

**GOVERNMENT LOW-COST HOUSING PROVISION IN THE UNITED
ARAB EMIRATES. THE EXAMPLE OF THE FEDERAL GOVERNMENT
LOW-COST HOUSING PROGRAMME**

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TABLE OF CONTENTS

Abstract.....	vi
Acknowledgments.....	vii
List of Figures.....	viii
List of Tables.....	x
List of Plates.....	xiii
Abbreviations.....	xv
CHAPTER ONE.....	2
INTRODUCTION TO THE STUDY.....	2
1.0 Introduction.....	2
1.1 Background to the study.....	4
1.2 The research aims and objectives.....	7
1.3 The research questions.....	7
1.4 Justification of the study.....	8
1.5 The area of study.....	10
1.6 The scope and limitation of the study.....	11
1.7 Organization of the study.....	12
CHAPTER TWO.....	14
THEORETICAL PERSPECTIVES.....	14
2.0 Introduction.....	15
2.1 The provider approach.....	16
2.2 The shift to new policy.....	21
2.3 Support approach.....	23
2.4 Enabling approach.....	25
2.5 World Bank Housing Approach.....	29
2.6 Global Plan of Action.....	30
2.7 Housing subsidies.....	31
2.8 Housing standards.....	35
2.9 Housing Allocation.....	39
2.10 Housing tenure.....	43
2.11 Summary.....	45
CHAPTER THREE.....	48
Housing in The UAE.....	48
3.0 Introduction.....	48
3.1 The United Arab Emirates (background).....	49
3.1.1 Political structure.....	50
3.1.2 Economic conditions.....	53
3.1.3 Population.....	55
3.1.4 Programmes of welfare and subsidy.....	57
The rationale behind the welfare programmes and subsidies.....	62
3.2 Housing in the United Arab Emirates.....	65
3.2.1 Housing in the pre oil era.....	65
3.2.2 Formal housing.....	68
3.2.3 Governmental housing programmes.....	70
3.2.4 Housing in the post oil era.....	71
Government housing programmes.....	71
Building materials industry.....	72
Labour.....	73
Government housing programmes for non citizens.....	74

3.3	Federal government housing programmes	75
3.3.1	Rationale behind free low-cost housing	76
3.3.2	Housing processes of low-cost housing	79
3.3.3	Allocation of low-cost housing	80
3.3.4	Standard of low-cost housing - changing through time.....	86
	Housing standards in the 1970s.....	86
	Housing standard in the 1980s	89
	Housing standard in the 1990s	89
	Cost of low-cost housing	98
3.3.5	Supply and demand of low-cost housing	100
3.4	Summary	103
Chapter four		106
The Research Methodology		106
4.0	Introduction	106
4.1	Research environment in the UAE.....	106
4.2	Method of data collection	111
4.2.1	Sample survey	113
4.2.1.1	The structured interview.....	114
4.2.1.2	The target population	117
4.2.1.2	Access to the objects of inquiry	118
4.2.1.3	The place of study-Ras al Khaimah Emirate	121
4.2.1.4	The field work survey.....	126
4.2.1.5	Survey Obstacles	135
4.2.2	Interviews	140
4.2.3	Observation and site observation.....	141
4.3	Secondary data.....	142
4.4	Data manipulation.....	142
4.5	Summary.....	143
CHAPTER FIVE		145
SOCIO-ECONOMIC CHARACTERISTICS AND HOUSING CONDITIONS OF THE		
TARGET GROUP		145
5.0	INTRODUCTION	145
5.1	Socio-economic characteristics of the target group	145
5.1.1	Age	145
5.1.2	Educational level	146
5.1.3	Occupation	147
5.1.4	Income	148
	Users' income groups and education level.....	152
	Users' income groups and age groups	152
5.1.5	Users' financial capability.....	154
	Users of old low-cost houses.....	154
	Users of new low-cost houses	156
5.1.6	Household composition	166
	Household size	166
	Marital status.....	168
	Households per house	168
	Number of children	169
5.2	Housing conditions	170
5.2.1	Type of tenure	170
	A. Users.....	170
	Type of previous tenure and age	172
	Type of tenure and income	172
	B. Applicants.....	173
5.2.2	Type of housing.....	176
5.2.3	Existing housing resources	181
	Rooms per dwelling	183

Owner-occupiers' satisfaction.....	185
5.2.3 Occupancy rate.....	186
5.4 Self-provided housing.....	190
5.5 Summary.....	193
CHAPTER SIX.....	197
IMPLICATIONS OF STANDARDS OF CONSTRUCTION AND CONDITIONS OF	
TENURE.....	197
6.0 Introduction.....	197
6.2 Physical quality assessment by the users.....	197
6.2.1 Implication of the low physical quality.....	200
6.3 Causes of the low-cost housing deterioration.....	204
6.3.1 Maintenance related problem.....	207
Cost of maintenance.....	208
Maintenance and quality of construction.....	210
Why not maintain low-cost houses?.....	211
6.3.2 Building or repairing: The issue of construction standard.....	214
6.3.3 User-occupier or owner-occupier: The issue of tenure.....	223
Whose responsibility?.....	223
A. Ministry of PW&H.....	223
B. The users.....	224
6.4 Move or stay in the house.....	227
6.4.1 Income and intention to move out or stay.....	229
6.4.2 Age of the low-cost house and intention to move out or stay.....	229
6.5 Summary.....	231
CHAPTER SEVEN.....	235
HOUSING PREFERENCES.....	235
7.0 Introduction.....	235
7.1 The applicants' preference.....	236
7.2 Why people apply for low-cost housing.....	238
7.3. If you do not get a low-cost houses, what are going to do?.....	243
7.4 Free grant or cost recovery (preferences of free low-cost housing).....	246
7.4.1 Type of provision.....	249
7.4.2 Justification of free housing provision.....	251
7.5 Willingness to pay for housing.....	251
Factors affecting the decision to pay for a housing loan.....	252
Education level.....	253
Income.....	254
Land ownership.....	256
7.6 Type of construction.....	257
7.7 Cost of the preferred house.....	259
Factors affect the housing loan value.....	260
Income.....	260
Type of construction.....	261
Built-up area of the preferred house.....	261
7.8 Affordability.....	262
1. The preferred housing loan.....	262
2. The cost of current low-cost house including infrastructure (electricity and water).....	263
3. The cost of the housing loan and infrastructure (electricity and water).....	263
7.9 The implications of implementing applicants housing preferences on the current housing provision.....	265
7.9.1 Issue of opinions: Free provision versus cost recovery.....	267
7.9.2 Freedom to build: issue of standard.....	271
7.9.3 The provision of land and infrastructure.....	273
7.10 Summary.....	274

CHAPTER EIGHT	277
CHAPTER EIGHT	278
CONCLUSION AND RECOMMENDATIONS	278
8.0 Introduction	278
8.1 Summary of the findings and policy implications	278
8.1.1 Implication on supply and demand	280
8.1.2 Implication on accessibility	281
8.1.3 Implications for housing resources	282
8.1.4 Implications for physical quality	285
8.1.5 Implications for income groups	286
8.1.6 Housing preferences	287
8.2 Prologue for recommendations	288
8.3 The need for reform	289
8.3.1 Redefinition of the low-cost house	291
8.3.2 Reduce the standard of the low-cost house	291
8.3.3 The introduction of ownership rights	292
8.3.4 Move towards other construction standards	294
8.3.4 Establish other housing programmes	295
8.4 The need for a shift in policy	296
8.4.1 Resource mobilization	298
8.4.2 Increase the land and infrastructure supply	300
8.4.3 Freedom to choose construction standard	301
8.4.4 Incentives for established owners-occupiers	301
8.5 Further areas of research	303
 BIBLIOGRAPHY	 305
APPENDICES	327

ABSTRACT

The United Arab Emirates (UAE) was for a long time one of the poorest countries in the world. By the 1960s, the discovery of oil had totally transformed the economic and social patterns of the country. Oil revenue has given the country one of the highest incomes per capita in the world. With such huge oil wealth, the government has adopted different welfare programmes aimed to improve the living conditions of UAE citizens. The low-cost housing programme is one of these welfare programmes whereby the government finances building finished housing units and allocated them free for those in need. Between 1973 and 1992, the standard of the low-cost house has changed dramatically. The built-up area has increased four times while the construction cost has multiplied by 10. The cost of a typical low-cost house in 1994 was Dh 450,900 (\$121,800).

This research aims to study the implications of the free low-cost housing programme on the housing conditions of the low-cost housing occupants and those would-be occupants. It aims also to examine whether the free low-cost housing programme meets with what the target group want the government to provide.

The free low-cost housing programme has many drawbacks. The free low-cost housing provision, particularly the improved low-cost housing, has resulted in high demand relative to supply, enabling only the few to access housing services. Moreover, it has provided large improvements for those who are actually in no need of government support and those who only require partial support. It has also resulted in a waste of resources of both the allocatees and government, causing deterioration of the low-cost housing stock and part of the existing housing stock, and providing no sustainable source of funds.

The free low-cost housing programme does not match the housing preference of the target group. Housing provision based on the target group's housing preferences would result in providing more support for a greater number of citizens, changing their role from being passive recipients to active participants and the government's role from being one of control over all housing processes to that of being one actor among many, providing a sustainable source of funds and encouraging people to improve their own housing resources. However, housing provision following the target group's housing preferences may not gain official support.

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Mohammed Abdullah Jakkah Al-Mansoori

LIST OF FIGURES

CHAPTER ONE

Figure 1.1- Housing stock in Northern Emirates in 1995	6
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CHAPTER THREE

Figure 3.1- Map of the United Arab Emirates	49
Figure 3.1- Oil revenue in billion Dh 1972-1995	53
Figure 3.2- The percentage of Gross Domestic Product (GDP) by emirates in 1988	54
Figure 3.3- Population growth-1982-1995	55
Figure 3.4- The citizen and non citizen in the UAE in 1993	56
Figure 3.5- Housing process of low-cost housing and the role of the public and private sectors	79
Figure 3.6- The processes of low-cost housing allocation	82
Figure 3.7- The changing built-up area of low-cost housing 1973-1993	91
Figure 3.8- Low-cost housing supply 1973-1996	100
Figure 3.9- Low-cost housing fund allocation and oil revenue	100

CHAPTER FOUR

Figure 4.1- The location of areas of study in both in Coastal and Inland zone in Ras al Khaimah	128
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CHAPTER FIVE

Figure 5.1- Age structures of users and applicants	145
Figure 5.2- Users and applicants level of education	147
Figure 5.6- Users' and applicants' income groups	151
Figure 5.7- Income group in the United Nations study and fieldwork survey	153
Figure 5.8- Spending on extensions and alterations	154
Figure 5.9- Cost of extensions, alterations, maintenance, and furniture in the new houses	156
Figure 5.10- Users and applicants household size	166
Figure 5.11- Households per house	169
Figure 5.12- Users' and applicants' number of children	169
Figure 5.13- Applicant type of tenure	174
Figure 5.14- Number of bedrooms, kitchens, bathroom/toilets and majles in owner-occupiers houses	182
Figure 5.15- Number of bedrooms, kitchens, bathroom/toilets and majles in owner-occupiers' houses	183
Figure 5.16- Users and applicants occupancy rates (persons per bedrooms)	188
Figure 5.17- The self-provided housing process	191

CHAPTER SIX

Figure 6.1- Physical quality assessment by the users	200
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Figure 6.2- Type of failures, repairs and repair costs	213
Figure 6.3- Building permission for private houses by type of construction, 1982-1992	215

CHAPTER SEVEN

Figure 7.1- If there were other housing provision programmes such as the provision of free-interest housing loans would you still apply for low-cost housing?	247
Figure 7.2- Housing loan categories	259
Figure 7.3- Percentage of the applicants and their affordability to repay the housing loan alone, low-cost house and infrastructure, and the housing loan and infrastructure together	262
Figure 7.4- The housing processes of the proposed housing provision based on applicants housing preferences	266

LIST OF TABLES

CHAPTER TWO

Table 2.1- Theories of Practice: Key Characteristics	18
Table 2.2- Similarities and Contrasts in Private and Public Housing Allocation	41
Table 2.3- Tenurial costs and benefits	44

CHAPTER THREE

Table 3.1- Types and total amount of subsidy expenditures for the fiscal year 1981	61
Table 3.2- Low-cost house construction cost 1973-1994	99
Table 3.3- Low-cost house cost according to 1994 prices	99
Table 3.4- Number of low-cost houses applications, number of low-cost houses and number of UAE. households in the Northern Emirates	102
Table 3.5- Low-cost housing supply, fund allocation and built-up area	103

CHAPTER FOUR

Table 4.1- The objectives of the research and the method of data collection	111
Table 4.2- The users survey aims	116
Table 4.3- The applicant survey aims	117
Table 4.4- The old type of low-cost housing in the Coastal Zone, and the number of occupied houses	125
Table 4.5- The old type low-cost houses in the areas of study in the Inland zone, and number of occupied houses by the origin users	125
Table 4.6- The new type low-cost houses in the Coastal zone, and the number of occupied houses	126
Table 4.7- The new type low-cost houses in the Inland zone, and number of occupied houses	126
Table 4.8- The old type of low-cost housing in the areas of study in the Coastal zone, number of interviewees, and response rate	132
Table 4.9- The old type of low-cost housing in the areas of study in the Inland zone, number of interviewees, and response rate	132
Table 4.10- The new type of low-cost housing in the areas of study in the Coastal zone, number of interviewees, and response rate	133
Table 4.11- The new type of low-cost housing in the areas of study in the Inland zone, number of interviewees, and response rate	133
Table 4.12- The total number of interviewee for the different type in each area	133
Table 4.13- The number of applicants in the areas of study in the Coastal zone, number of interviewees, and response percentage	135
Table 4.14- The number of applicants in the areas of study in the Inland zone, number of interviewees, and response percentage	135

CHAPTER FIVE

Table 5.1- Users' and applicants' occupation	147
Table 5.2- Education level by user income groups	152
Table 5.3- Users' income groups and age groups	152

