near future (Nazem and Islam, 1996).

Due to the nature of age and educational selectivity of migrants, it is true that rural areas suffer loss from large-scale out migration, and this amounts to the creation of further social inequalities between the rural and urban areas. As the migrants improve their

employment status in the city (although mostly outside the formal sector) they also try to manage their own shelter provisions. Chaudhury (1983) points out that the migrants have a variety of shelter arrangements on their arrival in the city (see figure Appendix P Figure. 1, Figure. 2, Figure. 3). About 13% of the migrants stay with relatives mostly free, as much as 30% find accommodation in “mess” (dormitory for single persons) type of houses, 17% rent a house, 18% are provided with accommodation at the place of work and the rest have other arrangements.

Access to land and housing is crucial for the survival of the migrants in the cities in Bangladesh. In addition, because of the extreme scarcity of available land, high demand from all income groups and consequent high price, as well as the planning policy and practice, the migrants are extremely marginalized in terms of their access to land. Moreover, overall urban residential density and housing occupancy ratio have assumed to be very critical, particularly for the new migrants (Nazem and Islam, 1996).

The highly limited access to land for housing has persisted since the early 50s and has worsened with time. Lack of planning, together with social and environmental problems make it more unbearable for the low and middle-income groups. As a result, only a very small proportion of better-off people can afford fairly comfortable luxury housing, while the vast majority of the low income group and the poor are faced with the problem of living in substandard housing (Eusuf & Khatun, 1993).

The overall urban residential density, occupancy ratio and physical conditions of houses are all questionable. Residential densities have increased even in upper income and middle-income areas by the process of filtering and densification. In low-income areas or slums, the densities are higher, more than 2000 persons per acre, while the Third World

average is about 300 persons per acre. The occupancy rate or the average number of occupants per housing unit in urban areas increased from 5.84 in 1961, to 6.05 in 1974 to over 7.07 in 1981. During the 1961-74 period, urban population of the country increased by 138 % while the number of residential units increased by 129 %, which creates a gap between housing demand and supply. According to one projection some 7.5 million units of housings would be required in 1990-2010 period, which amounts to 175,000 houses a year to adjust the housing deficiency (CUS, 1992).

According to the report of Bangladesh Bureau of Statistics (1994), the average floor area for living in urban areas is about 30 Sqm/person whereas it is found to be approximately 5sqm/person in the bustee areas. The conditions in slums or squatters are even worse and the average floor area falls to just about 1-1.4 Sqm/person in Dhaka (CUS, 1990). Only some exceptions found in some formal public sector subdivision schemes for low-income population, i.e. resettlement camps or refuge camps where larger plots with low densities can be seen.

The complex problems resulting from the steady growth of squatter settlements in the city cannot be solved unless an adequate amount of land is made available for housing the poor. The public housing delivery system falls far short of the growing housing demand in the country (where only 7% of the total housing stock is provided by the public authorities). The consequences of the country's traditional policy of providing heavily subsidized housing to the privileged few creates an acute shortage of housing in the urban centres. Moreover, many of the public housing units meant for low-income people are sold or leased to middle income households.

It may be concluded that, despite the inability of the public authorities to meet the various demands of slum and squatter dwellers, the tenure security of these people may help to improve the conditions of housing by self-help initiatives. Temporary tenure form of public housing has proved substantial improvements in the resettlements camps. So it is, therefore, strongly recommended that any genuine attempt to improve the housing condition of the lower income (both slum and squatter dwellers) must be oriented towards increasing the supply of land and tenure security for them (Hossain, 1999).

### **3.1.3. Housing Policies for Low-Income Settlements and Urban Residential Pattern**

The urban housing policy, which was finalized in December 1993, has described the future role of the government in the housing sector as a “facilitator” rather than a “provider”. In order to increase the land, infrastructure, services and credits, and to ensure availability of building materials at reasonable prices, the government has promoted house building and finance institutions. As the government has just acted as a facilitator, the actual construction of housing is generally left to the private sector developers, the people themselves and the NGOs. The policy also has a special consideration for the improvement of low-income settlements as well as the slums and squatters of the urban centers. The housing policy also recommended the formation of National Housing Council and a National Housing Authority in order to implement the policy objectives and programs of the government (MOHPW/GOB, 1993).

The poor in urban areas, especially their habitats in slums and squatter settlements, became a policy issue soon after the liberation of Bangladesh. The government adopted a program of resettlement of squatters in Dhaka, Chittagong, and Khulna in 1974 but only implemented it in Dhaka (in January 1975). The 1976 Habitat National Report, as well as

the survey report on squatters by the CUS (Centre for Urban Studies) made a detailed analysis of squatters and also proposed general recommendations to tackle with the problem of squatters and urban immigrants (CUS, 1976). The Second and the Third Five-Year Plans also provided some schemes and programs for resettlement of squatters. However, the most serious attention on urban slums and squatter settlements was given through the formation of the Dhaka *Mahanagari Bustee Samasya Niroshan* Committee in August 1989 (Gono Shahajjo Shansta, 1995). In the Report of the committee, the problem of Dhaka's slum and squatter dwellers is analyzed comprehensively and both short and long term recommendations were made for the problems. The Committee recommended to acknowledge the economic and social importance and the policy of integrating the poor to the urban setting mainly through (i) upgrading of existing slums and squatter settlements; and (ii) resettlement of squatters in and around the city (MOHPW/GOB, 1993).

Some of the policy implications were about the rapid increase in the housing stock and reduction in the standard of public housing to be consistent with the prevailing income levels. In design and construction, local materials and indigenous building methods should be used to decrease the cost of units and promote the local housing industry. In order to make public housing policy suited to low-income communities, priority should be given to the development of small plots instead of retaining the present trend of a meagre supply of high standard, costly, fully serviced dwellings and large serviced plot development. To make such schemes affordable for the target population, plot size and infrastructure requirements should be kept at a minimum (GOB, 1990).

Another important measure towards increasing the supply of land for the urban poor is the increased purchase of peripheral urban land in advance of urban growth.

Unfortunately, although the presence of the laws which enabled the compulsory acquisition of land for public interest (often exercised by the development authorities), in practice these have been exercised mainly in the acquisition of land for private resale to either highest bidders or to the high income communities. It is therefore, suggested that the application of such laws be widened to include land for housing the poor (World Bank, 1985). Along with increasing the supply of housing for the poor, efforts should be made to increase the supply of housing units for middle-income communities. In Bangladesh, the difference between lower middle and low-income groups are not distinct. A good number of middle-income people also reside in the urban slum and squatter areas. Therefore, as long as housing for the middle-income communities is in short supply, the competition for housing will drive the poor out, even from the slums and squatter settlements. To some extent, an adequate housing stock for middle-income communities will prevent the displacement of the poor through formal or informal market transactions.

Rent control is another effective measure for providing more shelter opportunity for the urban poor. Studies show (Mahbub-un-Nabi, and Nabi, 1983) that the rate of rent paid on a square meter basis is considerably higher on cheaper dwellings compared with the large and luxury dwellings. Increasing pressure by middle-income communities for cheaper dwellings made it more difficult for the low-income people to find housing.

United Nations (1987) recommended Third World countries to develop building materials industry utilizing local raw materials. In accordance with this suggestion, the government policy is in favor of developing appropriate low cost technology to improve the quality with locally available materials like mud, bamboo and straw, for rural housing. It also encourages the use of cement for high quality urban housing and the

official policy supports the import of selected building materials like white cement, mosaic chip, tile, teak, and even marble. Steel and aluminum materials and sanitary equipments are largely produced locally.

The role of culture is immense in the evolution and structuring of urban settlements in Bangladesh. The shape, form and layout design of a village or a city are as much evidences of culture as that of physical or other societal factors. The cultural and religious obligations also play an important role in the layout of the village homes. In addition the male and female domain and privacy of women create a number of semi-private and semi-public spaces in the dwellings of a rural house.

**Figure 3.3. The Courtyard Space and the Male and Female Domain in Bangladeshi Traditional House (Source: Chowdhury, 1998: 344).**

There is a big difference in residential pattern between rural and urban areas in Bangladesh. Islam, Ali and Hossain (1980) have made an analysis of the layout pattern of rural housing and identified four different types where courtyards are essential and integral part of the rural homestead. The replication of such courtyard spaces can often

be seen in the low-income settlements within urban areas although the importance of such space has diminished long ago.

In one report by CUS (1992), it is stated that, the migrants are more oriented by their social and cultural backgrounds. As they mainly build their dwelling themselves by the help of craftsman, they try to build the familiar traditional plan types with the familiar construction systems under present conditions in squatter areas. However, Huq-Hussain (1996) argues that the traditional replication in squatter settlement is not often possible because of little access to residential land and lack of fund but given a chance they would copy the traditional housing.

### **3.2. Dhaka as an Islamic Mega city**

Dhaka is not only a mega city with its exploding population, but also an Islamic centre with its mosques and Islamic architecture. Although Dhaka as an Islamic city may be able to prevent the superficial impacts of globalisation in terms of the way of life and peoples' consumption pattern, the impact of globalisation has already been reflected in the physical structure of Dhaka. Islam as a way of life in Dhaka has increasingly become more prominent and achieved the recognition not only in Islamic nations but also internationally. The booming of textile and the garment industries in the 80s along with the penetration of international investments and global market reshuffled Dhaka's structure. The development especially in the physical pattern and form in the last two decades is remarkable. The improvement in transportation and land speculation also played important role in the uneven development of Dhaka city. As the massive growth of commercial centres and factory-based industries changed the urban macro form, the number of slum and squatter areas further altered the cities. Due to the availability of

labour power, the exploitation of the owners of industries has been intensified and the living conditions of the urban poor have further deteriorated.

El-Shakhs and Shoshkes (1998) pointed out that Dhaka seem to have just peaked in the 1990s and like Cairo, Dhaka also continue to house more than one third of the national urban population and is primary a node of global interaction due to the only international airport in the country. Not only this city is the major economic, political, and cultural centre of the country but also the gateway for most of the global interactions. Thus, Dhaka contains Islamic culture as well as the global trend of western fashion hand in hand which is reflected in the life style of the majority of households. However, unlike other Islamic cities, Dhaka is liberal in its own rights and perhaps that is one reason for the people of Dhaka to follow and except the impact of golobalization in their way of living.

Evidence from many studies (Gilbert, 1994; Brennan, 1994; McGee, 1998; Sassen, 1994) also shows that a large number of Dhaka's migrant population was driven to the capital by their poverty at the source region. Different factors, such as rural landlessness, natural calamities, famine, and loss of husband or bread earner and long period of unemployment or underemployment also caused such rapid migration. Choguill (1990) pointed out that because of a variety of rural push and urban pull factors, the capital city, Dhaka, has grown significantly in recent years. The city, which had a population of 521,034 in 1961, grew to 1,679,572 in 1974 and to 2,807,826 in 1981 (Bangladesh Bureau of Statistics, 1994). Future population projections for the capital city are even more daunting and it is expected that by the year 2010, Dhaka's population will have reached 17.6 million (see Table 2.1) and will be the 19<sup>th</sup> largest city in the world (El-Shakhs and Shoshkes, 1998).

### 3.2.1. The Evolution of Residential Spaces and Residential Segregation in Dhaka

To understand residential spaces, it is first necessary to acknowledge the evolution of Dhaka city and the way its residential spaces expanded in time. The history of Dhaka goes back to the 9<sup>th</sup> century A.D. under the rule of Sena Kings of Vikrampur. Dhaka of that time was identified as *Bengalla* and was probably a small town with 52 Bazaars and 53 lanes. After the Hindu rulers, Dhaka was successively under the control of Turks and Pathans for a long time (from 1299 to 1608) before the arrival of the Mughals. During the rule of Ibrahim Khan, Dhaka had great commercial importance and became the trading centre of the whole South East Asia. However the greatest development of the city took place under Shaista Khan (1662-1677) and the city then stretched 12 miles in length and 8 miles breadth and is said to have nearly a million people. From time to time European settlers came in the late 17<sup>th</sup> century and they were largely Portuguese, Dutch, English and French traders (Brunn and Williams, 1993). However, the first appearance of Dhaka City was on the bank of river *Buriganga* and has gained importance as a capital since the period of Mugal Emperor. The evolution of Dhaka city can be classified in five different periods and as follows:

1. Pre-Mugal Dhaka : Before 1608
2. Dhaka under the Mughals : 1608-1764
3. Dhaka under the British : 1764-1947
4. Dhaka as capital of East Pakistan : 1947-1971
5. Dhaka after Independence: Since 1971

It is difficult to specify the residential spaces in Dhaka but the general trend is that all the residential spaces were located around the commercial and administrative district by the *Buriganga* port, and resembling a colonial based city (see Figure 2.1). All the specialized industrial and trading areas and localities were then surrounded by the Dulai Khal by the riverbank and housed the major proportion of the city's low-income population. These

localities were almost segregated from the high-class residential areas. Besides the industrial and trading people, the Dulai Khal areas also accommodated the migrants from the rural areas. So during the colonial period, there were only two types of residential neighbourhoods identified by the level of income. This urban form resembles the spatial formation of pre-industrial cities (see Appendix A1: Figure 1).

At the end of the Mughal rule and the inception of British power around 1765, Dhaka began to decline in importance and contract in size when Calcutta became the capital of British India. In the meantime the city experienced disastrous famines, floods and fires. By the end of the 19<sup>th</sup> century, Dhaka city was hemmed in between the *Buriganga* river and the railway line. The form of Dhaka is greatly influenced by topographic features. Because of insufficient flood free land, the city's residential area has expanded mostly in the Northern and Northwestern direction, giving rise to a rather irregular and amorphous shape to the city.

The extension of Dhaka to the east went up to the Eastern fringes of Gandaria and to the west up to Nawabganj. Dhaka in 1945 shows a total residential segregation between income groups (see Appendix A1: Figure 2). While the high-income groups moved to the other side of rail line toward further north with more greeneries and garden-houses, then the newborn middle-income groups invaded the old neighbourhoods. After 1947 only a few areas of the old city continued to remain as middle class residential areas. Baksi Bazaar was one such important locality, which has retained its middle class status until today. Some high-income neighbourhoods such as Gandaria, Wari and Purana Paltan have become middle class neighbourhoods. The developing areas near Dhanmondi also are changing from high-income to middle income residential areas today.

Although in the past the residential areas of the low income were in a single compact form, the mass urbanization from the rural sector generated a more discrete form of residential areas in the city map today. As the commercial activities of the CBD (Central Business District) started to move towards the North, and as the small commercial centres started to take different forms, the form of residential districts of different income groups also changed dramatically. While the administrative and commercial centres moved near the high income and middle-income residential areas, the low income had to move further outwards in the peripheries. The new industrial estate and the proposal of the international airport in the north resulted in massive development in that direction. (see Appendix A2: Figure 3).

The unevenly structured residential (land and housing) pattern of Dhaka shows that nearly 70 % of the city's population is forced to squeeze on to 20 % of the residential land (Islam, 1996a). This has resulted in incredibly high population densities in the settlements of the poor. All basic physical and utility services necessary are also either absent or in extreme short supply to areas occupied by the poor. Today, the destitute condition of the poor immigrants is coupled with the short supply of residential land and formal housing, leading to mushroom growth of slums and squatter settlements in the city (McAuslan, 1999). The upper income groups on the other hand, enjoy fairly comfortable living conditions. The middle income groups have a life style characterized by modest physical facilities and a desire to achieve social development. It is difficult to differentiate the lower and middle income groups because a substantial number of middle income people also have poor quality living environments; in addition, slums and squatters are also an important option for their residential accommodation (Siddiqui, k., Qadir, S., Alamgir, S., Huq, S., 1990).

The land use map of Dhaka city in 1995 (see Appendix A2: Figure 4) illustrates a different feature regarding the changes in the residential structure of the city. A substantial number of low-income households are still residing in city core but due to heavy migration flow and inadequate housing provision especially after 1974, the proliferation of slum and squatter started to grow at an alarming rate. Today, slum and squatter settlements as a major low-income housing are ubiquitous in their presence and have overlapped with other residential areas. Therefore, in Dhaka, unlike other mega cities, low and high-class residence can be seen side by side because of illegal occupation of public land in most expensive areas. In 1996 the completion of *Jumuna Bridge* further accelerated the residential movement towards the north corridor and higher and higher middle-income residential spaces started to take place in that direction.

### **3.2.2. Low-Income Housing Provision and Delivery System in Dhaka**

Most cities in the world are unevenly structured in terms of distribution of civic amenities and ownership of resources but the uneven development in Dhaka is the most conspicuous in its residential structure. The poor constitute the vast majority of the population but have access only to a small fraction of the city's residential space. Moreover, the urban poor are continuously marginalized in their access to land and housing because of various forces and public actions. Rahman, M. (1999) pointed out that landownership is the most critical issue in giving legitimacy to squatter settlements. Without a secured tenure no authority, service agency or lending institution feel confident in catering for slum and squatters in Dhaka. Similarly it is also true that no squatter or slum owner would want to upgrade his shelter even if he could. In Dhaka, both slum and squatters are known as bustees that are constructed on unauthorized land or on land of private entrepreneurs for low-income people. The only accommodations

that are provided by the legal authorities for urban poor are resettlement camps located in the outskirts of the city. Although all households wish to have a house of their own, only 22% of the households are house owners as 55% of them live as tenants in Dhaka (see Table 3.1).

**Table 3.1. Housing Tenure in the Third World Mega-Cities**

**(Source: Gilbert, 1994:310)**

Marcussen (1990) has analyzed the low-income housing in Third World mega-cities within the context of formal and informal housing system and emphasized mainly the land ownership pattern and its subdivisions (see Section 2.2.2). The table below illustrates the specific housing systems that corresponds to the situation in Dhaka.

**Table 3.2. Housing Systems Corresponding the Dhaka Situation**

Housing system	Characteristics	Examples from Third World Cities	Situation in Dhaka
1.The Marginal Housing System	Spatially housing is organised in small colonies in the unauthorized government or semi-government land; members are low-income households and recent migrants; payments is done as ‘tribute’ or ‘entrance fee’ to the leader; buildings are auto constructed with most inexpensive materials; mobility is higher.	Primitive tents by the side of the road; Jhuggi colonies of New Delhi, Pavement dwellers or street sleepers under the protection of their leaders. Most popular in Calcutta, Dhaka and Karachi.	Pavement dwellers on the sidewalks or in public land in the inner district; bamboo made tents or shacks by the side of the rail line and highways. These are settlements for urban poor and called as Jhupries.
2.The Informal Housing System	This system comprises permanent settlement formation on unserved land and extralegal housing production within limits set by the investment capacity of households and small entrepreneurs without access to credit facilities. This system also comprises a rental sector, but not a real estate market. Housing comprises a range of forms from auto-construction to petty commodity production. Land status can be classified under four main heading: a.Land ‘pirates’ are persons or organizations who appropriate private land by purchase or extortion or gain control over public land, subdivision and sale of unserved plots. b. Land owned by farmer in urban development zone, farmer might subdivide land without intervention of pirates or other middlemen. c.Land renting is introduced by circumstances in certain cities to avoid slum eviction. In some countries the land sharing strategy has been developed. d.Land invasion or popular settlement is appropriation without payment. These settlements can also be called illegal or unauthorized dwellings.	a. Pirate subdivision: this title recognised in Latin America especially in Colombia and Mexico and Among Asian cities Ankara and Karachi this system is common. b. Farmer subdivision: In Cairo and New Delhi this form is predominant. c. Land renting can be seen in Calcutta and Bangkok. d.Land invasion or popular settlement is assumed to be the pre-dominating form of informal settlement in most Third world countries.	Except land renting the other three types of land status existing in Dhaka. The unauthorised bustees can be classified as popular settlements. Pirate subdivision also can be seen both in the inner district and in the periphery. The private bustees are constructed as a result of peasant subdivision of land in the Periphery.
3.Ad-hoc Projects	These are low-cost housing projects and can be called as <i>site and service</i> provided by the state as well by NGOs are based on the state’s ability to dispense with formal rules and regulations to enable sub-standard settlement. Quality norms are established ad-hoc from project to project according to the fund allocated to the target group. Site	Ad-hoc projects are common in almost all developing countries today and are sponsored by World Bank in many Asian, African and Latin American countries.	Three squatter resettlement project implemented in 1975 can be classified as Ad-hoc project in the Dhaka. The land provided by government and the construction was done self-help in the initial stages. However, in the later stages World Bank and few NGOs

	and service, upgrading and a number of variant forms of the two types of projects –including for instance the land-sharing project of Bangkok may collectively be designated as ‘ad-hoc projects’.		played primary role in construction of the dwellings.
4. Normas Minimas	Normas-minimus-minimum norms is a regular housing system (of Latin American Invention) enabling private entrepreneurs, on a commercial basis and according to an established set of quality norms, to make projects corresponding to typical site and service project and for upgrading existing informal settlements. This system is between informal and formal housing system.	In Colombia Normas Minimus was invented that competed with pirate system. This system was also implemented in Philippines in the mid-1980s.	Although majority bustees are in the hand of private entrepreneurs, no such system exists in Dhaka, but there were some squatter upgrading projects by supplying infrastructures & services.
5. The Formal Housing system	The formal housing system relates to the societal structures of advanced capitalism. Under the fully developed formal housing system as it is found in Europe, settling, production and redistribution are subsumed under a generalised market system in which the state intervenes with economic and social policies and with spatial planning.	During the industrial breakthrough, two distinct production systems emerged technologically also in terms of capital accumulation: a relatively small-scale owner occupied single-family housing and large-scale public rental housing. Common in almost every capitalist country.	In Dhaka this system more or less directly copied from European systems and changed at various stages of the colonial and post-colonial periods. The formal housing for low-income is the public rental sector and mostly controlled by the local authorities.
6. Pre-Formal Housing System	Pre-formal housing systems are a complex and in a certain sense residual category within the proposed model of housing system. In an intermediate period many of these areas of pre-formal housing became slum areas.	Examples of this are vast historical cores of Delhi, Cairo, and other cities of Islam; Arab and Indian settlement in Africa, Chinese settlements in South Asia etc.	In old Dhaka some historic buildings has been turned into tenement slums but no existence of different ethnic groups. Only the Bihari refugee camp in Mirpur can be included in this category.

(Source: Marcussen, 1990, pp. 40-70; Mahmud and Duyar, 1999, pp. 3-7).

### 3.2.2.1. Classification of Low Income Housing in Dhaka

The rapid growth of bustees (slum and squatter settlements) in Dhaka has become the most critical issue and a highly visible problem in the cityscape. As these accommodations are accessible to the new migrants and low-income households, the density of such residential areas is increasing sharply. The bustee landlords also have increased the density by constructing as many units as possible within limited spaces for extra profits.

**Table 3.3. The Low Income Housing Provision and the Percentages of the Residential land in Dhaka**

Housing system	Location where the type is predominant	Income group	Predominant structural/ House type	Type of tenure of land	Approx. proportion of city population (%)	Approx. coverage of city's residential land (%)
<b>Illegal Bustee:</b>  1. Squatters (including pavement dwellers and vagrants)	Inner, intermediate and fringe zones (all along the rail line between Gandaria & Mohakhali, Univ. area, Kamlapur)	Extreme poor	Most rudimentary shacks and shanties	Illegal de facto (mostly public land)	(2.5)	(0.5)
<b>Resettlement Camp:</b>  2. Refugee rehabilitation colonies/squatters resettlement camps (Govt. assisted housing)	Intermediate and fringe zones, (Mohammadpur, Vasantek (Mirpur) DattaPara (Tongi), Chanpara (Demra)	Extreme poor, poor, some lower	temporary shacks, thatched houses, semi-permanent, single story	Public land/ leasehold under consideration/ disputed story	(6)	(2)
<b>Private Bustee:</b>  3. (a) Private rental type (rental units and rental mess units)	Extensively located in inner, intermediate and fringe zones. Mostly inner city zones	Extreme poor, poor	temporary thatch, semi permanent single story	Freehold/public land/disputed Freehold	(35)	(11)
3. (b) Private owner occupied houses	Extensively located in inner, intermediate and fringe zones	Poor, lower middle	temporary thatch semi permanent, permanent	Freehold	(5)	
4. Conventional tenement slums (rental and owner-occupied)	Mostly inner city zones	Poor	Semi-permanent lower middle	Freehold and permanent building, old and dilapidated (more than 1 story)	(12)	(4)
5. Employees housing (industrial, institutional, private households)	Mostly suburban and intermediate zones	Poor lower middle	temporary, semi permanent, permanent building, flats	Public land, freehold	(7)	(2)

**Source: Islam, 1996 a, pp. 97-99.**

Besides the landownership pattern, the rental market and the housing consumption and production will enable us to understand the different housing systems available for them.

Angle's (cited in Momtaz, 1993) first classified low-income housing in Dhaka in the 70s,

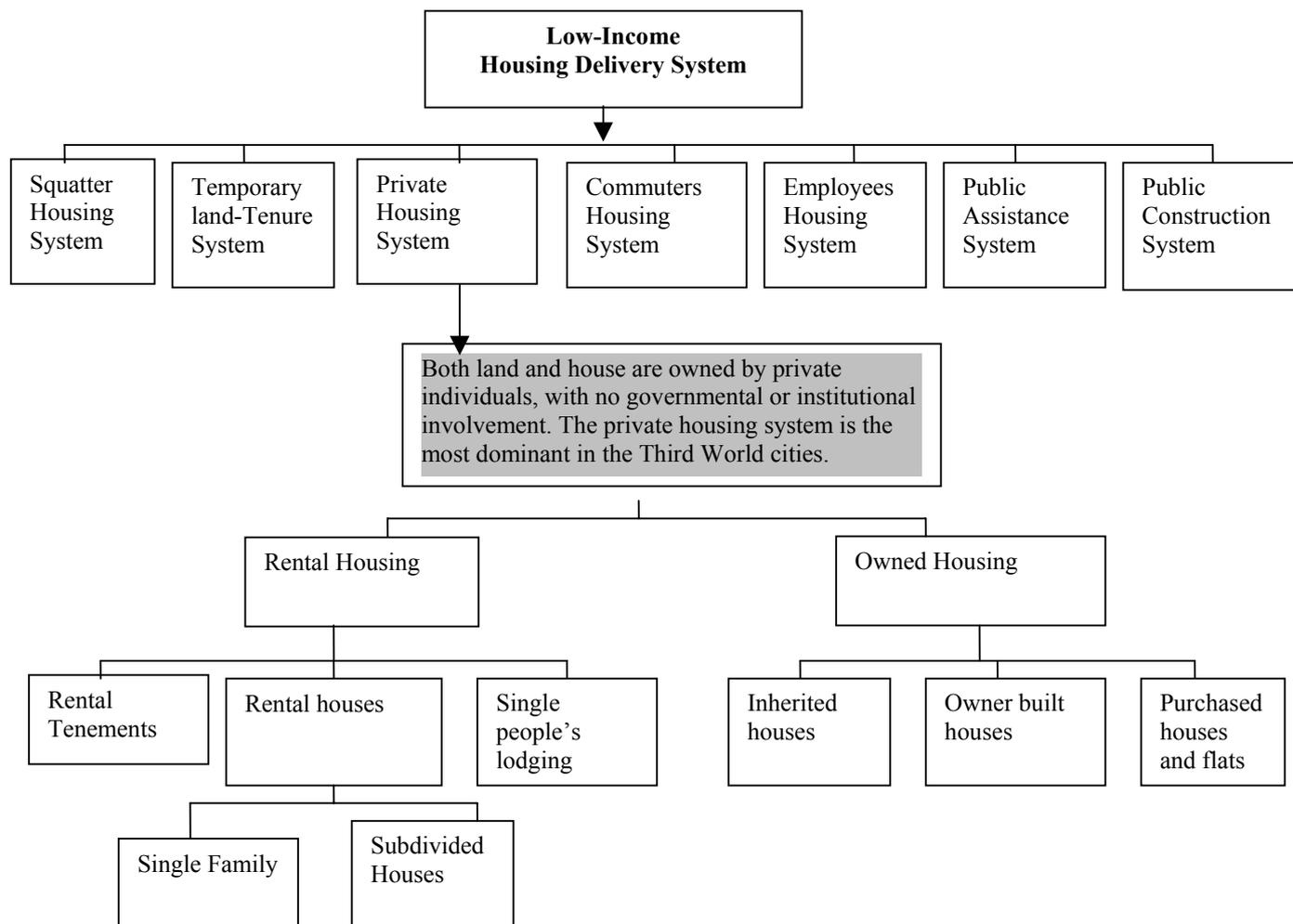
who gave the examples from Third World countries. After a decade Islam's (1986) classification shows a more elaborate housing system for all income groups in Dhaka. His survey aimed to find the locations, the predominant types, income levels, and structural typology of the dwelling units, land ownership pattern, density etc. In his classifications for low-income people, six different types of housing provision have been discussed (see Table 3.3). Although he differentiates between bustees and squatters, bustee is the most commonly used term indicating both slums and squatters of Dhaka. In recent years, Dhaka city has experienced an increase in the number of bustee settlements that have concentrated especially in the inner district and in the peripheries. However, bustees can be of various types and varies mostly by their physical characteristics and landownership pattern (Wood, 1998).

In the Table 3.3, Islam's (1996a) six types of low-income settlements can be grouped under three main categories such as slum, squatter and government assisted housing as the most dominant forms. As conventional tenement slums in the old part of Dhaka was not built for low-income people and as the majority of employee housing are basically government assisted housing, Islam's (1996a) chart (see Figure 3.3) can be reviewed and can be grouped under three major low-income housing provision for the case of Dhaka.

The poor have an access to very limited residential spaces and a substantial number of the households accommodate themselves with various housing alternatives with extremely bad conditions with lack of basic housing requirements. Shakur (1987) studied the physical structures of these substandard dwellings and came out with different types of attached and detached housing as the prominent features of Dhaka's bustee (see Figure3.4).

**Figure 3.4. The Types and the Physical Structure of Bustees in Dhaka City (Source: Shakur, 1987: 181)**

Angel's (cited in Momtaz, 1993) approach in the 70's especially for the six primate cities has been criticised by Momtaz (1993) within the essence of Dhaka's low-income housing. To Momtaz (1993) Angel's "Tree" scheme (see Figure 3.5) comprises a two dimensional and non-overlapping classification and as such it represents a number of weaker systems.. Momtaz (1993) emphasized the Angel's private housing as the major sources for both illegal and informal settlements and the most dominant form of low-income housing in the Third world mega cities. She further developed private housing within the context of rental and the real estate market for the case of Dhaka (see Figure 3.5).



**Figure 3.5. Types of Housing Delivery System in South East Asia**

**(Source: Momtaz, 1993:16).**

Momtaz's (1993) comprehensive study in Dhaka is an extension of Islam's category of low-income housing, and she mentioned bustee as a dominant type of housing that overlaps the land-tenure and private housing systems. While Islam (1996a) has mentioned about the resettlement and refugee camps, Momtaz (1993) further sub-categorized them as public assisted and publicly constructed housing. She proposed seven types of low-income housing for Dhaka city within formal and informal housing system as follows:

1. Squatter Housing system: This type of dwelling does not generally have a municipal holding number and usually constructed illegally occupying vacant public land (government/semi-government/ autonomous organizations). The housing type is very temporary and subject to be evicted any time and also corresponds to the marginal housing system (see Table 3.2).

**Figure 3.6. The Types of Squatter Housing in Dhaka (Source: Momtaz, 1993:45)**

2. Temporary Land Tenure system: In this system people acquire temporary tenure security either by paying rent or free of cost. Under this type, the owner provides the land and but houses are constructed by the users. The settlement pattern and construction type in this system is similar to the squatters but the major difference is its legal status.

3. Private Housing system: This system provides the maximum number of housing to low-income people and can be classified in two main groups such as rental housing and owned housing. Rental housing includes those units, which are rented to the occupants by the landlord. However, rental housing can further be classified as rental tenements and single people's lodging. In rental tenements, several households get accommodation in the same building and share common outdoor spaces and services. Moreover, rental housing can also be classified as single-family houses or subdivided houses. In Dhaka,

most low-income households who are renting subdivided houses in the bustees are of this kind. In single people's lodging, the individuals are usually bachelor young males or females who share their rooms with other bachelors. These houses are called 'mess' and they are long sheds or barracks divided into more than one room. One of the important characteristics of such housing system is the maximization of the profit for the landowners but in most cases provides the minimum facilities.

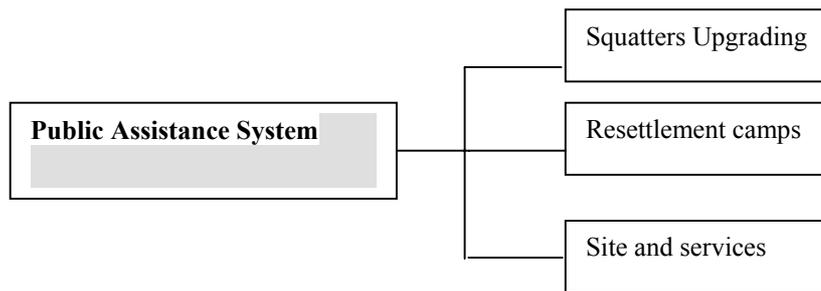
4. Commuters housing system: Commuters are people who travel regularly to their work places in the city but reside outside with a long distance. These houses are the replication of the rural housing forms and usually built with traditional materials available in the local market such as bamboo, G.I.sheet, straw etc.

5. Employees housing system: Through this housing type the employees obtain accommodations from their employer. These are often provided by private agencies and semi government organizations. Some autonomous bodies, such as factory owners and political organizations also provide such housing with low subsidized payment.

6. Public Assistance system: This is probably the only housing system in which the government supports low-income people the most. Thus in this type the government and the people through joint effort try to solve housing problems. The resettlement camps provided for low-income households are of this type. However, the quality of physical spaces and the facilities vary from one camp to another. The general features of such housing system are high density and inadequate services for a large number of people.

7. Public construction system: Public construction system is different from public assistance system in that the government provides the land, construction materials and

technical know how, but do not provide construction support. Here the users are the builders of their own dwellings. In other words, these are assisted self-help housing. This system is related to the option that the users know their needs better than anybody else and that flexibility in space and decision-making would bring higher satisfaction in a dwelling.



**Figure 3.7. Types of Public Assistance Housing System in Dhaka (Source: Momtaz, 1993:47)**

In Dhaka, this housing system was implemented with an intention to evacuate squatters from the centre and to provide land for these households. Although Momtaz (1993) claimed that this housing system has other implications such as squatter upgrading and site and services, there is no basic difference between a resettlement camp and site and service projects. The only difference in site and service projects is that the services are predefined but in resettlement camps the services are also installed incrementally in accordance with the user demand

**3.2.2.2. The Characteristics of Bustees and Resettlement Camps as Major Low-income Settlements and their Locations in the City**

When the urbanization rate is so high, it is probable that there would be illegal occupation of public land and illegal exercises for maximizing profits by landlords. In Dhaka, bustees are not a very old phenomenon, yet are very much distinguishable all

over. A bustee settlement can be of different types according to its location and materials used. For example, bustees in the inner zone is different from the ones in the intermediate zone. Again the bustees in the peripheries are also different from both inner and intermediate zones. The common point between these bustees is that low-income households in Dhaka occupy them.

There is no particular definition for a bustee, but these are settlements constructed on authorized or unauthorized land with high population density (over 300 persons per acre), and also with very high rate of density (3 or more adults in a room). The main features of bustees are poor quality housing (generally shacks, temporary or very old structures, or semi permanent structures or very old dilapidated buildings) that lacks most important public utilities. These utilities can be stated as inadequate water supply, electricity, poor sewerage and drainage facilities, few paved streets and lanes and irregular clearance of garbage. Generally bustee people are low-income single males or families who are mostly engaged in various types of informal sector activities (Huq-Hussain, 1996).

The emergence of innumerable bustees indicates the deficiency of the housing stock for low-income and sometimes the lower middle-income households in Dhaka. A substantial number of middle-income households also live in such settlements, as it is almost impossible to rent a house in an apartment building with their income. Rahman (1999) claimed that besides low-income the bustees in Dhaka also solve the housing problem of the lower middle income people. The white-collar government officials also find bustees more feasible for accommodation as renting apartments are too costly for them.

The vast demand of shelter needs in the city made an opportunity for the private landowners to construct temporary shelters to obtain short term economic return with very little investments. These constitute the private bustees in Dhaka. The bustees, which are built on unauthorized government land are squatters and also can be called as illegal bustees that are under the threat of demolition. Since there is no tenure security in the illegal bustees, long-term investments in the dwellings are not done by the owners. Therefore, these are poor quality dwellings with minimum facilities. The basic difference between a private bustee and an illegal bustee is the ownership of the land and tenure security. Private bustees may have single or multiple owners and constructed for rental purposes. In illegal bustees, subdivision of public or semi-public land by the land mafia can be seen. These unauthorized lands are later sold to the new comers or low-income people for construction of their dwellings, which is outside the formal procedures (see Table 3.2). The other types of illegal bustees are the illegal occupation of land and construction of dormitory type dwellings for rent purposes that resembles the private bustees. As these bustees have no tenure security at all, they are temporary shacks and physical and environmental conditions are also deplorable.

The Centre for urban studies (CUS) has been monitoring the growth of bustee settlements since 1972. A comprehensive mapping exercise of such settlements in the city was under taken in 1991 by CUS. An upgrading of the 1991 survey was felt to be necessary in 1996 for the Urban Poverty Reduction Project (UPRP) supported by ADB. CUS was given the responsibility of this task to document the numerical data. The number of private and illegal bustee settlements (the clusters of 10 households or more) within the boundary of DMA (Dhaka Metropolitan Area) recorded by the survey (CUS, 1996) was 3007. Of these, 2328 (77.42 %) were private bustees, as they were located on privately owned land, and the rest of them were illegal bustees, being located on public

land (occupied illegally). While many illegal and private bustees are well established and stable, others are undergoing changes in terms of their location, composition and other dynamic characteristics.

Both illegal and private bustee households live mainly in dwelling units, which are structurally very poor. Only about 4 % of the households live in permanent or semi-permanent structures. The predominant types of their housing materials are wood-bamboo, tin and thatch. An overwhelming majority of these bustee households live in one room house with high housing density. In terms of utility services, bustee settlements in Dhaka seemed to be better compared with those in other cities, with 85 % having access to safe drinking water, 30 % gas facilities, 58 % sanitary latrines and 73 % with electric connections.

As far as the spatial distribution of this bustees are concerned, it is observed that they are distributed in an irregular manner throughout the city. Out of 75 municipality wards, only one ward has been found to have no illegal or private bustee. It is also evident from the map that the peripheral zone of the city has a larger number of private bustees as compared to the inner zones. More than 60% of the total lands covered by private bustees are concentrated in the fringe area. The private bustee in the periphery is comparatively compact, contiguous and large in size. Whereas the inner city illegal bustees are mostly small in size and are scattered at various locations except for some areas where a linear pattern has been developed, especially along the railway line and by the main roads (Appendix A3: Figure 5). Western fringe of the city has the highest concentration of bustee settlements due to land availability and proximity to working places. Flood protection embankment accreted the growth of bustees along the western periphery. Kamrangir char, Islambag and Shahid Nagar are most popular places for

bustee dwellers. These areas are located very close to some of the city's major commercial areas. A large number of garments industries are located in Mirpur and therefore, a major concentration of bustee settlements can also be seen here. Distribution of bustees in the eastern periphery is scattered. The major concentrations are Juran/Jatrabari, Manda, Rampura and Badda areas (CUS, 1992; Islam, 1996 b; Khan, 1996).

It is evident that the most common place where bustee flourished in the city is the land owned by private individuals. Almost two thirds of 1125 settlements were established on private land. The Table 3.4 illustrates the percentages of landownership and the number of bustee settlements in Dhaka.

**Table 3.4. Land Ownership Pattern of Private and Illegal Bustees**

Land Ownership	No. Of Bustee Cluster	Percentage (%)
Government/Semi-government	328	29.2
Private (organization)	23	2.0
Private (Individual)	733	65.1
Mixed (Public and Private)	11	1.0
Undefined disputed	30	2.7
Total	1125	100.0

**(Source: Islam 1996a: 133)**

The survey conducted by CUS in 1992 was for only 1125 bustee clusters and it shows that in the bustees the tenants are more than the owner occupied and it is 49% and 41% respectively and rest of the 10% are free occupants.

Resettlement camps are another source of low-income housing provisions by public authorities. These camps are similar to government *site and service* projects but for specific target groups. In Dhaka, two types of resettlement projects had been implemented: the refugee rehabilitation colonies in Mirpur (the only Bihari refugee

colony who remained in Bangladesh after the liberation war in 1971) and the resettlement of the bustee people. There are three resettlement camps namely Demra Chonpara, Mirpur Vashantek, and the Dattapara Erhsad Nagar Camp and are located at 5km, 12km and 18km from the center respectively (see Appendix A3: Figure 6). One common point among the camps is that, they were constructed by political decision of the Former President Sheik Mujibur Rahman in 1975. The main idea was to regain the valuable public land in the center and to provide land to the destitute people (UNCDF, 1978).

Unlike bustees, resettlement camps comprise a subsidy. For the camp, it was not intended that allocated plots would be resold or circulated commercially. Although a site plan has been proposed in their initial stages, serious changes have been done during the implementations. The plot has been distributed according to the family size but today a more different feature is visible. The rich households are occupying the bigger plots as compare to the poor ones. However, the current inhabitants of resettlement camps are the previous bustee dwellers of the city center.

Opportunity for land on which the poor to house themselves are becoming scarcer. No lands are available for squatting. The existing illegal bustees are continuously threatened for evictions and having no security. Entry to a private bustee is getting also extremely difficult. Moreover, bustee owners replacing their bustee hut by making commercial developments, i.e. super markets, shopping centres. The real estate developer buys marginal land of the bustees for multi-storeyed apartments are a threat for these people. However, Mahbub and Islam (1990) pointed out that the bustee households living in the fringe are also threatened because these locations are becoming inaccessible due to large

real estate developers who have extended their commercial interests to these areas for upper income groups.

The private bustee, illegal bustee and squatter resettlement camps are characterized as the major housing provisions for low-income people. However, despite differences in the physical quality, whether they lead a similar way of life is a question yet to be analyzed.

The following chapters will concentrate on the case study based on the classifications and the characteristics that we have analyzed for low-income settlements in this chapter for Dhaka. Consequently, three types of settlements based on three different housing policies mentioned above will be chosen for an empirical study and will focus mainly the interaction between low-income households and their physical spaces.

#### **4. CASE STUDY IN DHAKA: THE INTERACTION BETWEEN PHYSICAL SPACE AND WAY OF LIFE IN LOW-INCOME SETTLEMENTS**

The purpose of the empirical study is to evaluate the types of low-income settlements in Dhaka City and to investigate the way of life in different housing environments. In other words, the inhabitants' interaction with the residential spaces is analyzed to find out the factors that affect the quality of physical spaces and also the uses of spaces in low-income settlements.

##### **4.1. The Method of the Study**

The field survey is based on the data collected through questionnaires distributed in three study areas namely Badal Mia bustee, Babupara bustee and Ershad Nagar Camp (see Appendix B). Later these data were analyzed using descriptive statistics. The households were chosen randomly in the bustees and quota sampling were applied in the camp.

Random samples were chosen to avoid biases.

First, a pilot test has been done to find the type of low-income settlements in Dhaka and also to check the reliability of the questionnaire. The low-income chart described by Islam (1996) also helped to find the location and their housing policies in Dhaka City (see Table 3.5). The total number of families and the size of the settlements are different in three selected areas and therefore, the number of questionnaires applied in those areas are also different. In Ershad Nagar, there are more than 3400 families living in 8 different sectors previously marked by government authorities. To get more reliable results of the survey it is necessary to conduct more interviews. However, due to lack of time, our target was to survey approximately 50 households from all 8 sectors. The duration of the

survey and the observation of each household vary according to family sizes and household's responses. Only 56 families were chosen randomly (since such interviews and filling out forms are so time consuming) and equal numbers (seven from each sector) were considered from each sector. The registration number of the houses also helped us in finding the location of the houses (the map and the registration number has been collected from TDS). It is also necessary to mention here that the household's in the Ershad Nagar camp was not randomly chosen since our first attempt was to find the households who are involved in home based enterprises.

For the bustee, it was easy to find the households because there were few households within a very small area. Similar method has been applied for the bustees also and the simplest way of doing a random sampling was to find the total number of families in the settlements and give a serial number for each family. In the case of Badal Mia every 4<sup>th</sup> and in Babupara every 3<sup>rd</sup> family has been be chosen as the total number of families were 286 and 194 respectively. In case of the absence of the household, the next door was chosen for interviews and survey.

In the survey, the interviewer filled up the questionnaires while visiting the dwelling units. Open-ended questions were asked to the family members in order to get more reliable data. Beside questionnaire other informal questions regarding way of life and interaction with different spaces were also asked in a friendly conversation. A comparison between study areas has been done in relation with the findings. The number of households interviewed in all three settlements was 50 in Badal Mia, 45 in Babupara

and 56 in Ershad Nagar camp. A total of 151 households with 752 family members has been recorded in the survey. Besides the questionnaire, in-depth interviews with open-ended questions were conducted with different important actors who are strongly involved with the settlements' development.

The design of the questionnaire has been made in a manner that it collects both general and specific data. In the questionnaire there are both open-ended descriptive type questions and multiple-choice ones. The questionnaire consists of four main sections (see Appendix B). As the questions have been prepared for detailed information about the way of life and people's interaction with physical spaces in their particular dwelling, the observations of family members and their performed activities are as important as questionnaires. As the survey were done in private spaces, it was important to explain the purpose of the investigation to the households to prevent misunderstandings.

Finally, the data have been analyzed under two different categories. In the first category, the physical characteristics and the uses of spaces in studied areas have been analyzed and in the second category, the factors that have substantial and direct affect in the organization of physical spaces, have been evaluated in the context of changing their way of life.

#### **4.2. The Method of Choosing the Particular Study Areas**

In Dhaka, there are different types of low-income accommodation, and these are not essentially settlements, rather can be called as shelters. Islam(1996) has found six

different kinds of low-income settlements at different locations in Dhaka City. The majority of such settlements can be defined as slum, squatter or government provided resettlement camp as the most dominant structure. Therefore, three such settlements are chosen to represent three different kinds of low-income settlements (see Figure 4.1).

Another criterion was to choose these settlements from three different locations, namely the inner city zone, intermediate zone, and the fringe zone. One important issue was to understand the development of these settlements and to understand whether differences in physical organization of spaces exhibit different physical characteristics. As the locations of the three settlements are different, the difference in physical quality will enable us to understand if the inhabitants way of living similar as they are occupied by similar low-income people.

Another important criterion in choosing those settlements was their age. All the three settlements are more than 20 years old now and their spatial pattern shows neighborhood characteristics. The reason for choosing old settlements is to observe their physical changes in time both in the dwellings and within the settlement as a whole.

-

**Figure 4.1. The Location of Three Settlements in the City Map (Source: Islam, 1996:166).**

The difference in initial space organization due to different housing policies and ownership patterns is another important criteria in choosing the settlements. As the land

ownership is different in the settlements, it is assumed that their physical and social developments perhaps follow different trajectories. However, one common point in all the three settlements is, that they are inhabited by people from similar social and economic status.

### **4.3. The Evolution and the Physical Characteristics of Three Low-income Settlements**

Low-income housing provision in Dhaka can be categorized in three main types; namely slum, squatter and resettlement camps. While evaluating these settlements, the initial space organization and their development history is important to know the flexibility of these settlements; and how far they have consolidated them in these settlements.

All three settlements have different housing policies due to different ownership status. The private bustees are the outcome of maximizing profit with minimum investment of the landlords who reside in the potential urban land mostly in the intermediate zone. These are landlords who either deprived from the loan or credit of house building or least interested about making costly apartments. Illegal bustees, on the other hand are the illegal occupation of public land of the *Mafias* who subdivided the plots either for sell or for making bustees (see Table 3.4). The initial space organization of the resettlement camps were more organize as the developments and house constructions were done according to an initial plan of the government although altered from time to time. The evolution of such settlements will enable us to understand how they were established in time and what the basic differences in their characteristics are and why.

#### **4.3.1. Badal Mia Bustee (Private bustee)**

Private bustees are of two kinds: private rental type and private owner occupied type. They accommodate approximately 40% of low-income people (see Table 3.5). Today, these types of slums can be seen anywhere in the city but extensively located in the intermediate zone. Badal Mia is one of such bustees located to the east side of Khilgown Model School and to the Northeastern part of the city and situated in the intermediate zone (see Figure 4.1). This private bustee is known by the name of the owner 'Badal Mia' and here both family rental units and rental mess units for the bachelors are located. Although Khilgown is basically a residential area a number of garment factories are located here today. The area of the land is 2.50 acre (1.010 hectare) and the numbers of families are 286 with an average of 4 to 5 family members (see Appendix P: Figure 5).

Badal Mia is an old bustee in Dhaka with an evolution period of 25 years and its construction has been done gradually over many years. The land is acquired by inheritance and besides Badal Mia, there are other five individual owners of this land. Although all members have different shares of bustees, the settlement is more familiar by the name of Badal Mia. The total number of houses owned by each individual is as follows:

- a) Badal Mia bustee: 78 houses
- b) Aktar Mia bustee: 73 houses
- c) Tutul Mia bustee: 67 houses
- d) Seraj Mia bustee : 47 houses

e) Aysa Khanam's bustee: 21 houses

Total number of households: 286

The owners of this bustee also reside in the same area but in apartment buildings.

Although all the houses are in the same compound, there are differences both in physical characteristics and in the amount of rent paid to five different owners. Perhaps this difference occurs due to difference in physical layout and the construction materials used for making bustees (see Appendix P: Figure 12). For example, in Tutul Mia bustee the basic facilities such as water and sanitation are better and therefore, the rent is slightly higher. Almost every settler pays rent for his particular house and the rent is fixed according to the size. There are common kitchen, latrine and tube well which are shared by the dwellers (see Appendix P: Figure 7, Figure 9 and Figure 11). The physical appearance of most of the houses is similar with bamboo mat as sidewall and tin roof on the top. Besides single families, there are also single men's mess unit in the entrance of the bustee (see Figure 4.2). There are two free schools organized by the NGOs. For medical treatment, the only option is private clinic since the government hospital is quite far away from this part of the city. Except accommodation and minimum necessary services, the dwellers have to take all most services from outside.

**Figure 4.2. The Map of Badal Mia Bustee (Source: author's documentation, June 2000).**

Badal Mia is also the owner of certain shops/workshops around the bustee settlement, which he also rented out for rickshaw garage, baby taxi garage, and bakery, woodwork and carpenter shops (see Appendix P: Figure 14 and Figure 15). Thus he is also a job provider for a number of bustee men who works in such workshops.

#### **4.3.2. Babupara Bustee (Illegal bustee)**

Babupara bustee is an example of an illegal squatter that has been constructed on unauthorized government land in the inner district of the city (see Figure 4.1). These are illegal settlements that can be seen in the inner district near CBD for job availability in the marginal sector. There were bustees before 1975 in Babupara, however, these rudimentary shacks were evacuated for the purpose of housing developments by the public authority. As the land was vacant for some time, 3 or 4 influential people took control over the land and constructed bustee for rental purpose. There are approximately 194 families living here; among them nearly 10% of the families has bought the land from the owner who also constructed very cheap housing for them. Thus, some families are owner occupiers and the rest are living as tenants and paying regular monthly rent.

#### **Figure 4.3. The Map of Babupara bustee (Source: author's documentation, July 2000).**

The total land of this bustee is approximately 1.5 Acre (0.606 hectare) and is located near Dhaka University at the crossroad of Polashi and Khatabon. As the land is in the city center, the land price is also very high. The physical condition of this bustee is very poor

as most of the houses are temporarily made with very limited facilities (see Appendix p: Figure 16 and Appendix P: Figure 21). Except for the owner occupied houses, all other houses are similar with bamboo mat walls and tin roof (see Figure 4.3). Since the land is illegally occupied, bustee owner is often reluctant about the repairing and maintenance of the houses. One interesting feature of these bustees are the monthly rent per square meter is even higher than middle-income housing in other localities. Despite all these disadvantages, the inhabitants of this bustee still want to stay for the sake of their job opportunities nearby and better income.

#### **4.3.3. Ershad Nagar Camp (Resettlement Camp)**

Ershad Nagar is one of the three resettlement camps constructed by the former prime minister Sheik Mujibur Rahman in Dhaka in 1975 (see Figure 4.1). The previous name of this settlement was 'Dattapara Rehabilitation Centre'. The camp was first established on an agricultural land of 101 acre (40.40 hectre).The purpose of the project was to evacuate people from unauthorized occupation of valuable public land in the city center. To explain the government attitude, Choguill pointed out that

“Government policies toward squatters and squatter resettlement generally reflected the political attitudes of the government and the decision-makers which comprise it. Certainly this was the case in Bangladesh. By the summer of 1974, the various political forces, which were to influence squatter resettlement policy in Bangladesh, were plainly apparent. On the one hand among certain intellectuals who were in a position of political power at the time, an idealistic approach was proposed in the search for some kind of a solution to the immediate problems faced by the growing number of urban squatters” (1987: 72).

In 1975, the operation of demolishing 173,000 *busteebashees* (bustee households) was first implemented and these destitute people were carried to three resettlement camps,

which are located in three different directions in the city map (Rahman, M. 1999). In the initial stage there was neither construction nor a plan. People constructed their own temporary tents by themselves as the policy was assisted self-help housing, and also government was unable to provide any houses other than providing land (see Figure 4.1).

In a later stage, all housing materials at the site were a gift from various NGOs. Hommes-des-Terres (TDS) and the Salvation Army house-building programs provided materials of 9 foot by 18-foot bamboo frame and matting huts, which accommodated up to ten people each. In 1979, a storm destroyed about 100 houses but these had to be reconstructed by the agencies. Daily maintenance of the houses was strictly the responsibility of the householders.

The policy of these NGOs was to provide only construction materials, however each family had to show effort to construct their own dwellings. In the meantime, some illegal families also tried to occupy some plots. Therefore, an aluminium plate has been provided by TDS to control and to identify the families. The total number allocated for housing were 3444 families and a plan was ultimately prepared by the Housing Development Authority (Griha Nirman Shanta) to provide basic services such as water and sanitation (see Figure 4.4). For example one tube well was provided for every eight families (this information has been obtained from one of the officials working in TDS, 23rd June, 2000).

**Figure 4.4. The Map of Ershad Nagar (Source: Griha Nirman Shanta, Dhaka, 2000).**

As time passed, conditions at two of the three camps, Dattapara (previous name of Ershad Nagar), and Demra, improved significantly (see Figure 3.7). The situation at Dattapara

provides a relatively good basis for comparison with the situation in earlier years. Six years after the camp was established, the Dattapara site began to look like a very large Bangladesh village. The residents and the government had reached a sort of agreement on leaseholds for the land on which the houses were situated. An annual rent of Tk.1 (at a time when US \$ 1= Tk. 15) was charged for each plot.

The employment situation was still considered to be a major problem. Very few of the former squatters were qualified to work at the local industrial estate. Most men in the camp traveled to Dhaka for two-month stretches and then returned to Dattapara to visit their families for a short holiday. At that time virtually, none of the residents felt they could commute to Dhaka on a daily basis.

In 1984, when the country was under Military regime, President General Ershad first proposed for the semi pucca (semi permanent) houses and roads and changed the name Datta para to Ershad Nagar, which means the *City of Ershad*. Although his intension was to provide housing for all 3444 families, only 1116 houses were constructed during his ruling time. Each house was constructed for two individual families and each family had two rooms with a kitchen, pit latrine, tube well and an open veranda. The plot for each family was 8m X 8m approximately (see Figure 4.5).

The other houses in the camp are much smaller in size with bamboo mat and tin at the roof. The main road of this settlement is 20 feet wide and the sub roads are 10 feet. For planning purposes the whole area has been divided into 8 different sectors (see Figure

4.4.). Each house has its own registration number given by the housing authorities. The government established two primary schools (see Appendix P: Figure 39), one Madrasa (religious school) and an orphanage. Beside all these institution, TDS has its own vocational school for young boys and women training programs (see Appendix P: Figure 30 and Figure 32). Besides the school and training programs, it has a resettlement upgrading program which emphasizes the socio-economic backgrounds of the dwellers (see Appendix O). There are other NGO offices with their micro credit projects for women (see Appendix P: Figure 31). One interesting feature of this settlement is that almost every house by the main road has been extended for making types of different shops, workshops and restaurants gradually (See Appendix P: Figure 27 and Figure 28).

**Figure 4.5. The Layout of Government Assisted Dwellings (Source: author's documentation, July 2000).**

Communication was a problem for commuters who used to work in the city center in the early stages however, the frequent bus and minibuses have ultimately solved the

transportation problem. Today, a number of households opened commercial enterprises that created some jobs both for them and for other in the settlement within near proximity.

#### **4.4. A Comparison of the households in terms of Social Structure in the three Low-Income Settlements**

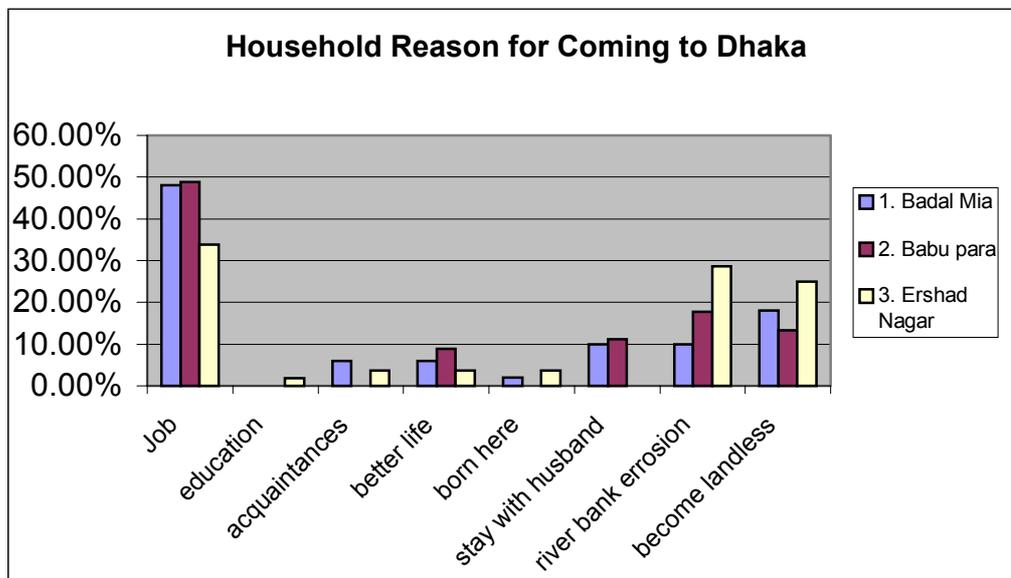
The study of the life style or way of living of a particular settlement comprises the understanding of the households' characteristics, settling history, the economic background and the social and physical infrastructures. To understand how the physical space affects the way of living of the households, a comparison between neighborhoods is perhaps one way of evaluating the factors that have impact in organizing physical spaces of a particular setting.

##### **4.4.1. Reason of Coming to Dhaka City**

Low-income migrants come to Dhaka city with different expectations but the major inspiration is to improve their economic conditions leading to a better way of life. The sample groups from all three settlements, show the job as the prime factor for coming to Dhaka city. In most of the families, it is the young male who came first to settle down and virtually brought their families in the city when economic conditions permitted. After 1980s it has also been observed that due to the booming of the textile industries a number of young girls and women also moved to Dhaka and mainly find accommodations in the nearby *bustee* areas. This was the case for women for Badal Mia bustee. 10% of the women from Badal Mia and 11.1% women from Babupara said that they came to the city

to stay with their husbands. Natural disaster and calamities were other important issues for which a number of families migrated to Dhaka. Flood and riverbank erosion also left many families landless and these helpless people did not have much choices other than coming to Dhaka. Compared to the bustees, the reason for coming to the city for the camp dwellers were mostly natural disasters. Therefore, the rural push and urban pull factor as pointed by many experts is also true for our sample groups.

As all the settlements have been occupied for more than 20 years now, it is most likely that few members of the household would be born and brought up here. In our study, although the percentage is negligible now, this level will rise in 10 years. In conclusion, job and unemployment problems in the rural areas are main reasons for pushing the mass population to big metropolitan cities, due to the employment opportunities, which constitute the pull factors.



**Figure 4.6. Household’s Reason for Coming to Dhaka city**

#### 4.4.2. Households Mobility in the City

A comparison between three settlements with respect to their mobility in the city and their occupier status would tell us the degree of familiarity with the city and also their previous experiences. In a survey conducted by Haq Hussain (1996), it is shown that residential mobility of the bustee dwellers are not frequent, as it seems to be. These floating people may change residential locations in their initial stages if they don't have enough acquaintance. However, once they are settled down (from bridge header to consolidator) and also manage to get an income source, they are rather reluctant to change both residence and job spaces (see Figure 2.9).

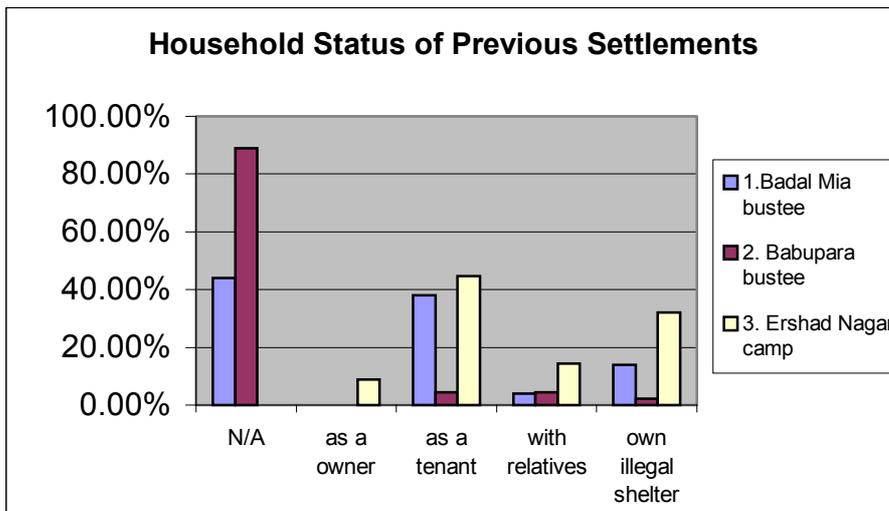
In our sample group Babupara shows the least mobility, as 88.9% families did not stay in any previous settlements. As the majority of the camp dwellers are resettled, almost all the families moved from their previous settlements. The families in Badal Mia show a different feature as 54% stayed in other residential spaces before coming here. This implies that the rent payers are more mobile than owner occupied families. Moreover, having some relatives in the city is always an advantage for settling down in the city is shown in all three settlements. Mobility in the city space may imply improvements in social status and job for the migrant families leads to better residential environment with better utilities (see section 2.2.4.). However, in our study it is difficult to make such a comment for Badal Mia bustee as the mobility yet did not changed their social status.