Table 5.4- Alterations in the new houses	156
Table 5.5- Cost of furniture and extensions in new houses in Coastal zone	157
Table 5.6- Percentage of the users and their total spending compared to construction cost	164
Table 5.7- Number of years required to save the amount of total spending at 25% of monthly salary	164
Table 5.8- Household size figures	167
Table 5.9- Users' marital status	168
Table 5.10-Users previous type of tenure	171
Table 5.11-Type of previous tenure by age groups	172
Table 5.12-Type of previous tenure by income groups	172
Table 5.13-Type of tenure and age groups	174
Table 5.14-Type of tenure and income groups	175
Table 5.15-Type of users' previous houses	176
Table 5.16-Type of tenure and type of house	180
Table 5.17-Applicants type of house by type of tenure	180
Table 5.18-Number of rooms per dwelling (mean)	183
Table 5.19-Number of bedrooms and bath/toilets per low-cost house (mean)	184
Table 5.20-Satisfaction means and ranks	185
Table 5.21-Owner-occupier and land owner applicants	186
Table 5.22-Users and applicants mean occupancy rate by area	186
Table 5.23-Occupancy rate figures from different sources	187
Table 5.24-Private firms operate in Ras al Khaimah Emirate in 1996	192
Table 5.25-Summary of the findings	194

CHAPTER SIX

Table 6.1- Did you maintain your low-cost house?	208
Table 6.2- Cost of maintenance by number of maintenances	208
Table 6.3- Maintenance and user's perception of quality of construction	210
Table 6.4- Logit regression outcome	211
Table 6.5- Logit regression outcome	212
Table 6.6- Maintenance and house age	212
Table 6.7- Maintenance and income group	213
Table 6.8- Percentage of users who built extensions and done maintenance	214
Table 6.9- Type of construction used for extensions	214
Table 6.10-Percentage of extensions by income groups	214
Table 6.11-Constructions firms and maintenance firms approved by the Ministry of PW&H in the Northern Emirates	220
Table 6.12-Could you afford to maintain your house if it is built of reinforced concrete construction?	220
Table 6.13-Could you afford to maintain your house if it is built of popular construction?	220
Table 6.14-Number of rooms and cost in popular construction	222
Table 6.15-Perceived maintenance responsibility, the users	224
Table 6.16-How long would you like to stay in this house?	227
Table 6.17-Logit regression outcome	228
Table 6.18-Logit regression outcome	229
Table 6.19-Intention to stay or move by income groups	229
Table 6.20-Intention to stay or move by years spent in the house	229
Table 6.21-Maintenance by intention to move or stay	230
Table 6.22-Total spending by intention to move or stay	231

CHAPTER SEVEN

Table 7.1- The applicants' preferences	236
Table 7.2- Applicants housing preferences by type of tenure	236
Table 7.3- Housing preference by type of house	237
Table 7.4- Housing preference by income group	238
Table 7.5- Applicants and users motives for applying for low-cost housing	238
Table 7.6- Other motives for applying for low-cost housing	240
Table 7.7- Applicants responses	243
Table 7.8- Applicants responses by type of tenure	243
Table 7.9- Applicants responses by age group	244
Table 7.10- Applicants responses by income group	244
Table 7.11- The intention to apply for the free low-cost housing or not by type of tenure, income group and education level	249
Table 7.12- Preferred type of housing provision	249
Table 7.13- If the government were to give you an amount which is equal to the cost of the low-cost house could you build a better house which is more suitable to your needs?	250
Table 7.14- Willingness to pay for interest-free housing loan	252
Table 7.15- Variables affecting willingness to pay for a housing loan .	253
Table 7.16- Logit regression outcome	253
Table 7.17- Willingness to pay by education level	253
Table 7.18- Willingness to pay (for the first time) by income group	254
Table 7.19- Willingness to pay (Dh 500 and less) by income group	255
Table 7.20- Variable affecting decision to pay for housing loan for the low-income applicants	255
Table 7.21- Willingness to pay by type of tenure for the first time	255
Table 7.22- Willingness to pay by land ownership	256
Table 7.23- Preferred type of construction	257
Table 7.24- Preferred type of construction by applicants and users age groups	258
Table 7.25- Preferred type of construction by applicants and users income groups	258
Table 7.26- Monthly payment by income groups	259
Table 7.27- Multiple regression outcome	260
Table 7.28- Scale of housing loan by income groups	260
Table 7.29- Preferred type of construction by cost of housing loan	261
Table 7.30- Summary of applicants affordability	263
Table 7.31- Summary of the applicants housing preferences	275

CHAPTER EIGHT

Table 8.1- Implications of low-cost housing on income groups (old low-cost houses)	286
Table 8.2- Housing preferences of the low-income applicants	288

LIST OF PLATES

CHAPTER THREE

Plate 3.1- Abu Dhabi in 1950s	59
Plate 3.2- Abu Dhabi city in 1990	59
Plate 3.3- Ras al Khaimah town in 1950s	60
Plate 3.4- Ras al Khaimah town in 1996	60
Plate 3.5- Plan of traditional house built of date-palm products	66
Plate 3.6- Traditional house built of date-palm products	66
Plate 3.7- Traditional house roofed by mangrove poles and palm-date mates	67
Plate 3.8- Traditional house built of coral stone	67
Plate 3.9- Floor plan of low-cost house in 1970s	92
Plate 3.10-Low-cost house in 1970s	92
Plate 3.11-Floor plan of low-cost house in 1980s	93
Plate 3.12-Low-cost house in 1980s	93
Plate 3.13-Ground floor plan of low-cost house in 1990s	94
Plate 3.14-First floor plan of low-cost house in 1990s	94
Plate 3.15-Low-cost houses -1993	95
Plate 3.16-Low-cost houses-1993	95
Plates 3.17 and 3.18-Low-cost houses under construction.	96
Plates 3.19 and 3.20-Internal view of low-cost houses-1993	97

CHAPTER FIVE

Plates 5.1 and 5.2- Extensions for new low-cost houses	158
Plates 5.3 and 5.4- A new low-cost house before and after alterations	159
Plates 5.5 and 5.6- A new low-cost house in the Inland area before and after alterations	160
Plates 5.7 and 5.8- Alterations of paint and doors in the new low-cost houses	161
Plate 5.9- The original provision of the WC by the Ministry of PW&H	162
Plate 5.10-A high quality WC being installed by the user	162
Plates 5.11 and 5.12-Decoration and furniture of new low-cost house	163
Plate 5.13-Plan of a traditional Arabic house built of cement-sand blocks	177
Plate 5.14-Traditional Arabic houses built of cement-sand blocks in the 1970s	177
Plate 5.15-Plan of a Arabic house in the 1990s	178
Plate 5.16-Arabic houses in the 1990s	178
Plates 5.17 and 5.18-Squatter houses built of palm leaves and plywood	179

CHAPTER SIX

Plate- 6.1 Reinforced concrete construction for single storey low-cost house	198
Plate- 6.2 Reinforced concrete construction for two storey low-cost house	198
Plate- 6.3 The carpentry work for roof slab of low-cost house under	199
Plate- 6.4 The steel work for roof slab of low-cost house under construction	199
Plates 6.5 and 6.6- The starting phase of reinforced concrete deterioration	201
Plates 6.7 and 6.8- The deterioration of reinforced concrete slab forced the user of this low-cost house to abandon his house and occupy the extensions built of asbestos	202
Plate 6.9- Popular construction detail	216
Plates 6.10-The use of reinforced construction in popular construction	216
Plates 6.11 and 6.12- Private house built of popular construction	217
Plates 6.13-Private house built of popular construction during construction phase	218

ABBREVIATIONS

UAE	United Arab Emirates
Ministry of PW&H	Ministry of Public Works and Housing
FNC	The Federal National Council
Dh	Dirham -The UAE currency
TCDO	Trucial Council Development Office

CHAPTER TWO
THEORETICAL PERSPECTIVES

CHAPTER TWO

THEORETICAL PERSPECTIVES

2.0 INTRODUCTION

" If your government is serious about housing low-income people, then it must not build houses" (Otto Koenigsberger quoted in Turner, 1990).

The new plan of Abu Dhabi local authorities in the UAE is to build 1000 low-cost houses every year starting in 1997 (Al-Ittihad, 9.11.1996).

Between the above two statements lie great differences in shelter policy direction, the role of government and the inputs and outputs of housing policy. There is also a difference between the social and economic conditions of the UAE and the majority of developing countries. However, it is important to understand the different directions of shelter delivery approaches in the developing world and study how the great majority of governments there have been responding to the issue of housing their poor people and those who cannot afford to house themselves to the standard set by the public authorities.

Therefore, this chapter reviews the different housing approaches of the developing world: the provider approach, the supporter approach and the enabler approach, also the role of the government and individuals in each approach and the rationales of applying these approaches and their implications on the housing conditions of the target group. More emphasis is also placed on the role of the poor in housing themselves.

This chapter also examines the rationale and drawbacks of applying housing subsidies and investigates the implications of high housing standards on the housing conditions of the target group and the role of housing allocation in providing equity for the target group.

2.1 THE PROVIDER APPROACH

The provider or the central approach has existed for many decades in both developing and developed countries and, in some countries such as the UAE, dominates the public housing policy. In this approach, as can be seen in Table 2.1, the public sector takes full responsibility for producing housing in order to meet the deficit in housing supply and improve the housing quality of those who are not able to house themselves to the standard set by the public authorities. The central government controls the whole housing process of planning, funding, design, construction and allocation. Those who support the provider approach, according to Hamdi (1991), argue that large numbers of houses can be best delivered by speeding up the construction of houses and that large industry knows best how to do this.

The rationale of adopting for this approach in the developing countries is influenced by many factors. The involvement of the public sector in direct production is mostly affected by the government's official position and its ideological base (Gilbert and Ward, 1985, UNCHS, 1996). The concept of considering housing as a welfare issue and all individuals as having the right to a certain housing standard has been for a long time the main grounds for having so many governments involved in housing production. A clear example of such a situation was the former socialist countries where the central government controlled all decisions about the type of housing to be produced, who produced it, its price and its allocation (World Bank, 1993). This concept still exists in the Arab Gulf States mainly Kuwait (Alawadi, 1980) and the UAE, as the next chapter shows.

Those in favour of public housing, according to Bourne (1981), see it as bringing housing directly to those in most need, discouraging the formation of ghettos, serving a wider range of housing needs, encouraging some social mixing and allowing for some economies in the provision of public services. Hardoy and Satterthwaite (1989) argue that one of the justifications used by governments for building public housing is that of filling the housing gap. The government sets its own criteria of standard housing, and that which does not meet this standard is replaced by standard housing. The government therefore fills this gap by building public housing.

The trend which prevailed after World War II, that shelter should be provided for individuals as a part of a great concern to improve the living standard of the human being as part of the basic needs approach, has also influenced public housing policy (Blitzer, Hardoy and Satterthwaite, 1981). Governments in many developing

countries, therefore, have taken the initiative that the public sector has a major responsibility and should provide shelter and infrastructure for low-income groups (Renaud, 1987). In many shelter policies in developing countries the main objective is to provide safe, decent and sanitary housing for all people (Van Huyck, 1987). These objectives were then translated to building dwellings of formalized high standard of construction supported by very highly monthly subsidies (Pugh, 1990). These projects of public housing were built to replace the slums and squatter settlements which were destroyed in the name of urban renewal and improving the living standard (Mayo and Gross, 1987).

The construction of public housing has also been influenced by rapid population growth, regional and rural development (Drakakis-Smith, 1980), cheap international funds (Renaud, 1987), and the colonial legacies of adopting housing approaches in developed countries (Pugh, 1990; Mayo and Gross, 1987). Governments have also become involved in housing production and build public housing to impress electorates and to have housing blocks visually prominent in the townscape rather than to meet real needs (Drakakis-Smith, 1980). High rise housing projects were seen by political leaders as evidence of modernity as they recognized that political mileage could be gained from such visible projects (Palmer and Patton, 1988). The provider approach is demanded by politicians since it shows the greatest visible impact in the shortest period of time, often irrespective of the resources that may be consumed and the implications this may have in the long term (Hamdi, 1991)

Table 2.1. Theories of Practice: Key Characteristics

Providing	Supporting
	Objectives
Build houses for people	Allocate resources for people to organise their own house building
Centralise resources to facilitate management and control standards	Decentralise resources to support local enterprise and home building
Build organizations that facilitate central initiatives	Build regulations to support and give structure to local initiatives
Consolidate and centralise building production	Fragment building production and support small builders
	Methods
Build large projects to achieve scale	Build programmes and allocate resources for many small projects
Manufacture housing to speed production	Manage resources to increase volume
Build fast by building instantly	Build fast by building incrementally
Standardise project and operations	Promote variety, improvisation, infill, sites and services
	Products/Component
Projects	Interventions
Industrialized building systems	Technical aid centres
Master plans	Training
	Housing options and loan packages
	Guidebooks, guidelines, tools, and methods
	Appropriate technologies
	Structure plans
	Key Actors
Consultants	Families
Government agencies	Community groups, tenant organisations, nongovernmental organisations
	Non-profit and voluntary organizations
Funders	Government agencies
Large contractors/developers	Small contractors
	Funders
	Formal and informal private community developers
	Consultants

Source: Hamdi (1991)

By the 1970s there was great recognition by many government and international agencies that the provider policy had failed to meet the growing need of housing demand (UNCHS/ILO, 1995; UNCHS, 1991a) and to deal effectively with the real scale of the shelter problem (Van Huyck, 1987). In former socialist countries where housing was a universal right the state had found it difficult to satisfy the demand (Peattie, 1987). However, a few governments, namely Hong Kong and Singapore, achieved success with the policy of public housing (Drakakis-Smith, 1980) while elsewhere the performance of the private and informal sectors had proved more effective in satisfying housing demand (Peattie, 1987; Word Bank, 1993).

According to Turner (1976; 1976a; 1982) the provider approach in general has failed to meet both the quantitative and the qualitative needs of the people. This approach has been imposed on people and offers them no choice. It ignores people's needs, priorities, and resources which are often misinterpreted by the state professionals and officials. Housing in this approach is treated as a commodity (ready to occupy) serving the interest of commercial or political manipulators. The question, according to Turner is, how one finished product can match the great diversity of people's needs and priorities.

"Poor's people needs are usually badly understood by government and the kinds of housing provided by them are therefore inadequate" (Gilbert and Gugler, 1981:86).

Public housing generally has been provided in very limited numbers compared with the size of the urban populations, and only a tiny percentage of urban residents could afford such houses without a subsidy (UNCHS/ILO, 1995). Governments, therefore, are often forced into a difficult position.

"They either subsidize such housing at great cost to provide benefits for a small group in society or the houses remain unsubsidized and few poor people can afford to buy or rent them" (Gilbert and Ward, 1985:6).

Public authorities also lack the management capability and political will to collect repayments from inhabitants which reinforces the image that public housing is part of welfare rights (Rodwin and Sanyal, 1987).

Moreover, the poor are often unable to afford what government provides. Gulati (1985) argues that standards set by the public authorities are out of touch with the economic reality of low-income people. As a general rule, families are required to earn about four or five times subsistence level wages in order to qualify for a government built house, but in many cities 50 per cent or more of the people are unable to meet this requirement (UNCHS, 1987).

Therefore, many governments could not maintain a role as direct producers of public housing as such houses were of high cost compared to those produced by the private sector and therefore such programmes could not be replicated on a large scale (World Bank, 1993). Using high standard technology in building public housing has

increased the cost (Blitzer, Hardoy, and Satterthwait, 1981) and placed it beyond the affordability of poor people (Gilbert and Ward, 1985), thus they frequently leave the public housing in exchange for cash from the higher income groups, and the poor who remain have a high level of defaults of rent payments (Pugh, 1990). Abdullah (1995), however, found in Malaysia that it was middle-income occupants who had high level of defaults.

Public housing projects have also been abandoned, become socially troubled, or, in some cases, have never been occupied (Burns and Ferguson, 1987). In the United States and Europe public housing has social problems of vandalism and isolation and thus tenants move to other properties (Daly, 1988). In many developing countries public housing projects have been built in locations far from employment opportunities which caused severe economic problems to households, many of whom have economic ties with inner-city activities (Drakakis-Smith, 1980) and so are ultimately forced to opt out (Gilbert and Gugler, 1981).

Public authorities have also failed to recognize the financial resource limitations of the public sector to execute the shelter policy of public housing from one side (Van Huyck, 1987) and the ability of the user to pay on the other side (Mayo, 1987). The housing sector had been ignored in policy development (Pugh, 1990) where it is considered only a welfare commodity and not a productive sector of the economy (World Bank, 1993).

In addition, limitations of the administrative and management resources of government to implement the shelter policies have also contributed to such failure (Huyck, 1987, UNCHS/ILO, 1995). Public authorities in general

"lacked sufficient knowledge of the operation of housing markets and of the skills and experience required to address the imperfections and malfunctions of those markets to be able to intervene efficiently in the shelter-production system" (UNCHS, 1990:24).

Moreover, the role of the private sector has been left undefined by public institutions and the role of the informal sector has also ignored (Van Huyck, 1987).

2.2 THE SHIFT TO NEW POLICY

The failure of the provider approach to meet the housing needs of the urban poor and improve their housing conditions corresponds with positive outcomes of research conducted in squatter settlements which showed the potentiality and the ability of the self-help housing in these settlements in producing more affordable and diverse housing for the urban poor than that produced by both the public and private sector.

Squatters settlements have been for long time considered a place of social and economic problems (Ward, 1982) and in many cases such settlements were demolished (UNCHS, 1987). Research conducted by John Turner has shown that poor people in these settlements have the ability and potentialities to house themselves away from government intervention.

"Squatters also demonstrated that they have the skills, motivation, and the resources to provide basic shelter for themselves. In favourable circumstances, they were able to produce solid houses as well as to improve and consolidate their communities, even when exposed to the perpetual risks of eviction. They were able to develop their own market mechanisms, provide themselves with building materials largely appropriate to their needs and use self-help and mutual aid in building not only houses but also community facilities" (UNCHS, 1987:173).

The housing process in these settlements provides an opportunity for efficient and equitable housing (Hamdi, 1991) and these settlements were recognized by many observers as a setting for the creation of household capital through sweat equity (Schon, 1987). Houses built by the squatters, argues Gulati (1985), are more functional in terms of their own needs and capital investment required. Based on these potentialities of squatter settlements, many governments in developing countries become somewhat more tolerant of them (UNCHS, 1987).

Self-help housing is acknowledged to be a new means of producing housing for low-income households, since the legal housing produced by the private sector or governments is beyond the affordability of the majority of the urban population (World Bank, 1993; Van Huyck, 1987). Self-help housing shows the ability of people in shaping their own environment (UNCHS/ILO, 1995) and produces affordable

housing for the majority of low-income households in urban areas of developing countries (World Bank, 1993; Mayo, 1987). However, on the other hand, the approach of self-help has been criticized by those who considered it as a “pity commodity” which in the end serves the interest of capitalism (Burgess, 1982; 1985). Gilbert and Van der Linden (1987) argue that such a statement fails to relate theory with reality since it call for revaluation and demolition of the existing political structure.

Based on his work in Latin American cities, John Turner came up with some innovative thoughts on housing the urban poor in developing countries. These ideas implied changing roles for governments, people and other actors involved in housing production. Turner asserted that housing should not be treated as a finished product but rather as a complex process with many actors doing many things to come together with many results.

Turner (1976;1976a;1982) argued that poor people can house themselves more effectively than central government mass housing projects. He added that every household has it own priorities regarding form of dwelling, local facilities and form of tenure desired. Therefore, people can use their own resources of local knowledge and skills, imagination, initiative, energy and time to produce different types of housing, different types of tenure, and different types of choice and prices to meet their great diversity and complexity.

Having recognized the potentiality and creativity of people to solving their housing problems, Turner emphasized the importance of government support. The conventional packages of housing goods and services which were previously provided by the government in the central housing approach should be disaggregated into loose parts that can be made separately available so they can be packaged by users according to their own demands rather than the suppliers' convenience (Turner, 1982). The role of the government, therefore, is to increase the range of freedom of choice for people and to ensure that those who are able to build for themselves have access to affordable and well located land, secure tenure, basic services, appropriate technology, affordable standards, and credit (Turner, 1976a; 1981; 1990).

Turner also stressed the importance of people's participation in the housing decision making process. This participation according to Turner (1976) will improve the people's housing conditions, create a satisfactory dwelling environment, and encourage people to participate more in investing their own plentiful and renewable

resources in housing. Participation, argue Skinner and Rodell (1983), means more than a cheap source of labour, as in the case of self-help housing, it mean families making housing decision. Participation in settlements development is part of a broad concept of democracy at national level (UNCHS, 1987). The participation of people in the planning, design, and post occupancy management frequently gains participants significant rewards, increases their sense of control over the process and generates innovative responses that may be cost effective (Rodwin and Sanyal, 1987).

The integration between people's resources and public authorities' investments reduces the government's investment per household, widening the number of those who benefit from government investment and thus overcoming the low access resulting from the conventional housing supply (Skinner and Rodell, 1983). Such co-operation can also conserve public resources by shifting some of the responsibilities to people involved (Rodwin and Sanyal, 1987). This partnership between people and government resources provide minimal betterments for the many instead of standard dwellings for the few (Burns and Grebler, 1977) and housing benefit would spread more widely (Bourne, 1981).

2.3 SUPPORT APPROACH

Based on the work of Turner and others, the new shelter policies have shifted from direct provision of houses by public institutions to supporting people by providing them with elements to assist them in building their own houses: ease of access to land, funds, building materials, technical assistance and infrastructure. Table 2.1 shows that people and other actors have to employ these elements in producing housing according to people needs, priorities and ability to pay. Unlike the role of participants in the public housing projects which limited its participation to the post occupancy process, people in this approach take the chance to be involved in design, construction, and post occupancy processes. People become, therefore, participants in the support approach rather than being only recipients in the provider model.

The ideas of the self-help and support approach have been translated to the site through the projects of site and services and slum upgrading. Although some governments were reluctant to accept the principle of self-help housing and thus relinquish their control over the housing process (UNCHS, 1987), the approach has won the support of the international funding agencies such the World Bank, and some politicians in some developing countries have recognised the opportunities that the

conventional wisdom of self-help offers for social control, political manipulation and vote catching (Gilbert and Ward, 1985). Those institutions accept the advice of Turner and others that more emphasis should be placed on the provision of services and land and people themselves will take the responsibility for building their own houses (Gilbert and Gugler, 1981). In the beginning of the support approach, the provision was only of core houses and the expectation was that future residents would add the remaining components. Then and in order to reduce the cost, the supported structures were reduced only to a serviced plot (UNCHS/ILO, 1995). The support projects sponsored by the World Bank aimed to provide affordable housing based on what households would be willing and able to pay, to achieve cost recovery and create conditions for large-scale replicability of projects (World Bank, 1993). The aim of the Bank in adopting these principles, according to Mayo (1987), was to reach a broader portion of low-income and moderate-income households than would be reached under the conventional public housing.

Although the advantages and efficiencies of the site and services and upgrading schemes were recognized in reaching a wider spectrum of people than the public housing projects (Schon, 1987) and offering a broad spectrum of cost to fit with the varied circumstances of the population (Burns and Ferguson, 1987), some governments were reluctant to spend on illegal or slum settlements especially when there was some limitation in public funds. This reluctance may be attributed in part to the nature of the connection between government and powerful special interest groups such as landlords, contractors, and producer of building materials who may be hostile to the notions of self-help, mutual aid, and reduced standards since such principles are in direct conflict with their interests (UNCHS, 1987). The principle of public participation which is associated with this approach comes also with a deep conflict of interests with public authorities which fear losing their power and control over the housing process (Skinner and Rodell, 1983).

However, the adoption of this new concept of site and services and upgrading approaches has not met the needs of low-income groups and is unable to reach the poorest in most developing countries (Van Huyck, 1987). These policies have produced relatively little of the urban housing stock since they were applied only in specific locations ignoring the activities of the informal sector (UNCHS/ILO, 1995). The UNCHS (1994) states that the emphasis on cost recovery and keeping subsidies low was part of the reason for keeping the poor away from these projects. According to UNCHS (1987) these policies were incapable of meeting the housing needs of the

poorest 20 per cent of the population, mainly the urban poor of inner-city slums in most of the developing countries.

2.4 ENABLING APPROACH

The UNCHS (1987) states that the path to enabling settlement strategies passes through squatter settlement upgrading and site-and services approaches. The support approach aims to support people by providing elements of housing in certain locations and projects while the enabling approach according to the UNCHS (1987) aims to enable people and communities to help themselves and provide effective community autonomy. It aims to link shelter and development and emphasizes that

"housing and infrastructure investment are productive investment from both the economic and social points of view and an important source of income and employment" (UNCHS, 1995:22).

This approach therefore according to the UNCHS/ILO (1995) is the most challenging strategy. The enabling approach gained the support of two related international bodies the UNCHS and the World Bank (UNCHS, 1996).

Adequate shelter according to Global Strategy for Shelter means

"adequate privacy, adequate space, adequate security, adequate lighting and ventilation, adequate basic infrastructure and adequate location with regard to work and basic facilities all at a reasonable cost" (UNCHS, 1990:4).

It also mean

"affordable shelter for all groups in all types of settlements, meeting basic requirements of tenure security, structural stability, and infrastructure support, with convenient access to employment and community services and facilities" (UNCHS, 1991:8).

In order to accomplish the above adequate shelter definition the enabling approach calls for redefinition and redistribution of responsibilities among actors involved in the housing process ranging from individual households and small scale enterprises through to co-operative groups and informal and formal private producers to governmental agencies and ministries (UNCHS, 1990). This shift in responsibilities is necessary according to the World Bank (1993) in order to improve the housing conditions of the poor. The enabling approach demands mobilisation of all resources and the potential of all actors to be involved in housing production (UNCHS, 1990).

The role of the government has to be shifted from the policy of provision and direct construction of a few housing units serving a small fraction of targeted population towards the role of encouraging and providing necessary support to all actors involved in housing production (UNCHS/ILO, 1995). The government's responsibility is to focus on managing the legal regulatory and economic framework so that housing actors will be more able to produce housing and related services more effectively.

"The role of the government and public authorities at various levels should be one of facilitating shelter construction by establishing more appropriate regulatory frameworks and shelter financing schemes allowing the private sector, non-governmental organizations, community-based organisations and individual households to make their effort and contribution" (UNCHS, 1994:ix).

Limited government resources should then be transferred to investment in infrastructure, land development, the promotion of a variety of housing finance institutions (UNCHS, 1996). The enabling approach does not mean any decrease in governmental responsibility for housing production. It means that responsibility is shared between the governmental and non-governmental sectors in a more effective way for housing production (UNCHS, 1991).

Another aim of the enabling strategy is to improve the functioning of markets which supply the five major components in the housing process: land, finance, the skills of the labour force, infrastructure and building materials; and to provide an appropriate regulatory framework (UNCHS/ILO, 1995). The government uses

" the advantages of private markets for land, building materials, finance and finished housing in terms of cost

reductions, rapid response to changing demands and diverse range of housing available for sale or rent" (UNCHS, 1996:337).

However, the enabling strategy calls for government intervention in the land, housing and financial markets if those markets fail to respond to the needs of the low-income majority (UNCHS/ILO, 1995).

The enabling approach also seeks to employ the cost effectiveness of voluntary agencies and community organisations in producing and providing many more forms of housing-related infrastructure and services than did government bureaucracies (UNCHS, 1996). However, the final decision on how to house themselves is left to the people who

"will be given the opportunity to improve their housing conditions according to the needs and priorities that they themselves will define" (UNCHS, 1990:8).

Although many governments have already responded to the call for enabling strategies by avoiding the role of producer and taking up that of facilitator (UNCHS/ILO, 1995) there is still some resistance to adopting the new policy (Van Huyck, 1987). The UNCHS (1991a) recognizes that the partnerships between government and the other actors are as yet imperfectly formed in practice in many countries and challenges the implementation of the enabling approach.

This challenge may refer to the changes involved in the enabling approach which are beyond the capacity and competence of the housing institutions (UNCHS, 1996). The resistance to the new approach may be attributed to the revival of public housing policies

"by a new generation of public officials eager to please their constituencies, show concern for the poor, or siphon off kickbacks from contractors" (World Bank, 1993:123).

According to the UNCHS (1996) public housing will survive as it serves government employees and other influential groups in the government, since it insures their access to subsidized housing provision.

The enabling approach also raises the issue of liberation of the market and the need for intervention. The enabling approach requires different actors to be free to utilize their energies and resources to utmost effect (UNCHS, 1991a). This liberal market may be dominated by speculation, concentration of ownership into a few hands and rising prices, while on the other hand, the poor face the problem of getting access to the market (UNCHS/ILO,1995). The conflict between enabling and liberalization necessitates a " very fine balance " between these two terms.