**Table 4.1. Dwellers Residential Mobility and the Tenure Status**

# of settlements previously lived by the households	Badal Mia Bustee	Babupara bustee	Ershad Nagar camp
1. No previous settlements	46.00%	88.90%	0.00%
2. One previous settlement	36.00%	8.90%	92.90%

3. Two previous settlements	18.00%	2.20%	7.10%
-----------------------------	--------	-------	-------

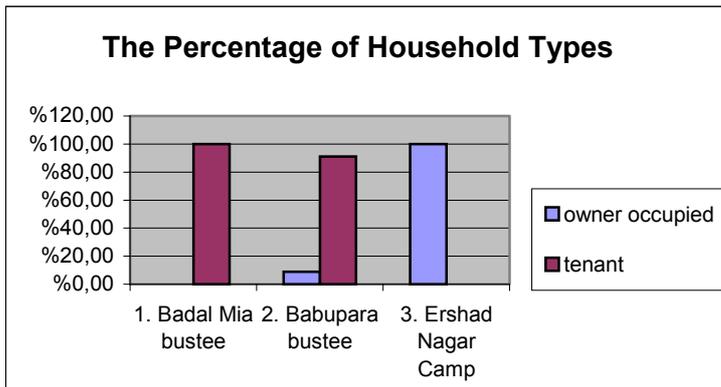
The occupier status shows that most of the families were tenant in their previous settlements. However, the camp dwellers are luckiest among three settlements, as they were able to change their status from tenant to leaseholders and have more freedom in changing or altering their dwelling spaces according to the need and comfort.



**Figure 4.7. Household Status of the previous settlements**

#### 4.4.3. The Ownership Pattern and the Preference in Choosing Settlement

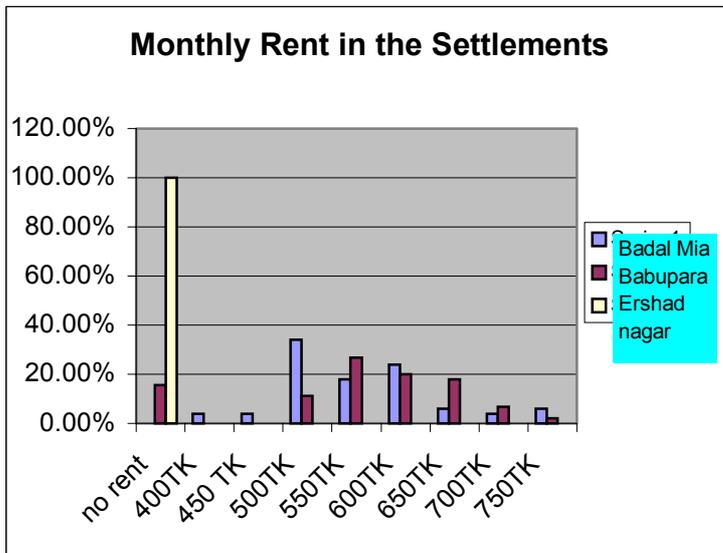
Rent in low-income settlements is an important criterion to acknowledge the cost of living and land value in a particular area. The location also determines the range of rent of the low-income settlements, as it is usually higher near to the CBD (see section 2.2.4).



**Figure 4.8. Ownership Pattern of the study areas**

In Badal Mia bustee all the families are tenants and the majority of them (76%) pay between 500Tk-600Tk per room as monthly rents. The rent of a particular room also depends on the size. However, the rent in Babupara is even higher than Badal Mia although the size of the room is much smaller. This implies that the land value of Babupara bustee is much higher than Badal Mia although the settlement is illegal, which is because of its central location.

In Ershad Nagar, on the other hand, the land value is less because of the far location from the city; however, the advantage of the households are that they don't pay any rent housing to the government and live absolutely free for last 25 years. Moreover, as compared to the plot sizes of other bustees, these families possess the largest plots.



**Figure 4.9. Monthly Rent in Bustee and Ershad Nagar Camp**

Preference in choosing settlement is always important in evaluating physical spaces. A general assumption is that most people prefer to stay in better neighborhoods. In our case, however, this statement is not very applicable as the issue is to survive rather than finding a good neighborhood. Specific reasons to choose a particular settlement may reveal unique characteristics of our study areas. Peoples’ preferences will also help us to understand the need for staying in the settlement, although the physical environmental quality may be much poorer.

Among the preferences, work place within walking distance was the most popular answer for Babupara (35,6%), which is at a central location (see Appendix P: Figure 4). It was also a common answer for the other two settlements and this implies that work place in near proximity is more important than the quality of residential space as the bustee dwellers don’t prefer to spend extra money on transportation. For Ershad Nagar, the most common answer (64.3%) is that they are here because the government wanted them to be

here. It is also true that they had problem in job availability in their initial settling but lot of people also from second generation now working (19.6%) in different industrial sectors close to their residence.

For the tenant, rent is an important criterion to choose a particular neighborhood. Despite poor environmental conditions, the dwellers of Babupara pay more rent. Acquaintances, relatives or native friends are usually important for these migrants to choose both shelter and job (see section 3.2.2.1) and this is quite high in Badal Mia (26%) and Babupara (17.8%). In conclusion, none of the households prefer to live in their current location because of poor quality living but they are residing due to their closer working places.

**Table 4.2. Reason for choosing the Particular Settlement**

Reasons	Badal Mia Bustee (%)	Babupara Bustee (%)	Ershad Nagar Camp (%)
1. Near work place	26.00	35.60	19.60
2. Rent is less	18.00	2.20	0.00
3. Better communication facility	4.00	17.80	1.80
4. Own house	0.00	6.70	12.50
5. Known person live here	26.00	17.8	0.00
6. Easy to get job	6.00	13.30	1.80
7. Accommodation available	6.00	0.00	0.00
8. Previous settlement reconstructed	6.00	2.20	0.00
9. Previous settlement evicted	8.00	4.40	64.30

#### 4.4.4. The Demographic Characteristics of the Households

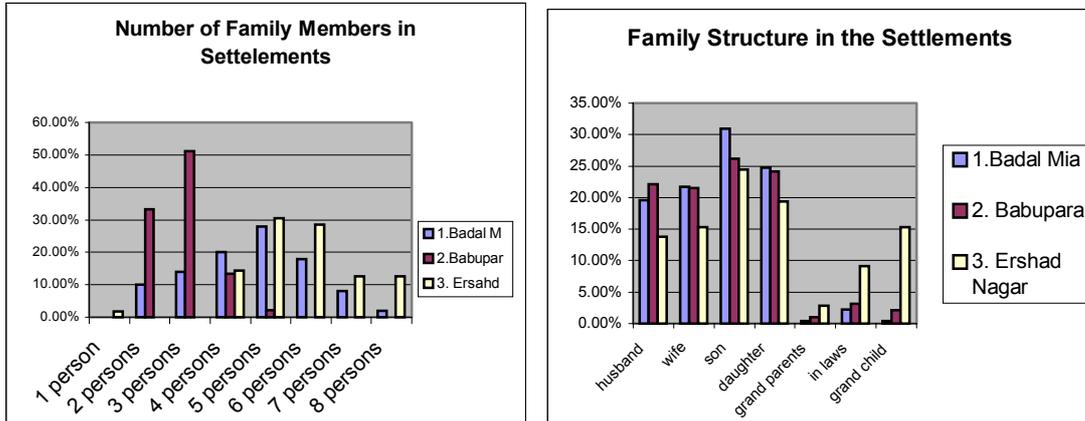
The age, sex and the number of family members are important characteristics in evaluating low-income families. The number and the age would represent the labor force of individual families. It is a general assumption about the bustee dwellers that if the

families have younger adults, the chances of earning are higher and the chances of settling in urban areas are quicker.

Figure 4.10 shows that the number of family members of Babupara bustee is very low compared to other two settlements. One strategy is to bring the only member who can work and earn in the city from their village home. The single people can also get much cheaper accommodation in the mess unit (see Figure 4.2). The congested space and accommodation problem in Babupara also discourage women and children to live with their husbands. 51.1% of the families in Babupara consists of 3 members whereas families with 5 members is very common in Badal Mia with a share of 28%. In Ershad Nagar, the number of family members can go up to 8 persons as their dwelling space is bigger and as they are owner occupied unlike the others. Therefore, the family structure of the two bustees are nuclear type whereas the Ershad Nagar still continue the extended family structure. This also indicate that the second generation who had born here and also got married did not move to other settlements and most of the cases they extended their dwelling spaces to accommodate themselves without making an extra burden for the legal authorities.

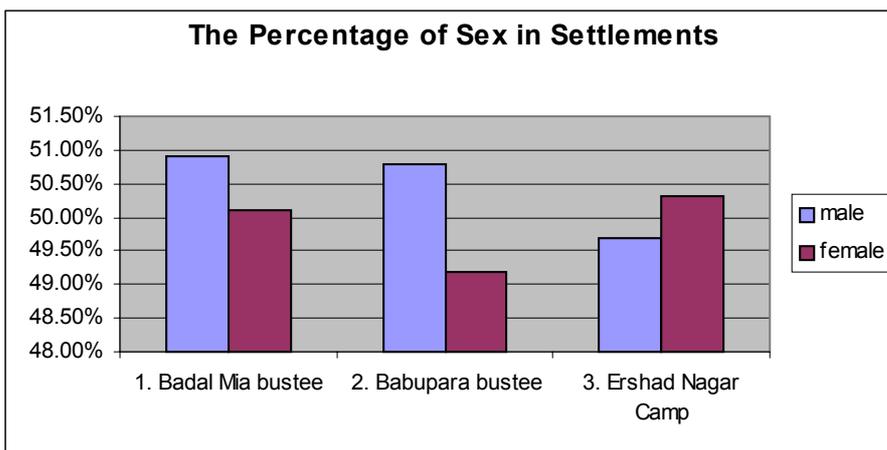
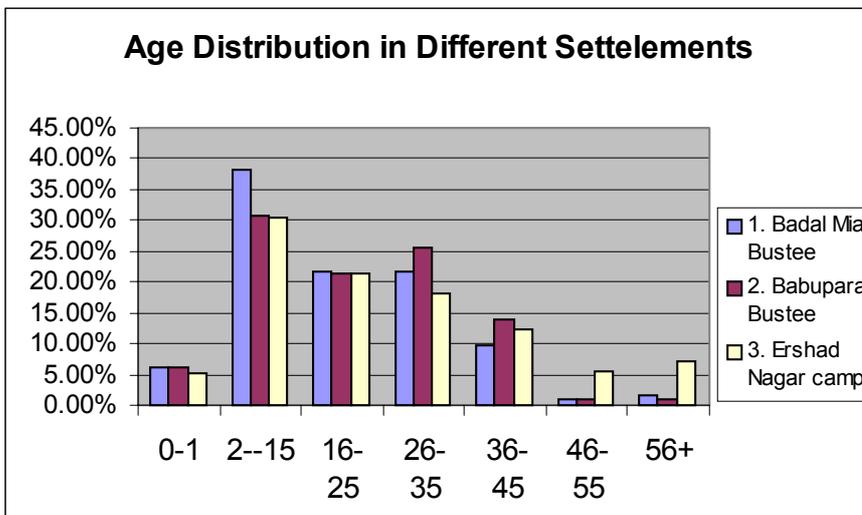
The age graph shows a parallel relation to the family members graph. The age groups who are not adult are less in Babupara than the other two settlements. The highest percentage of 21.5% and 25.6% are between 16-25 and 26-35 respectively in Babupara and can be considered as the most effective work force. The Badal Mia shows a similar feature but comparatively less than Babupara. For Ershad Nagar, both new and old

generation can be seen. However, it also has a strong workforce like other two bustees and the age group is evenly distributed.



**Figure 4.10. The family structure of the households in each settlements (the relation and the number of each family members)**

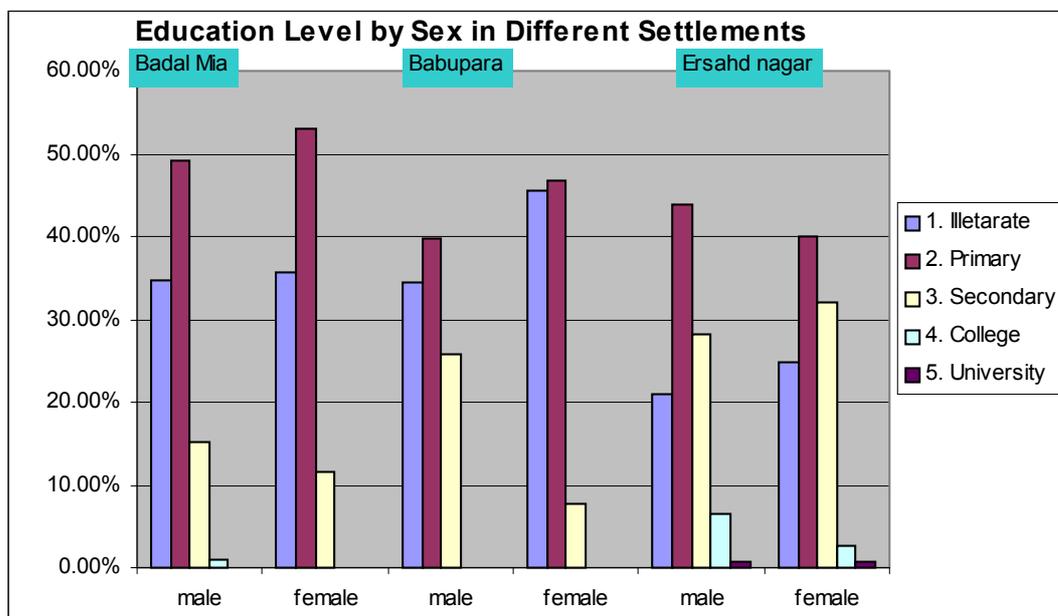
As far as the percentages of male and female among the neighborhoods are concerned, the Ershad Nagar camp shows a higher percentage of female inhabitants in the camp. In the other two bustees the households prefer the boys to stay in the city for earning more money, however, this trend is changing. Today, unlike other tow settlements a huge number of women can be seen opening their enterprises in their dwelling spaces (see Appendix P: Figure35 and Figure 27).



**Figure. 4.11. The Distribution of Age group and the percentages of sex in the Settlements**

Although there is a relation between age and education level, the bustee dwellers do not show such a correlation at all. In our study areas, the majority family members are either illiterate or have primary education and this figure is even higher in female members of the bustee dwellers. Although two bustees shows very similar features, the Ershad Nagar camp shows an improvement in education level, where 5% at least have continued with

higher education, like college and universities (see Figure 4.12). This implies that next generation would be better educated but up to what extent they have access to white collar job is still a question mark.



**Figure 4.12. The Relation between Education and Sex group in the Settlements**

Age above 16 is always an important factor in getting a job in the western world but in the case of Third world countries, this age limit is not usually maintained. Child labor always had significant contributions in the families of low-income and contributed to the economic sector as well (see Appendix P: Figure 4).

There is a relation between age, sex and the types of job they have for earning money. The percentage of child labor is 30.2% in Badal Mia (see Appendix C1). They work in different formal and informal sectors in the surrounding areas. As Badal Mia is closer to different factories and business enterprises the under-aged boys get jobs near by. This figure is also high as girls under 15 get jobs in the garments factories. For them, the

sooner they start the job the more money they can earn in the long run. These girls get jobs with the help of known persons and first they start as a trainer. Young boys on the other hand, work with their fathers who own petty business or workshops, such as rickshaw, taxi, and baby-taxi garages. Part-time students also work in such jobs but they also work as street vendors selling seasonal fruits or snacks on the street or bus and train terminals. The people between the age 16 and 25 work in every sector and it are evenly distributed except for the garment industries. The majority of male workers who are between 26-35 are rickshaw pullers. The Badal Mia and Babupara show very similar features as far as the age group is concerned, but it differs in the types of job they have and also between the male and female workers. For example, in Badal Mia, a 10.7% of both male and female members work in the construction site whereas 11.7% of the women of Babupara prefer to work as maids rather than construction workers (see Appendix C2).

In Ershad Nagar the child labor is also very high (18.1%) but not as high as other bustess. The children work mostly as factory workers and street vendors. The age group between 16-25 comprises the maximum labor force (31.9%). Unlike the other two bustees, the people of this age group do not work as maidservants or as construction labors, which shows that they are better educated and can get more sophisticated jobs. In Ershad Nagar, approximately 25% of the labor force is above 36 years old and the majority of this group is involved in their own businesses. However, the percentage of unemployment is also the highest in this settlement among the three (see Appendix C3).

#### **4.4.5. The Households Distance from Job and other Facilities**

As work place is important in choosing settlements for low-income families, it would also be important to see how far their work places and other civic facilities necessary for everyday life. This evaluation will also give us a general feature about the importance of the settlement's location in the city.

The concept of home as a workplace has been affected by capitalist system. Workplace has moved either to the commercial centers or industrial sites. The fast transportation systems have moved the residential spaces to even more distant places. However, in case of low-income settlements, home and work place again have been integrated within the same dwellings (see section 2.1.1). In our study, it has been claimed by many households that they are not ready to spend money for transportation everyday. Therefore, it became a tendency to get jobs near their settlements or settle near work places (see Figure 2.9).

In Badal Mia bustee, family members get the services within a distance of 1km radius. Factory workers constitute the highest share 24.6%. This data support the observation that garments workers, especially the women particularly select this area for job availability. In this settlement the highest number of workers are from the transportation sector and most of them are male rickshaw pullers (24%). Since most of the workers in this sector are rickshaw pullers they are mobile and can travel any distance. However, rickshaw garages are within 2km distance from where they can hire their rickshaws everyday. 4.8% of people who travel the longest distance are either factory workers or daily laborers. The students who work part-time as street vendors may travel any

distance; however, the bustee women prefer to work as maid- servants within near proximity so that they can get to their workplace by walking (see Appendix D1).

In the case of Babupara bustee, 33.3% of people also travel between the distance of 500m and 1km similar to Badal Mia and people from different age and sex can be seen with varieties of sectors of low-income. 25.9%, which can be considered as a significant number, travel with a radius of 2 km from their home everyday and most of such workers are involved in petty business. Selling food (11.6%) is a popular business done by the female members in this bustee. Although food preparation is done in their dwellings they may sell it in far distances. Compared to 4.8% of the inhabitants in Badal Mia, 1.4% of the inhabitants of Babupara travel more than 4km distances and again 13.2% travel within near proximity although this figure is only 6.8% in Badal Mia. This implies that as Babupara is in the central location, the inhabitants of this settlement get jobs closer to their residential area compared to Badal Mia (see Appendix D2).

In Ershad Nagar we see a completely different feature, most people are involved in petty business (24.9%) in their own dwellings. This implies that home is not only a shelter for low-income people but also a space for income generation. Unlike other two bustees, 21.8% of the inhabitants of Ershad Nagar also travel a distance of more than 4km and this is because their work place is in the city. Moreover, better transportation facilities help these people to travel this distance every day now. However, the workers who go to the city every day are 47.8% female and 52.2% male workers. Thus, the camp shows different characteristics than the other two bustees where the camp dwellers can both

create jobs in the settlement or may work in the city. For the bustees, home jobs are not easy to create and perhaps they prefer to reside near job place or the places where job possibilities are higher (see Appendix D3).

#### 4.4.6. Income Levels and Income Generating Activities in Three Settlements

Better income possibility is the most important reason for the families to migrate to the big cities where job possibilities are higher. It is an assumption that these people constitute low-income groups as they work in the marginal sector and live in the most deprived areas. The income, which has been classified, by Ali and Islam (1999) can be a parameter to see how many families are in the low-income category. According to their evaluation in a much broader perspective in Dhaka city, the total income of the family members who earn less than 6000Tk can be accepted to be within low-income group (see Table 4.3).

**Table 4.3. The Percentages of Population according to Income Group For Dhaka**

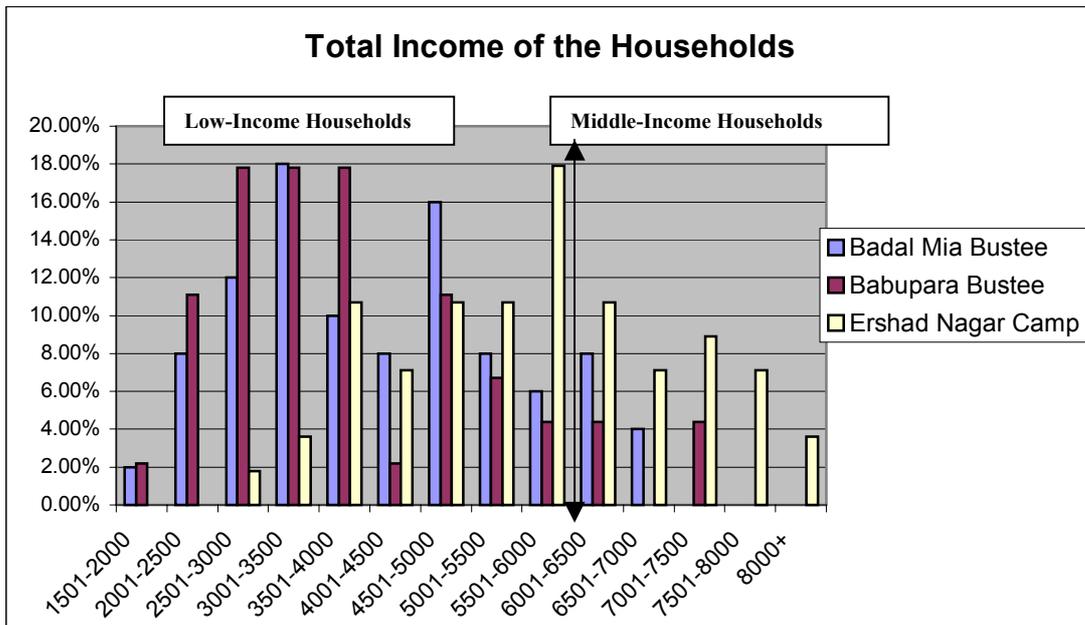
Monthly Household Income (Tk)	Socio-Economic group	% Population
1. less than 2500	Destitute: Pavement dwellers/beggars etc.	2
2. 2500-4449	Hardcore poor/very poor in squatter settlements/slums	28
3. 4500-5999	Poor (in squatter settlement/slum, other areas)	20
4. 6000-9999	Lower-middle income group	20
5. 10000-19,999	Middle-income groups	15
6. 20000-29999	Upper-middle income groups	10
7. Tk 30000 >	Upper Income groups (Rich)	5

**(Source: Ali & Islam, 1999:15)**

For the case of Dhaka, unlike middle and higher income families, the number of earning members in low-income groups comprises more. Although the general assumption is,

low-income family earns less; the collective family earning is not as small as it often understood. Although income has a greater impact in their way of living in the settlements, there are other factors that have greater influences in the physical organization of the spaces.

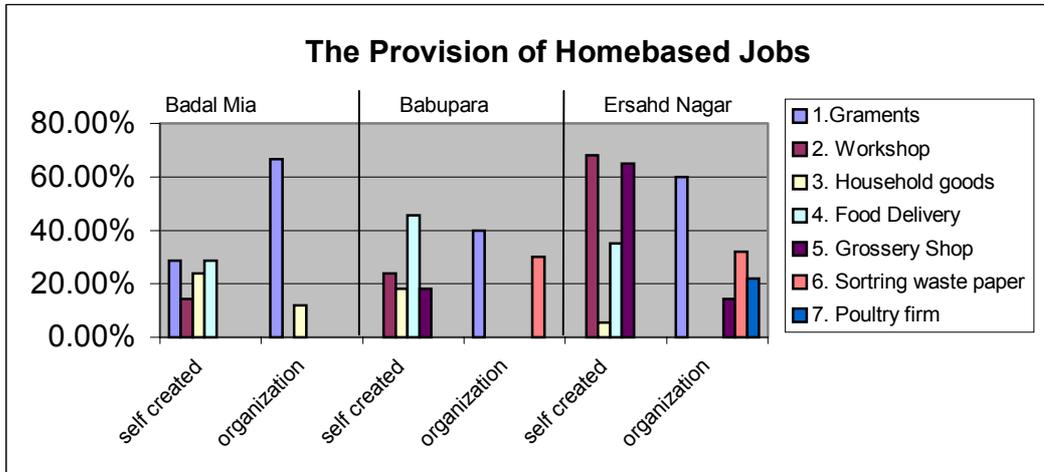
In our study areas, the Figure 4.13 shows that in Badal Mia bustee 88%, in Babupara 91.2% and in Ershad Nagar only 71% of the families are within the low-income category (it should also be noted that the earning of individual family members are higher in Babupara than Badal Mia, however, as the family members are less the total family income present a different result). In Ershad Nagar, 29% families now earn more than 6000 Tk and this implies that in the last 20 years, some families could cross the boundary of low-income category and can be counted in lower middle-income group as far as income is concerned (see Table 4.3) but not necessarily means that their way of living has changed to the middle income groups. As we have realized a drastic improvement in the income of Ershad Nagar people, it can be stated that government intervention not only help to improve the physical quality of spaces but also help to earn more money.



**Figure 4.13. Total Income of Each Family and the Comparison with low-income chart**

#### 4.4.6.1. Job Providers for Income Generation in the settlements

Home-based jobs in low-income settlements are common across different cultures. In our study areas home-based jobs are no exception and it is important to understand how such jobs are created and how external helps are implemented as a survival strategy for these people. It is important to understand how households of these settlements get home based jobs and up to what extent these dwellers are ready to create their own business by investing their own money. In Badal Mia, the percentages of self-created jobs are higher than the jobs given by organizations; however, it is more significant in Babupara as the jobs are mostly created by the dwellers themselves. It won't be wrong to say that, tenure security is a key issue for different NGOs for investing on these households. When the probability of eviction of the settlement is higher, the chances of getting home based jobs through organizations are lower.



**Figure 4.14. The Self created and Organization provided home based jobs**

Garment production is probably the most popular sector, women can work in the factories and they can bring job home to get overtime (see Figure 4.14). This, of course, needs skilled workers. Making household goods and food deliveries are self created jobs and can be seen in the bustees. As the bustees are private housing units, the landowner may neither give permission for such work within the residential areas nor would they allow NGOs to provide jobs. Although landowners do not want income generation activities in the dwelling spaces, they also know that without such activities it would be difficult for survival in the city. One reason for living for them in the bustee is perhaps the possibility of performing home based jobs, which is not possible in other housing estate. Therefore, such activities are often ignored even they create environmental pollutions.

As far as Ershad Nagar is concerned, self-created enterprises are dominant although there exist a number of NGOs with their training facilities and schools. In this camp, some micro credit system offers and also encourages inhabitants to be involved in home-based jobs. These NGOs lend money to buy sewing machine, rickshaw or mechanic shops.

Despite such help from NGOs, most inhabitants like to open their own business rather than taking micro credit loans. The types of shops along the road would give us ideas the way the households have extended their dwelling spaces (see section 2.3.3.2.) and with the types of activities they are involved in (see Table 4.4). Finally, it can be claimed that the type and provision of home based jobs have impact on the organization of physical spaces, however, whether such jobs increase the quality of domestic spaces is still unrevealed. Income generation has an indirect effect in the way of living and expected to be reflected in physical space (see section 2.3.3.1).

**Table 4.4. The Types of Shops and Commercial Enterprises in Ershad Nagar**

1. Grocery shop	%23
2. Tailoring shop	%7
3. Carpenter (furniture)	%5
4. Restaurant	%11
5. Tea stall	%5
6. Fruit shop	%6
7. Vegetable shop	%3
8. Electrical Shop	%2
9. Photo studio	%2
10. Mechanic shop	%2
11. Baby taxi repairing shop	%2
12. Laundry	%5
13. Bittlenut shop	%3
14. Clothing's (garments)	%3
15. Barber shop	%4
16. Quilt or matrass shop	%1
17. Video shop	%2
18. Pharmacy	%4
19. Firewood shop	%3
20. Life insurance	%1

#### **4.4.6.2. Types of Home Based Jobs in three Settlements**

In our sample groups, 21.20% of the households in Badal Mia, 23.90% in Babupara and 36.70% in Ershad Nagar are involved in income generating activities, however, the

concentration of job types differs among the settlements. Garments can be seen in all three settlements due to its small spaces requirements and can be seen as an important survival strategy for bustee women. These garments jobs are provided by the NGOs as sub-contracting. However, most of such works are done either in verandas or bedrooms (see Appendix P: Figure 33). Some households have changed their dwelling units for opening tailoring shops, which can be included in the workshop category. 8% dwellers are involved in producing different kinds of household goods, such as weaving baskets, packaging goods, making sweet boxes, match boxes, etc. The bustee people also involve with household goods as it does not require a big space. These people perform such homework either in private or semi-private spaces that are often not suitable for such activities. Today, majority household goods that are sold in marginal sector are produced in the bustees.

Grocery shops run by women, especially in Ershad Nagar camp, is one kind of home-based work, which has been categorized in petty business criteria. Households who have better access to the main road opened different kind of shops (see Table 4.4) by making an extension to their dwellings. The female member runs most of these shops when their male partner is away from home for other jobs (see Appendix P: Figure 35).

Unlike Ershad Nagar, food delivery or catering business is one of the popular jobs for women in Badal Mia and Babupara bustee with a share of 4% and 11.10% respectively. Usually this job is called “rice business” by the dwellers and has a high demand since there are low-income people working around bustee areas. Women prepare food at home

and deliver them to their fixed customers during the lunchtime in different factories, offices and markets. Only 2.8% are involved in small poultries (bearing domestic animals) in their house in Ershad Nagar. However, this is a new program by the NGOs; they give micro credits to women with low-interests but this is not very popular yet as residential spaces are not very suitable for such activities.

The main argument is based on the ownership pattern of the dwellings and characteristics of the physical spaces. Since the control of Ershad Nagar is loose, people created and organized their spaces within the dwelling unit, which bring income and solve the unemployment problem to a certain extent.