"Very few governments, if any, have thus far been able to do this" (UNCHS, 1991a:67).

The most critical challenge of implementing the enabling policies comes also from its association with political reforms and public participation. According to UNCHS (1987) there are preconditions to applying the enabling strategies. These preconditions are the preparation of the government and public authorities for autonomy at the local level and their readiness to accept the social demands of communities as legitimate expressions of hopes and aspirations. Professionals engaged in settlement development must also be able to redefine their role and act as innovators and facilitators rather than dictators. Therefore, sustained political support is fundamental for the success of the enabling strategies (UNCHS, 1991a) and where democratization and citizen participation are part of the political vocabulary the enabling strategies are more likely to be adopted and implemented (UNCHS/ILO,1995).

"It is at least obvious that the enabling approach cannot be successfully implemented without a sustainable commitment to democracy and pluralism in society at large" (UNCHS, 1991a:65).

The room being give for the role of individuals, community groups and non-governmental organizations in the housing process and the redistribution of responsibilities between the government and other actors raises doubts about the possibility of implementing such policy in countries such as the UAE or other Arab Gulf states which do not practice public participation and where full political power remains in the hand of the ruling families. Participation, which is a vehicle for empowering people to take greater control over their lives (UNCHS, 1991a) and for practising autonomy at the local level (UNCHS, 1987), contradicts totally with the traditional tribal structure which places full power within the ruling family. The

withdrawal of government from areas of land and finance and the sharing of its responsibility with other partners in the Arab Gulf states is far from reality, at least in the short term, since these areas constitute part of the power the ruling family employs to ensure its control, as the next chapter shows.

However, the experiences of the international agencies show that implementing the enabling approach also depends on a country's level of economic and institutional development which differ from place to place (World Bank, 1993). Therefore, the question raised by Peattie (1987) as to whether social stability would best be served by enlarging the responsibility of the state or whether the state should support other actors in the housing processes should be considered as long as the UAE political and social context is taken into account.

2.5 WORLD BANK HOUSING APPROACH

Since the World Bank became involved in urban development in the 1970s, its housing policy objectives have developed. In the 1970s the Bank's policy was to provide affordable adequate housing for low-income households and achieve cost recovery to eliminate the need for subsidies which would consequently create large scale project replicability. This policy was apparent in the upgrading and site and services projects. In the 1980s, the Bank moved towards building self-supporting financial intermediaries able to provide long-term mortgage loans. The role of the government, according to the World Bank (1993), is to enable the housing market to work more efficiently with more emphasis on enabling the private sector to meet the housing needs.

By the 1990s the Bank emphasized that the housing sector should be seen as a productive sector and managed as a key part of the overall economy and should not only be seen as an element of welfare policy which required the transfer of physical or financial resources to those unable to house themselves adequately. The Bank takes into account the productivity of housing investment and the wider saving processes by focusing on the entire market and responding to the housing needs of different groups rather than on narrow segments affected by specific projects (Malpezzi, 1990; Pugh, 1990). Therefore, the policy goal is to create a well-functioning housing sector in order to enable all actors to become involved in housing production. The Bank also calls for more reform in areas of tenure security, developing private mortgage finance, reducing shelter standards and promoting private sector activities (World Bank, 1993).

The World Bank-sponsored projects in many parts of the world have produced promising results in areas of replicability, equity (Linn, 1983) tenure of security, employment generation, and improving the housing quality (Gulati, 1985; Herlianto, Hofsteede and Gulati, 1985). However, on the other hand, the Bank's policy is seen to place emphasis on economic and market issues and pay less attention to social and political matters. The policy focuses more on

"enabling housing markets to work rather than on enabling poor people to gain access to housing and land markets" (UNCHS, 1996:338).

This focus on market forces to solve the housing supply could create social and political unrest in countries which have been used to policies of heavy subsidies such as the UAE. The World Bank, for instance, has criticised the welfare policy in the UAE since it is costly and very generous mainly in areas of free education, health and subsidized electricity and water services (Asharq Al-Awset, 14.1.1993). The Bank recommends the introduction of income tax, decrease in the governmental fund support for the public sector (Asharq Al-Awset, 6.9.1994) and a move towards more programmes of privatization for the public sector (Al-Khaleej, 11.2.1996). However, although the World Bank policies focus on the economic dimension to readjust public expenditure, the fact remains that its recommendations have overlooked the underlying justification for introducing a heavy subsidization policy and the association between social and political stability and the policy of subsidy particularly in a country with a huge oil revenue and small native population, as the next chapter shows.

2.6 GLOBAL PLAN OF ACTION

The Global Plan of Action declared by Habitat II Summit (UNCHS, 1996a) calls for more emphasis and promotion of the enablement approach and participation in human settlement developments. The plan calls for shelter policies to emphasize the increased use and maintenance of existing stock through ownership, rental and other tenure options responsible to diversity of needs.

The plan calls government at all levels to employ broad-based participatory techniques that involve representatives from the public, private, non-governmental, co-operative and community sectors, including people's representatives, at all levels of the policy development process. The role of the government, according to the plan, is to

establish a regulatory framework; to adopt an enabling approach to shelter development including the renovation, rehabilitation, upgrading and strengthening of the existing housing stock; to develop an adequate institutional framework for the public, community and private sectors especially for facilitating investments in the supply; and to promote and adopt adequate supply of key inputs required for the construction of housing and infrastructure such as land, finance and building materials.

Although the plan of action calls governments to create an enabling framework for a well-functioning housing market, it emphasizes the need for government intervention to address the needs of disadvantaged groups that are insufficiently served by markets.

Since self-built housing continues to play a major role in provision of housing in most developing countries, the plan calls for more facilitating community-based production of housing by promoting self-help housing. The plan emphasizes the need to integrate and regularize self-built housing, and to encourage efforts to improve existing self-built housing through better access to resources of land and mobilizing sources of finance, ensuring access to basic infrastructure and services.

2.7 HOUSING SUBSIDIES

Housing subsidies are not gifts. They generally involve a reduction in the housing price but usually not to zero; the recipient must normally spend some of his own income to qualify for a subsidy (Aaron, 1972). The subsidy aims to reduce the housing cost to a level which is within reach of the poor (Drakakis-Smith, 1980). However, in the context of the UAE, as the next chapter shows, housing is considered a gift, the housing subsidy reduces the price of housing to zero and, in order to qualify, the beneficiary is not required to spend any of his income.

The rationale for introducing subsidies varies across the world. Generally the magnitude of subsidies is influenced by the government political philosophy and development processes (Drakakis-Smith, 1980). In many developing countries as a result of independence, the belief of some policy makers is still that every family has the right to a certain level of housing and the government should take the leading role in such provision (Sanyal, 1981). Subsidies also apply to improve health and safety and remove social tensions (Abrams, 1964) and ensure that

"poor housing does not induce blight and impose external costs on society through lower adjacent property values, reduced visual and environmental standards, poor health and reduced social cohesiveness" (Stafford, 1978:40).

In the socialist countries, for example, the argument for giving priority to investment in housing was that it would produce a healthy environment for the labour force which in turn would strengthen the productive sector (Mathey, 1990). Subsidies are also applied to transfer wealth between income groups (Renaud, 1987) and, through subsidies, governments can make some persons better off without making others worse off (Grime, 1976).

Moreover, when shelter and infrastructure conditions for part of the population remain unacceptable, or most of the intended residents can not afford housing, subsidies are introduced (Rodwin and Sanyal, 1987; UNCHS, 1990). A government may also hope to ensure that households receive sufficient resources to maintain some minimum standard of housing provision, and ensure more equal distribution of income within society (Stafford, 1978).

Aaron (1972) argues, that in addition to the rationality of improving the self perceived well-being of recipients, the government intervened in the housing market to correct imperfections in its functioning. According to Lansley (1979:140) it was done to

"secure greater equality in the allocation of housing resources than would result in a free market situation, and ensure that whatever assistance is used to promote this aim provides equity of treatment between different householders".

On the other hand, introducing subsidies for housing has its drawbacks. They defeat the goal of cost recovery within housing projects (Mayo and Gross, 1987), lead to inefficiency in resource allocation and impose great financial constraints for service extension which consequently limit housing supply (Linn, 1983). They alleviate potential problems from ambitious planning standards such as high levels of defaults, slow rates of housing consolidation and lack of participation by intended target groups (Mayo and Gross, 1987). Subsidies are considered wasteful since they aid the survival of the few at the expense of creating a distortion in the market and encouraging irresponsible attitudes of dependency in the recipients (Sanyal, 1981).

The dependency attitude is widely recognised in the Arab Gulf countries as a result of extreme welfare policies being adopted, as the discussion in the next chapter shows.

In many countries, arguments have been raised about the inefficiency and inequity which exist in the housing subsidy systems. Lansley (1979) argues that housing subsidies in Britain have been inefficient in their impact. They have encouraged the decline of the private rented sector and a deterioration in the quality of privately rented accommodation and produced higher house prices which have in turn increased public spending on housing. In addition, substantial resources have been channelled directly or indirectly into improving the housing condition of those already well housed and increasing the wealth of land-owners, developer and better off owner-occupiers. In the US, Bourne (1981:212) finds that housing subsidy programmes have reached relatively few people among those in real need and he concludes that

"such programmes have not been particularly successful, measured in social equity terms".

In developing countries the ineffective way of applying subsidies was resulted in benefit to the high-income group of population, has been restricted to few rather than to many (Grimes, 1976), produced high administrative costs and had painful unintended consequences for those not receiving benefits (UNCHS, 1990). In some countries the housing subsidies have become counter-productive, failing to deliver social justices and skewing the distribution of income by adding to the growing income gap between households (Sanyal, 1981). In their study of site and services housing projects Mayo and Gross (1987) find that the most serious problem in extending the application of such projects is the existence of subsidies that are too high to allow large-scale replication of projects.

Such inefficiency and inequity in housing subsidies may be attributed to the high standard of subsidised housing. The utilisation of high standards in public housing has resulted in the inability of a high proportion of the low-income group to afford such costs so that these houses end up in the hands of the higher income group who can afford the cost, thus resulting in inequity in wealth distribution (Sennik, 1991). The application of these high standard sometimes comes as a

"result of the inappropriate application of a rule of thumb that households can spend from 20 to 25 percent of their

income for shelter and related services " (Mayo and Gross, 1987:328).

The market imperfection in meeting the housing demand of the middle- and higher-income groups has also contributed to giving these groups more access to such subsidised housing since the purchasing power and political influence of these groups are more effective than those of the lower-income group (Grimes, 1976; Linn, 1983). The ineffective housing allocation system and stringent eligibility criteria may also contribute in inequity of housing distribution (Awotona, 1984). Moreover, this bias in housing allocation for higher income groups may be explained by a desire to ensure the efficiency of cost recovery which could be achieved from those beneficiaries rather than the lower income groups (Abdullah, 1995).

To overcome housing subsidy inefficiency and inequity the suggestion first is to avoid direct government production of subsidised public housing and focus more on provision of infrastructure, finance and secure land tenure in order to increase housing demand (Mayo, 1987, Renaud, 1987). The introduction of a bundle of shelter and services on which households are willing to spend a good deal more than they normally do on, for example, shelter per se, may reduce the subsidies and induce changes in household willingness to pay for shelter, argues Mayo (1987). The housing preferences in some instances of housing project beneficiaries may contradict the interest of other actors in the housing process. Shifting the housing delivery from public housing to the private sector, for example, may undermine the interest of the high ranking decision-makers as such a shift may reduce their control on internal affairs, as the discussion in Chapter 7 shows.

Effective subsidies should also be well targeted to the poor, measurable by identifying and costing the subsidy elements of land, building materials and infrastructure (Mayo, 1987), transparent by avoiding any hidden subsidies (World Bank, 1993) so that it is apparent to anyone who is getting what in a subsidy scheme (UNCHS, 1990). The sources from which the transfer will have been made should be clearly known (Renaud, 1987). However, the above recommendations contrast totally with the government housing policy in the UAE (see next chapter) where the government still builds 100% subsidised housing with many hidden subsidies of land, infrastructure provision and administration cost.

In addition, to reduce levels of subsidy, political will and effective planning are required with more consideration given to the level of shelter and infrastructure

standards that are affordable for the target group (Mayo, 1987). The lower the housing standard, the lower should be the subsidies per unit and the greater the likelihood of the project being replicable and sustainable. Moreover, the smaller the subsidy the greater will be the number of beneficiaries it will reach and thus the more equitable its distribution would be (Sennik, 1991).

The argument for removing or reducing subsidy levels may be theoretically acceptable but practically impossible.

"The expectation of free or subsidised provision of certain services (such as water supply, use of central city roads and neighbourhood streets, public bus services and education) may have become so ingrained in the popular mind that any efforts to start charging unsubsidized rates will generate considerable negative public reaction (Linn, 1983:81).

The political will to remove subsidies in many of the Arab oil producing Gulf states is very weak since such a step would cause great political unrest, despite the fact that these countries are suffering from a budget deficit as a result of lower oil prices. The Kuwaiti government, for example, which suffers a severe budget deficit from both the decline of oil prices and its commitments to pay for the consequences of the second Gulf War, still applies its generous welfare policy of free education, health and subsidised housing. The government is even reluctant to apply the World Bank's recommendation of reducing the level of subsidies for electricity and water (Al-Quds Al-Arabi, 31.7.1996). Removing subsidies or even reducing them may lead to social and political unrest in the Arab Gulf States, as the next chapter shows.

2.8 HOUSING STANDARDS

The term housing standards covers many aspects, including space, technology, and quality of construction and building materials (Mabogunje, Hardoy, and Misra, 1978). However, this research is concerned more with the standard of space and construction.

Standards are set up to reduce fire and health hazards (Linn, 1983), to guarantee high-quality shelter and to raise the quality of construction in particular or the quality of life for residents and communities in general (Burns and Ferguson, 1987). The housing

movement throughout the world, according to Rodwin and Sanyal (1987), has been based on the idea of improving the quality of shelter and settlements by condemning or eliminating units or areas that fall below "minimum" standards.