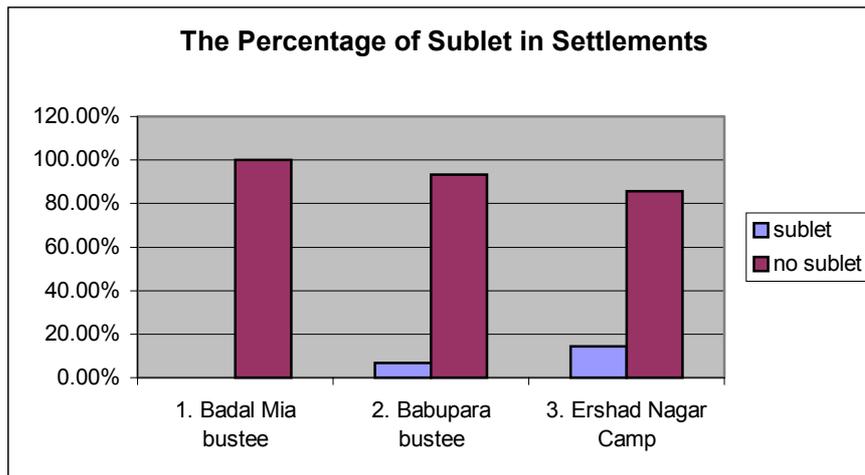
**Table 4.5. The Percentage of home based jobs in low-income settlements**

Types of Home based Jobs	Badal Mia Bustee (%)	Babupara Bustee (%)	Ershad Nagar camp (%)	Total (%)	Types of dwelling spaces used for home-based jobs
1. Garment jobs (embodary, making handmade blankets)	12.00	2.20	4.40	16.60	Bed room, veranda, courtyard, path
2. Different workshops (tailoring, carpenter, hairdresser, cobbler, handloom silk, repairing rickshaw laundry)	2.20	4.40	5.10	11.70	Addition or extension of the dwelling, changing bedrooms to workshops
3. Households goods (sweet boxes, match boxes, weaving baskets, packaging goods, handicraft with bamboos)	3.00	2.20	2.80	8.00	Bed room, courtyard, path, backyard etc.
4. Food (delivery foods, restaurants, tea stall, bakery etc.)	4.00	11.10	5.40	20.50	Bedroom, kitchen, addition of exiting dwelling etc.
5. Grocery shops, clothing shops, fruit and vegetable shops, firewood shops)	0.00	1.80	12.60	13.40	Extension of the house, open shops in front of the house
6. Sorting old goods and papers	0.00	2.20	3.60	5.80	Veranda, path, space between buildings
7. Poultry firm (producing egg and chickens)	0.00	0.00	2.80	2.80	Backyard, space between buildings
Percentage of home-based jobs in the settlements (Total)	21.20	23.90	36.70		

#### **4.4.6.3. Sublet as an Option for Income Generation**

Earning extra money by subletting or rent out for economic activities are common in low-income housing. Owner occupied dwellers have such options. In our study some owner occupied families (both in Babupara and in Ershad Nagar) give their rooms for sublet to either bachelor or small families. However, they deny the fact of rent out the room rather tell that they are helping temporarily their friends from villages. The findings show that in

Babupara bustee only 6.7% and in Ershad Nagar 14.3% of people stay as sub letters. As far as the rent of the sublet is concerned, the amount varies between 300-450 Tk, which is cheaper but the spaces are also smaller. One exception is the Family no.6 in Ershad Nagar who is an old lady whose only income is from the rent.



**Figure 4.15. The Percentage of Sublet in the Settlements**

#### **4.5. The Analysis of Physical Characteristic of the Residential Spaces and its Uses in Three Low-income Settlements**

The analysis shows that there are differences in the physical characteristics and also in the quality of spaces between all three settlements. As a result, we claim that differences also occur in their way of life as well. In this section, the physical characteristics of three residential areas will be presented. In the following sections, the factors, which may lead to these differences, will be explored.

It is always difficult to measure the quality of physical spaces especially in residential areas as it depends on a number of different factors and also differs in different geographical location and culture. However, one can at least measure the flexibility and the changing possibilities of such spaces according to the inhabitants' need and requirements. User satisfaction parameters in residential spaces includes physical comfort, building quality, dwelling plan, spatial adequacy, access to city center, work place and shopping, municipal services, social and educational services (see section 2.3.1.2.). By analyzing a particular settlement according to these criteria, one may evaluate the physical characteristics of a certain settlement.

#### **4.5.1. The Impact of Income Generating Activities on Physical Spaces**

House is the main location for income generating activities in many low-income families and the accommodation of such activities shows the quality of physical characteristics. In our study areas, owner occupied dwellers have more chances in involving income generating activities than the tenants as the owners have more flexibility in changing their own dwellings. However, the location of workplace and residence within same complex can be seen in low-income settlements. This tendency is analyzed as home based enterprises and they are being encouraged by many non-government organizations in Dhaka City.

Today home based enterprises or jobs are quite popular in low-income settlements as women take the primary role and generate extra income for families. Home based jobs have different characteristics with respect to its space organization, types of work, and the

number of family members involved. The types of home-based job also have different characteristics (see Table 4.5). Certain jobs can be done both in the factory and at home because heavy machinery is not required. Some organizations also provide jobs by coming to their residence at their doorsteps. And basically there are two types of home based jobs, the ones produced at home and consumed outside and the ones, which are produced and consumed in the same space.

#### **4.5.1.1. Flexibility in Changing Spaces for Home Based Jobs**

What are the alternative spaces in dwellings if certain domestic spaces are not sufficient for performing certain home works? It has been widely observed that these low-income dwellers create their own alternative spaces even if they are not provided. The degree of changing domestic spaces or alternation indicates freedom of living and the tenure security. In sample groups, Ershad Nagar shows greater possibilities of changing spaces as 76.4% of the households have changed and altered their residence during their stay in the camp in the last 25 years.

The types of home based jobs and their working spaces in each individual family have different features. As the spaces are very congested, especially in the bustee settlements, the households have to find or create their own working spaces within this limitations. Therefore, it is important to find the types of jobs that need specific spaces in a dwelling unit and whether such spaces are suitable for such income generating activities.

Home is basically a place for women as mentioned by one of the dwellers; they are the master planner for creating such spaces in their houses. In the following graphs (Figure 4.16, 4.17 and 4.18) three settlements have been evaluated to exemplify the spaces of particular home based activities. In Badal Mia bustee, 73.80 % of households do not bring any job to their homes. The rest 21.20% are involved with only four types of jobs. Garments have the highest share with 12% and most women perform such work in their bedrooms. The common spaces such as paths and courtyards are popular places for this kind of jobs but lack of such spaces also forces the women to do it in their own rooms especially in the bustees. Making household goods for selling is also a popular activity among women and they are familiar with such activities even when they were in their villages. However, the difference is the quality of spaces in their new urban setting as they are extremely congested and there are no adequate spaces for such activities. There are only a few houses, which have verandas; otherwise path is probably the only space for income generating activities in Badal Mia bustee.

For Badal Mia bustee, the bedrooms and the path are the most useful spaces for all sorts of activities and there is no common outdoor space within the settlement as such. For food delivery, kitchen is important; however, in our sample 4% of women also cook in their bedrooms. In Badal Mia although there is a common kitchen in one corner, most dwellers prefer to cook in the path in front of their rented rooms. Although, the path is not the private space for these households, certain changes for cooking and food preparation can be seen.

**Table 4.6. The Types of Home based Jobs and the Space in Badal Mia Bustee**

Types of jobs	Bed room	Kitchen/ dining	Veranda	Courtyard/back yard	Path	Space between buildings	New addition	Altered or changed space	Total (%)
1. Garments	●●●	●	●	●	●●●	●●			12.00
2. Workshops	●		●	●		●●			2.20
3. Household goods	●●				●●●	●			3.00
4. Food Delivery	●	●●			●●				4.00
5. Grocery Shops									
6. Sorting waste paper									
7. Poultry firm									
<b>The percentage of the households involved</b>									21.20

Extensively used ●●●  
 Moderate used ●●  
 Seldom used ●

The home-based work in Babupara bustee is 23.90%, slightly higher than Badal Mia and the types of home-based work are also more. Food delivery or catering business is the most popular self-created job here for women. Although women are involved in such activities, the male members also help them carry the food or sell them on the street. 4.0 % of the women do this kind of job either in their congested bedrooms or on the path if the weather is suitable. Unlike Badal Mia bustee, two households have opened grocery shops by altering certain portion of their dwelling units as they are the owners. These indicate that the flexibility of changing space depend on the tenure status of the households.

**Table 4.7. The Types of Home based Jobs and the Space in Babupara Bustee**

Types of jobs	Bed room	Kitchen/ dining	Veranda	Courtyard/back yard	Path	Space between buildings	New addition	Altered or changed space	Total (%)
1. Garments	●●●				●●	●			2.2
2. Workshops			●●	●		●			4.4
3. Household goods	●●				●●●	●●			2.2
4. Food Delivery	●●				●●●				11.10
5. Grocery Shops							●	●	1.8
6. Sorting waste paper					●●●				2.2
7. Poultry firm									0.00
The percentage of the households involved									23.90

Extensively used ●●●  
 Moderate used ●●  
 Seldom used ●

Ershad Nagar seems to be the heaven for home based jobs as 36.70% of the households in our sample corresponded that they perform such activities at home. It was quite obvious from observation that most dwellers opened their own shops at home and also involved with other money generating activities within the neighborhood. Grocery shops score the highest with 12.60% and a number of different spaces such as bedrooms, veranda, courtyard and path have been altered or sometimes converted to accommodate such shops in the house. Although these people do not have any right to change their own dwellings, the loose control of government and the security of tenure give the confidence to invest

and spend for such income generating activities. There are more than 3400 families living in the camp therefore, demand for different commercial activities accelerated the transformation of houses into shops.

**Table 4.8. The Types of Home based Jobs and the Space in Ershad Nagar camp**

Types of jobs	Bed room	Kitchen/dining	Veranda	Courtyard/backyard	Path	Space between buildings	New addition	Altered or changed space	Total (%)
1. Garments	●●●	●	●	●			●	●	4.4
2. Workshops			●●	●				●●●	5.10
3. Household goods	●●					●●		●	2.8
4. Food Delivery							●●●	●●	5.40
5. Grocery Shops							●●●	●●●	12.60
6. Sorting waste paper			●	●					3.60
7. Poultry firm								●●	2.8
<b>The percentage of the households involved</b>									36.70

Extensively used ●●●

Moderate used ●●

Seldom used ●

Compared to the other two bustees, the households of Ershad Nagar have larger spaces (see Figure 4.5). Moreover, they have also added some lands from the path illegally.

Unlike Badal Mia and Babupara, most houses in Ershad Nagar have courtyard spaces, which they use for multi purpose activities. Availability of spaces also encouraged these people to use their spaces for money generating activities. Unlike other two bustees, a number of NGOs have their own workshops in the camp where the women of the camp both work and gets short term training such as weaving baskets, embodery works, making

saries, handicrafts etc. Therefore, a good number of women work in such organizations rather than using their own housing spaces. In conclusion, the flexibility in changing spaces in the bustees is low because of the strict control either by the owner or by Mafias. In addition, lack of necessary spaces push these people to create alternative spaces for performing income generating activities which may not be either healthy or suitable for such jobs in the bustee areas.

#### **4.5.1.2. Flexibility in Changing Domestic Spaces**

One of the criterion in choosing such settlements was to understand the physical changes that happened in time and also to see which area changing more and why?

Moreover, in order to understand the quality of physical spaces of individual dwellings, it is also important to know the level of freedom in changing the particular domestic spaces.

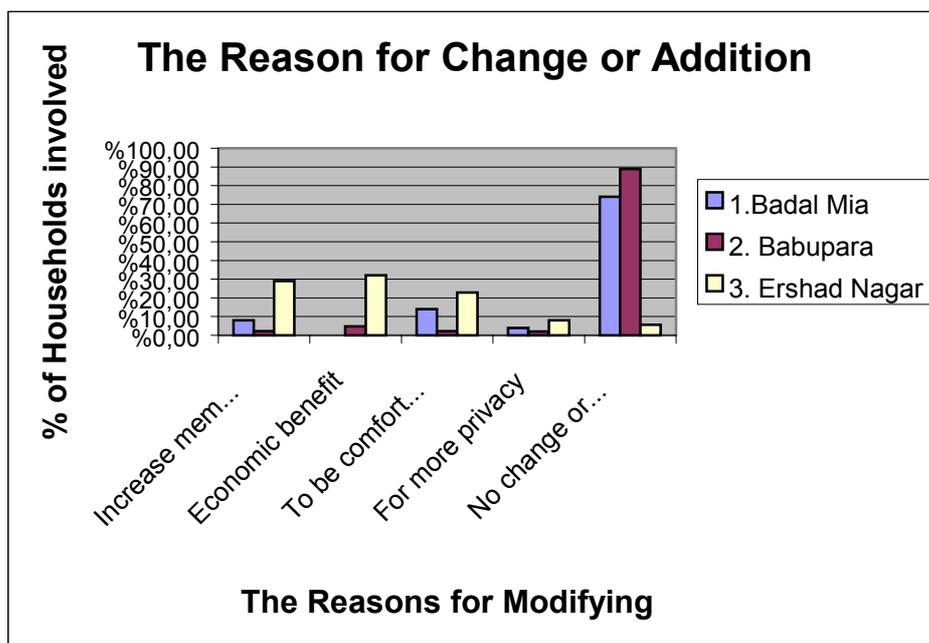
As women in general spend most of their time in their dwellings, it was the women who were questioned mostly about the physical changes of the dwellings specifically. The time factor or duration of staying both in the city and in particular dwelling unit was an important issue; therefore, all the settlements that have been chosen have at least 20 years of settlement history. Since most of the families have been living for a longer time, it is assumed that they have changed some portion of their housing unit for their comfort and convenience if not a radical change.

In Badal Mia bustee, 74% of the households claimed that they could not change anything. 10% of the families changed some spaces into bedrooms as the family members increased in time. 14% changed certain portion of their dwellings in order to be more comfortable. However, for such changes in the dwelling units the tenant had to negotiate or to take permission from the owner. Only 4 % confess about the privacy, which is not maintained in the bustee. Although women complained about privacy in their early stage in the city, in the course of time they have also adapted and learned to live without privacy in the bustees.

In the case of Babupara bustee alternation of individual houses are even less, and only 11.1 % of the sample group could change their physical spaces and this change was done only in the owner occupied houses. In Ershad Nagar change, alternation or addition is very common, as 94.40 % families have changed their physical dwellings in last 20 years. Almost all the families (except those who came late) have gone through a number of changes in their dwelling types. In the initial stage the tent type, then by the help of TDS they had bamboo houses and later in mid 1980s they got semi permanent attached concrete buildings. The richer families started to get bigger plot and today there are at least 4 or 5 different income groups in the settlement. The richer people usually cluster together. Here, the increase in the number of family members is one of the important factors for increasing family spaces; 29.00% of the changes are done due to such increase either by births or by getting married. 32.1% extended their houses within our sample group for different commercial enterprises or restaurants. Only 22.8% changed their houses just to be more comfortable.

Figure 4.16 gives us idea about the reason for such changes in specific housing unit. The result shows co-relation between ownership pattern and physical changes of the dwellings. Unfortunately, Babupara bustee has the lowest possibility of changing physical space. Although the settlement is illegal, the control is more strict than Badal Mia bustee. Economic benefit is more important than comfort; therefore most changes and transformations took place due to income generating activities. If there is no tenure security, bustee dwellers cannot invest in physical upgrading of the houses. As for Ershad Nagar, we can see that 22.8% of the changes are due to comfort of the dwellers;

therefore, when there is tenure security, it is expected that comfort will automatically come (see Appendix P: Figure 29). Therefore, it is not wrong to assume that flexibility in changing domestic spaces according to dwellers needs and comfort leads to better quality of physical spaces in the settlements. However, when spaces are limited, changes may bring comfort for one households and problems for others.



**Figure 4.16. The Reason for Modifying Changing Domestic Spaces**

For the migrants in Dhaka, the spaces suddenly became very small and congested as compared to their previous village homes (Figure 3.3). Question 2.19 (see Appendix B) in the questionnaire is prepared to understand home-based activities those are not performed now due to physical and economic changes in the current settlements. The findings show that certain habits such as domestic pets, handicraft or gardening can still be accomplished if necessary space could be provided especially for women who spend most of their time in residential spaces.

Table 4.9 shows that the most popular activity was food processing (both for self consumption and for selling in the market); 39.1% of the men and women were involved in such tasks in all three settlements (see Appendix P: Figure 19). As farmers lost the lands, such activities also stopped and they are now involved in other economic activities in their city life. Gardening was another popular activity in their previous settlements but it is not possible any more due to lack of spaces and security. However, some families in Ershad Nagar still continue with gardening in their leftover spaces or in the backyards. 14.6% of the families were making natural fuel out of cow dung in villages but due to space limitation and restriction in domestic animals, this activity also has been omitted from their life.

**Table 4.9. Previous Home-based Work**

<b>Types of Home based jobs</b>	<b>Badal Mia Bustee (%)</b>	<b>Babupara Bustee (%)</b>	<b>Ershad Nagar camp (%)</b>
1. Gardening (vegetables, crops, ploughing etc.)	18.00	16.90	17.80
2. Food processing	32.80	33.20	29.20
3. Domestic animals (dairy firm or poultry firm)	16.50	15.40	13.40
4. Making household goods (handicrafts, weaving, kinting, making pots etc.)	10.70	12.30	14.50
5. Making natural fuel from cow dung, processing fire woods)	12.00	10.90	12.80
6. Fishing and fishery activities	10.00	11.20	12.30

Since economic dimension of these people has changed dramatically in the city life, their previous habits have also changed in the city. 13.9% of the dwellers from all three settlements complained that they couldn't visit their relatives any more, which they could do before during their village life.

Although the table does not provide us with significant differences between three settlements, it is observed that due to more space availability in Ershad Nagar camp, the dwellers are still practicing some of their previous domestic activities such as food processing, making handicrafts or keeping domestic animals.

#### **4.5.2. Privacy as an Element of Physical Quality**

Privacy is one of the important factors in settlements to understand the quality of physical space. Despite different cultures, it is also equally important to know how such privacy is maintained and up to what extent these settlers give importance to this issue. From the interviews, it has been noted that privacy was not considered while constructing these barrack type dwellings. According to a lady living in Babupara bustee stated that, privacy was better maintained in the village than in city life (see Figure 3.3). Unfortunately, privacy in the dwellings was neither planned nor provided by the owners. In addition, these people showed their own efforts in maintaining privacy in the respective dwellings.

Among three settlements, the inhabitants of Ershad Nagar camp give more importance to household privacy (44.3%) and Babupara bustee has the lowest level of privacy with 26.6%. Privacy can be described in two ways, one with the neighbors and the other with

individual family members. Most of the families in both bustees maintained privacy by making divisions inside their rooms (see Appendix P: Figure 17). For them, the most important privacy is to keep a distance while sleeping as everyone shares the same room. Fence around women’s bathroom is a common practice (see Appendix P: Figure 37); however, in Badal Mia bustee there are only a few separate bathrooms (see Appendix P: Figure 9) for both sexes; therefore, privacy is not maintained at all.

In all three settlements, bamboo fence is widely used to maintain privacy and virtually to separate private and semi private spaces in housing units (see Figure 4.17). Making a screen with trees is also another way of keeping privacy from the outside and this can be seen in Ershad Nagar as housing units have defined boundaries.

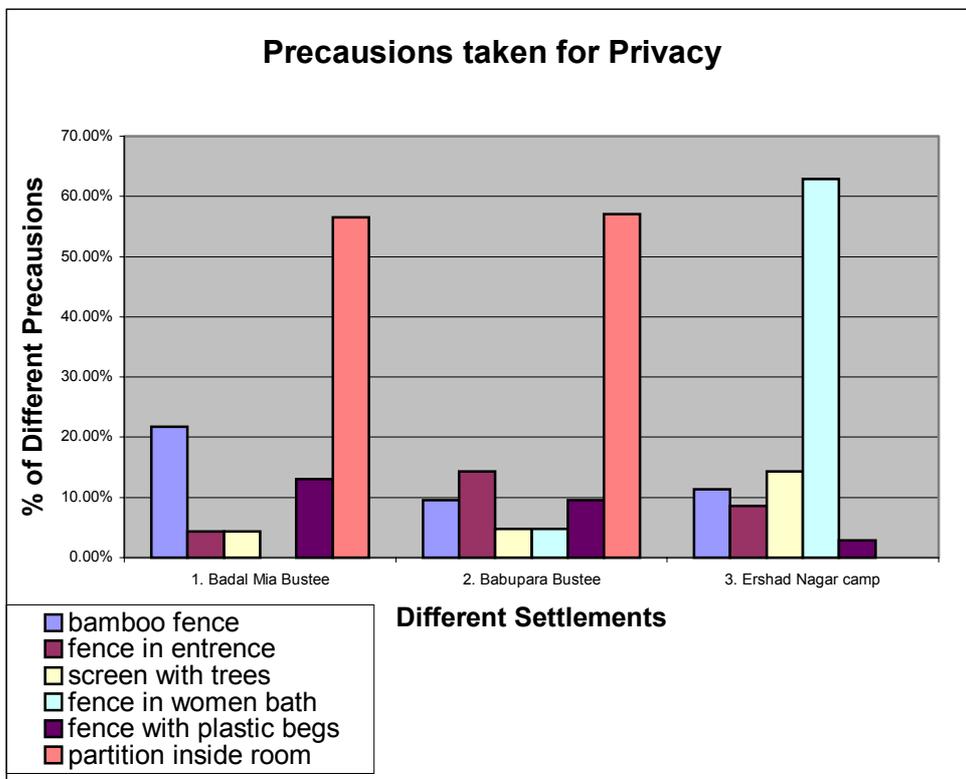


Figure 4.17 The Changes done for keeping privacy

### **4.5.3. Physical Characteristics of Housing Units**

To understand quality of physical space in a dwelling, it is important to evaluate the dwelling type, material used, the layout, number of rooms provided, their indoor and outdoor relationships etc (see Appendix A). However, household activities and related spaces are important to evaluate whether domestic activities can be accommodated without obstacles and if such spaces are healthy and properly organized. Since the size and the number of rooms are important criteria to understand dwelling quality and housing type, the comparison between three settlements would tell us the quality of such settlements.

Figure 4.18 shows that the sizes of the dwellings are extremely small in Badal Mia and Babupara bustees. They vary between 9m<sup>2</sup> to 36m<sup>2</sup> and most of the dwellers live in such small rooms. For the bustees, the lay out of the dwellings is dormitory type; therefore, it is difficult to compare such rooms with Ershad Nagar where the housing type has already taken the shape of individual unit with maximum facilities.

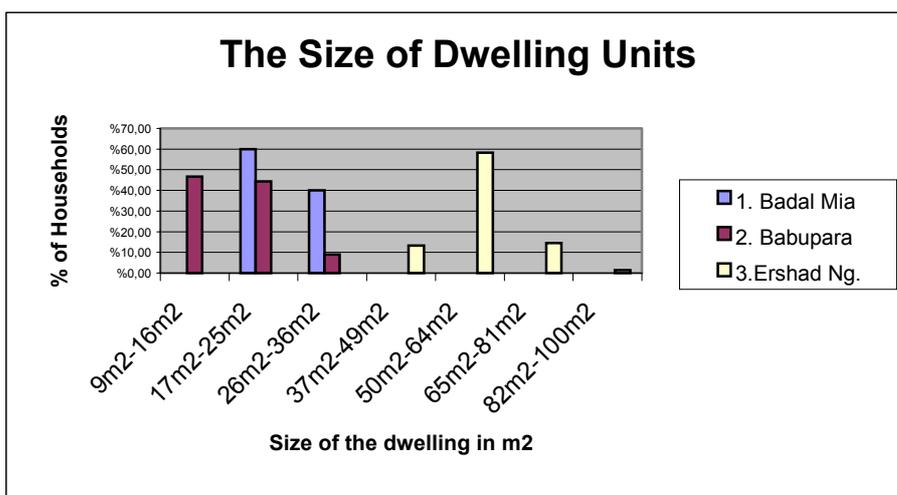
One interesting feature of Babupara bustee is the rent per square meter and it is probably the highest. As Babupara bustee is in the central location, the land price is very high and despite the high rent, the people live in very congested spaces with very limited outdoor spaces and with almost no ventilation system. However, the owner- occupied household possesses higher number of rooms (see Table 4.10).

In Ershad Nagar, the households have the biggest plot sizes and they have possibilities of increasing rooms in their empty spaces (see Figure 4.5). In addition, the households of this camp do not pay any rent to the government. Therefore, there is an inverse relation in these dwellings; as the people in smaller dwellings pay more rent, people living in bigger plot sizes pay apparently nothing for their occupied dwellings. This implies that government can play an important role in providing better quality accommodation with better space facilities since it is not a profit making organization.

The question 2.16a in the questionnaire (see Appendix B) is about the size of specific rooms and to evaluate the types of activities done. As far as the room sizes are concerned, in Badal Mia most of the occupiers have rented single rooms. In both bustees, indoor means room for sleeping and outdoor means the path in front of each room. In Badal Mia, 40% of the families have a plot size of  $36\text{m}^2$ . The rent also depends on the size of the rooms and perhaps that is one reason why families prefer to take small rooms. However, more than 60% of the households live within a space between  $17\text{m}^2$  to  $25\text{m}^2$  and this size gets even smaller in Babupara where the average size of the room is  $9\text{m}^2$  to  $16\text{m}^2$ . (see Figure 4.18) There is high imbalance in the room sizes between the tenant and the owner occupied dwellings. The owner occupied families who bought the land and constructed their own houses are the holder of comparatively bigger plots. Only 8.90% of the families live in a room size of  $26\text{m}^2$  to  $36\text{m}^2$ , which is still very small as compared to other settlements.

Ershad Nagar camp is the most privileged settlement, since the inhabitants don't pay rent and they hold larger plots than bustees. 58.20% of the families have two rooms; 16% also have more than two rooms but there is variation in the room sizes. As the room sizes are not equal in all eight sectors, the sizes of the houses are also different unlike the bustees. However, the majority has a room size of more than 60m<sup>2</sup> and of course they include other spaces like veranda, inside courtyard and attached bathrooms within the living spaces (see Table 4.10).

The Figure 4.18 shows the quality of the dwelling types in all three settlements. It is seen that tenants of the bustees do not have certain necessary spaces such as wet core, kitchen, toilets etc. They perform such everyday domestic activities in common spaces in the bustees (see Appendix P: Figure 11). These features of the dwelling type show that the people living in the bustees are the least privileged. In fact, the rooms are meant to be the houses of individual families in the bustees and the characteristics of such dwellings do not fit with the real meaning of home.



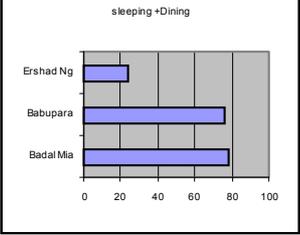
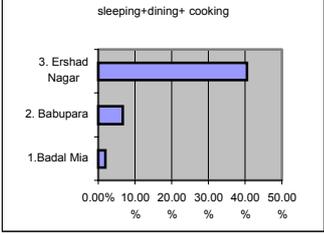
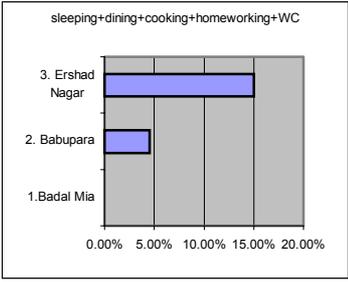
**Figure 4.18. The Sizes of the Dwellings in the Settlements**

Although the type and size of dwellings are different in the settlements, the main purpose of the indoor is generally similar. Indoor spaces are used for sleeping, dining and cooking, and all of these activities are done in one single space for most of the families, especially in Badal Mia and Babupara bustees.

Most interviewers from the bustee settlements have stated that they use the rooms for sleeping purposes only, but other activities are also done indoors if climatic conditions do not permit to do things outside (see Table 4.10). Indoor activities can be listed as cooking, preparing things, making household goods or garment work (see Appendix P: Figure 10, Figure13 and Figure 22). Thus, indoor spaces in the bustee settlements are not only for relaxation but also spaces for other necessary domestic activities and this shows that there is a tremendous need for more spacious rooms in bustee. The rooms are small and the paths are narrow, therefore, bustees have a high density and a very small area per head.

Ershad Nagar, on the other hand, has much better facilities since all households have their own kitchen and cooking areas within individual houses (see Appendix P: Figure 38). Although most of the households have their own toilet facilities, 28% of the families do not have bathing facilities inside the house and 19.6% of them have to bring water from the outside. The room sizes and indoor activities of individual households show that houses fulfil the basic requirements and it is quite apparent that households of Ershad Nagar has the maximum space per head and also have better chances of doing household activities in a better environment.

**Table 4.10. The Types of Indoor Activities and Spaces**

Types of Activities	Indoor Spaces (the most dominant form in the settlements)	Percentages Spaces and indoor Activities								
<b>1. Sleeping +Dining</b>		 <p>A horizontal bar chart titled "sleeping +Dining" comparing three settlements. The x-axis represents percentage from 0 to 100. Ershad Ng is at approximately 20%, Babupara at approximately 75%, and Badal Mia at approximately 75%.</p> <table border="1"> <thead> <tr> <th>Settlement</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Ershad Ng</td> <td>20%</td> </tr> <tr> <td>Babupara</td> <td>75%</td> </tr> <tr> <td>Badal Mia</td> <td>75%</td> </tr> </tbody> </table>	Settlement	Percentage	Ershad Ng	20%	Babupara	75%	Badal Mia	75%
Settlement	Percentage									
Ershad Ng	20%									
Babupara	75%									
Badal Mia	75%									
<b>2. Sleeping + Dining+Cooking</b>		 <p>A horizontal bar chart titled "sleeping+dining+ cooking" comparing three settlements. The x-axis represents percentage from 0.00% to 50.00%. Ershad Nagar is at approximately 45%, Babupara at approximately 10%, and Badal Mia at approximately 2%.</p> <table border="1"> <thead> <tr> <th>Settlement</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>3. Ershad Nagar</td> <td>45%</td> </tr> <tr> <td>2. Babupara</td> <td>10%</td> </tr> <tr> <td>1. Badal Mia</td> <td>2%</td> </tr> </tbody> </table>	Settlement	Percentage	3. Ershad Nagar	45%	2. Babupara	10%	1. Badal Mia	2%
Settlement	Percentage									
3. Ershad Nagar	45%									
2. Babupara	10%									
1. Badal Mia	2%									
<b>3. Sleeping+ Dining +Cooking+ Home working</b>										
<b>4. Sleeping +Dining+Cooking+ Home working+ WC</b>		 <p>A horizontal bar chart titled "sleeping+dining+cooking+homeworking+WC" comparing three settlements. The x-axis represents percentage from 0.00% to 20.00%. Ershad Nagar is at approximately 18%, Babupara at approximately 5%, and Badal Mia at approximately 1%.</p> <table border="1"> <thead> <tr> <th>Settlement</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>3. Ershad Nagar</td> <td>18%</td> </tr> <tr> <td>2. Babupara</td> <td>5%</td> </tr> <tr> <td>1. Badal Mia</td> <td>1%</td> </tr> </tbody> </table>	Settlement	Percentage	3. Ershad Nagar	18%	2. Babupara	5%	1. Badal Mia	1%
Settlement	Percentage									
3. Ershad Nagar	18%									
2. Babupara	5%									
1. Badal Mia	1%									

<p><b>5. Sleeping+Cooking</b></p> <p><b>+Dining+ Home working+</b></p> <p><b>WC+ Bathing</b></p>		<table border="1"> <caption>Facilities Availability Data</caption> <thead> <tr> <th>Settlement</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>3. Ershad Nagar</td> <td>~18.00%</td> </tr> <tr> <td>2. Babupara</td> <td>~2.00%</td> </tr> <tr> <td>1. Badal Mia</td> <td>0.00%</td> </tr> </tbody> </table>	Settlement	Percentage	3. Ershad Nagar	~18.00%	2. Babupara	~2.00%	1. Badal Mia	0.00%
Settlement	Percentage									
3. Ershad Nagar	~18.00%									
2. Babupara	~2.00%									
1. Badal Mia	0.00%									

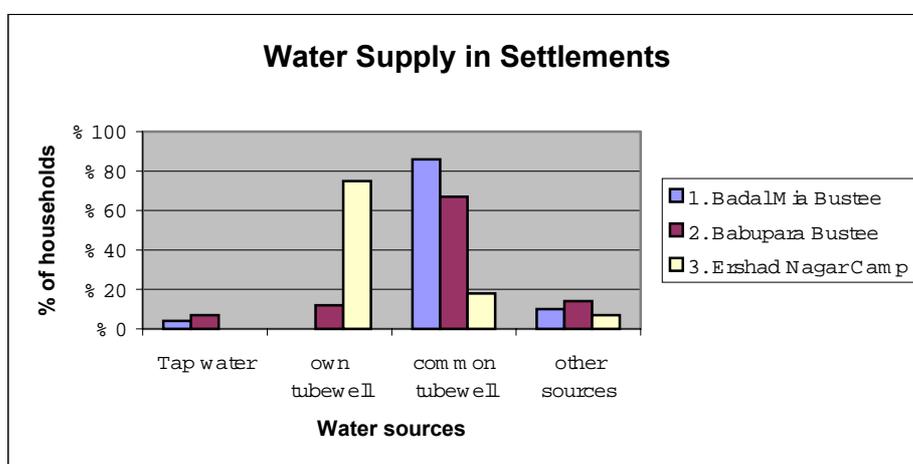
#### 4.5.4. Household Facilities as an Element of Physical Quality

While evaluating physical spaces especially in housing and residential areas, it is obvious that certain basic household facilities would tell us about the quality of the settlements (see Appendix B, Question. 2.17).