In many developing countries building and planning standards have been transferred from developed countries (Burns and Ferguson, 1987; Gilbert and Ward, 1985; Darakakis-Smith, 1981). In other instances, standards have been set by middle-class officials according to their own priorities (Turner, 1976) and who are concerned only with physical aspects of the dwelling (Grimes, 1976). The adoption of standards from developed countries, according to Rodwin and Sanyal (1987:9), reflects inherited colonial standards and in other cases high imported standards were

"demanded as evidence of modernisation and economic progress, particularly if shortage of foreign exchange was not an immediate problem".

According to Mabogunje, Hardoy and Misra (1978) western-educated officials have played a notable role in standard-setting in most developing countries. Foreign consultants also introduce standards which have been developed in the West as a response to settlement issues in the developing world (Hardoy and Satterthwaite, 1981). In some African and Asian nations building standards date from colonial times where their purpose was to provide European settlers with a design and standard of house similar to that in their country of origin (Blitzer, Hardoy and Satterthwaite, 1981) which in some countries have well exceeded the developed countries' own standards (Burns and Ferguson, 1987).

The utilisation of such imported standards has been considered ill-suited to local conditions of the developing countries (UNCHS, 1990a) and show no regard for differences in economic, social, cultural, environmental conditions and ability to pay between developed and developing countries (Burns and Ferguson, 1987; Gilbert and Ward, 1985; UNCHS, 1990). Existing official standards in most developing countries are irrelevant to local culture, local resources and local experiences (Mabogunje, Hardoy, and Misra, 1978), and lack realism in their design and application, information that would guide their use, manpower and skills for design and implementation (Linn, 1983), and understanding among users (UNCHS, 1987).

The adoption of imported sophisticated building technology contributes to maintenance problems. The maintenance of high technology is costly (Blitzer,

Hardoy and Satterthwaite, 1981) and requires specific equipment, spare parts, and skilled personnel (UNCHS, 1987). However, some argue that high specification and the use of the durable materials can reduce the long-term maintenance bill (Chisholm, 1992). Others, consider that the use of high technology require the high consumption of energy (Kashino, 1992) which contrasts with the call for the use of small-scale low-capital technologies to raise the living standard of the poor in many developing countries (Spence, 1992). Applying high technology standards also results in more imported building materials, more dependence on foreign experts and imported technology (Drakakis-Smith, 1980) and a high production cost, insufficient production capacity and diminished prospects for investment (UNCHS, 1990). It also means a massive drain of scarce foreign exchange resources and employment for very few people (Gilbert and Gugler, 1981).

The utilisation of such imported building standards in the shelter projects intended for the low-income groups has severely affected the accessibility of this group to public housing. The provision of large-scale accommodation built to a high standard and employing advanced capital-intensive technologies results in high cost housing. Such high cost housing has consequently restricted consumption to middle and high income groups and encouraged low-income groups to shift to informal sectors (Burns and Ferguson, 1987). It also restricts the housing supply. High standards result in high prices which the urban poor cannot afford or are unwilling to pay (Turner, 1976).

"The 'prescribed' technology is not within the reach of a large majority of people; if these standards ruled, then a large number of people would have no shelter"
(Mabogunje, Hardoy, and Misra, 1978:80).

In order to make such housing more affordable for low-income groups, the government started to subsidise such housing projects. This policy did not last for long in most developing countries, as discussed earlier. Ultimately, high standard housing has excluded the poor from the housing market calculation since it is difficult for them to achieve the criteria of cost recovery (Rodwin and Sanyal, 1987).

Having recognized that shelter is both a welfare and an economic asset, Peattie (1987) argues, people have been forced to pay for more welfare than they want via the enforcement of standards. On the other hand, poor people were prevented from building their own houses outside the government building standards and regulations. Official standards in some developing countries, according to Hardoy and

Satterthwaite (1981), prevent the use of the local building materials and demand the use of imported materials and construction standard. Burns and Ferguson (1987) also debate that standards have been set for both the poor and rich alike without consideration for differences in their ability to pay. The notion that poor people should build their own houses was bad in the minds of professionals and politicians since poor people use poor materials and their houses are badly designed (Gilbert and Gugler, 1981), and since

"what is indigenous is often considered dated and substandard"

according to Mabogunije, Hardoy, and Misra (1978:11). Turner (1976) therefore argues that the government thus hinders people from building to a standard that the vast majority can afford and are satisfied with.

On the other hand, it has been argued that poor people are not generally in support of low-standards. The urban poor themselves prefer the western concepts of habitability which have been regarded as symbols of success and they frequently disdain and discard the traditional form of housing which they considered inferior and old-fashioned (Drakakis-Smith, 1980). Martin (1982) observed that some residents of the squatter settlements in Lusaka, Zambia have exceeded the low-standard set by authorities by using expensive building materials such as concrete blocks. Martin (1982:267) explained such an initiative by saying that people in these settlements

"wanted the 'new' settlement to turn its back on the village type of developments (as they saw it) by using the high-status material - concrete blocks".

In an attempt to tackle and avoid overly high standards, many researchers have urged the utilisation and adoption of standards based on people's needs, local resources and technology. Spence and Cook (1983) stress the need for technological choice based on cost, local availability, and long run maintenance considerations. Mabogunije, Hardoy, and Misra (1978) claim that the closer the standards are to the social and technological characteristics of the population the more people can participate in shelter construction by using locally available building materials and not high-cost scarce technology. Blitzer, Hardoy and Satterthwaite (1981) also stress the need to have a balance between what is desirable (in terms of health and safety), attainable (by both large and small construction operations), and affordable by the majority of households. In addition, the employed technology and standard should be within the

ability of local labour to handle and maintain (Burns and Ferguson, 1987) and builders should be free to use available and affordable materials and construction techniques (UNCHS, 1991b). Moavenzadeh (1987) and Burns & Ferguson (1987) also emphasize the upgrading of existing occupied substandard housing units. The rehabilitation of such decaying units, they argue, will increase the existing housing stock and will increase the size of acceptable housing.

However, most local authorities are hesitant to reduce construction standards because they fear this will increase subsequent maintenance costs (Drakakis-Smith, 1980). Others consider such a step as a first step towards urban slums (Dwyer, 1975). The demand to reduce the standard also contradicts the call of some governments to improve and raise the standard of living by building housing to last for a long time, therefore, many governments are loath to be accused of building slums and thus of lowering the standard of living (Grimes, 1976). Some developing countries have only reduced planning standards following pressure from international funding agencies (UNCHS, 1991b).

Rodwin and Sanyal (1987) see that call to lower the building standards as conflicting with the interests of many groups of politicians, government officials and professionals. They argue that politicians considers high standard as a visible symbol of the provision of benefit for their supporters. Engineers adopt high standards to avoid risks of construction failures while professionals who work on a percentage of cost fee basis gain more benefit by building to high standards. The challenge of changing building standards according to Spence and Cook (1983:305) requires a radical change in the organisation of society as a whole, a change of human resources, a change in education and training, and a change in social value

"in other words a more appropriate technology can only follow a social revolution".

2.9 HOUSING ALLOCATION

The above discussion shows that the public sector intervenes in housing in order to improve the housing conditions for those who cannot house themselves to the standard set by the public sector. Public authorities, therefore, are more concerned to achieve greater equality in the allocation of housing resources and to secure equity of treatment between different households (Lansley, 1979; Bourne, 1981). Solomon (1974) identified two types of equity; horizontal equity and vertical equity.

"If the intended beneficiaries of a given federal programme may be considered horizontally inequitable to the extent that it provides some members of the target group with more assistance than others. Similarly, a housing programme is judged vertically inequitable if a substantial proportion of its benefits are diverted to individuals outside the target population" (Solomon, 1974:78).

The experiences of the majority of developing countries shows that no government has succeeded in achieving horizontal equity since they have failed to provide housing for all the poor who share the same circumstances. Furthermore, as the discussion below shows, some governments have failed in achieving vertical equity since the benefit of public housing resources is diverted toward those outside the intended group.

The issue of equity also extends further since the government provides housing for low-income groups which often exceeds the standard of middle-income group housing. Such inequity poses doubts about the rationality of allocating certain types of housing for the poor while those from other income groups do not receive any kind of support from the government. Lansley (1979) argues about the difficulty of talking about equity and fairness in housing allocation in the UK (in the 1970s) when council tenants were uniquely over-subsidised while owner-occupiers were self-sufficient and self-sacrificing. Solomon (1974) raises the same issue regarding the US public housing since many households whose incomes hover just beyond eligibility have to pay market prices to occupy substandard housing while those with marginally lower income are provided new standard housing at below-market rents.

Equitable allocation of housing according to Burns and Ferguson (1987) could be achieved through more consideration of the affordability criterion. Setting affordable housing standards will ensure more access to housing by the poor without straining their budget and this consequently will show more convincingly that shelter is a means for wealth redistribution.

Table 2.2. Similarities and Contrasts in Private and Public Housing Allocation

Index	Private market allocation	Public sector allocation
Principal objective	Efficiency	Equity
Criteria of efficiency	Minimising aggregate housing prices and rents,	Maximising use of existing stock
	Maximising output and profits, Maintaining rates of return	Minimising administrative costs
Criteria of equity	No one can move without making others worse off, Price restricts over-consumption	Maintaining adequate stock
		Assuring adequate housing for all
Process of allocation	Competition (ability to pay)	Treating all equally according to their needs
Countervailing process	Collusion, Co-operation	Needs and social priorities
		Competition (among agencies and tenants)

Source: Bourne(1981)

The criteria of allocation as Table 2.2 shows different in the public and private sectors. The private market allocates housing services according to people's ability to pay while the public sector allocates housing according to people needs and the objectives of the institution involved. The accessibility to housing in the private market depends on ability to pay, income of the households, access to loan finance, income stability, occupation and status (Lansley, 1979). While on the other hand, accessibility to housing by the public authority is based on housing needs. These needs are usually defined by certain criteria.

In the UK, for instance, the qualification to council housing is based on length of residence in the area, household size, age and composition (Stafford, 1978), the degree of deprivation in a household's current living situation, and those with special needs (Bourne, 1981). In the US income and ethnic identity are main criteria in housing allocation in the public housing (Solomon, 1974). In Hong Kong the eligibility for government housing is based on household size and income and priority is given to those made homeless by emergencies and families affected by clearance schemes and to those living in unsatisfactory dwellings (Drakakis-Smith, 1980). In Nigeria the head of household salary is the only criterion used to determine the eligibility in housing allocation in public housing (Awotona, 1984). In many developing countries poor people were excluded from public housing because they lack the proof of a regular income which is demanded by eligibility criteria (Hardoy and Satterthwaite, 1987).

Experiences of housing allocation throughout the world, however, show that public housing resources are not always allocated to those who are most in need and serve

only a small fraction of those who most in need for housing. Muth (1976) described the public housing in the US in the seventies as a lottery since it served only a few low-income families. Public housing, argues Muth (1976), offers a small chance of a big improvement in housing and a large chance of no improvement to eligible lower income families. In developing countries only those who are fortunate achieved access to public housing claims, Mayo (1987). Gilbert and Gugler (1981) state that public housing in many developing countries is commonly occupied by the upper- and lower-middle-income groups or those with appropriate political links.

Such bias in housing allocation may be attributed to the fact that public housing serves other functions in the society than allocation to the poor, such as ideological purposes, sustenance of the formal private construction industry, provision of homes for government's supporters and members of working class groups in strategic industries (Gilbert and Ward, 1985). Some governments, according to UNCHS (1987), often chose to use their public housing programmes as a mean of rewarding special groups such as civil servants, military personnel, and government housing that was promised to the many ended up in the hands of the privileged few.

This bias in housing allocation according to Bourne (1981) comes from the ability of certain groups in society to influence the allocation process by exploiting their occupational status, social position or social contact while on the other hand the poor and working classes do not share these values and thus are denied a level of access to housing. Black and Stafford (1988:13) argue that people would only get accommodation if they could persuade the allocation body to provide it for them, and they would only get the kind of accommodation they preferred if they could persuade the authority to allocate it to them.

"That is, the system would favour any person or group favoured by the authority, and penalise anybody not in favour".

Others argue that eligibility criteria contribute in skewing the benefit of the public housing from the poor (Awotona, 1984; Fadaak, 1984). In Saudi Arabia, Fadaak (1984) asserts that the association between owning land and qualifying for an interest free loan shifts the benefit from the poor who find it difficult to obtain land to middle and upper income groups who have the funds to have access to the land and then get the interest free loan.

In site and services and upgrading schemes the very poor have been ignored or pushed out (UNCHS, 1991a). Such ignorance does not attribute to criteria of allocation but rather to the fact that poor people can not afford such delivery because of high housing standard employed, as discussed above by Burns and Ferguson (1987).

2.10 HOUSING TENURE

Tenure represents the legal rights and duties of occupant vis a vis ownership (Barlow and Duncan, 1994). Security of tenure leads to increasing property values, and higher rates of investment in housing construction and improvements (World Bank, 1993). Security of tenure also leads to greater savings, improvement in the quality of life and more rapid economic growth for the community and country (Carlson, 1987).

Home ownership, which is the most secure type of house tenure, is an asset, a tax-free benefit and a status symbol (Bourne, 1981). Home ownership provides many benefits for both people and community according to Carlson (1987). It provides greater incentives for savings and investment which, in turn, lead to higher family consumption, more jobs, and greater resources for government services. It also creates incentives for maintaining and improving dwellings, neighbourhoods, and settlement. In addition, home ownership provides greater financial security for all members of the household as well as providing for family stability.

On the other hand, Black and Stafford (1988) argue that owner-occupation does not suit everybody. They argue that owner-occupation requires full responsibility for maintenance and repair. Owners, thus, have to be mentally, physically and financially fit to cope with such cost of maintenance. Therefore, this type of tenure is not suitable for some groups of the society such as the poor, the elderly and the disabled.

Insecure tenure leads to underinvestment in housing and the reduction of housing quality (World Bank, 1993). Clouded titles, according to Burns and Ferguson (1987), have inhibited the effectiveness of programmes such as sites and services and upgrading. Only low levels of housing improvement could be expected in self-help housing if the tenure arrangement is unclear (Baross, 1983). The legalisation of titles in squatter settlements has improved the quality of housing, and self-builders invest substantially in an asset that is perceived as secure (Burns and Ferguson, 1987). Ensuring access to land and legal security of tenure is a strategic prerequisites for the provision of adequate shelter and for the development of sustainable human settlements (UNCHS, 1996a).