Water supply is probably the most important household service. In Badal Mia, there are only 4 tube wells for 286 families (see Appendix P: Figure 8), and this is insufficient as stated by the inhabitants during the interviews. People can also get tap water from the main street but it is both time consuming and difficult. Although there is a small pond at the back of the bustee, due to pollution, only a few families use that water sources.

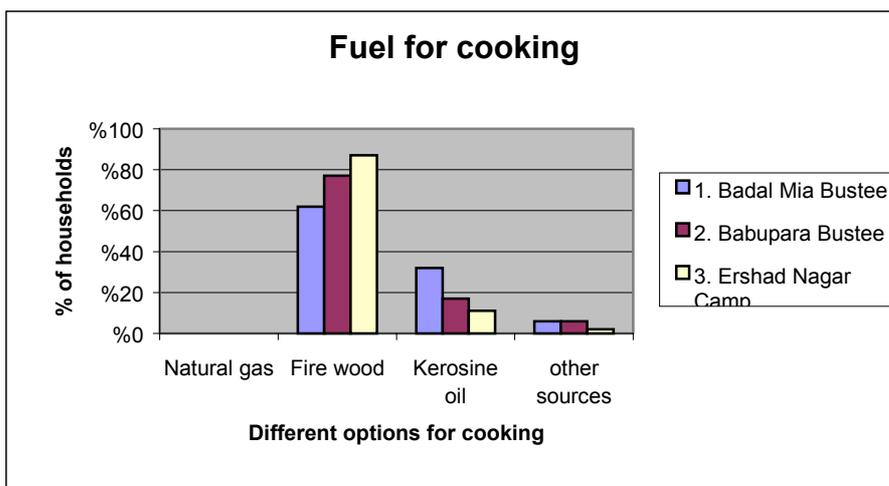
Unlike the other two settlements, Babupara bustee has both tap water and common tube well. The tap water supply is not from WASA (government water supply) but it is rather provided by the owner himself with a pipeline from his own house illegally (see Appendix P: Figure 21), When there is no tap water supply, the dwellers have to depend on the tube wells. These tube wells are important spaces for bustee people because first these wet cores are service spaces and secondly these are meeting spaces and also daily working spaces for housewives.

In Ershad Nagar, most of the families installed their own tube wells and solved the problem of carrying water from outside. However, in the initial stage of the camp, one tube well was provided for every eight families as a donation from TDS. Installing own tube well in respective houses in Ershad Nagar shows self-initiatives for better living conditions.



**Figure 4.19. Different Sources of Water Supply**

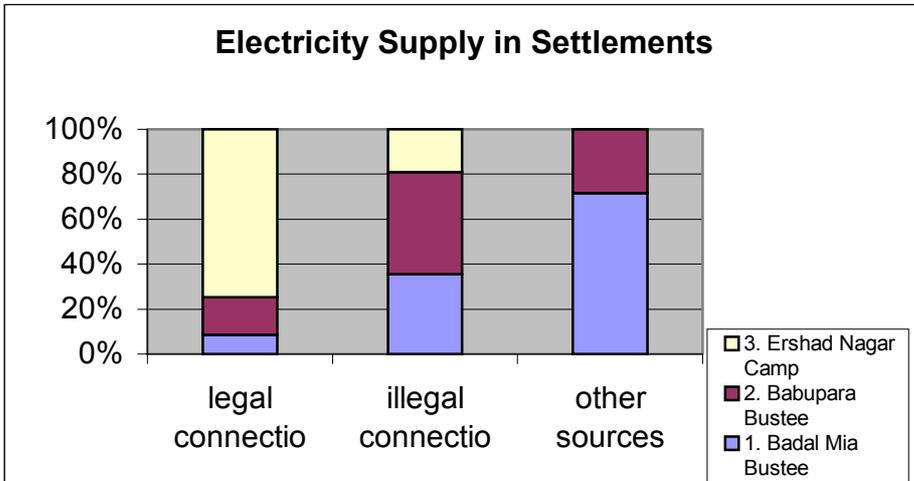
Cooking is another necessary household activity and fuel an important consumption item that the households spend from their income every month. Unfortunately natural gas has not been supplied in any of the settlements yet and firewood is, therefore, most commonly used for cooking purposes (see Appendix P: Figure 11). Sometimes when the firewood is not available, kerosene oil becomes the only option for cooking. It has been observed that the women who are involved in rice business or selling food outside, use gas cylinder and stove for such purposes.



**Figure 4.20. Different ways of cooking in the settlements**

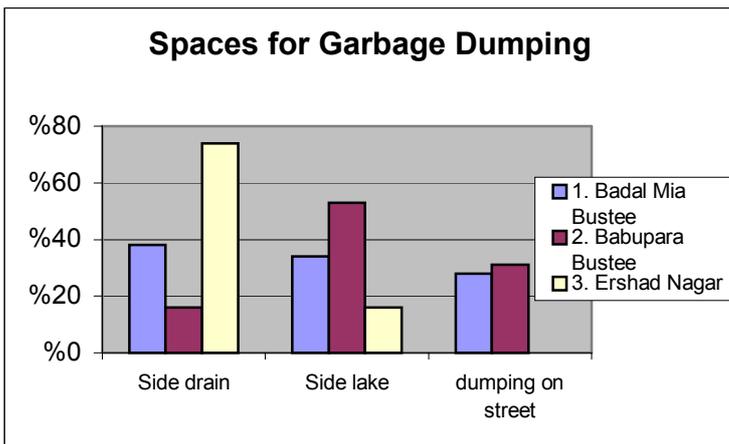
In Ershad Nagar, the government already installed the central gas line and within a short time, they would be supplied with natural gas as explained by one of the inhabitants. This shows that in improving quality and basic services of the settlements government intervention seems to be necessary.

Electricity is another essential requirement for residential use. In Badal Mia every household in our sample group has legal or illegal electricity connections. The one who has a separate meter and connection was considered to be legal during the survey and unfortunately most families especially in Babupara have illegal electricity connections. As most of the families have electricity connection in three settlements, almost every household uses TV, light and electric fans. Most of the Babupara dwellers admit that they misuse electricity (see Appendix P: Figure 10 and Figure 17). Because, as it is provided by the owner and included in their monthly rent.



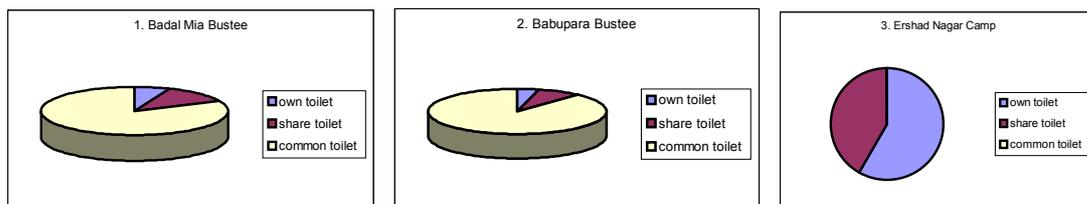
**Figure 4.21. The Percentages of legal and illegal Electricity Supply**

Proper garbage collection and dumping is a basic household service that the city dwellers can get from municipalities. Unfortunately, in all three settlements, it becomes a vital problem today. As no collection is being done, the dwellers use some spaces such as side drain; or side lake for these purposes but it also create bad smell and air pollution in all three settlements (see Appendix P: Figure 24, Figure 34 and Figure 36).



**Figure 4.22. Alternative Spaces for Garbage dumping**

Toilet is an essential space in any dwelling unit; unfortunately, in bustees this facility for individual household is almost absent (see Appendix P: Figure 9). As bustee owners want to make more profit, they economically use the space by providing common toilets. However, separate toilet is necessary for hygienic purposes and for better maintenance. Fortunately in Ershad Nagar all the households have their own toilets and sometimes shared by two families. It can also be observed that some households added the toilets in time by their own efforts. The condition of such toilets is also very primitive as they are pit latrines without any sanitation system (see Figure 4.5). For the bustees, toilet spaces are located in one corner of the settlement usually near a pond or lake and that also pollutes the water, which sometimes important water resources for the inhabitants.



**Figure 4.23. Toilet facilities in the Settlements**

Availability of household facilities is one way of showing the quality of physical conditions and the characteristics in specific dwellings. Unlike bustee owners, government is probably more efficient in providing certain households services that inevitably improve settlements' physical conditions.

#### **4.5.5. Physical Characteristics of the Adjacent Outdoor Spaces**

Information regarding the outdoor spaces and activities in three settlements was also attained. As our main intension was to find the quality of physical spaces, certain measures also taken into consideration such as size, organization of space, orientation,

appropriateness, the functionality and the relation between indoors and outdoors (see Appendix A).

Like indoors, outdoors are similarly important for households in any settlement. As all these low-income settlements are single storied, extension to outdoors for different domestic activities are essential. More dwellings mean more money for bustee owners and perhaps that is the basic reason why there is lack of outdoors spaces in such settlements. Unfortunately, path is the only outdoor for most of the bustee dwellers (see Appendix P: Figure 18).

Hot climate is one important factor in using outdoors in a city like Dhaka. As indoor are extremely humid during daytime, people like to spend time outside their dwellings. As there is a serious deficiency in outdoor spaces, especially in bustee settlements, these people use the path and other outdoor spaces for different domestic activities (see Appendix P: Figure 7). Most women in bustees have stated that they need sufficient outdoor spaces as they do most of their daily home activities outdoors. In addition, these spaces are needed for other money generating activities. They also added that they used to have better outdoor spaces in their villages than in city life (see Figure 3.3).

On the other hand, the households in Ershad Nagar have individual outdoor spaces. While courtyards and verandas are the most common multipurpose working spaces in the camp, the path is the only source to meet such demands in the bustees.

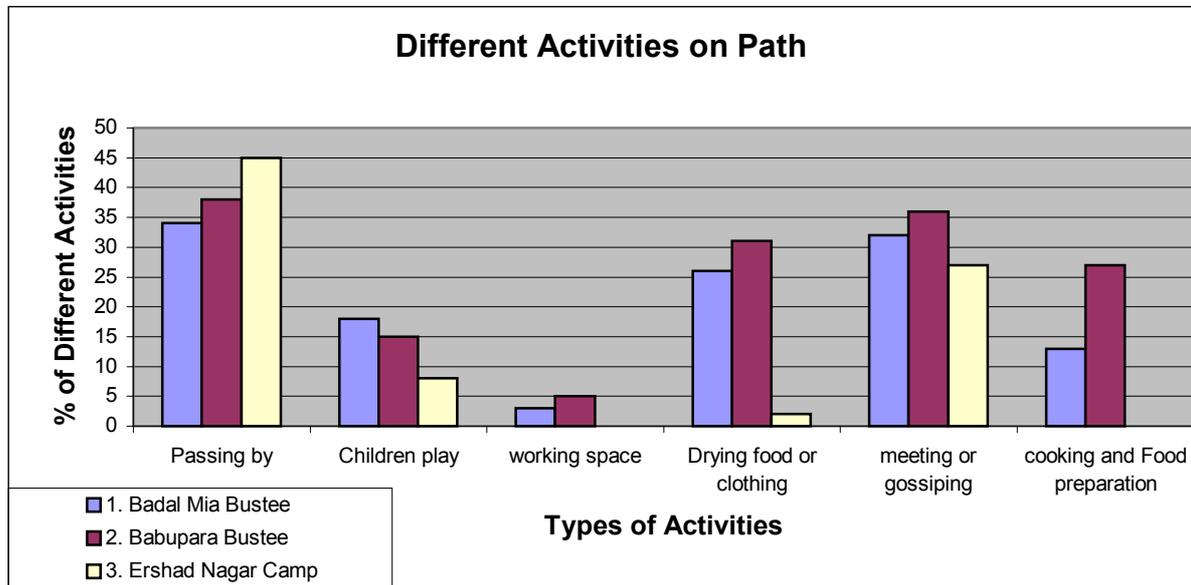
**Table 4.11. The Adjacent Outdoor Spaces in the Dwellings**

<b>Types of Outdoor Spaces</b>	<b>Adjacent Outdoor Spaces in Settlements (Most Dominant form)</b>	<b>Uses of outdoor Spaces</b>
1. Path		
2. Courtyard /backyard		
3. Veranda		

<p>4. Space between buildings</p>		<table border="1"> <caption>Space bt buildings</caption> <thead> <tr> <th>Bustee</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>1. Badal Mia Bustee</td> <td>~12%</td> </tr> <tr> <td>2. Babupara Bustee</td> <td>10%</td> </tr> <tr> <td>3. Ershad Nagar Camp</td> <td>~4%</td> </tr> </tbody> </table>	Bustee	Percentage	1. Badal Mia Bustee	~12%	2. Babupara Bustee	10%	3. Ershad Nagar Camp	~4%
Bustee	Percentage									
1. Badal Mia Bustee	~12%									
2. Babupara Bustee	10%									
3. Ershad Nagar Camp	~4%									
<p>5. Rooftop spaces</p>										

In the bustees, the path is a place for cooking and food preparation; at the same time that space is a place for children to play (see Appendix P: Figure 18). Unlike Badal Mia, Babupara has no common kitchen; therefore making fire oven and cooking on path is a common practice during dry season and 27% use the path for such activities (see Appendix P: Figure 19).. Moreover, this also becomes a gossiping space for women at different hours of the day. Therefore, the graph shows that 84% of the households in Badal Mia and 82.2% in Babupara use the path for many purposes (see Figure 4.24). Although one of the survival strategies for the households of bustees is to use space for income generation, the serious deficiencies of the outdoor spaces force these people to

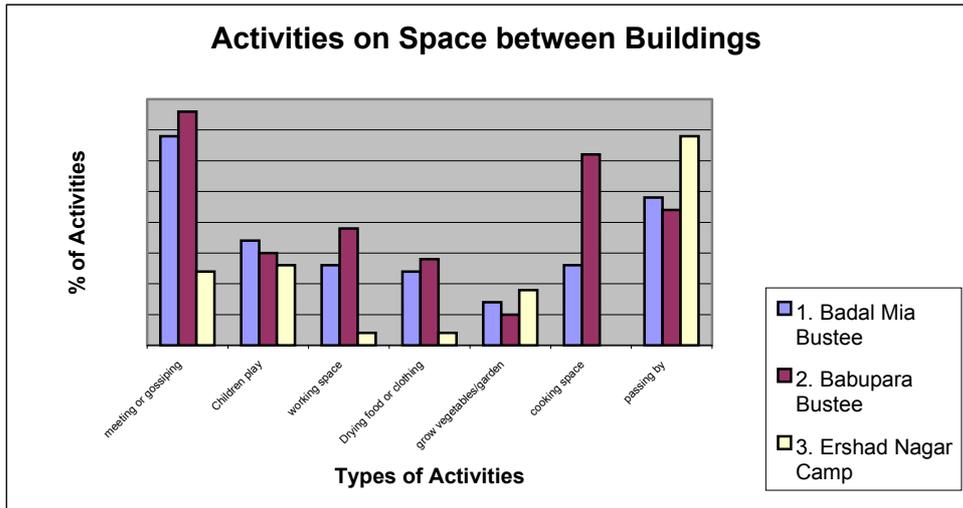
create working spaces that are neither suitable nor environmentally healthy for such activities.



**Figure 4.24. Path as a multiple space**

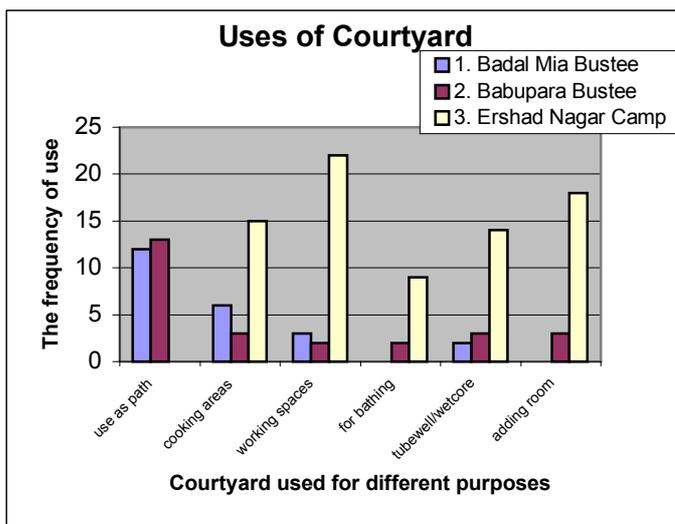
Excess number of dwellings in a limited space made bustee settlements over populated, crowded and congested. So finding space between buildings is also very difficult.

However limited, such spaces (space between buildings) also used for different purposes to its full extent. From Table 4.11 it is noticeable that this space is very popular in the bustees and for women who use it for meeting, sitting and gossiping at various hour of the day. Due to lack of outdoor spaces this limited spaces are also popular among children's and shows a significant figure in all three. 20% inhabitants in our sample group use space between building for growing vegetables or for gardening in Ershad Nagar. However, it most dwellings these spaces are so narrow that people can only use it for passing as a short cut.



**Figure 4.25. Activities in Space between buildings**

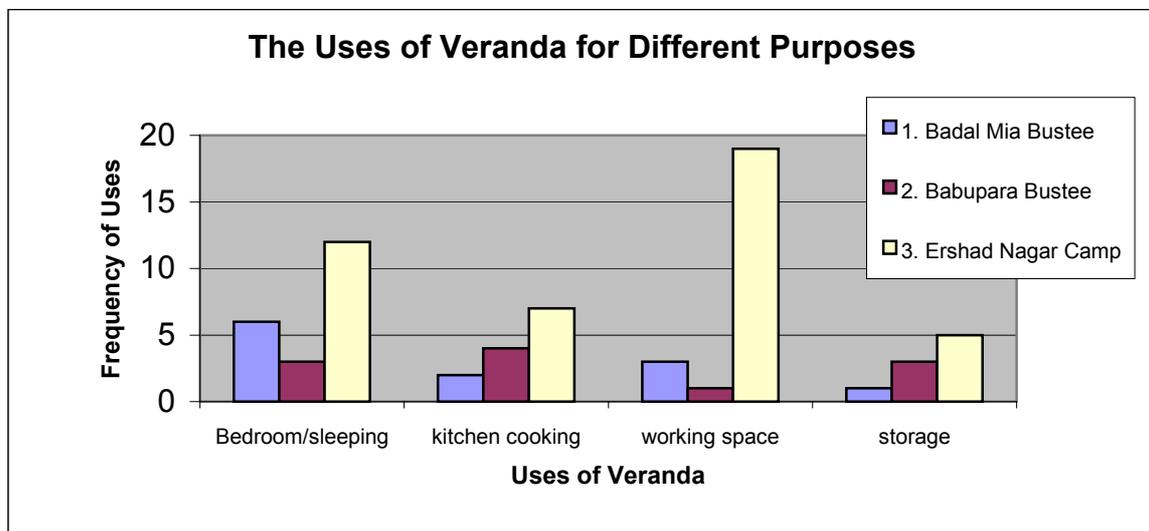
Another outdoor space, which is substantially used by the dwellers, is the courtyard. In Ershad Nagar, the courtyard is used in different ways. Firstly, it is the space for home working and other economic activities (see Appendix P: Figure 34). Secondly, courtyard is the empty space for future growth of the house. A good number of camp dwellers have extended and made new rooms in their and the reason is either to accommodate families (see Appendix P: Figure 29) or for income generation. Therefore, the possibility of increasing the number of rooms can be a criterion in evaluating the quality of physical space.



**Figure 4.26. Uses of Courtyard/ Backyard spaces**

In this respect, the bustees are extremely hopeless; first, because of the strict control of the owner and second because, there is no such space left. The size and the shape of such spaces have different features and also the size of the courtyard indicate the households using of such spaces for different income generation activities either by giving rent or by making commercial enterprises in Ershad Nagar. In the bustees the dwellers create their own courtyard which is not provided by the owners. The families which are located at the dead-end usually change their path into such spaces and are shared by other households.

Veranda is a semi-open space in such settlements; however, only a few people have verandas in bastes (see section 2.3.3). Due to lack of indoor-spaces, majority have change this space for sleeping, kitchen, storage, cooking or working purposes (see Appendix P: Figure 20).



**Figure 4.27. The Uses of Veranda**

In Ershad Nagar, most of the garment workers use the veranda for tailoring purposes as this space has the maximum daylight and is less humid (see Appendix P: Figure 33).

In summer time, verandas are the most suitable spaces for the households. So due to lack of workable space and for storage veranda is probably the most performed space in the settlements.

#### **4.5.6. Physical Characteristics of Three Settlements**

So far we have discussed about individual households and their respective facilities within the dwelling unit that shows the interaction with physical spaces. However, to understand the settlement as a whole, one has to evaluate it with respect to its communal and neighborhood concepts. The basic question is what transforms a settlement into a neighbourhood? What a neighbourhood can provide that the settlement cannot? What kind of neighbourhood facilities do these dwellers get? Are there spaces for meeting, gathering or shopping? What are recreational and social facilities? How about the neighbours' relations? And finally, whether the settlers have achieved an identity or how the feeling of belongingness to a particular settlement can be achieved? To understand why one neighborhood is different from others at least in physical quality, one has to know the neighborhood facilities that exist in these settlements and up to what extent they are reliable in giving services.

Unfortunately bustees are profit-maximizing instruments for bustee owners so, earning maximum amount of money with little investment is the main goal for them. And thus, the owners are least bothered about providing proper neighborhood facilities and suitable environmental conditions. It is, however, interesting to observe that in spite of lack of essential spaces, people of bustee settlements somehow manage to get almost all services

that they require and most of the time from outside of the settlement area. Now, the argument is whether a good neighborhood get all necessary facilities within the settlement area. Again getting necessary services from outside also indicate higher interaction with outside world and perhaps more integration with city life.

#### 4.5.6.1. Spaces for Children Play

Children parks or play grounds in a settlement is an essential space to be provided.

However, in bustees the only space that the children can play is either the path or veranda if they have one. In Badal Mia, the path it is the most popular space for children play (see Appendix P: Figure 12). For Ershad Nagar, despite the existing play ground children also like to play either on the path or on the main street (see Appendix P: Figure 27).

However, among the three settlements, the maximum space allocated for children is in Ershad Nagar camp (see Figure 4. 28).

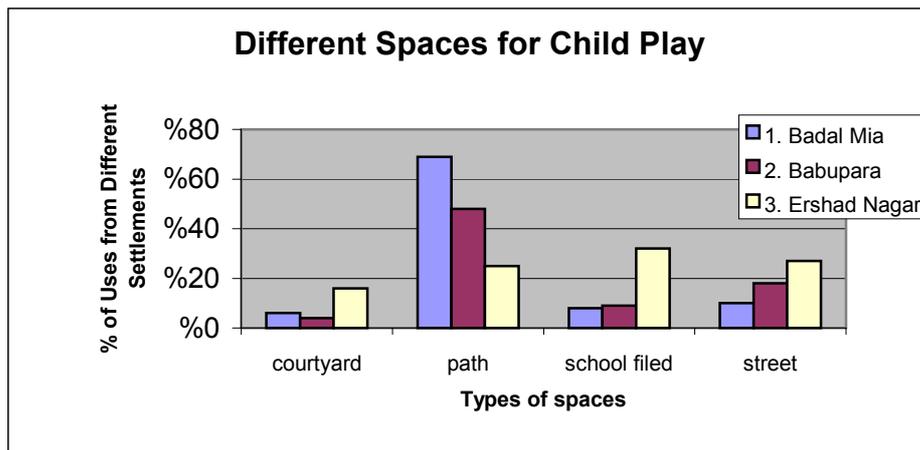
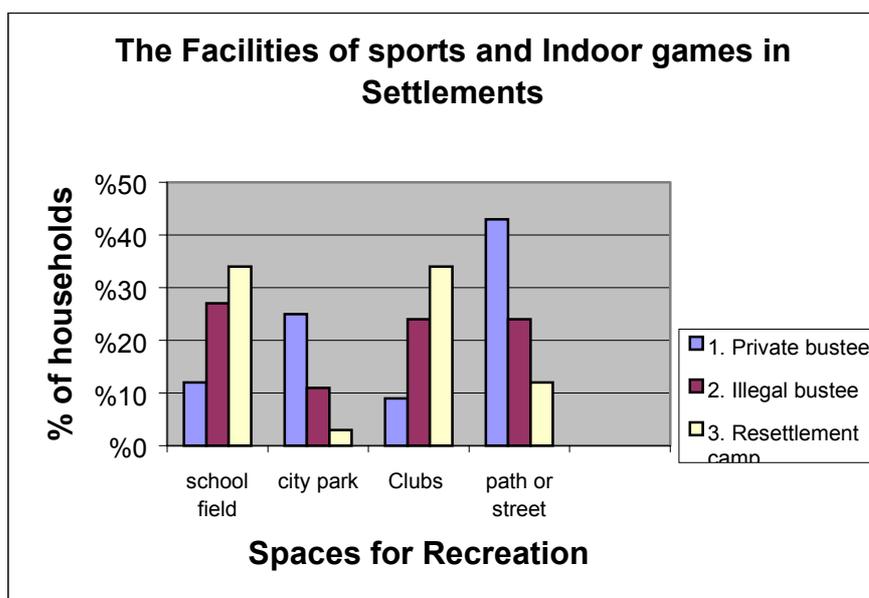


Figure 4.28 Percentages of Different Spaces for Children Play

#### 4.5.6.2. Spaces for Sports and Games

Games and sports are important physical and recreational activities for almost every one in a settlement but there exist discrimination among different sexes. Females are usually confined to their own dwellings and outdoor games are almost restricted for women in all three settlements due to social reasons. As *purdah* for women is important, it is unusual that women go to public places in such settlements, although they go to their job and shopping areas almost every day. The only recreation for female members is to watch TV or movies and to gossip with peers (see Appendix P: Figure 13).

The maximum space for sports and indoor games are provided for males in all three settlements and it is highest in Ershad Nagar (see Appendix P: Figure 39). Although there is no land allocated for outdoor sports in the initial plan, it has been included later. School fields in Ershad Nagar are important sports and meeting places among different age groups (see Figure 4.29).

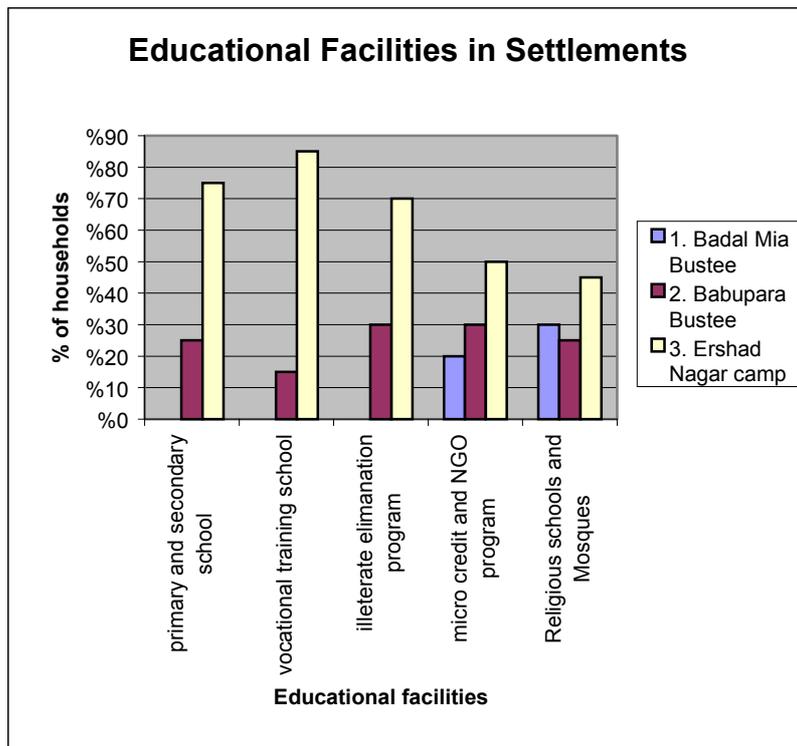


**Figure 4.29. The Spaces for Indoor games and Sports facilities**

For bustees the city parks are important options; however, young kids use their own path for different local or indoor games (see Appendix P: Figure 18). Some political parties have their social clubs in such settlements. Although the main purpose for clubs are to organize people for campaign and to gain more votes, young boys use this spaces for meeting and different indoor games.

#### 4.5.6.3. Spaces for Educational Facilities

Educational institutions, and schools and vocational training centers can be seen both in Babupara and Ershad Nagar. However, in Badal Mia, the school and colleges are outside the settlement within near proximity. The Figure 4.30 shows that in Ershad Nagar the inhabitants get the maximum educational facilities as compare to the other two bustees.

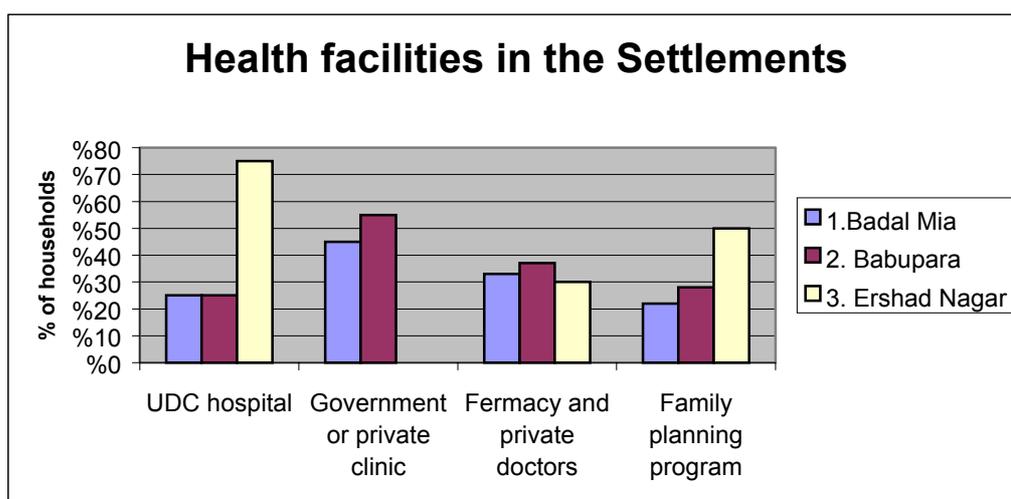


**Figure 4.30. Educational Facilities in the Settlements**

There are two primary and one secondary government schools as well as different NGOs donated in improving educational facilities from time to time (see Appendix P: Figure 30). There are also eight mosques in the camp (see Figure 4.4) and they provide religious education almost free. Illiterate elimination program by “Proshikkah” also provided certain free educational facilities in these settlements, which apparently help the aged people to get minimum reading skills (see Appendix P: Figure 23).

#### 4.5.6.4. Spaces for Health Facilities

Health facilities or medical care are essential services that one neighborhood must provide. In Ershad Nagar, medical services are provided by UDC hospital, which is inside the settlement and also free of cost. The bustee people also get treatment from UDC hospitals in the city (see Figure 4.2), however, as the majority are not registered, they go to the local doctors in the pharmacies. As homeopathy treatments are cheap, the bustee people also visit these medical centers.