Table 2.3. Tenurial costs and benefits

	Social renting	Private renting	Co-operative tenant- ownership	Purchased owner- occupation	Self-provided owner- occupation*
<i>Entry costs</i>	lowest	low	medium	highest	high
<i>Access form</i>	queue	market	queue/market	market	self-help
<i>Choice of location and dwelling type</i>	variable	variable	medium	medium	high
<i>Current expenditure</i>	lowest	variable	medium	highest	high
<i>Security of tenure</i>	highest	variable	high	medium	high
<i>Dwelling control</i>	variable	lowest	medium	high	high
<i>Responsibility for repairs and maintenance</i>	low	low	medium	high	high
<i>Property ownership</i>	none	none	mixed	mortgaged	mortgaged
<i>Capital gains</i>	none	none	low	medium	highest

Source: Barlow and Duncan, 1994

*Self-provided owner-occupation covers all housing in which an individual household takes the responsibility for getting the house built for themselves and includes self-help and self-management with the building undertaken by a builder or by a specialist firm supplying the household's chosen prefabricated dwelling (UNCHS, 1996, 224)

The variations of tenure have different costs and benefits for the consumers as Table 2.3 shows.

"Each tenurial form offers consumers a mix of attributes, concerning access and choice, current costs, security and control, property ownership and capital gains" (Barlow and Duncan, 1994:76).

The co-operative tenant-ownership falls between the full ownership rights and no ownership rights where the housing co-operative owns the housing unit while the tenant owns the occupancy rights which are sold and bought (UNCHS, 1996). The social renting tenants enjoy a high security of tenure and low responsibility for repairs and maintenance. The low responsibility of repair and maintenance of the public housing tenant places a great responsibility of this duty on the public authorities. The high cost of repairs and maintenance of public housing, therefore, has forced many public authorities in the developing world to provide subsidies for public housing tenants. This is to encourage the tenants to buy these housing units and take the responsibilities of maintenance.

2.11 SUMMARY

The above discussion shows different shelter approaches in developing countries, their development, the rationale of adopting each approach and some of the drawbacks. The experience in the majority of developing countries shows that governments have failed to respond to quantitative and qualitative needs of poor people when they act as sole providers without the people's participation and other actors being involved in the housing process. Public housing according Rodwin and Sanyal (1987) is no longer the best solution to improve housing.

On the other hand, the housing needs of the poor have been better met when there is participation between the government, the people and other actors. The enabling approach, therefore, has recognized the role and potentialities of all actors in the housing process and stresses the importance of the participation of the intended group and other actors with the facilitating role of the government in scaling up housing supply. Turner's self-help, World Bank affordability, cost recovery and replicability and Habitat enabling approaches, all these main shelter approaches have stressed partnership between governments and people in order to improve the housing conditions of the poor. The only role for government, according to these shelter approaches, is to improve access to land, funds, secure tenure, affordable standards and procedure and infrastructure. The people for their part will employ these housing inputs to house themselves according to their needs and priorities.

The shift in shelter policies from the provider to supporter and then more recently to enabler approaches was not an easy task in some developing countries. The UNCHS (1987) states that outsider support of international aid agencies has resulted in implementing the site and services and up-grading projects in some developing countries since these countries were reluctant to adopt such policies. The greater market orientation encouraged by many powerful governments in the north and by many international donors, change in economic conditions, democratic pressure and demand for public participation, and the scarcity of international funding available for housing projects, have all also influenced the shift of policy in many developing countries (UNCHS, 1996).

However, as far as the UAE housing policy is concerned the assumption should be that the government is likely to embrace the provider approach at least for the near future. This assumption is based on the following.

The UAE is still able at the current time to provide free public housing although such provision is not provided continually as the next chapter shows. Moreover, the UAE does not and will not, in the short term, be in need of financial assistance from any international fund agencies. The co-operation, for example, between the UAE government and the World Bank is only on the level of consultancy and technical assistance. This technical assistance covers the possibility of privatisation of the electric and water sectors and evaluates the performances of the public health sector (Al-Khaleej, 24.9.1996). Such co-operation does not imply any obligation from the UAE government to apply World Bank policy. In addition, the nature of the political structure in the UAE where power is entirely in the control of the ruling family and any public participation is excluded, provides no room for the people to be involved in any kind of pressure to change government policy.

Therefore, the factors which have affected the shift in government housing policy in many developing countries are not applicable within the UAE context and therefore the assumption will be that UAE government will keep its current housing policy for the low-income group as a provider until some of the above factors become applicable.

CHAPTER THREE
HOUSING IN THE UAE

CHAPTER THREE

HOUSING IN THE UAE

3.0 INTRODUCTION

The United Arab Emirates was one of the poorest areas in the world until very recently, but with the discovery of oil in the 1960s, it attained one of the highest incomes per capita in the world. This enabled the government to establish generous welfare programmes for its nationals with all social services provided free of charge and no taxation. The free social services programme includes the provision of free housing for low-income citizens.

The aim of this chapter is to study how the United Arab Emirates houses its low-income group and to examine programmes employed by the government to achieve this purpose. This chapter aims also to study the rationale behind the provision of free housing: Why does the United Arab Emirates act as a provider of housing? What is the process of housing allocation? What is the standard of housing of the low-income group? Does the free housing policy succeed in meeting the quantitative needs of the target group?

This chapter begins by presenting a brief description of the United Arab Emirates, its political structure and its economic conditions. It also discusses the rationale of welfare programmes and subsidies. Reviewing the political and economic aspects of the United Arab Emirates will enable a greater understanding of the context in which such housing policies and programmes are operating. Without some understanding of recent trends in economic and social change, any explanation of such a policy towards the urban poor is bound to be superficial (Gilbert and Ward, 1985). Addressing the state's official position, its ideological base and its role in development help to understand the scale and nature of any government intervention in housing (UNCHS, 1996).

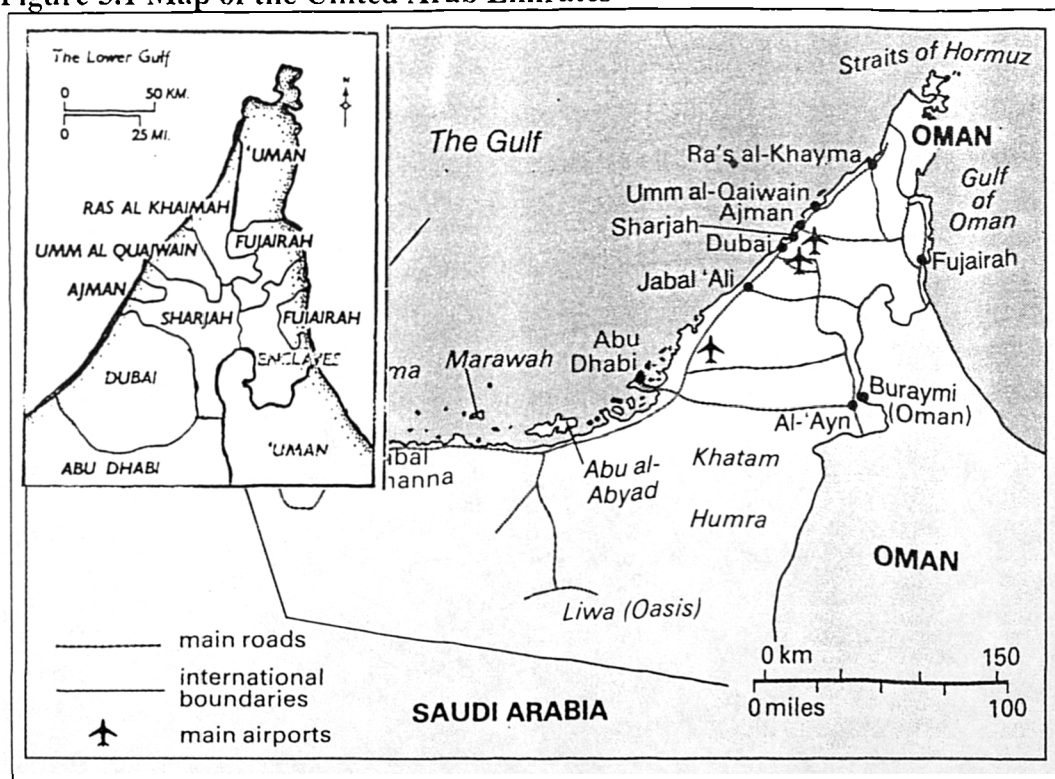
Having presented the above, this chapter will go on to examine the development of government low-income housing programmes in both the pre and post oil era. Such a review will enable an understanding of the roots of the current free housing policy. An examination of the rationale behind the free low-cost housing policy and of

housing processes of Federal low-cost housing operating in the Northern Emirates will be followed by a discussion covering the development of housing standards for low-cost housing from the early 1970s to the early 1990s. This chapter discusses also the processes of housing allocation and the role of different actors within this process. Finally, this chapter examines the supply and demand of low-cost housing and investigates whether current housing policy succeeds in meeting housing demand for the target group.

3.1 THE UNITED ARAB EMIRATES (BACKGROUND)

The United Arab Emirates (UAE) consist of seven sovereign emirates: Abu Dhabi, Dubai, Sharjah, Ras al-Khaimah, Umm al-Qaiwain, Fujairah and Ajman. The UAE lies on the north east Arabian peninsula and is situated on the southern coast of the Arabian Gulf. For more than a hundred years these emirates were under British rule and during this period were known as the Trucial States. At the end of 1960s the British announced their withdrawal from the region. On the December 2, 1971 the seven emirates established a federation called the UAE.

Figure 3.1 Map of the United Arab Emirates



Source: The Cambridge Encyclopaedia of the Middle East and North Africa, 1988

Abu Dhabi Emirate is the largest in area, population and is the richest in oil. In all three aspects, Dubai is in second position but also active in trade and commerce. Sharjah takes third position, Ras al Khaimah, the most northerly of the Emirates takes fourth place. Fujairah is the only one of seven to be situated on the Omani coast. Um al Qaiwain and Ajman are the smallest of the seven emirates in area and population (Fenelon, 1973).

Before the discovery of oil, the area covered by the UAE was known to be one of the poorest in the world because of its lack of resources (Al-Mutawa, 1983; Peck, 1986). People lived very simple lives based on a close to subsistence economy in which a tiny surplus satisfied the limited needs of a small number of people (Rumaihi, 1983). In the pre-oil era the great majority of settlements in the area lacked electricity, running water, adequate housing, health care and education services (Essa, 1981). The great majority of the population, as the coming discussions will show, were living in dwellings built of date-palm fronds and mud.

Hopkirk (1975) wrote in the Times that, until recently, the seven emirates counted for nothing: seven small feuding emirates scattered along a barren coastline. The area, much of which is desert, suffered from a scarcity of economic resources. The economy had traditionally depended on pearl fishing, agriculture, fishing and trade. The income of all the emirates together in 1964 was about 6.7 million pounds (Al-Tabtabia, 1978).

3.1.1 POLITICAL STRUCTURE

Traditionally each emirate has its own ruler. The ruler of an emirate, or sheikh, is the leader of the most powerful tribe in the emirate. Such rulers maintained their authority only insofar as they were able to maintain the loyalty of all tribes settled in the territory of their emirate (Al-Abed, Vine and Vine, 1996). The tribes have traditionally constituted the most important source of local political support for the ruling family (Anthony, 1975). Despite the fact that the UAE has been a federation for more than 25 years, tribal loyalties to individual rulers are still a very important part of UAE politics (EIU, 1995).

For a long time the ruler, with the help of the members of the ruling family, took the responsibility of running the internal affairs of the Emirates. The system of local government is basically authoritarian and paternalistic. The ruler's authority is absolute, but he is constantly accessible to any subject who wishes to see him with a

petition, a complaint or a personal problem (MEED, 1970). The decisions of the ruler made with his advisors and representatives of the most important groups in the sheikhdom are final (Anthony, 1975).

By the 1950s each emirate started to establish its own local departments such as municipalities, land departments, public works department, water and electricity. The ruler's office in each emirate held the responsibility of supervising and controlling the local departments. Generally the ruler of the emirate took all the ultimate decision regarding emirate development. He was also advised by the Government departments and international consultants (MEED, 1970).

The establishment of the Federal state did not abolish these institutions of the local governments. According to the constitution, each emirate has the right to establish its own local departments under the control of the emirates ruler. This constitutional right of the local emirates to establish their own local department, Al-Shaheen (1995) argues, has weakened the federal initiatives and gives the local government more support to cement their own sovereignty and local departments.

According to Article 45 of the UAE constitution, the structure of the Federal government consists of five main authorities; the Supreme Council of Rulers, the Presidency, the Council of Ministers, the Federal National Council and the Federal Supreme Court. The Supreme Council is the highest authority in the country and consist of the rulers of the seven Emirates. It has both legislative and executive powers (Al-Abed, Vine and Vine, 1996). Its responsibility is to plan the country's policy, elect the President and appoint and dismiss the Prime Minister. The Federal National Council (FNC) consist of 40 members who are appointed by the rulers of each Emirates. According to the constitution, the FNC has no legislative authority but it can question the federal ministers and make recommendations for both the Supreme Council of Rulers and Council of Ministers.