**Figure 4.31. The Health facilities in the Settlements**

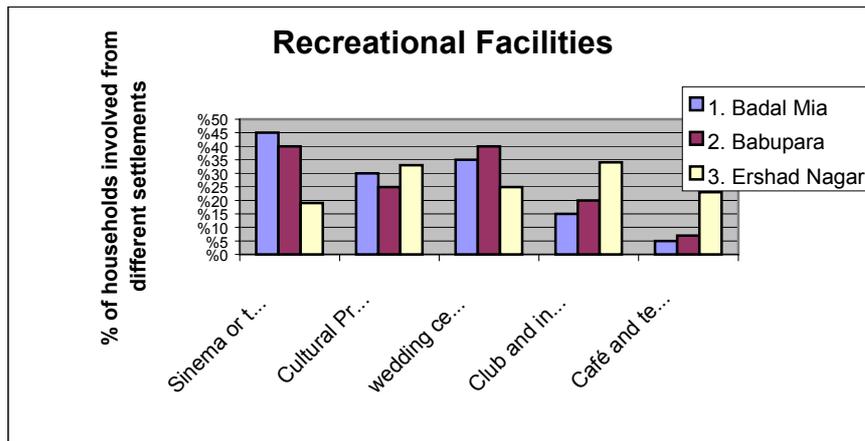
Although bustees are places with various diseases due to unhygienic environment (see Appendix P: Figure 16), no health facilities are yet provided. Some NGOs who have family planning programs often send workers to visit such bustees on a regular basis and their aim is to give information about family planning and childcare but no free treatment. Among these three settlements, Ershad Nagar seems to be the most facilitated as there are free treatment (see Figure 4.31), but going to the government hospital for them is difficult since it is far away.

#### **4.5.6.5. Spaces for Recreational Facilities**

Recreational facilities provided in a settlement can be one important parameter to understand the living standard and its physical quality. The graph shows that most people in the bustee areas are fond of watching movies. Needless to say that in Dhaka, the film industries are basically producing films for low-income people as watching local movies are main recreational activities for them. In Ershad Nagar going to movies is not as popular as other bustees, because the sinema halls are far away (see Figure 4.32).

Cultural programs and theaters during winter season are extra curricular activities for Ershad Nagar camp and all family members share and enjoy these activities. Different exhibitions, circus and drama are played in these settlements for recreational purposes as well.

Wedding in bustee areas are also common, as most families cannot afford the community centers. Some hawkers bring different kinds of games and toys for the kids in the settlements and these are mobile amusements as they visit from neighborhood to neighborhood.



**Figure 4.32. The Recreational facilities in the Settlements**

From the above discussion, it is clear that although there is a lack of recreational spaces especially in bustees, these people can get such facilities outside their settlements. The Figure 4.32 shows that there are significant differences among settlements within the settlements as far as recreational activities and its spaces are concerned. As bustees are more dependent on services getting from outside, they have the highest interaction with other city spaces and perhaps know more about the city than the inhabitants of Ershad Nagar.

#### **4.5.7. Spaces for Meeting in the Dwellings and in Settlements**

The social interaction among neighbors in a settlement gives ideas about the way of life of a certain settlement. The interaction of meeting people, relatives, neighbors, friends may take place in different spaces such as in the settlement or outside the settlement (See

section 2.3.1.). However, to understand physical characteristics and the quality, one has to first evaluate the spaces that are provided meeting and then in what circumstances they are provided.

Meeting is an important activity both for males and females among different age groups in a settlement. The types and space for meeting also changes according to the purposes or specific intention for meeting. Meeting in a work place with different subordinates are different from meeting with next-door neighbors. However, in Badal Mia bustee for example 18.8% of the people meet friends in neighbor houses and the share of women is more than twice their male counterparts.

Meeting spaces also indicate cultural and traditional backgrounds. Unlike western societies, women in bustees prefer to meet their friends at home; of course one cannot deny the religious impact as well. Meeting spaces with friends, guests and neighbors also may take place in alternative spaces in a house. For example, housewives usually meet in their courtyard or backyard in an informal way; whereas the guests meet in their living or bedrooms. Men's meeting spaces may also differ as they spend most of their time in the work place or local café (see Appendix P: Figure 28).

Religious places are another important spaces for meeting for male only. However, meeting on the street is very common for both male and female dwellers (see Appendix P: Figure 35). It is quite obvious from the Table 4.12 that for male meeting spaces are

outside their houses and can be within the neighborhood and have many options whereas for women the only meeting place is their own house and for young girls the working places.

In Babupara bustee the meeting of men and women have similar features. Here women can also visit NGO's night school for elementary education (see Appendix P: Figure 23). This school is also an important meeting place for women. Playgrounds are the most popular meeting spaces in all three settlements for young kids. Although in the bustees there are no playground, the children can use playgrounds in other neighborhoods or use the school play ground near by.

In Ershad Nagar there is no significant difference although, in this settlement there are more spaces and people also has better options for meeting. Moreover, the houses have courtyards and outdoor spaces so meeting is not so problematic as in other two bustees. 17.2% of the people in Ershad Nagar like to meet friends on the streets in the evening time, when they come back from work place. The street corners are popular meeting places for both men and women in all three settlements (see Appendix P: Figure 34).

From the observation, one significant observed difference is that when these bustee women were in villages they were under strict *purda* but the city life and economic necessities have changed certain values and norms for these women. Hospitals under the supervision of UDC (Urban Development Center) also provide meeting places for

married and pregnant women, who come for regular checkup, family training or child-care programs.

**Table 4.12. The Percentages of Meeting Spaces in three settlements**

Meeting Spaces	Badal Mia Bustee (%)		Babupara Bustee (%)		Ershad Nagar camp (%)	
	Male	Female	Male	Female	Male	Female
<b>1. Own compound</b>	4.8	28.4	11.5	22.7	9.8	27.3
<b>2. Neighbor/friends</b>	11.4	26.5	13.8	33.0	16.3	32.7
<b>3. Religious places</b>	24.8	2.0	9.2	6.8	7.8	.7
<b>4. Bazaar area/tea stall</b>	13.3	1.0	23.0		26.1	2.7
<b>5. Work place</b>	17.1	14.7	14.9	10.2	5.9	6.7
<b>6. Playground</b>	10.5	10.8	5.7	6.8	12.4	9.3
<b>7. On street/near proximity</b>	14.3	16.7	10.3	12.5	18.3	16.0
<b>8. Different clubs</b>	3.8		11.5	8.0	3.3	4.7
<b>Total</b>	50.7	49.3	49.7	50.3	50.5	49.5

Meeting by age group is equally important like sex to understand the physical quality of a particular settlement. We should analyze the meeting spaces in a settlement for different age groups and sex to see whether the settlement can accommodate such activities. This can be a tool for understanding both the way of living and the physical quality characteristics in a neighborhood. Moreover, the frequency of meeting or gathering by different age groups would also reflect the neighbor relations in a particular settlement.

Both in Badal Mia and in Babupara bustee, the age group between 2-15 years, who are considered a teens but not considered as working force, shows that 38.5% of them like to visit and meet in a friend's house and this is more common for young girls than boys. For boys at the same age, the path and the street are common spaces for meeting and playing (see Appendix P: Figure 12). Age group between 16-25 years prefer their own compounds for meeting (35.3%) and this represents the adult females who are free to

earn money but not free to meet with their peer groups outside the dwelling unit(see Appendix P: Figure 20). On the other hand, this rule changes when it is the case for young boys within the same age group. Therefore, while the meeting spaces for young girls become their own compound, the bedrooms, veranda or courtyard, the young boys prefer tea stall in the bazaar area or it can be the street corners within the settlements (see Appendix E1 and Appendix E2).

As young girls have certain family restrictions related to meeting friends, most girls find it more reasonable to meet friends in their work places and it is quite high (39.4%). The girls who work in a factory find friends from their work places (see Appendix P: Figure 31) and as a result working girls have less interaction with their neighbors than the girls who does not work. This, in fact, is also applicable for young boys.

For young man aged between 26-35 who constitutes, the main labor force in a bustee, consider tea stalls or bazaar areas for meeting friends and the share is 46.7%(see Appendix P: Figure 15). Religious buildings are also places of meeting for 13.5%. Although, old and middle aged men come here more frequently, different age group people can be seen as well. Unlike Badal Mia, there is a club and an adult school in Babupara, which are, also considered as places for meeting friends but it shows a low percentage of 1.9% (see Appendix P: Figure 23).

The physical layout of a settlement sometime forces people to meet in a certain place and restricts other place. And this is true for the bustees as the barracks type dwellings

prevent the boundary of a particular households and this at times make ambiguity between the concept of private and public spaces of the bustee dwellers. In general, the bustees are constructed in such a way that men do all kind of social work and meeting outside the dwelling or settlement, where the female counterparts socialize only in the space provided for them which is not suitable for such activities(see Appendix P: Figure 8, Figure 10).

In Ershad Nagar the majority of the women admit that their most common meeting spaces is either their own compound or friends' or neighbors' houses (see Appendix P: Figure 36, Figure 34). When compared to the bustees, garment factories are meeting places for bustee women, the individual grocery shops around the houses are meeting places for Ershad Nagar women (see Appendix P: Figure 35). In this settlement, street also seems to be the most popular space for all age groups both for male and female. Meeting in the club office to watch TV, drink tea and play indoor games after work is also common. However, this space is common for young men within 26-35 age groups. In Ershad Nagar, all the shops are along the side of the main road and there are lots of tea stalls and restaurants where man from all age groups can be seen and these spaces are used for meeting activities at different times of the day(see Appendix P: Figure 27).

The data show that in all three settlements, the preferences of meeting spaces are similar but due to lack of meeting spaces the bustee dwellers have to get such services outside their dwellings whereas the camp can provide all such spaces for its inhabitants.

Providing certain activities within the settlement may have major impacts on dwellers sense of belongingness (See Appendix E1, E2 and E3).

#### **4.5.8. Spaces Provided for Spare time Activities**

The activities of the spare time can be either optional or social in a neighborhood. In our research, our intention was to see if there exists differences in the quality of physical spaces due to spare time activities in the settlements. There are however, other more important variables such as age and sex, that have substantial impact in the organization of dwelling spaces and valid for all cultures (see Section 2.3.1.2).

In Badal Mia bustee 30% of the people do nothing but stay within the compound and this figure is more for females (69.4%). Visiting neighbors is also high in the case of women (24.5%) when compared to men (13.3%). Work for extra income is also high in Badal Mia bustee as these people need more money to survive and have to improve their economic conditions. The data show equal percentages for both men and women (see Appendix F). Spending time in bazaar areas is a dominant activity of male and for women, staying in the bazaar area is not a common practice due to traditional values and of course religious restrictions. Playing in the path is also common for children at different age groups. Since there are no playgrounds in the settlement, the only spaces these children can play are their paths and boys are more active than girls. Selling goods on the street for extra income is again another activity for spare time. However, the household activities are done only by women while the majority of the men go to the

bazaar area for meeting friends or for religious necessities (8.6%) in their spare times (see Appendix F).

Like Badal Mia, staying within the compound is one major spare time activity in Babupara and here staying within compound also means relaxing or sleeping. Bustees are places for women, while man interactions are usually made outside the settlement. 17% of the dwellers visit their neighbors almost every day at different hours and it shows frequent interactions between female members. As pointed out by a women dweller visiting the same neighbors may happen more than 5/6 times a day. Taking or borrowing spices or food staff whenever necessary is everyday phenomenon. Like other settlements, spending time and gossiping in the tea stall outside the settlement, is common for men. A good number of men go to the mosque five times a day and the graph shows 8% of the population goes to such institution both for meeting people and for praying purposes. For young kids playing on the path is also common due to lack of playing spaces. However, one interesting feature of Babupara is that work for extra income is done more by women than men. Only 2.3% of them stated that they enjoy their spare time by watching TV or listening to music on the radio. Household activities are, done mostly by the women and it is 10.8% in this settlement (Appendix F).

In Ershad Nagar watching TV and listening to the radio is the most common spare time activity. As women stay more in the house, they watch TV more than men and the share is 16.3% and 18.1% respectively. Visiting neighbors (16.9%) and staying within the compound (15.9%) is also common as in other two bustees but the frequency is

comparatively less. In this camp, most of the settlers have shops and therefore, these people also spend time in the bazaar areas. Selling goods on the street in the spare time is comparatively less due to their better economic condition. Work for economic improvement is also less compared to other two bustees. Playing on the street and path for children is also common here although there is a playing ground in the settlement. Unlike other two bustees, women also spend time in the bazaar area either for shopping or selling goods in their own shops (Appendix F).

The spare time activities apparently do not lead to a change in spaces in the bustee settlements; however, the possibilities of physical changes of dwellings in the camp created an economic outlet for the camp dwellers, which they consider as spare time activities. From the activities performed by the inhabitants of Ershad Nagar, it is quite clear that they have already crossed the threshold of settling down, therefore, they are capable of spending more time for recreational purposes than the other two bustees.

#### **4.5.9. Spaces for Festivals and Occasional Activities**

Religious and cultural festivals are an important part of Bengali culture. How low-income people take part in such festivals and what the spaces are for such activities in the settlements are important criteria in evaluating the interaction with physical spaces in a settlement.

Religious festivals are important for low-income people as they spend extra money for rich diet and clothing. This is an important day for them to meet neighbors and relatives.

For Badal Mia bustee, 22.7% of people are spending time with their family members in their own houses; however, the percentage of women is twice. On these occasions some families (15.9%) who have relatives in their hometowns also visit their hometown. This shows that although they are living in the city they are still in close contact relation with their original places. Amusement parks and children parks are important places for children; during the festival time the parents take their children to such parks for enjoyment. Playgrounds and school fields are also places for young boys for playing and enjoyment. 4.3% admit that they work for extra income during festival time because they can earn more money on such special days (see Appendix G).

In Babupara bustee staying in the house with family members (26.7%) is more common than visiting relatives (23.9%). However, in both options the majority are female members. Religious buildings are visited for praying in the morning. In general, the people in these two bustees do very similar activities and also have similar spaces for festival celebrations.

In Ershad Nagar, people also prefer to stay in their own house and visit friends. The percentage of these two activities is also more than other two settlements. Visiting religious buildings (13.2%) is also common in this settlement. There are eight mosques in eight individual sectors, and almost everyone visit these places if not everyday but at least during religious festivals. As these people have lost their land in their hometowns, their relations are weaker than seen in Badal Mia Bustee. Like the other two bustees 5%

of them admitted that they like to work during festival period since their earning better on festivals (Appendix G).

Beside religious festivals, marriage ceremonies are also important events for these people. Since they cannot afford to hire a community center, they usually do it in their own house and invite neighbors for food. Courtyards or school fields are spaces for such activities (see Appendix P: Figure 39). It has been noticed that a good number of marriages between young boys and girls are done among different families within the same settlements, especially in Ershad Nagar.

For religious festivals there is no direct effect on physical spaces; the bustee people use spaces outside the area if they can afford and if it is not provided in their settlements. The dwellers of the camp are more facilitated since they have more spaces, mosques and school fields, which are important spaces for public gatherings.

One-way of learning the deficiency of necessary spaces is to know what the activities that they perform outside their neighborhood and why? It is also true that the inhabitants do not expect all necessary spaces to be provided in their settlements; however, percentages of available services in the near proximity shows certain features about quality of a specific neighborhood. Moreover, the location and facilities in the near proximity are important parameters for user satisfaction (see section 2.3.2).

The questionnaire asked also about outside spaces that these inhabitants of three settlements visit frequently and this question has been asked with the intension of learning the necessary or optional activities that these people perform in other spaces in the city (see Appendix B). As preferred spaces change according to age group and sex, the answers of male and female members were documented separately in three different settlements (see Appendix D).

In Badal Mia bustee 19.8% of people go to cinema for recreational purposes and the share of female members are more than their male counterpart. Cinemas are probably the only recreation for these bustee dwellers and very popular among young unmarried girls. For adult males, meeting and gathering in the market place or in a tea stall is more popular. 15.2% of men also visit religious buildings quite frequently outside Badal Mia bustee and these places are also within walking distance. Women's most popular place that they visit outside the neighborhood area is shopping complexes. Although shopping centers are far away, young girls visit them quite frequently. School playground is another popular place for young boys. Visiting UDC hospital (6.8%), which is very close to this settlement is also common mostly for medical purposes ( see Appendix H).

Babupara bustee is located in the city center where major shopping complexes are in the surrounding areas. Perhaps that is the main reason for shopping centers to be the most popular answer among females (16.5%). Unlike Badal Mia, 25% of men admitted that shopping centers are also places that they frequently visit outside the neighborhood. Cinema is also a recreational option for them and like Badal Mia it is popular among

women. The hospital and the free adult school is being visited by both male and female members, but women are more frequent visitors than men (see Appendix H).

In Ershad Nagar very similar features can be seen but comparatively these inhabitants use outside spaces less than the bustee dwellers do. The reason is perhaps the availability of shopping and other facilities within the settlement. However, beside workplaces a number of different shopping centers especially Tongi bazaar is frequently visited outside their neighborhood (see Appendix H).

Outside spaces visited by women dwellers are more than men in low-income settlements. Men only go to their work places and meet their friends at the tea stall whereas women go to their work places, shopping centers, schools and also visit other neighborhoods. One interesting feature today is that it is possible for women to go to the hospital, shopping centers or work places by themselves, which they considered not possible in their village life. Now that women have to visit other places for extra income that is necessary for their family survival. This also shows that women get more freedom in their city life, as they become cash earners for their families and shows a better integration with urban life.

#### **4.5.10. The Inhabitants' Evaluation of Physical Spaces and Neighborhood Facilities**

The subjective evaluation of the dwellers in a neighborhood, directly correspond to the physical characteristics and the quality of the residing spaces. This evaluation is

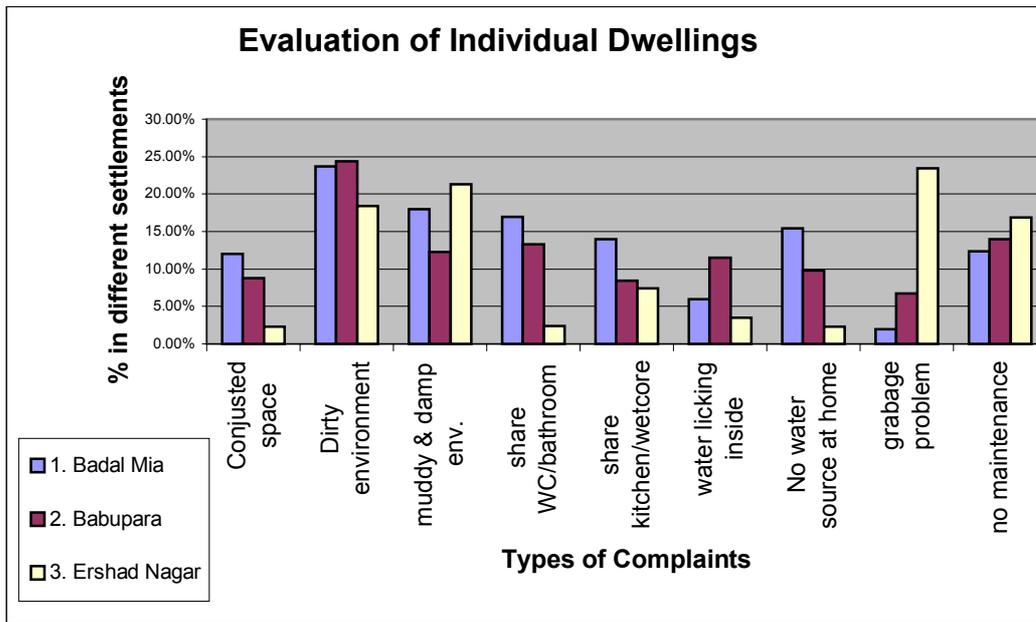
important in identifying the basic problems that they are facing in their every day life. It is probably the dwellers themselves who can tell more about the quality of spaces that guide their way of life and up to what extent these spaces can be improved for better living conditions.

During the interview, it has been noticed that the owners usually complained about the polluted environment or garbage problems but tenants complained about the rent and congested spaces, sharing kitchens or toilets, or about the maintenance especially in bustee settlements.

In Badal Mia bustee, the most problematic issue is the muddy and damp environment (23.70%) during rainy seasons(see Appendix P: Figure 6). Since the paths are not paved, dwellers find it extremely difficult to perform daily activities outdoors. Toilets and kitchens are commonly used and it is usually not clean; therefore, they want a permanent solution (see Appendix P: Figure 9 and Figure 11). Congested space inside the dwelling and dirty environment (12%) are common problems and also shows the characteristics of physical spaces. As these people have no tenure security, living in transitional space, they hardly bother about physical improvement and its maintenance. The structure of the dwellings is very poor and not repaired. Therefore, water licking inside the rooms is a common problem in this settlement. In addition, this bustee lacks certain basic services such as water, sanitation, garbage etc, as stated above.

In Babupara, the environment is extremely dirty and unhygienic. 24.4% of the inhabitants want an immediate solution to this problem (see Appendix P: Figure 16). The land on which this bustee was constructed is government land and because of unauthorized occupation, the owner is also reluctant about the physical quality and its further development. From the interview, it has been understood that these people live here because of job opportunities due to its central location but they are not happy about their own settlements and its environment. During rain, the path gets muddy and heavy rainfall can flood this area as it is located in low land. Due to heavy environmental pollution, dwellers suffer from diseases and children from malnutrition (see Appendix P: Figure 24). Unlike Badal Mia, sharing common spaces is not problematic as these people came mostly from same villages and they all know each other. Water supply is not a problem because of tap water connection but at different hours of the day, there can long queues for collecting water. Like Badal Mia, both indoor and outdoor spaces are very congested; therefore, 8.8 % of people complained about lack of usable spaces in the settlement.

In Ershad Nagar, garbage creates the maximum problem. People dump their garbage to the side drain or lake and, thus, they pollute the environment. Unfortunately, no municipality yet showed any initiatives about garbage collection in the camp, although it has been complained several times. The side roads are not paved and therefore, creates problems during rainy seasons. In the mid 80s, one-third of the houses were constructed with brick walls and tin roof by the government (see Appendix P: Figure 36), however, no money has been sanctioned for maintenance of these houses. Since the dwellers are the owners themselves, the problems are less in this settlement than the other two bustees.



**Figure 4.33. The Households Evaluation of Individual Dwellings**

From the above discussion, it is clearly seen that the inhabitants of Ershad Nagar possess more spacious dwelling units although they have similar environmental problems. The inefficient drainage system and lack of garbage dumping areas make the settlement both unhygienic and polluted.

The major problems expressed by the dwellers in their personal evaluation of the settlements were also the non-paved paths in all three settlements that are not well maintained during rainy seasons. The air pollution became a serious problem also due to lack of garbage dumping areas which needs an immediate solution. As the landlord is planning to make high-rise apartments, he is not ready to invest further on paved paths in his bustee (mentioned by Badal Mia himself during the interview, June 2000).

Lack of security (28.50 %) is probably the main problem for Babupara bustee. As the owner cannot provide tenure security, the dwellers also cannot live permanently, which is

also reflected in the physical spaces. As pointed out by one of the inhabitant, “ we live in a transitional space, our staying here is so uncertain that we don’t know whether we will be here tomorrow”. Therefore, the security of tenure perhaps became the most crucial points for these illegal dwellers. However, it has been understood (from in-depth interviews) that, these people are under the leadership of their landlords who gives them security and also protect them from mastans in such bustees areas. Moreover, the bustee areas are places for all illegal business and crimes, such as smuggling, drug dealing etc. Unfortunately, these poor innocent people are also suffering as the mastans creates violence and polices come for regular inspections (see Table 4.13).

Privacy is also a big problem since there is no private space except their own rented rooms and 11.50 % of the people complained that they have no privacy at all in their settlements. Babupara alone shows 15.6% privacy problems and it is probably because of the landlord’s inconsideration of such important issues. This is related to building a large number of bustees in such congested spaces from the very beginning to increase profits.

In Ershad Nagar 16.1% of the people complained about no municipality services and 7.10% wanted job facilities as they are facing employment problems especially for young generation. This implies that once the people get the tenure security, they become more conscious about their right of the settlements.

**Table 4.13. The Evaluation of the necessary facilities and the Problems in three Settlements.**

<b>Problems and the lack of necessary facilities in the settlements</b>	<b>Badal Mia Bustee (%)</b>	<b>Babupara Bustee (%)</b>	<b>Ershad Nagar Camp (%)</b>
<b>1. Polluted environment and Temporary Muddy road</b>	<b>29.00</b>	<b>12.90</b>	<b>17.90</b>
<b>2. Flood during rain and drainage problem</b>	<b>18.00</b>	<b>13.90</b>	<b>14.50</b>
<b>3. Insufficient water sources and sanitation problems</b>	<b>12.00</b>	<b>15.70</b>	<b>8.70</b>
<b>4. Lack of municipality services</b>	<b>6.00</b>	<b>8.90</b>	<b>16.10</b>
<b>5. Mastan problem</b>	<b>10.10</b>	<b>11.10</b>	<b>9.80</b>
<b>6. Lack of Security</b>	<b>5.40</b>	<b>28.50</b>	<b>4.80</b>
<b>7. Lack of Privacy</b>	<b>11.50</b>	<b>15.60</b>	<b>2.40</b>
<b>8. Lack of job facilities</b>	<b>4.00</b>	<b>1.80</b>	<b>14.10</b>
<b>9. Lack of recreational facilities</b>	<b>3.00</b>	<b>2.60</b>	<b>4.80</b>

It is also important to know the families' intentions of moving to other settlements. This also would enable us to know the reason for living here and their future plans about changing residential spaces.

Surprisingly, in Badal Mia bustee nobody wanted to stay since they were rent payers (but always desire to have a house of their own) whereas 35.7% of the people in Ershad Nagar did not want to move out from their settlement. In case of Babupara, 24.4% also like to stay in the settlement despite all those problems mentioned in the previous chapters.

For the families in Badal Mia their settlement is not their permanent address; therefore if the family can improve the economic conditions they either would like to have their own houses or may go back to their own villages one day. Unlike other illegal bustees these families do not have any chance of getting government assisted housing.

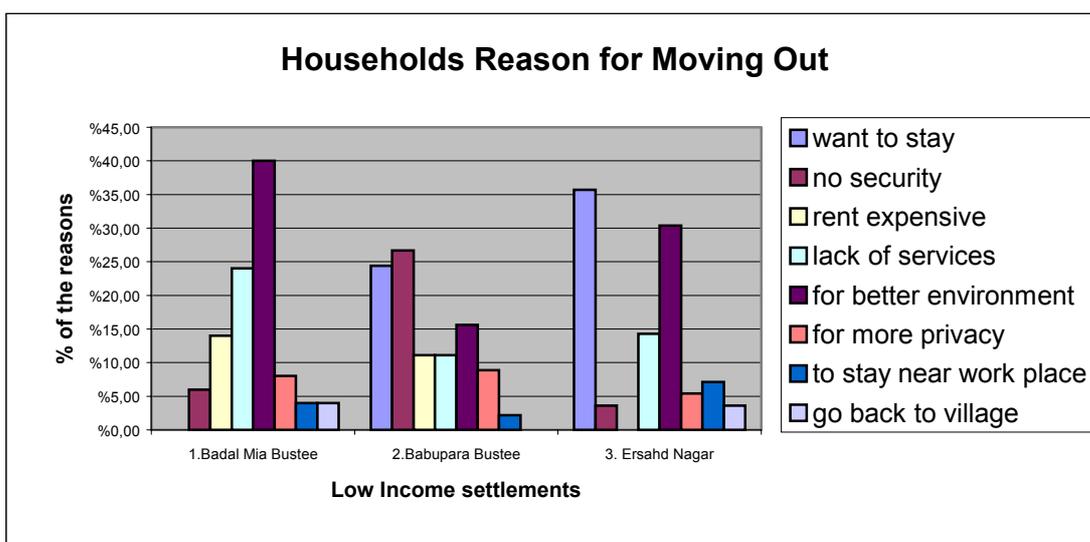
For Ershad Nagar, the main advantage is that they don't have to pay rent and if the family members have regular income, there is no point for them to move out. Moreover, if their economic condition gets better and achieve a higher social status, then they might move to a middle income settlement.

In the case of Babupara, those families who bought land and constructed their own houses do not like to move out even to government housing. As they have invested money for their dwellings and the location of their settlement is in the most attractive place, they prefer to stay in the same place; however, they want the residential environment to be improved.

Despite poor quality of physical environments and high rents, the families like to live here mainly because of two reasons; first, their central location is important in getting informal jobs and good earnings; second there may be possibilities that they would be resettled one day by the government.

Another important point for moving out is, lack of civic services. Insufficient water supply, inadequate toilet system, no garbage collection by municipalities, no proper cooking facilities, insufficient health and educational facilities are common problems expressed by 16.6% of the families as the main reasons for moving to a better place.

Privacy is another problematic issue that they faced in the new urban life; however, the people who were born and brought up here are used to this environment more than the others. Especially female members are more concerned about privacy and pointed out that they could maintain their privacy more in their village life as the dwelling structure was isolated and far from one another (see Figure 3.2).



**Figure 4.34 The Reasons for Households Staying in or Moving out of the Settlements**

The location of the job place is another important reason for changing current settlement. 7.1% families from Ershad Nagar wanted to move to areas near the job places since some family members have to travel approximately 36 Km everyday and thus can save both time and transportation cost. Only 2.6% families like to go back to the villages and these families are from Badal Mia (4%) and Ershad Nagar (3.6%). The dwellers of Babupara bustee are rather young, and between the ages of 16-25 (see Table ) and they still prefer to stay in the city. For both Ershad Nagar and Badal Mia the old people who are already retired want to go back but also want their next generation to stay in the city. However,

comparing all three settlements, Ershad Nagar perhaps in advantageous position, as they believe they have a permanent address in the city.

#### **4.6. Evaluation of the Findings in terms of the Factors Affecting the Physical Characteristics of Housing and Neighborhood Spaces**

In any settlement there are internal and external forces that influence the shaping up of physical spaces. Climate and geographical location along with culture and religion are inevitable forces that have always affected physical spaces in residential areas and this results in differences in physical characteristics and also created unique structures.

In our case study, we experienced other influential factors that affect the quality of physical spaces even more than the factors cited above. These factors will be evaluated to understand up to what extent they are effective in changing the quality of physical spaces in our study areas.

##### **4.6.1. Income and Occupation of the Dwellers are Important Factors in Affecting Quality of Physical Spaces of the Settlements**

Income and occupation happened to be an important factor in upgrading the social status and also changing living standards and consumption pattern of the households.

In our study areas, different professions have been documented with different income, which also varies between sexes. Although the professions changes according to sex, there are certain sectors where man and women take equal part (see Appendix I). In Badal Mia, for example, people show concentration in the transportation sector and more

precisely they are male rickshaw pullers with an average earning of 1500 Tk. (see Appendix J1). For Babupara, petty business (20.7%) is the most popular sector and run both by male and female dwellers and most of these people are involved in the informal sector in the city center. The income of these petty businesses varies within a range of 500-3500 Tk (see Appendix J2). In Ershad Nagar, the dwellers are mainly skilled laborers who work in the Tongi Industrial sector; however, the majority people are involved in their own home based enterprises and here both male and female members of the family contribute to the family income (see Appendix J3).

Although transport workers can be seen both in Badal Mia and Ershad Nagar, their income shows a big difference because most workers in the camp are baby taxi or bus drivers who earn more than a rickshaw puller. Rickshaw is the most popular transport system in Dhaka and it is easy to get a job in this sector, because it does not require a particular skill.