The UAE government structure, according to Abdulla (1984), is authoritarian and provides no room for any meaningful political participation. He claims that this undemocratic and authoritarian structure is merely a reflection of the UAE tribal political culture which does not allow for the development of opposition. Loyalty to the tribal leader and submission to his authority are, hence, inherent characteristics of the people of the UAE. The US Department of State (1994) agrees with Abdulla that the Emirates are governed through traditional tribal mechanisms. Citizens, however, may express their concerns directly to the ruler of the emirates or their representative

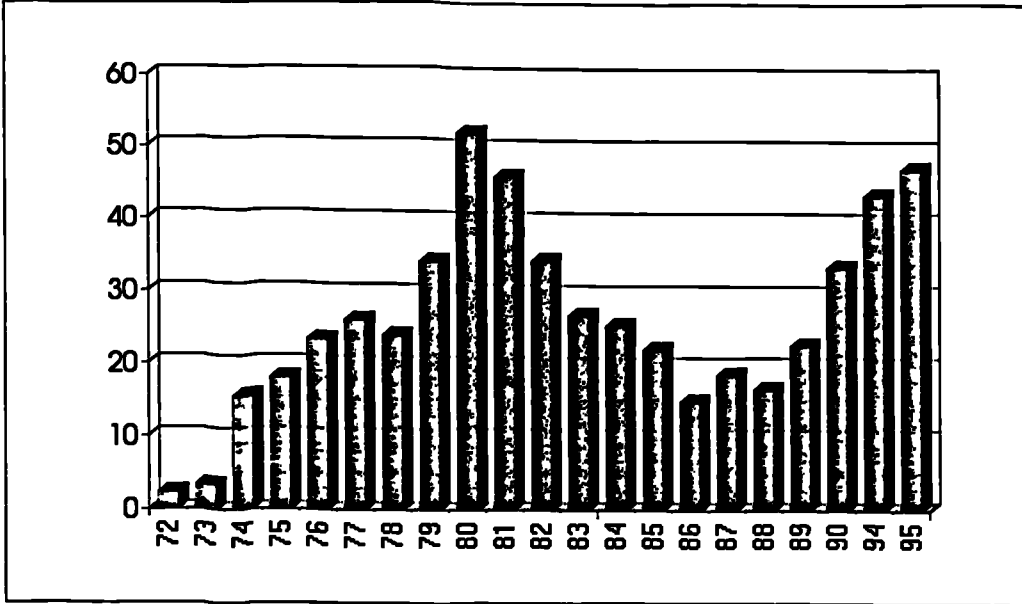
through traditional tribal mechanisms such as the open majles (open meeting held in the ruler palace or office). Citizens in the open majles usually ask for residential land, a grant for marriage or building a house, help from the ruler to obtain a government job, or a request for a scholarship for a son to go abroad.

However, despite the fact that citizens have the facility to express their concerns in person about their problems, the fact still remains that all consultative and legislative powers are in the hand of the rulers of the emirates and their ruling families.

"The political structure of the federation remains embedded in a tribal past with the ruling shaikh as the sole decision maker and his decisions are seldom openly disputed. Such a system does not adapt easily to a modern state with its need for strategic thinking" (Searight, 1990:3).

3.1.2 ECONOMIC CONDITIONS

As discussed earlier, the UAE economy has been based for a long time on pearl fishing, agriculture, fishing and trade. The oil discovery in the 1960s totally changed the economic and social patterns of the country. Since that time oil and gas became the main pillar of the UAE economy and oil exports are the main source of government revenue. Oil revenue has given the UAE citizen one of the highest incomes per capita in the world, in 1993 this was \$17,000 per annum (UNDP, 1994).

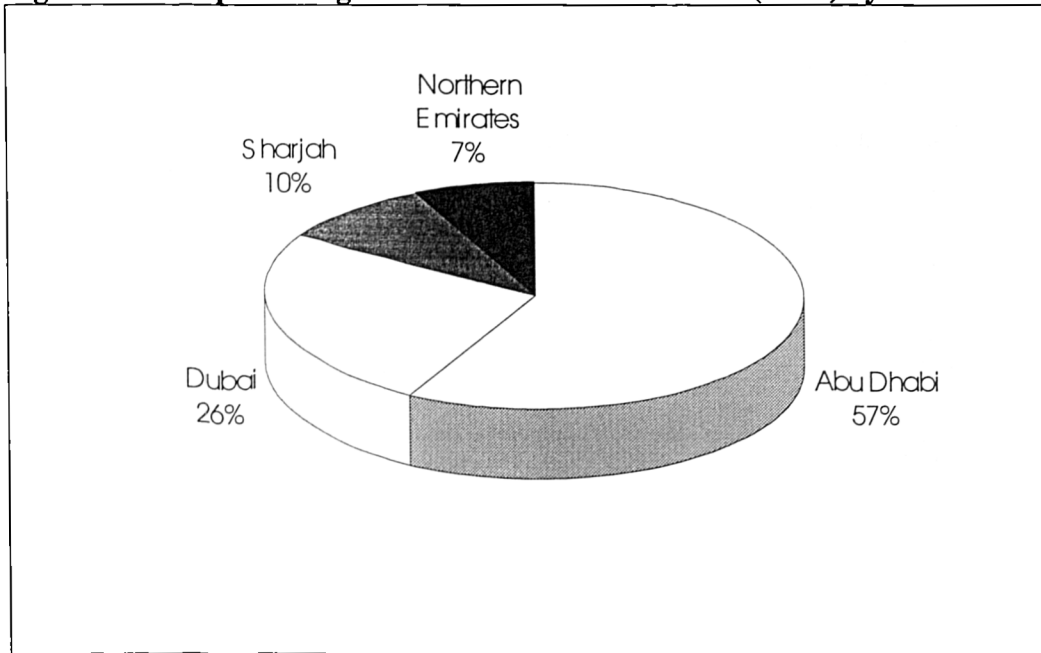
Figure 3.1 Oil revenue in billion Dh 1972-1995

Source: Ministry of Planning, 1987; Al-Mutawa, 1991; EIU, 1992; Al-Yusif, 1993;

The increase of oil prices in 1973-74 increased the country's oil revenue from Dh18billion (\$4.86billion) in 1975 to Dh 52 billion (\$14 billion) in 1980¹. By the 1985 the decline of the international price of oil caused oil revenue to fall to Dh 20 billion (\$5.4 billion). Following Iraq's invasion of Kuwait the oil price has increased and consequently the country's oil revenue has again increased (EIU, 1992) (see figure 3.1).

The fluctuation of oil prices, the country's main source of income, has resulted in budget deficits (Witherow, 1983) and has affected the Federal government's public spending, especially on housing, as the following discussions will show. The fluctuation of oil prices has also raised calls for the development of a more diversified economy and the establishment of a non-oil economy. However, despite government's attempts to diversify income through industrialisation, agriculture and fishing, the mainstay of the UAE are still oil and gas (EIU, 1995) since they have one of the largest oil reserves in the world (MEED, 1996). With the current rates of production, such oil reserves should last for well over 100 years (Al-Abed, Vine and Vine, 1996a).

¹The UAE currency is Durham (Dh) and one US Dollar equal to 3.7 Dh

Figure 3.2 The percentage of Gross Domestic Product (GDP) by emirates in 1988

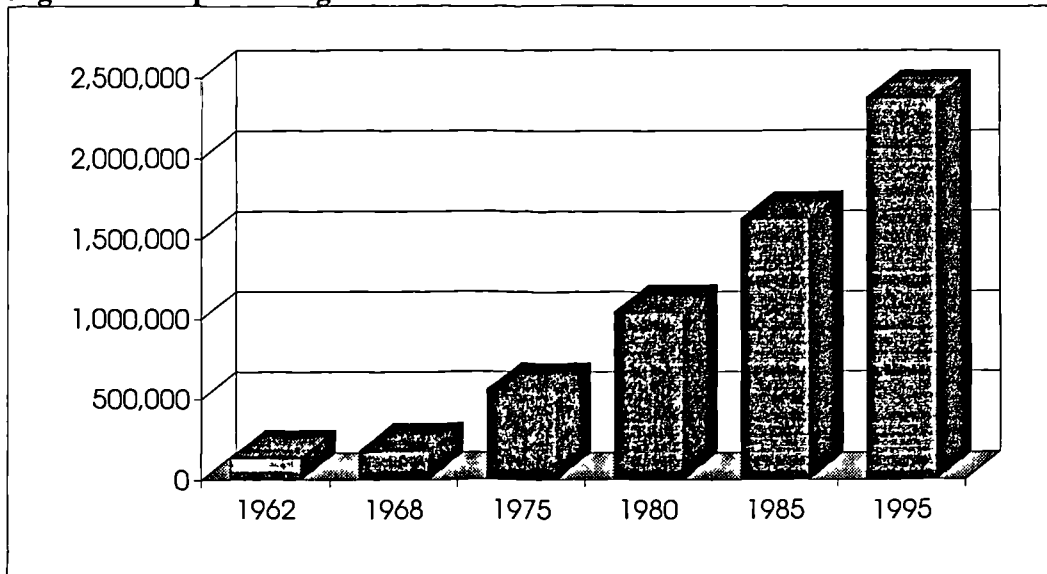
Source: Ministry of Planning, 1989

Economic prosperity, however, varies between the seven emirates. The oil emirates of Abu Dhabi, Dubai and Sharjah enjoy more economic and social development than the Northern non-oil emirates. According to Article 23 of the UAE constitution, the natural resources of each emirate shall be considered as public property of that emirate. The Northern emirates of Ras al Khaimah, Fujairah, Umm al Qaiwain and Ajman lack natural economic resources and rely heavily for their development on the federal government financial resources which are funded by the oil emirates. Figure 3.2 shows that the Northern Emirates contributed only 7 per cent of total Gross Domestic Product (GDP) in 1988.

The dependency of these emirates on the oil emirates for financial support, claims Cockburn (1982), has always been crucial cement for the federation. The limited financial resources of the Northern emirates means they must rely heavily on the federal fund for social and economic development (Al-Musfer, 1985). Social services: education, health, social security, electricity services, water services and housing, in these emirates depend totally on the federal government fund. Federal development spending cuts caused by the decline in oil prices and internal political disputes in the 1980s has severely affected development in these emirates (Searight, 1990).

3.1.3 POPULATION

Figure 3.3 Population growth-1982-1995



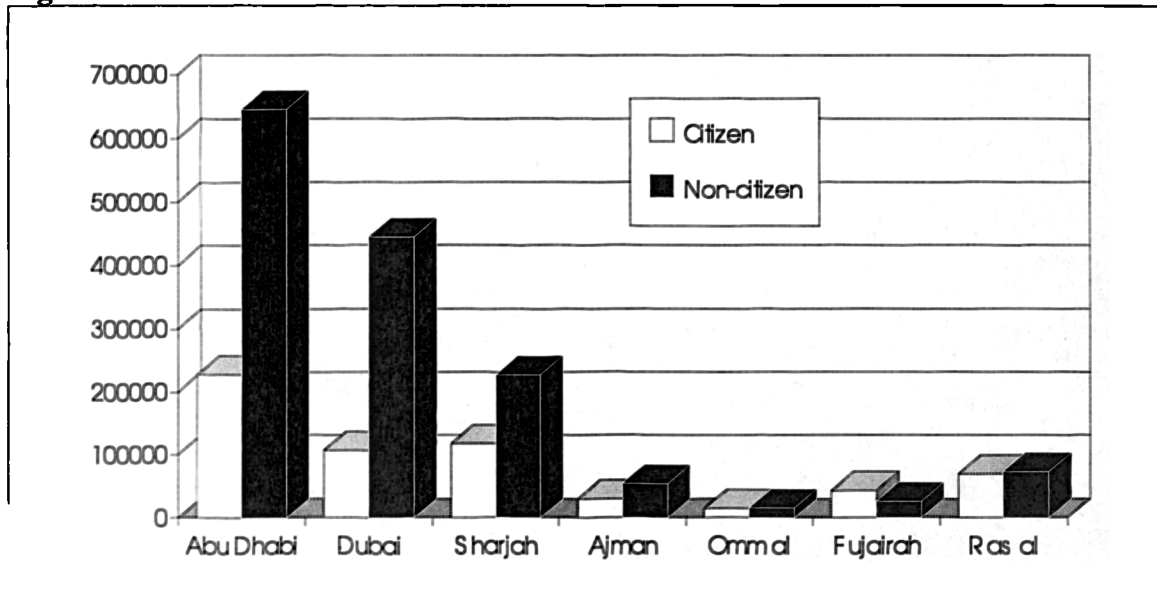
Source: Juma, 1985; Al-Alkim, 1989; Ministry of Planning, 1989 and 1990; Al-Abed, Vine and Vine, 1996

The population of the UAE increased from less than 200,000 in 1968 to 2.3 million in 1995, as Figure 3.3 shows. Over the last twenty five years the population has multiplied twelve times. This high rate of population growth is not attributed only to natural growth but mainly to external immigration caused by the oil discovery and the need for speedy social and economic development. The oil discovery, the limited population base of the UAE, the strong aspiration towards modernisation and the late arrival of modern education all encouraged demand for skilled manpower from abroad (Taryam, 1987). The huge finance allocation to build the country's infrastructure and the development of the oil industry and public buildings increased the demand for foreign labour, because the UAE's native population is small and the majority of people lack education and skill in the required sectors (Saad Al-Dean, 1981). Expatriates hold more than 97 per cent of jobs in the UAE (Khaleej Times, 24.11.1996). Most foreign labour was employed in construction projects and the oil industry (Saif, 1992).

Due to this rapid large scale immigration, the UAE indigenous people have become a minority in their own country. Although there are no official figures available about the percentage of citizens among the total population, estimation by the Interior Ministry (Figure 3.4) shows that they represent less than 30 per cent in 1993. Al-Alkim (1989) estimated the native population to be only 15 per cent of the total population in 1985, while the EIU (1995) estimated it to be 20 per cent. As can be

seen from Figure 3.4, non-citizens are more concentrated in the main three oil emirates Abu Dhabi, Dubai, and Sharjah where most jobs are available.

Figure 3.4 The citizen and non citizen in the UAE in 1993.



Source: Ministry of Interior, 1993

With this huge influx of foreign labour, mainly from India, Pakistan and Iran, the small traditional villages on the Gulf coast of a few thousand inhabitants changed to towns of more than 100,000. The population of Abu Dhabi city rose sharply from 2,000 in 1940 (Saif, 1992) to 22,000 in 1968 and to 279,000 in 1980 (Ghunaim, 1985). The population of the Ras al Khaimah emirate has multiplied eight times within 12 years, from 8,700 in 1968 to 77,000 in 1980 (Ghunaim, 1985). The percentage of the urban population increased from 40 per cent in 1960 to 82 per cent in 1992 with an annual growth of 12.5 per cent (UNDP, 1994).

3.1.4 PROGRAMMES OF WELFARE AND SUBSIDY

Until the 1950s, the UAE lacked the basic social services of education and health. The basic infrastructure of road, electricity and running water networks were also absent.

The official programmes of welfare development in the UAE started in 1952 with the establishment of the Trucial Council Development Office (TCDO) under the authority of the British Political Agent in the Gulf. The TCDO aimed to establish the basic infrastructure of roads, harbours, electricity and running water for the seven emirates.

The TCDO goal was also to provide social services of education, health and housing since the area lacked all these basic facilities (Fenelon, 1973; Bin-Abood, 1992).