There are discriminations among male and female members with respect to their income, although man and women have the same qualifications and education level: men earn more than women in the bustees of Dhaka. Income of men and women also differ due to characteristics of jobs that they are involved in. In all three settlements male earning members are more than females. For example, in Badal Mia, 38.9% of the men earn between 1501-2000 Tk and this figure is only 23% for female. Again, there is no woman who earns between 2501-3000 Tk. For Babupara these differences are even more distinct. The most of the women in Babupara earn between 501-1000 Tk, where it is between

1501-2000 Tk for their male counterparts. However, the earnings of people in Ershad Nagar are much higher than both Badal Mia and Babupara bustees. Women in Ershad Nagar also earn more than the women in other two bustees (Appendix K).

The occupation of the dwellers in Appendix J1 does not directly relate to the quality of physical spaces except for home working which may change certain physical spaces according to the suitability of the work. The question is whether home working increases the quality of those spaces. In fact, it is very controversial in our case. The data show a high concentration of homework in the bustees where sufficient spaces cannot be provided. Therefore, it can be concluded that these bustee dwellers are performing such homework in a space, which is not allocated for such jobs, and perhaps it creates chaos and also disturb other neighbors. Although in Ershad Nagar there are more open spaces in the dwellings, people are not involved in homework but they rather prefer to transform some parts of their houses into shops of different commercial enterprises. Another reason is they have already entered to the formal sectors unlike bustee dwellers and thus homework is their secondary option.

The mentioned occupations in our study areas differ according to income and these differences are also distinct between skilled and unskilled labor especially for the factory workers. It is obvious that although these are all low-income people, there exist status differences between a government blue-collar worker and a factory worker and their lifestyles. It has also been noticed that the dwellings of a government worker is more organized and properly maintained than a daily laborer especially in Ershad Nagar. The

basic difference may be the higher education level of a government worker and their access to other higher income groups, more adaptation to the city life that usually affects the way of life and is reflected in the physical quality as well.

The changing in way of life would certainly reflect in physical space to some extent. However, there is an inverse relation with respect to the quality of physical spaces. In other words, in spite of better earning possibilities, the physical condition and settlement facilities of Babupara bustee is worse than Badal Mia. Here, due to lack of security neither the illegal occupiers of the land nor the households would invest for physical improvements of the dwellings and the neighborhood.

This implies, more earning does not necessarily mean improvement in physical quality of space; however, income may affect the quality of physical space, if the dwellers have tenure security. They would only invest their money to improve physical quality if security of tenure can be achieved one-way or another.

#### **4.6.2. Education Level of the Inhabitants as a Factor in Quality of Physical Spaces**

Education level may not directly affect quality of the dwellings or settlements but it indirectly influence or make people more conscious about better living environment. By more professional education entering to the formal sector or getting white-collar job is possible and it has an impact in such households, their way of living and residential spaces.

In Dhaka the education level of bustee people are still very low and in our study areas the majority are either illiterate or primary education holder. Though a number of adult educational programs have been implemented in bastes, the trend shows that there won't be any drastic changes in near future. As surviving is the prime factor, earning is more important than education for these low-income people and perhaps this is one reason for the percentages of child labour to be so high. In our sample groups 29.5% of the income earners in Badal Mia, 20.7% in Babupara and 18.1% in Ershad Nagar are less than 16 years old and can be considered as child labor (see Appendix L1). As pointed out by one of the inhabitants, for bustee people there is very little hope for changing social status by educating their children; rather good earning with better working experiences may change and bring affordability for them and thus change their way of life. The income graph of Ershad Nagar shows an inverse relation, as income of an illiterate person can earn more than a university graduate (see Appendix M).

Some bustee people also believe that education is important to be a skilled worker and to earn more money. Table 4.10 shows education among sexes and in all settlements and the percentages of female illiterate are more than male illiterate; however, in Ershad Nagar the education level of women is almost equal to their male counterparts, which shows once the tenure security is achieved, education is given importance for the female members as they are getting adapted to city life and gradually changing their way of living.

Some NGOs such as “Proshikka” give free education in bustees (see Appendix P: Figure 23) but still inhabitants of these settlements prefer to spend their time to earn money rather than education. It is quite interesting to see in the Ershad Nagar camp that today after 25 years of struggle, 4.6 % and 0.7% of the people are going to college and universities respectively, which the inhabitants claim as a drastic improvement. It is also reported by one of the leader that a number of educated people of this camp are working as government officials as well.

The micro credit programs by the NGOs (see Appendix P: Figure 31) also educate women to organize home based works for income generation (Ershad Nagar camp shows a tremendous improvement in the education level of female). By involving in such programs, the women are more encouraged both in education also became more concerned about their health and improvements of physical environments. Therefore, education definitely has an impact on the organization of physical spaces that these people are residing in.

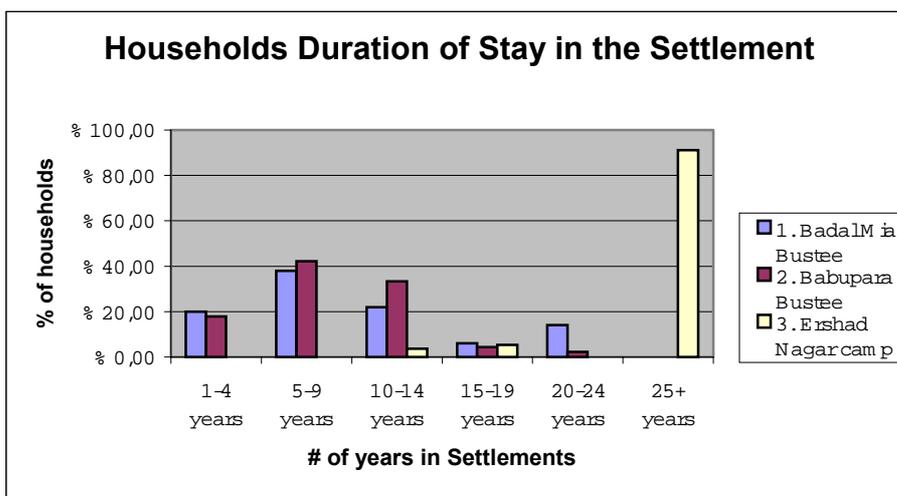
#### **4.6.3. Family Structure and Density as a Factor in Organization of Physical Spaces**

Family structure and the family size are important criteria to understand their way of living. As family size increase in time, how space response to accommodate these members is important to understand the quality of dwelling spaces. More people in limited space in bustee shows poor quality living. Are there enough physical spaces for performing all sort of domestic activities and for leading a healthy life in low-income settlements? It is also important to know if the family structure has changed due to

residential changes and already transformed into nuclear families or not. From the graph, the relation between members shows the family structure of the sample groups. As the grandparents, grandchild and the in-laws are more in Ershad Nagar, it certainly shows an extended family structure in the camp. It is an interesting feature that when these families were in the bustees they were nuclear type and after coming to the camp they became extended type (see Table 4.10). The first generation of the settlers have, now become grand parents as their family members expanded. This affects physical quality and the physical organization in particular dwelling unit as more rooms has to be made within the same plot (see Appendix P: Figure 29). The adult son and daughter almost in every family got married in last ten years, and they did not yet move from this settlement and continue to share the same dwelling unit. However, in other two bustees, this type of extended family is almost impossible, because of lack of spaces and also as they also don't own the house.

Figure 4.35 shows that, most of the households of Ershad Nagar lived in their particular dwellings for more than 25 years and the long years of tenure increased the family size and also increased in their physical quality. For bustees, instead of improvement of the physical quality, the longer duration results in more crowded space with poor way of living. As new population added to the settlements every year, it created serious problems in accommodating and also increased in density. Therefore, longer duration helped to increase more family members but decrease per headspaces allocated for each household, as there are short supply of spaces in the bustees.

In both bustees the people/land ratio is extremely low. In Badal Mia and Babupara the land is approximately 1.010 hectare and 0.606 hectare respectively where the population counted is 1130 and 780 with an average of 4 family members. Thus, per headland that is allocated for each inhabitant is 0.7m<sup>2</sup>, which shows a much lower level than the usual standards.



**Figure 4.35. The Household’s duration of stay in the settlements**

In Ershad Nagar, as family members increased the restructuring of physical spaces in individual dwellings also have altered and changed and it was possible due to empty spaces in the existing plot.

While discussing family structure, the percentage of male and female members may also be considered in evaluating quality of physical spaces. Kumbetoğlu (1992) pointed out that “women’s place is both at home and at the neighborhood”. Although she mentioned it for *gecekondü* women it can also be appropriate for bustee women as well. Women spend more time in their neighborhoods than men do thus women are the main architects of their dwellings and they are probably the ones who change the physical organization

mostly in such settlements. The percentage shows that the number of women is more than men in Ershad Nagar whereas in bustees the number of men is slightly more than women. However, it is difficult to say whether women of Ershad Nagar contributed in their upgrading of physical spaces, rather the ownership pattern perhaps played the key factor in changing physical organization of their dwellings and thus the quality differs from bustees.

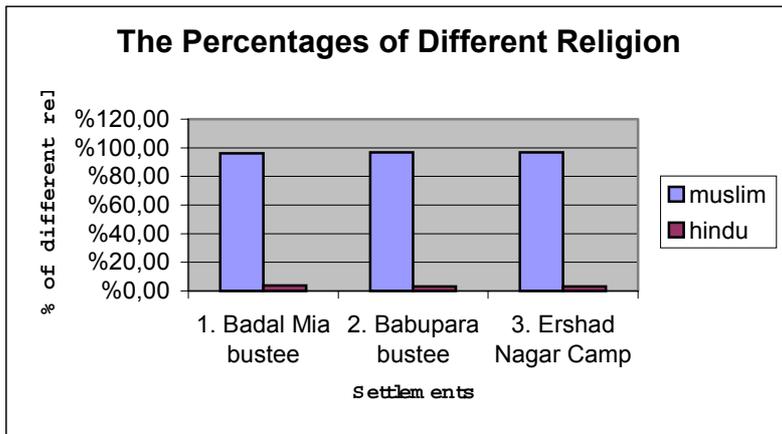
#### **4.6.4. Cultural Factors in Changing Quality Physical Spaces**

Religion and culture are two other important factors that have great impact in house form and design. In the case for low-income dwellers, there are tendencies for making traditional replication of the house form that reflects ones culture. Certain previous habits such as cooking, bathing and relaxing in outdoors are also come from cultural background. In fact, all housework are done in the courtyard space and in the absence of such spaces, path is being extensively used in most bustees. In our case, it difficult to say whether they would have worked in the indoor spaces if necessary spaces were being provided. However, the lack of adequate indoor spaces and the humid atmosphere force this people do most of their activities outdoor and thus the cultural background and traditional aspect have great impact in the organization of dwelling spaces in all low-income settlements. The way of living and using domestic spaces for Muslim families are different from that of Hindu families. Due to negligible number of Hindu population, it is difficult to analyze the religious impact in the house form. However, in all three settlements the religious festivals are celebrated. For example in Ershad Nagar, in spite of lack of spaces there are eight mosques (see Figure 4.4) in the camp and this shows that

these people are religious. Unlike other two bustees women are confined to their own dwelling spaces.

Like other Muslim cultures, in Bangladesh also, the female and man domain is separated as a religious obligation and *Purdah* as an Islamic rule followed strictly by the village women. In the bustees, women hardly follow such restrictions. First of all, because of lack of habitable spaces, one cannot separate the man and women. In addition, privacy is also not well maintained, as indoors are the only private spaces for bustee dwellers. Secondly, as the income of the families are more important for surviving, the women can work outside with male partners side by side unlike their previous life style in the village. Therefore, for women certain norms and values start to change and as the women have continuous interaction with outside world and have access to mass medias, this certainly have greater influences in changing their way of living.

Way of life is a part of culture, reflected in physical spaces. However, up to what extent the form of bustees and people's lifestyle in the settlements represents their cultural traits is very ambiguous. However, in our study, in all three settlements, Muslims seem to be the majority and Hindus constitute the minority groups. Therefore, religion factor can be negligible in evaluation of QPS.



**Figure 4.36. The percentage of different religion in each settlement**

#### **4.6.5. Duration of Stay in a Settlement as a Factor in Evaluating Quality of Physical Spaces**

Duration in the city life can be an important criterion to understand the adaptation process and the migrants residential mobility. It is a general assumption that longer the migrants stay in a city, the more they adapt to the city life style. Our intention is to understand whether duration in the city and in an individual neighborhood affect in the quality of the physical setting or not. Longer duration means better economic position and as a result movement to better residential spaces. As mentioned before, residential mobility takes place when the utilities are more in one location than in the current location. However, the main intensions for migrating to Dhaka are for better economic condition and for a better life.

Now among three settlements, 91.1% of the families in Ershad Nagar have lived in Dhaka city for more than 25 years and lived in other bustees before resettled here. In other two bustees there are both old and new migrant families; however, the majority the

families have lived in this city for about 20 years. As far as the quality of physical spaces are concerned, the survey indicated that there is almost no physical change in the bustess whereas in the camp there is a drastic improvement in the quality of spaces both in the neighborhood and in the individual dwellings.

**Table 4.14. The Reason for Changes or Alternation the Dwelling Spaces**

Reason for Alternation	Badal Mia Bustee (%)	Babupara Bustee (%)	Ershad Nagar Camp (%)	Total (%)
1. Rent some portion	0	6.7	14.3	21.00
2. Bring or create job at home	3.0	2.2	2.8	8.00
3. For making shops or commercial enterprises	0	1.8	15.40	17.20
4. For increasing family members	1.8	3.5	37.50	42.80
5. For keeping privacy both indoor and outdoor	14	12	5	31.00
6. For service purposes	6.2	15.50	10.50	32.2
<b>Total %</b>	<b>25.00</b>	<b>41.70</b>	<b>85.50</b>	

From the personal interviews it has been noted that many dwellers also did not invest any money in their illegal settlements because of the threat of eviction. This in security of the households led to a transitional life for them. Personal investment to upgrade own dwellings was implemented by the inhabitants only after achieving government support and tenure security. In Babupara bustee, only a few families are owner occupied and they are more facilitated than other families; however, the physical quality of such dwellings are also not improved by the dwellers themselves. This also implies that tenure security is more important than ownership in self-help improvement in such settlements. For Badal Mia bustee, the inhabitants have lived in this settlement for many years but they are not authorized to change or alter their own dwellings. Therefore, although the duration is

important in adapting and to be familiar with urban life, it does not necessarily mean that migrants would be residing in better environment.

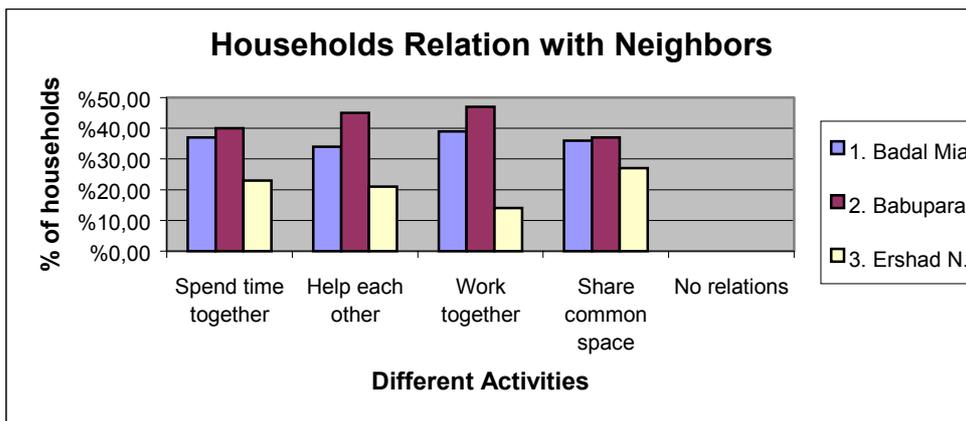
#### **4.6.6. The Neighbor's Relation as a Factor in Organizing Physical Spaces in the Settlements**

Neighbors' relations and sharing of neighborhood spaces are always important issues regarding the evaluating of physical spaces especially in low-income settlements, where people are more informal. The physical layout of bustees shows very limited spaces and also lack of private and semi-private spaces in the settlements. However, due to lack of spaces people are more used to sharing spaces and these physical spaces also show higher level of interaction between neighbors. Neighbors' relation is also important in getting the feeling of belongingness to a particular neighborhood and neighborhood identity for those low-income people.

The third question in section III of the questionnaire was designed to understand the neighbors' relation and the results show a high degree of integration in Babupara bustee and the interaction even goes higher among female members who share common spaces in the settlement. Homogeneity in job status is also important because they share common problems and thus perhaps they develop a unity against the hostile urban life. In the bustees the types of the jobs performed by the families are very similar; however, in Ershad Nagar the diversity of job status and different income levels lead to formal relations among the neighbors. Again, availability of certain spaces in their own dwellings also prevents them from more interaction while performing domestic activities.

For example, in Ershad Nagar, the only spaces they share are the street and the market place; whereas, in other two bustees except the bed rooms they share almost all spaces inside the settlements and live like one big family. The graph shows that in Badal Mia, the relation is also good among neighbors but not as dense as in Babupara bustee.

It has also been considered that the neighbors' relation would be more among the families with the same origin or home district; however, this may not be always true. In our study, there is a relation between the neighbors' home district and the degree of their relation in Babupara bustee as 51.1% of them came from same Faridpur district.



**Figure 4.37. The Household Relation with Neighbors**

In Ershad Nagar, although they come from the same home district, 44.6% of them state that they have low integration. This implies that the space and the opportunity of spending time together and helping each other are more important factors in neighbors' relation rather than being native.

#### **4.6.7. Facilities Provided by the Government and other NGOs as an Important factor in Evaluating Quality of Physical Spaces**

Facilities provided by government are important factors, which have great impact in physical organization of the quality of housing and neighborhood spaces. In fact, there exist a major difference between the private and public providers' of housing, as the private landlords are interested in maximizing profit whereas, the government acts as a non-profit organization. However, they both have similar intensions as to accommodate maximum people within limited spaces.

In our physical quality analysis of three settlements, government and some NGOs played primary role in Ershad Nagar for providing certain basic infrastructure and facilities such as, toilets, water, medical facilities, schools, markets, mosques, football grounds etc. Private owners of the bustees on the other hand, made temporary dwellings without basic requirements and only invested for maximizing profits in the short run. In addition, bustee owner will not invest further, as they already know about the demand of such settlements and as the households are ready to stay in such poor quality spaces.

Although in the initial stage the government was unable to provide adequate housing for all, different authorities and foreign donations were tremendous help for house building and accommodating people. With a policy that the households will automatically improve their social and economic conditions have already reflected in the physical spaces.

Therefore, government intervention especially in the low-income settlements is important in creating policies and regulations so that, automatic improvements in physical quality

may take place. In conclusion, it is perhaps the non-profit organizations such as government or other local and foreign NGOs, who can extend their hands to assist and accelerate the improvements of the low-income settlements.

#### **4.6.8. Initial Space Organization as an Important factor in Evaluating Quality of Physical Spaces**

In house building when the arguments rest on ‘the struggle for land’, proper planning perhaps is the most necessary action for creating better quality spaces. In our study, the initial policy of the space organization is one of the important factors for further improvements of the households and their respective dwelling areas. Although in the bustees and in the camp the prime goal is to accommodate maximum inhabitants, they have different interests and intentions. Unlike other two bustees, the Ershad Nagar had an initial plan where the plot sizes and the housing unit were defined and pre-planned (see Figure 4.4). In addition, bigger plot sizes, planned dwelling units and open spaces increased the flexibility of changing spaces. For bustees, it was the plan of the landlords who only provided the minimum basic requirements without outdoor facilities (see Figure 4.2 and Figure 4.3). As the plot sizes of the households are bigger in Ershad Nagar and as the dwellers have open courtyards or verandas in their dwelling units, they have more flexibility of changing spaces according to their economic needs or comfort (see Figure 4.11). Unfortunately, the lack of initial plans and the simultaneous construction of the landlords for more returns in the bustee areas diminished the possibility of the households to change even their indoor spaces. Rather the households of the bustees have to change certain previous behavior or habits in order to adapt with the existing physical

space and thus changing way of living. However, lack of spaces and the pressure of economic feasibility have forced the bustee dwellers to create certain spaces for income generation in their dwelling spaces which are otherwise not suitable for such activities.

#### **4.6.9. Tenure Security and Flexibility of Changing Spaces as an Important factor in Evaluating Quality of Physical Spaces**

Living in one's own house is always different than living in rented houses with respect to the freedom of changing physical spaces. Inhabitants' nature is to change certain domestic spaces according to the efficiency, suitability and comfort; however, a general assumption is that the tenants are usually less flexible in changing physical spaces of their dwellings. The result shows different features between Badal Mia and Ershad Nagar as all the households in Badal Mia are tenant and in Ershad Nagar, all are leaseholders but claimed to be owner occupied (Figure 4.33). Babupara on the other hand, has both owner occupied (8.90%) and tenant (91.10%).

The control of the owners in such settlements is important criterion in changing physical spaces. In Ershad Nagar for example, as government is the owner and the controller, the inhabitants have more freedom in their own living spaces; whereas in Babupara due to strict control of the single landlord the flexibility of changing physical spaces is extremely low for the dwellers. Therefore, the ownership pattern is another important factors in measuring the freedom of changing of physical spaces. There can always be an argument that whether loose control of the landowners help to improve the quality of spaces or not. Again it has been realized that despite legal authorities intervention, illegal occupation of land is experienced more in Ershad Nagar. In our case study, the self-help

improvements were done due to loose control of the government authority in Ershad Nagar; however, lack of control often creates unplanned and unorganized spaces in the settlement. Moreover, as people try to acquire more illegal spaces, this often ends up with chaos and unnecessary struggles among neighbors.

Tenure security is one of the most important factors without which certain necessary investments are not even done in such settlements. Even the housing units are not owned by the dwellers, the tenure security and assurance of living for longer time help to improve the physical quality of such settlements. It is also obvious that without tenure security, no public or private authorities will cater for bustee upgrading investments.

Although it was very difficult in the early stages, in the course of time, the households of Ershad Nagar showed great improvements in making and improving the quality of spaces in individual dwellings and in the settlement. As the dwellers believed that they would not be evicted for the second time, they invested for better environments with accordance to their savings and income.

The results show that there are big difference in the quality of dwelling units of the Babupara and Ershad Nagar, although in those settlements, there are owner occupied households with rights to change their physical spaces. Perhaps, the lack of tenure security discourages the dwellers of Babupara not to invest for their housing spaces. The flexibility of changing spaces helped the households of Ershad Nagar to use home for income generation and also to accommodate the second generation within the same dwelling unit unlike other two bustees. Thus, flexibility is important because it gives the

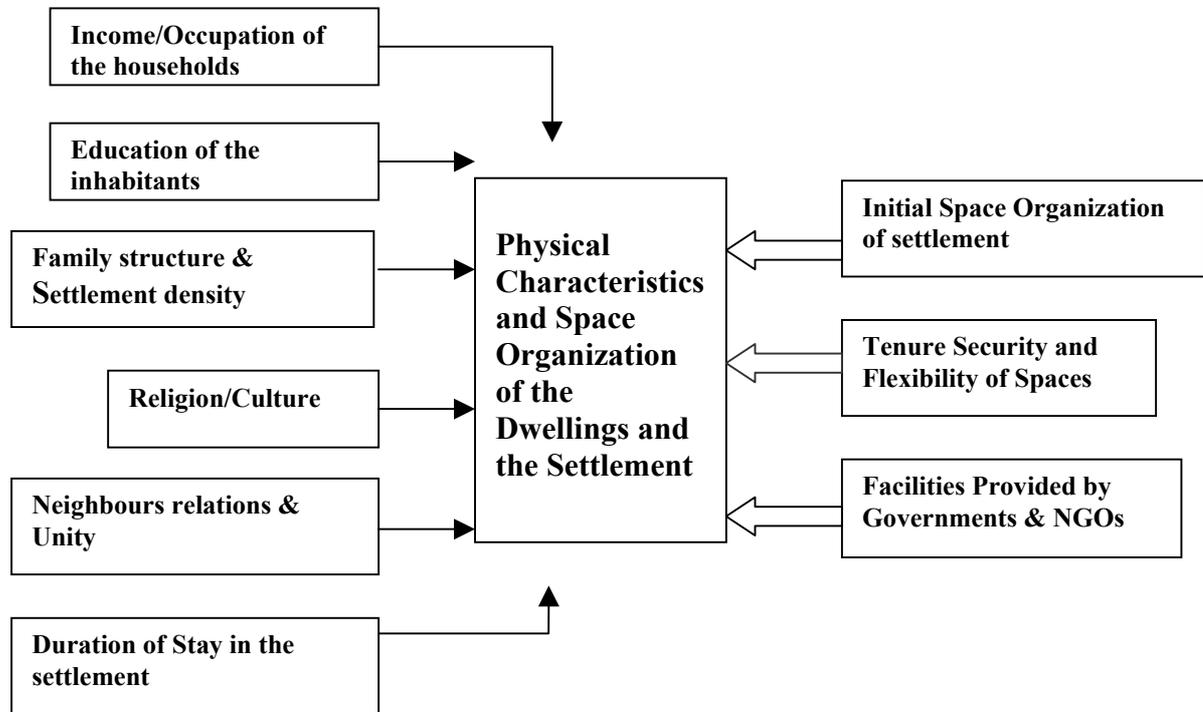
opportunity of income generation and resolving housing problem without excess state investment. In addition, housing of different generations together creates a kind of solidarity and can be a form of survival strategy.

#### **4.7. The Factors affecting the Physical Organization of Space and the Way of Life in Three settlements**

Figure 4. 38. Shows the probable factors that affect in the organization of physical spaces and also affect the quality of dwelling spaces in all three settlements. We claim that these physical spaces have great impact in thier way of life as interaction with physical space is inevitable.

In our research, it has been realized that ownership pattern play the prime role in changing individual dwelling spaces and thus improvement of the individual dwelling spaces are also possible. Certain infrastructure and necessary services can only be possible by government intervention and at the same time initial space organization is another important factor by which futher development is possible. In our examples it has been proved that Ershad Nagar camp has almost all the facilities and ownership of the plot helped them for futher development with economic stability.

In the previous chapters all these factors have been discussed with its degree of affcting physical spaces and thus the way of life and we came to an conclusion that beside physiacl and social factors, other factos also have substantial impact in changing and developing the physical space of this three settlements (see Figure 4.38).



**Figure 4.38. The Factors that Affect the Physical Organization of Spaces in the Low-Income Settlements**

It would be biased to say that Ershad Nagar people have the maximum facilities as it contradicts with their personal evaluation of the spaces where they mentioned a of complains even more than other two bustees. However, their basic advantage is the tenure security by which they achieved an identity and was ready to improve their social and physical conditions. It will be controversial to say that Ershad Nagar inhabitants lead a better living standard but it is now more distinct that people having more advantages

atleast in organizing their physical spaces and therefore there way of living is quite different than other two bustees

Both Babupara and Badal Mia lack a number of neighbourhood facilities such as schools, hospitals, markets, playgrounds, meeting places, mosques and recreational facilities and activities. These requirements are essential for transforming a settlement in to a neighbourhood.

Today, the bustee inhabitants get these facilities outside their settlements and they use their residential space just as a shelter for spending nights. Although these bustee households have a strong unity, the lack of tenure security and essential neighbourhood facilities deprived them from having an identity, a feeling of being a citizen of Dhaka city. It is also not suggested that the government should provide infrastructure to these settlements while the location may not be an appropriate one but different alternative solution can be prepared and proposed.

## 5. CONCLUSION

This study has aimed to investigate the interaction between the way of living in low-income households and physical spaces in housing units and the neighborhood considering the particularities of housing policies and provision in Bangladesh. Therefore, the quality of the dwellings and the neighborhood spaces, have been examined by evaluating their physical characteristics. The differences observed in the characteristics and quality of spaces in those settlements occupied by people with similar backgrounds and income levels have enabled us to analyze the factors that are directly or indirectly influential in creating such differences.

The study attempts to integrate macro level analysis with the micro level. To understand the transformation of urban areas, first, the urban models of the Chicago school has been analysed briefly and how they become invalid in today's context has been discussed. Later a comparison between First World and Third World cities has been made within the context of globalization and its impact on urban forms. It has been observed that due to the particularities of different countries, the urban forms and housing provision take different forms. However, it has been understood that especially in the last two decades, the dynamics of globalization are simultaneously affecting the urban patterns of worlds in varying degrees. While in many cases, the control and management functions concentrated at central locations in the First World cities, the manufacturing industries are decentralized throughout the Third world. This trend can be analysed with respect to the Fordist and post-Fordist debate to show how flexible accumulation gained importance, leading to the movement of production functions to the Third World cities through sub-contracting relation in search for cheap labour. Consequently, the effects of globalization on the residential areas of

especially Third World mega-cities and peoples' way of life have become one of the major issues in this study.

A vast volume of literature in this field shows that globalization is a world wide phenomenon which lead to the formation of mega-cities in the Third World coupled with new problems related to housing needs of big masses of people flocking to those cities for new job opportunities. Similarly it has also understood that to maximize profits, the policy of off-shore industries have particularly chosen the most accessible nodal points (in terms of communication both physically and electronically) in the Third World capitals which ultimately made them the mega cities.

One of the important effects of globalization is rapid urbanization. As some foreign investors consider low-income people and their residential spaces as a potential for different manufacturing activities, such job opportunities further accelerates the rural-urban migration. Therefore, in this thesis the transformation of residential spaces into manufacturing areas and the effects of this trend on the way of life and the use of space have been explored.

In the second stage of this study, housing policies for low-income households and the supply and demand pattern of housing is studied with an emphasis on the Third World countries. Government policies for low-income households have been studied with respect to their housing provisions as in most cases the Third World governments are unable to provide adequate housing. The ultimate solutions for housing crisis and the possibilities for hindering unauthorized occupation of public land has been discussed by the documents of the World Housing Survey in 1974 and the Habitat conferences

held in 1976 and 1996. The reaction of public authorities and how they tackle such accommodation problems were analysed. How slum upgrading projects or site and service become one alternative for them and what are loopholes of such implementations were also discussed to find more optimum solutions. Finally, the reason for assisted self-help housing to be more appropriate housing provision system for low-income people were discussed with its advantages. In addition, the idea of flexibility of spaces and rights of inhabitants' to change and alter according to their needs and requirements were analysed with a positive view: as they don't usually create extra pressure to public authorities in terms of services; and as they often house more people in the precious urban land.

It has been understood by the investigation of World Housing Survey that for low-income it is almost impossible to become a house owner and thus rental units by the private landowners can be a possible option for them which also prevents from making illegal squatters. However, government interventions in rent control in such settlements are obvious otherwise these people are often exploited. Besides other policy tools (i.e. credits from bank, construction materials etc.) certain rules can be amended so that the landowners provide the required facilities for the low-income dwellers and the environmental condition also improve for these households.

A number of authors (Gilbert and Gugler, 1989; Hardoy and Satterthwaite 1995; Vaa, 1997) claimed that many governments that provided ready-made houses can not be an ultimate solution nor can be successful due to the high unit cost and due to high corruption rate involved. Thus, the idea of constructing dwellings by the users themselves have been implemented by many public authorities of the Third World

cities and have observed tremendous improvements. It has been observed that for many households home for income generation has become a survival strategy and today, different micro credit scheme by the local and foreign investors also encourage low-income people to get involved in market economy can be noted as an impact of globalization.

This study focused on the residential spaces and investigated how the dwellers of low-income settlements change or alter their residential spaces as they use it for economic purposes. Also changes in the residential spaces have been studied considering inhabitants' way of life and their interaction with physical spaces. However, the final attempt of this study was to find the factors that have substantial impact on the quality of physical spaces and its organization. Unfortunately, the literature on the way of life of the households of low-income is lack and often explained within cultural and traditional backgrounds. However, beside social and physical factors there are other factors those are more influential.

While comparing the settlements with conventional neighbourhood characteristics, it has been observed that these settlements do not reflex the basic characteristic of neighbourhood but people generate their own ways in order to survive in the hostile urban land. Thus, to measure the living standard in such settlements certain important issues have been considered as important parameters for measuring the quality of the residential spaces can be measured has been developed such as flexibility of changing spaces for income generation, privacy as an element of physical quality, the quality of adjacent spaces, household facilities and meeting spaces for necessary and occasional activities etc.

As discussed above, one of the impacts of globalization was the sub-contracting system widely penetrated in the low-income settlements and it is our interest to see how this economic activity have affected their way of life as well as dwelling spaces. It has been witnessed that due to opening up of the market economy and the booming of the textile industries a number of substandard housing are created either by the landowners or by land mafias in the most mega cities of the Third World today. These settlements became popular, as the legal authorities were unable to provide accommodation for them and as there is no restriction for income generation in the spaces as such. The rapid growth of such residential spaces also altered and changed the macro form of the mega cities drastically. Changes in the individual dwelling space have been experienced for self-created economic activity or for micro credit system that encouraged urban poor to use home for income generation. This aspect is also studied as an important element shaping housing environments. A major part of the study is concentrated on the way households create such working spaces for homework in their dwelling units (when there is no such initiative or support from neither the public authorities nor from the private landlords). It has been indicated in many studies of low-income settlements is that foreign investors also give importance to the security of tenure for investments.

In the third stage of the study, based on the theoretical framework, Dhaka has been chosen as the study area. The impact of globalization in Dhaka has been studied within the context of its urbanization pattern and the alarming growth of the bustees as the major low-income settlements. Dhaka has been studied as a Third World mega city to understand how its urban areas and city functions are changing. In addition,

how the recent trend of globalization also have affected the way of life of its citizen. Parallel to the framework, how residential segregation has taken place and what are locations for low-income settlements is analysed. It has been found that unlike other cities of the Third World, in Dhaka, the low-income settlements can be seen in the spaces where land rents are extremely high. The illegal occupation of public land in the city centre and in the periphery shows uncontrolled growth and proliferation of bustees. Finally, the types of low-income settlements of Dhaka were investigated in order to understand the differences in physical characteristics and the quality of physical spaces. In addition, different low-income settlements with different housing policies helped us to pursue a case study with an intension to observe how recent trend of globalization have affected the way of living of these inhabitants and at the same time how it has affected their residential spaces.

The case study has been conducted in three different low-income settlements originating from different rationales and to find the factors that have greater influence on the structuring of physical spaces in the settlements. The study revealed that the private bustee is the most controlled settlement due to the private landowners. Illegal bustee, is also very controlled but few owner occupied households could change or make modifications according to their comfort and suitability. Resettlement camps on the other hand, is supposed to be the most controlled neighborhood as the public authority provided it; on the contrary, the control is very loose in this settlement. The inhabitants of the camp thus have made substantial changes in their dwelling units.

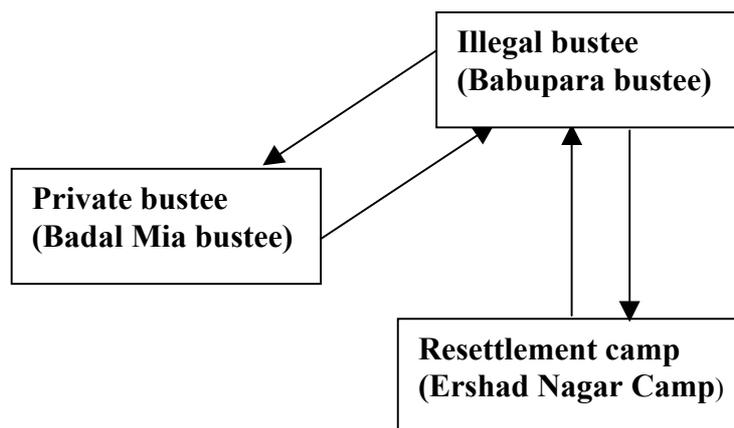
The findings of the research have shown that there are substantial differences in the way of life of the households in three settlements. The major findings stated that the

camp dwellers show the highest score in many respects. The resettlement camp, not only have better facilities but also have more civic services in the neighborhood than private bustee and illegal bustee. However, getting all services in the neighborhood cannot be a criterion for a good neighborhood. There are other aspects, which must be considered.

Although all three settlements are low-income category, due to more flexibility and the more planned space organization at the initial stage of the camp, the households lead a more comfortable life. It should also be mentioned that the households of resettlement camp faced tremendous poverty and deficiencies in their earlier stages and they have succeeded to overcome the poor situation of their past as transportation got easier and they could find jobs in the industries developing in the city. A number of academicians and authors (Turner, 1976; Patton, 1988) claimed that a migrant is a bridge-header in his initial stage, become a consolidator with better earnings in time. However, in our study the people of the bustees stated that with their earnings they can hardly survive in the city and it is never possible to become a land or house owner without the help from the public or housing authorities. For the camp dwellers, it is also hard to say that they are consolidators (although showed self-help improvements) since the land on which they are now residing is not earned but provided.

The assurance of staying and the freedom of changing or improving the housing structure accelerate the upgrading and self-help improvements of the dwellings. Upgrading projects mostly consist of two components. The first component is the legalization of housing, implying that the residents become legal owners or leaseholders and consequently, the tenure security stimulates the residents to improve

their housing environments. The second component is the improvement, usually signifies that the government brings infrastructure, which the inhabitants cannot provide, such as access to drinking water, sewerage, electricity, etc. In the resettlement camp for instance, the housing authority provided land with a condition that the users would construct their own houses but the land title was not given. However, the intervention of the legal authorities promoted these people to feel secure with the belief that they will not be evicted for the second time. Thus the tenure security appears to play the vital role in improving the quality of physical spaces and most of all for extension and transformation of their living spaces for comfort or for income generation purposes.



**Figure 5.1. The Households mobility between different settlements**

The movement between private bustee and illegal bustee is possible since both dwellers pay rents. Households of the private bustee may buy land in illegal bustees, thus can become illegal landowners. Moving from private to illegal bustees would take place if there exists better job possibilities and income due to its location in the city. The opposite may also be possible to achieve slightly better environmental conditions and services; however, this is a rare case. The most general case is the

movement from illegal bustee to resettlement camp by government intervention, which is considered to be a gift for the low-income people (see Figure 5.1). Although in our case, the movement from resettlement camp to illegal bustees has not been observed, it can become possible if a radical intervention takes place. If the government decides to construct apartment buildings, it is most likely that some families will sell the position for hard cash and will make squatter in the city.

Today, the bustee people use their settlements as a shelter rather than a home. Although these bustee households have a strong unity, the lack of tenure security and essential neighbourhood facilities deprived them from having an identity, a feeling of being a citizen of the mega city. It has also been observed that although they do not have a tenure security, the land-mafia are the only negotiators who protects them from other political pressures and they can only exist under the support of such informal organizations.

In this study it has been concluded that although both social and physical factors are effective, there are other factors that have a substantial impact on the changes made in dwellings and neighborhood spaces. It is observed that, tenure security, has played the prime role as no development is done either by the households or by other development agencies when there is no tenure security. The initial plan of the settlement is also important to get more flexibility in the dwelling spaces and for further development. It has been realized that in the bustees, the landlord is the planner and for more profit he places minimum facilities to house more people in a very limited space. The other important factor is the intervention of public authority and more precisely the non profit organizations who can provide more habitable

spaces for low-income households with other necessary civic facilities such as schools, hospitals, markets, playgrounds, meeting places, mosques and recreational facilities etc.

So far we have studied the quality of physical spaces in different low-income settlements in Dhaka City and also tried to indicate the key factors that have greater impact on organizing domestic spaces of the households.

This research is a basic for further investigation on housing provision and alternative approaches for low-income people. Moreover, this study would open avenues for further research on the way of living and give clues for further improvement both socially and environmentally; how governmental agencies should act in helping these people for upgrading their residential spaces; and how basic facilities can be acquired by relocating these people with different effective policies.

As government intervention assure tenure security and thus improvement take place in physical and economic spaces, it is perhaps the local government agencies who should take further action in proposing alternative approaches both for private and illegal bustees. By amending new laws and regulations, certain improvements in providing household facilities especially in private bustees can be possible. For illegal bustees, new location for resettlement along with site and services is perhaps another bunch of research and the second phase of this thesis. However, it is the government who should take further precautions and control so those previous mistakes are not repeated in relocating these urban poor and land-mafias do not grow again.



## LIST OF REFERENCES

- Abughazze, T. (1996) "Reclaiming Public Space- The Ecology of Neighborhood Open Spaces in Town of Abu-Nuseir, Jordan." *Landscape and Urban Planning*, 36(3):197-216.
- Ahrentzen, S. (1989) "A Place of peace, prospect and a PC: the home as office." *Journal of Architectural Research* 6(4): 271-288.
- Ali, K. and Islam, N. (1999) "Housing Damage in Dhaka City due to the 1998 Flood." *CUS Bulletin on Urbanization and Developmen*, 3:14-19.
- Altas, N. and Ozsoy, A. (1998) "Spatial Adaptability and Flexibility as Parameters of User Satisfaction for Quality Housing." *Built and Environment*, 33(5): 315-323.
- Altman, I. and Werner, D. (1985) *Home Environments: Human behavior and environment*. New York: Plenum Press.
- Altman and Wandersman, A. (1987) *Neighborhood and Community environments: Human behavior and environments*. New York: Plenum Press.
- Altman, I. and Chemers, M. (1989) *Culture and Environment*. New York: Cambridge University Press.
- Altman, I. and Low, S. (1992) *Place Attachment: Conceptual Inquiry*. New York: Plenum Press.
- Altman, I. And Churchman, A. (1994) *Women and the Environment*. New York: Plenum Press.
- Ameen, A.S. (1988) "Housing for Low-Income People in the Thrid World Peri-urban Areas: A Case Study of Dhaka, Bangladesh." Unpublish PhD Dissertation, U.K: University of Newcastle upon Tyne.
- Ameen, A.S. (1999) "Shelter as Workplace: A review of home-based enterprises in developing countries." *Labor Review*, 13(4): 521-539.
- Ayata, S., (1989) "Toplumsal cevre olarak gecekondu ve apartmant (The squatter house and the apartment as social environments)." *Toplum ve Bilim*, 46: 101-127.
- Bangladesh Bureau of Statistics (1994) *Statistical Poket Book of Bangladesh*. Dhaka: Government of Bangladesh.
- Bassett, K. and Short, J.R., (1980) *Housing Residential Structure: Alternative Approaches*. London: Routledge and Kegan Paul.

- Bhatt, N. (1998) "The Socio-Economic Impact of Open spaces on Women in a Spontaneous Settlement." In *Shelter, Women and Development: First and Third World Cities*, edited by H.C. Dandekar. Ann Arbor: George Walir Publishing Company.
- Beneria, L. and Roldon, M. (1987) *The crossroads of class and gender: industrial home work, subcontracting and households dynamics in mexico city*. Chicago: University of Chicago press.
- Brennan, E. (1994) "Mega city management and innovation strategies." In *Mega-city growth and the future*, edited by Fuchs, R., Brennan, E., Chamie, J., Lo, C., Uitto. U.S.A: United Nations University Press.
- Boris, E. and Prugh, E. (1996) *Home workers in Global Perspective: invisible no More*. New York: Routledge.
- Bose, M. (1999) "Women's Work and the Built Environment: Lessons from the Slums of Calcutta, India." *Habitat International*, 23(1): 5-18.
- Brower, S. (1996) *Good Neighborhoods: A Study of In-Town and Suburban Residentail Environments*. London: Praeger.
- Brunn, S and Williams, J.K. (1993) *Cities of the World: World Regional Urban Development*. New York: Harper Collins College Publishers.
- Bruin, M. and Cook, C. (1997) "Understading Constraints and residential Satisfaction among Low-Income Single-Parent families." *Environment and Behavior*, 29(4): 532-553.
- Bulos, M. and Teymur, N. (1993) *Housing: Design, Research and Education*. Avebury: shgate Publishing Limited.
- Castell, M. (1977) *The Urban Questions*. London: Edward Arnold.
- Castells (1985) "Urbanization and Social change: The new Frontier." In *The Challenge of Social Change*, edited by Orlando Fals Borda, 93-106, Beverly Hills, Calif: saga Publications.
- Chant, S. (1997) *Women-headed households: Diversity and dynamics in the developing world*. New York: St. Martins Press.
- Chaskin, R. (1997) "Perspective on Neighborhood and Community:A Review of the Literature." *Social Service Review*, 71(4): 521-547.
- Chen, N and Heligman, L (1998) "Globalization and World Cities". In *Globalization and the World of large Cities*, edited by Yeung, Y. and Lo, F. New York: United Nations University Press.

- Choguill, C. L. (1990) "An Analysis of Squatter Resettlement Programmes in Bangladesh." In *Housing in Asia: problems and Perspectives* edited by Aldrich, B.C. and Sandhu, R.S. India: Rawat Publications.
- Choguill, C. L. (1987) *New Communities for Urban Squatters: Lessons from the Plan that Failed in Dhaka, Bangladesh*. New York: Plenum Press.
- Chaudhury, R. H. (1983) "Migration, Mobility and Income distribution; Some evidence from Bangladesh." In *Urban and Regional Policy Analysis in Developing Countries* edited by Chatterjee, L. and Nijkamp, P. Aldershot: Hants Gower.
- Chowdhury, T. (1998) "Segregation of Women in Islamic Cultures and its Reflection in Housing: A Study of Spaces for Women in a Bangladeshi Village." In *Shelter, Women and Development: First and Third World Cities*, edited by H.C. Dandekar, 338-346. Ann Arbor: George Walir Publishing Company.
- CUS, (1976) *Squatters in Bangladesh Cities*. Dhaka: Center for Urban Studies.
- CUS, (1990) *The Urban Poor in Bangladesh, Phase I: The Comprehensive Summary Report*. Dhaka: Centre for Urban Studies.
- CUS, (1991) *The Urban Poor in Bangladesh, Vols. I: Comprehensive Summary Volume*, Dhaka: Centre for Urban Studies( for UNICEF).
- CUS, (1992) *Survey of Slums and Squatters in Dhaka Metropolitan Area*, Center for Urban Studies: University of Dhaka Press.
- CUS, (1996) "Dhaka Mahanagari Bustee Samassha Niroshon." *CUS Bulletin*, Center for Urban Studies: University of Dhaka Press.
- Davies, W. and Herbert, D. (1993) *Communities within Cities: An Urban Social Geography*. London: Belhaven Press.
- Dogan, M. and Kasarda, J. (1988) *The Metropolis Era: Mega Cities*. London: Saga publications.
- Drakakis-Smith, D. (1997) *The Third World City*. New York: Routledge.
- El-Shakhs, S. and Shoshkes, E. (1998) "Islamic Cities in the World system." In *Globalization and the World of large cities* edited by Yeung, Y. and Lo, F., 228-269. New York: United Nations Press.
- Erman, T. (1995) "Semi-Public /Semi-Private Spaces in the Experience of Turkish Migrant Women in a Squatter Settlement." *The foundation for women's Solidarity*, 40-49. Ankara: Migration and Offentlicher Raum.
- Erman, T. (1997) "Squatter (gecekondu) Housing versus Apartment Housing: Turkish Rural-to-Urban Migrants Residents' Perspectives." *Habitat International*, 28(1): 91-106.

- Eraydin, A. and Erendil, A. (1999) "The Role of Female labor in Industrial Restructuring: new production process and labor market relations in the Istanbul clothing industry." *Gender, Place and Culture*, 6(3): 259-272.
- Eusuf, A. and Khatun, H. (1993) "Growth and Spatial Pattern of Urban Centres in Bangladesh." *Bangladesh Urban studies*, 2 (1): 57-70.
- Fainstein, Gordon and Harloe, (2000) *Divided Cities: New York and London in the Contemporary World*. USA: Blackwell.
- Flanagan, W. G. (1990) *Urban Sociology: Images and Structure*. London: Allyn and Bacon.
- Gibbs, D. and Jenkins, T. (1991) "A new era of flexibility? Some evidence and problems from the petrochemicals industry." *Environment and Planning*, 23: 1429-1445.
- Gilbert, A and Guglar, J (1989) *Cities, Poverty and Development: Urbanization in the Third World*. London: Oxford University Press.
- Gilbert, A. (1994) "Land and Shelter in mega-cities: Some critical issues." In *Mega-city growth and the future* edited by Fuchs, R., Brennan, E., Chamie, J., Lo, C., Uitto, J. I., U.S.A: United Nations University Press.
- Girardet, H. (1993) *Cities: New directions for Sustainable Urban Living*. London: Gaia Books Limited.
- GOB. (1990) *The First Five Year Plan, 1973-1978, Planning Commission*. Dhaka: Government of Bangladesh.
- GOB. (1996) *Bangladesh National Report on Human Settlement (Habitat)*. Dhaka: Government of Bangladesh.
- Goldstein, J. and Elliott, C. (1994) *Designing America Creating Urban Identity*. New York: Van Nostrand Reinhold.
- Gono Shahajjo Shansta (1995) *Dhaka Mahanagari Bustee*. Dhaka: Gono Shahajjo Shansta Publishing Limited.
- Gugler, J. (1997a) *Cities in the Developing World: Issue, Theory and policy*. New York: Oxford University Press.
- Gugler, J. (1997b) *The Urban Transformation of the Developing World*. New York: Oxford University Press.
- Gulati, P. (1990) "Income Generating Activities within Settlements for the Urban Poor: A Comparative Survey." In *Housing in Asia*, edited by Aldrich, B.C. and Sandhu, R.S. India: Rawat Publication.

- Hall, P. (1984) *The World Cities*. New York: St. Martins Press.
- Hankiss, E. (1981) *Quality of Life: Problems of Assessment and Measurement*. Paris: UNESCO.
- Hardoy, J. and Satterthwaite, D. (1995) *Squatter Citizen: Life in Urban Third World*. London: Earthscan Publications LTD.
- Hardoy, J. and Satterthwaite, D. (1997) *Building the future City Cities in the developing World*. New York: Oxford university Press.
- Harvey, D. (1985) *The Urbanization of Capital*. Maryland: Johns Hopkins University Press.
- Harvey, D. (1989) *The Condition of Postmodernity*, Cambridge: Basil Blackwell Ltd.
- Heck, Owen, and Rowe (1995) *Home-based Employment and Family life*. London: Auburn house.
- Heligman, L. and Chen, N., (1994) "Growth of the world's Megalopolises." In *Mega-city growth and the future* edited by Fuchs, R., Brennan, E., Chamie, J., Lo, C., Uitto, J. I. U.S.A: United Nations University Press.
- Hossain, K. Z. (1999) "Sustainable Approach in Housing sector for urban Poor." *News Letter*, Bangladesh Institute of Planners 6: 13-17.
- Huq-Hussain, S. (1996) "Female Migrants in an Urban Setting-the Dimension of Spatial/Physical Adaptation: Case of Dhaka." *Habitat International*, 20(1): 93-107.
- Islam, N., Ali, K. and Hossain, S. (1980) *Housing in Bangladeshi Village*. London: Commonwealth Secretariat.
- Islam, N. (1986) "Poors Access to Residential Space in an Unfairly structured city. Dhaka." *Oriental Geography*, 29: 37-46.
- Islam, N. (1996a) *Dhaka: From City to Megacity*. Dhaka: Dana Printers Ltd.
- Islam, N. (1996b) "Sustainability Issues in Urban Housing in a Low-income Country: Bangladesh." *Habitat International* 20(3): 377-388.
- Islam, N. (1998) *Human Settlements and Urban Development in Bangladesh*. Dhaka: Alamgir Art Press.
- Kayasu, S. (1997) "Planning in the age of Globalization." *Ekistics* 384:144-147.
- Kellett, P. and Tipple, G. (2000) "The home as workplace: a study of income-generating activities within domestic setting." *Environment and Urbanization*, 12(1): 203-213.

- Kent, S. (1990) *Domestic Architecture and the Use of Space: An Interdisciplinary Cross-Cultural Study*. London: Cambridge University Press.
- Khan, A. M. (1996) "Employment and Income characteristics of the Urban Poor." In *The Urban poor in Bangladesh* edited by Islam, N. Dhaka: Momin offset Press.
- Kirdar, U. (1997) *Cities Fit for People*. New York: United Nations Publications.
- Knox, P. (1987) "Historical Perspectives on the City." In *Urban Social Geography: An Introduction* edited by Osmay, S. and Duruoz, N. Ankara: Middle East Technical University.
- Kunzmann, K. (1998) "World city regions in Europe: structural change and future challenges." In *Globalization and the world of large cities* edited by Yeung, Y. and Lo, F. New York: United Nations Press.
- Kusow, A. M. (1993) "The Role of Shelter in generating income opportunities for poor women in the Third World." In *Shelter, Women and Development: First and Third World Cities*, edited by H.C. Dandekar. Ann Arbor: George Walir Publishing Company.
- Kümbetoğlu, B. (1992) "Women's Informal Sector Contribution to Survival of their Household in Urban Turkey." Marmara University, Sos. Bil. Enst. Unpublished Ph.D. Thesis. Istanbul.
- Lo, F. and Yeung, Y. (1998) *Globalization and the world of large cities*. New York: United Nations Press.
- Mahbub, A.Q. (1999) "Rehabilitation for Slum Dwellers of Dhaka City". *CUS Bulletin on Urbanization and Development* 3: 47-48.
- Mahbub, A.Q. and Islam, N. (1990) "Extent and Causes of Migration into Dhaka Metropolis and its Impact on Urban Environment." In the proceeding of the Seminar on People and Environment, UNDP/UNFPA, Dhaka.
- Mahbub-un-Nabi, and Nabi, A. S. (1983) "Mobility of Dhaka City Slum Dwellers: The Dynamics of inner City adjustment: A Case study." *Oriental Geographer* 28(1): 145-158.
- Mahmud, S. and Duyar, U. (1999) "Spontaneous Settlements in Turkey and Bangladesh: Preconditions of Emergence and Environmental Quality of Gecekondu and Bustees." IAHS World Congress on Housing XXVII, Abudabi, 15-19 April, 2000.
- Masini, E. B. (1994) "Impacts of mega-city growth on families and households." In *Mega-city growth and the future*, edited by Fuchs, R. Brennan, E. Chamie, J. Lo, C. and Uitto, J. I., United Nations University Press.

- Massey, D. and Meegan, R. A. (1982) "Industrial restructuring as class restructuring: Production decentralization and local uniqueness". *Regional Studies* 17(2): 73-89.
- Mathey, K. (1997) *Housing policies in socialist Third World*. Germany: Mansell Publishing Limited.
- Manning, G., Curtis, K., Mc Millen, S. (1996) *Building Community: The human side of Work*. Cincinnati: Thomson Executive press.
- Marcussen, F. (1990) *Third World Housing in Social and Spatial Development: The Case of Jakarta*. USA: Avebury.
- Mc Andrew, F.T. (1993) *Environmental Psychology*. California: Brooks/Cole Publishing Company.
- McAuslan, P. (1999) "Land Tenure, the Urban Poor and the Law in Bangladesh: Implementing the Habitat Agenda." *CUS Bulletin on Urbanization and Development* 3: 35-36.
- McGee, T.G. (1998) "Globalization and Rural-Urban realtions in the developing World." In *Globalization and the World of large cities*. New York: United Nations Press.
- Miraftab, F. (1996) "Space, Gender and Work: Home Based Workers in Mexico". *Home workers in Global Perspective: Invisible no more*, Boris, E. and Prugh, E. (eds). New York: Routledge.
- MOHPW/GOB (1993) *National Housing Policy*. Dhaka: Ministry of Housing and Public Works. Government of Bnagladesh.
- Momtaj, S. (1993) "Environmental Problems and Low-Income Housing in Dhaka, Bangladesh." Unpublished Master's thesis, Leuven, Belgium.
- Nazem, A. and Islam, N. (1996) "CUS Servey of Slum and Squatters Settlements in Dhaka City, 1996: Summary Findings." *CUS Bulletin* 31: 24-27.
- Newman, O. (1973) *Defensible Space*. New York: Macmillan.
- Nientied, P. and Linden, J. (1985) "Approaches to Low-Income Housing in the Third World." *International Journal of Urban and Regional Research*, 9: 311-29.
- Nyrop et al. (1975) *The Area Handbook of Bangladesh*. Washington: The American University Press.
- Orlebeke, C. (2000) "The Evolution of Low-Income Housing Policy, 1949 to 1999." *Housing Policy Debate* 11(2): 489-520.

- Osmay, S. and Duruöz, N. (1995) *Urban Sociology and Urbanization* (Selected Readings). Ankara: Faculty of Architecture, Middle East Technical University.
- Ozsoy, A. et al. (1996) "Quality Assessment Model for Housing: A Case Study on Outdoor Spaces in Istanbul." *Habitat International* 20(2):163-173.
- Patton, C. V. (1988) *Spontaneous Shelter: International Perspective and Prospect*. Philadelphia: Temple University Press.
- Pellow, D. (1992) "Spaces that Teach: Attachment to the African Compound." In *Place Attachment* edited by Altman, I. and Low, S. New York: Plenum Press.
- Proshansky, M., Fabian, K. and Kaminoff, R. (1983) "Place-identity: Physical World Socialisation of the self." *Journal of Environmental Psychology* 3: 57-83.
- Radwan, S. (1997) "The Future of Urban Employment." In *Cities Fit for People* edited by Kirdar, U. New York: United Nations Publications.
- Raj, M. and Mitra, B. (1990) "Households, housing and homebased economic activities in Low-income sttlements." In *Housing and Income in Third World Urban Development* edited by Raj, M. and Nientied, 171-182, New Delhi: Oxford and IBH.
- Rahman, G. (1999) "On Urbanization and Urban Planning." *CUS Bulletin on Urbanization and Development* 3: 11-12.
- Rahman, M. (1999) "Squatters and Housing Rights." *The Daily Star*, Dhaka: 24<sup>th</sup> September, 1999, 7:3.
- Rahman, M. (2001) "Bustee eviction and housing rights: a case of Dhaka, Bangladesh." *Habitat International*, 25: 49-67.
- Rapoport, A. (1969) *House Form and Culture*. U.S.A: Prentice-Hall Inc.
- Rapoport, A. (1984) "Culture and the Built Form: A Reconsideration." *Keynote paper on Built Form and Culture Research*. University of Kansas Lawrence :18-20.
- Richardson, H. W. (1977) *The New Urban Economics*. London: Pion.
- Rivlin, L. (1987) "Group Membership and Place meanings in an Urban Neighbourhood." *Journal of Social Issuse*, 38(3): 75-93.
- Saini, B.S. (1980) *Building in Dry Climate*. New York: John Willey & Sons Ltd.
- Samizay, R. and Kazimee, B. (1993) "Life in between residential walls in Islamic cities." In *Housing, Design, Research, Education* edited by Bulos, M. and Teymur, N. London: Athenaeum Press Ltd.
- Sassen, S. (1994) *Cities in a World Economy*. London: Pine Forge Press.

- Sebba, R. and Churchman, A. (1983) "Territories and Territoriality in the Home." *Environment and Behavior*, 15: 191-210.
- Seik, F.T. (2000) "Subjective assessment of urban quality of life in Singapore." *Habitat International*, 24: 31-49.
- Sen, S. (1998) "On the origins and reasons behind non-profit involvement and non-involvement in low-income housing in urban India." *Cities* 15 (4): 257-268.
- Shakur, T. (1987) "An Analysis of Squatter Settlements in Dhaka, Bangladesh". Unpublished PhD dissertation, U.K: University of Liverpool.
- Shiferaw, D. (1998) "Self-initiated transformations of public-provided dwellings in Addis Ababa, Ethiopia." *Cities*, 15 (6): 437-448.
- Shumaker, S. and Hankin, J. (1984) "The bonds between people and their residential environments: Theory and Research." *Population and Environment*, 7: 59-60.
- Siddiqui, K., Qadir, S., Alamgir, S., Huq, S. (1990) *Social Formation in Dhaka City*. Dhaka: University Press Ltd.
- Sidney, B. (1996) *Good Neighborhoods: A Study of In-Town and Suburban Residential Environments*. Connecticut: Praeger Publisher.
- Sinai, I. (1998) "Using the home for income generation: The Case of Kumasi, Ghana." *Cities* 15 (6): 417-427.
- Storper, M. (1996) "Industrialization and the regional question in the third World: Lessons of Post imperialism; prospects of Post-Fordism." *Regional Studies*, 27(5): 433-455.
- Storper, M. and Scott, A. J. (1989) "The geographical foundations and social regulation of flexible production complexes." In *The power of Geography: How Territory shapes social life* edited by Wolch and M.Dear, 21-40. Boston: Unmin hyman.
- Tannerfeldt, G. (1995) *Towards an Urban World: Urbanization and Development Assistance*. Stockholm: SIDA.
- Tinker, I. (2000) "Alleviating Poverty: Investing in Women's Work" *APA Journal*, 66(3): 229-240.
- Tipple, G. (1996) "Housing Extensions as Sustainable Dvelopment." *Habitat International* .20(3): 367-376.
- Tipple, G. and Ameen, A.S. (1999) "User initiated extension activity in Bangladesh: "building slums" or area improvement?" *Environment and Urbanization*, 11(1): 367-376.

- Turkoğlu, H. D. (1997) "Residents' satisfaction of housing environments: the case of Istanbul, Turkey." *Landscape and Urban Planning*, 39: 55-67.
- Turner, J.F. (1976) *Housing by the people: Towards Autonomy in Building Environments*. New York: Pantleon Books.
- Turner, J.F. (1982) "Issues in Self-Help and Self-managed Housing." In *Self-help Housing : A critique*, edited by Ward, P. New York: Mansell.
- Unger, D. and Wandersman, A. (1983) "Neighboring and its role in Block Organization: An Exploratory report." *American Journal of Community Psychology* 11(3): 291-300.
- United Nations (1987) "Department of International economic and Social affairs, population Growth and policies in Mega-Cities." *Dhaka: Population policy paper*, 8. New York: United Nations.
- UNCDF (1978) "Mirpur Squatters Resettlement Project." *Report of Mission to the People's Republic of Bangladesh*, September 1977-January 1978.
- UNCHS (1985) "Outline Physical Plan." Report on National Physical Planning Project Vol. 1 & 2., Dhaka.
- Vaa, M. (1997) "The Challenge of the Informal City." In *Cities Fit for People* edited by Kirdar Uner. New York: United Nations.
- Warren, D. I. (1977) "Exploration in Neighborhood Differentiation." *Sociological Quarterly* 19: 310-331.
- Webber, M.J. (1991) "The Contemporary Transition." *Environment and Planning D: Society and Space* 9: 165-182.
- Weiss, A.M. (1996) "Within the Walls: Home-based work in Lahore". *Home workers in Global Perspective: invisible no More* edited by Boris, E. and Prugh, E. New York: Routledge.
- Wood, G. (1998) "Investigation in Networks: Livelihoods and Social capital in Dhaka Slums". Center for Development Studies: University of Bath.
- World Bank (1985) *Bangladesh Economic and Social Development Prospects*, Vol. III, U.S.A : Washington D.C.