The discovery of oil in the 1960s accelerated the development and welfare programmes. This, along with the sharp increase of oil price in the seventies, brought the UAE a level of wealth unparalleled in its traditional history (El-Mallkh, 1981). Such wealth produced an economic explosion and dramatically changed the landscape of the country. Small villages previously lacking basic infrastructure and amenities were transformed into large cities, as plates 3.1 and 3.2 show. Abu Dhabi city area, for example, increased from 2.5 square kilometres to 77 in 1981 and to 183 in 1995. Dubai city area increased from 6.5 square kilometres in 1960 to 18 in 1970, 85 in 1980 and 110 in 1985 (Ministry of PW&H, 1995).

The effect of the new wealth was felt in all parts of the country as with the huge oil wealth the government and rulers of the emirates expanded the development and welfare programmes. These programmes in the Arab Gulf states, according to Abdulla (1993), did not emerge from social pressure or class conflict but as an outcome of the large oil revenue, and in contrast to most developing countries, where the development project usually had to look for funds, the funds were looking for development projects in the Arab Gulf states.

With the establishment of the UAE federation in the 1971, the pace of development and welfare programmes grew even faster. The new federal state established ministries and government institutions aimed to improve the living conditions of UAE citizens and overcoming the traditional state of poverty that had previously characterized the country. According to Khalifa (1980), eight ministers in the first ministerial cabinet were established for welfare purposes. Expenditure on welfare and social services formed a great portion of the Federal government budget in the 1970s (Saad-al Deen, 1981). The priority of these government institutions was to establish the main infrastructure in the country and provide basic social services of education, health and adequate housing which the country had lacked for so long (Taryam, 1987).

The abundance of oil revenue, particularly after the sharp increase of oil prices in the beginning of the seventies, enabled the government to accelerate and expand the welfare programmes in which all citizens had free access to education, health services housing, and others social benefits. The government welfare programmes provided a monthly child benefit of Dh 300 (\$ 81) per family irrespective of the number of the children. The government also provided a social security programme which paid

monthly financial assistance to widows, divorced and unmarried women, orphans and partially or completely disabled persons. The government not only distributes benefits and favours to its population but also to its dominant employees in the economy (Beblawi, 1987). Both the federal and the local governments provided highly paid employment for all UAE citizens especially university graduates compared to the private sector. Employing native graduates is an obligation on the majority of Arab Gulf states (Al-Qaady, 1985).

The government also extended its social services and welfare programmes to subsidise essential consumer goods such as rice, sugar and flour. It also subsidised fuel, electricity and water. For example, electricity costs the government 25 fils² (\$0.07) per unit to produce but local customers are charged only 15 fils (\$0.04), a subsidy of 40 per cent. Water per gallon costs about 3 fils (\$0.008) and is sold to the consumer for 1.5 fils (\$0.004) (Al-Eqtisadi, 1996). Subsidies were also used to provide interest free agricultural loans for farmer to buy machinery, dig wells and build irrigation canals. The government also sells the UAE farmers seeds and fertiliser at half price (Abdulla, 1984) and fishermen get also interest-free loans for buying boats and machinery (Field, 1982). Table 3.1 shows the amount of subsidy in different areas in the fiscal year of 1981.

² One UAE Dirham (Dh) is 100 fils.

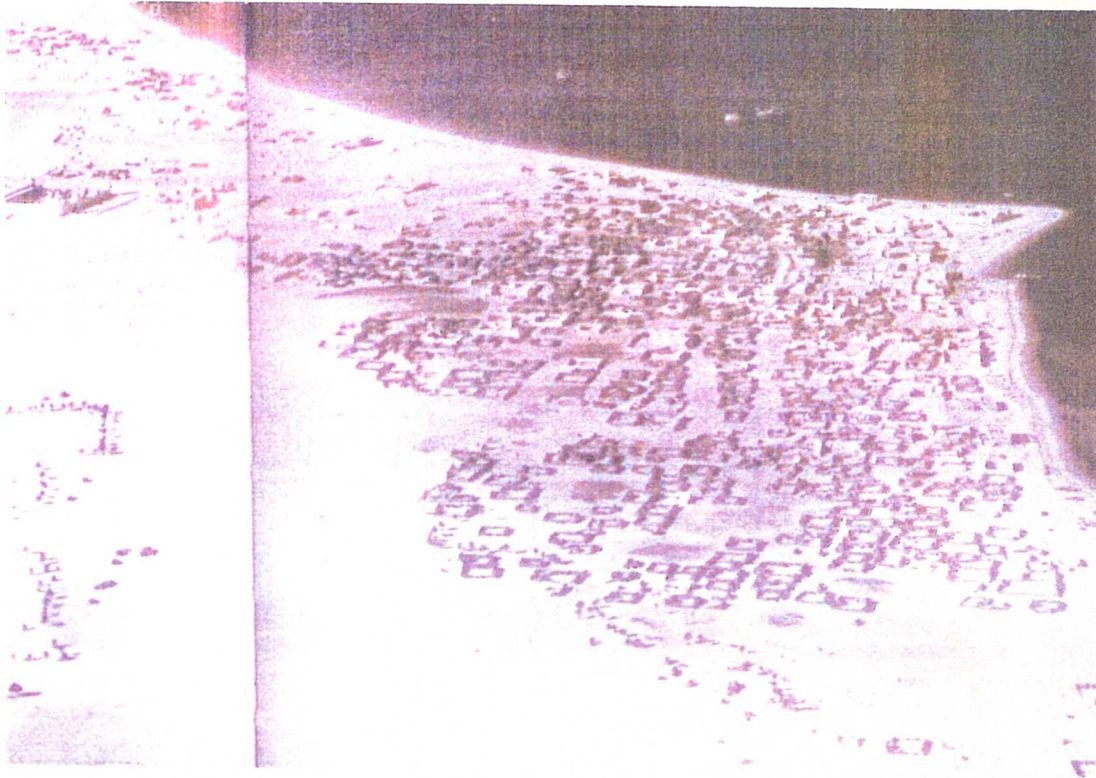


Plate 3.1. Abu Dhabi in 1950s



Plate 3.2. Abu Dhabi city in 1990

Source: Al-Ittihad Supplementary 2.12 1994; Al-Abed, Vine and Vine, 1995



Plate 3.3. Ras al Khaimah town in 1950s



Plate 3.4. Ras al Khaimah town in 1996

Source: Al-Ittihad Supplementary 2.12 1996

Table 3.1. Types and total amount of subsidy expenditures for the fiscal year 1981

Programme	Amount of subsidy
Housing aids	\$ 250 million
Social allowance	\$ 158 million
Agriculture sector	\$ 18 million
Food and essential commodities	\$ 50 million
Electricity and water	\$ 178 million
Locally consumed petroleum products	\$ 500 million
Others	\$ 15 million
Total	\$ 1,269 million

Source: Abdulla, 1984

The rulers of the emirates also grant people money in different ways and for different reasons. For example, Sheikh Zayed, the UAE President, granted UAE citizens in Abu Dhabi money every six months in the 1970s (Rashid, 1988). All parents in Abu Dhabi emirate inland area receive up to Dh 150 (\$40) for a child who goes to school (Heard-Bey, 1974), this was intended as an incentive for people to send their children to school (Rashid, 1988). In addition to granting money, rulers of the emirates also granted free residential, commercial, agricultural and industrial land to those who presented their petition directly to the rulers. According to the Land Department in Ras al Khaimah, 40,000 residential plots, 6,000 commercial plots, 5,000 agricultural plots and 2,500 industrial plots were distributed free from 1976 to 1996³. On many occasions the rulers of some emirates, during their visit to villages and remote areas in the country, ordered the building of low-cost houses for the people of that area as the coming discussion shows.

Some local governments established a programme to purchase land from individuals for public use. The government purchased the land at prices higher than market value. In Abu Dhabi the local government paid Dh 7.85 billion (\$2.12 billion) between 1967 to 1990 to 16,975 beneficiaries (Al-Ittihad, 19.9.1992). In Dubai the land compensation was Dh 1,082 billion (\$0.3 billion) between 1974 to 1994 for 2,529 beneficiaries (Al-Khaleej, 5.5.1994).

Some local governments also provide interest-free loans to UAE citizens to build multi-storey apartments for investment. In Abu Dhabi, the Sheikh Khalifa Project for Commercial Building sponsored Abu Dhabi citizens who wanted to obtain building loans for investment. The loans ranged between one million Dh (\$ 270,000) to Dh 30 million (\$ 8,000,000) with 0.5 per cent interest rate. Typically 50 to 60 per cent of the

³ Figures obtained by the researcher from officials in the Land Department in Ras al khaimah emirate on January 1997.

property revenue goes to loan repayment, 30 to 40 per cent to the owner and 10 per cent for maintenance (Al-Radawi, 1991). In Dubai, the local government established the Construction Council Board which aimed to help citizens from Dubai emirate to build a multi-storey residential building for investment purposes. The council charge 1 per cent interest rate. The right of property ownership reverts to the citizen after paying the cost of the loan (Ministry of PW&H, 1975; Al-Ittihad, 30.5.1996).

Recently in, 1992, the Federal government established the marriage fund which grants Dh 70,000 (\$ 19,000) to UAE young men wishing to marry. Such a step was taken to tackle the problem of a sharp increase in the cost of wedding dowries. Moreover, the local government of Abu Dhabi distributed shares in some local food factories to citizens who receive social security. The aim of such a step was to provide those people with a sustainable income. 7,618 citizens from Abu Dhabi received shares worth Dh 20,000 (\$ 5,400) each (Al-Khaleej, 24.2.1996).

The oil revenue, argues Abdulla (1993) enables the Arab Gulf states to adopt generous welfare programmes that exceed the example of the developed countries since welfare services are provided free and without any taxes.

THE RATIONALE BEHIND THE WELFARE PROGRAMMES AND SUBSIDIES

The official rationale behind the welfare policy was to improve the living standard of UAE citizens, to improve the quality of life, and eliminate poverty and deprivation in the country. Articles 10 and 24 of the UAE constitution stress the importance of the individual citizen as the main concern of the new state and therefore his welfare is the aim of all government institutions and organizations in the country. The constitution confirms the importance of providing a high living standard for all people in the country (Ministry of the State for the Supreme Council Affairs, 1974; Ministry of Information and Culture, 1994).

Moreover, the charter of principle development goals declared in 1974 stressed the full right to different social services for the UAE citizen. The charter emphasises that education, health, provision of adequate housing and other social services are guaranteed for all citizens (Ministry of Planning, 1987). In addition, the welfare programmes reflect the Islamic principle that the poor members of a community should be protected and aided. Welfare policy is also the personal interest of the UAE

president who often finances welfare projects himself (Ministry of Information and Culture, undefined date).

The official concern in the UAE for welfare and improving the standard of living follows the same trend that prevails in most developing countries after World War II as discussed in the previous chapter.

However, it has been argued that welfare programmes and subsidies also serve different purposes. Anthony (1975) argues that development programmes are important for political stability in the country. Political stability in Abu Dhabi, for example, depends on the maintenance of close ties between the ruling family and the major segments of population represented by several branches of the ruling household, leaders of important tribes, wealthy merchants, prominent families and other groups that seek to influence the political process. A principle means of assuring this crucial balance has been the ruler's allocation of a substantial portion of the revenue to development programmes to increase the standard of living among these groups. Thus welfare programmes help prevent social conflict between the rich and the poor in the country, argue Klakufsky and Zutskefesh (1985), and also help maintain the current social, political and economic stability in the country.

Others consider that subsidies are vital to assuring tribal loyalties. Tribal loyalties to individual rulers, according to the EIU (1995), are still a very important part of UAE politics. Despite the fact that the UAE has been a federation for more than 25 years, political allegiances are still very much up to the individual emirates and their ruling families. Therefore, development plans are designed to retain the loyalties of the tribes (Anthony, 1975). According to Heard-Bey (1982) for a long time the local rulers followed a custom of granting funds and subsidies to the different tribes living on the emirate territory. Such a practice confirms the influence of the local rulers and constitutes an administration authority on the tribes. It also played an important role in maintaining the authority of the ruler. A long tribal tradition of buying loyalty and allegiance is now confirmed by distributing favours and benefits to its population (Beblawi, 1987). Abdulla (1984) shows that subsidies and lack of taxation are now not only directed to tribal people but are the price the government pays to buy the loyalty of the majority of people in the country.

The programmes of welfare, subsidy and lack of taxation are also linked to political participation. The discussion in chapter 2 showed that the World Bank has criticised the welfare programmes in UAE and Kuwait and recommends the introduction of

income tax and a reduction in the level of subsidies. The introduction of tax in the Arab Gulf countries would lead to a demand for political participation and the right to vote. Such a step would be in direct conflict with the existing political structure which depends solely on the traditional government of the ruling families as discussed earlier. Lack of taxation is the only price the government pays to buy loyalty and prevent demands for political participation (Abdulla, 1984). Taxation, according to Allen (1997), would break the unwritten pact between the ruling families and their subjects of "no representation in return for no taxation". Public services will still be considered a holy right for citizens, according to Al-Qubas (1996), and this trend will continue as long as the government can afford to pay.

The citizens of the UAE have become accustomed to zero taxation and high subsidies. The oil boom, argues Zanoan (1995) made it possible for the ruling family to rule without any public participation. The economic order based on unearned income led the rulers to assume the role of providers, establishing an elaborate welfare state and securing their rule. It is not easy, therefore, for either the governments or socio-economic interest groups to end this holiday. As long as the various gifts and subsidies continue to flow into people's banks accounts they will remain happy with the society in which they live (Field, 1982) and, with no taxes, citizens are far less demanding in terms of political participation (Beblawi, 1987).

In addition, Abdulla (1984) points out another two important rationales behind welfare provision and subsidies. The first one is that since the UAE is one of the richest countries per capita and it is a capital surplus country which has an outstanding record of foreign economic aid. It is natural to show a similar concern for its own people's well-being, especially since many of them experienced extreme forms of deprivation and hardship not so long ago. Therefore, the government directed its policies to making life more comfortable for its citizens. The second reason is that the rapid socio-economic transformation caused by the oil discovery created new job opportunities that needed skills not possessed by many UAE citizens. This meant that the government was obliged to provide all sorts of free education and training along with other social services to prepare UAE citizens for active participation in the new mode of production.

The welfare programmes and subsidies are also seen as wealth distribution. Beblawi (1987) argues that the purpose of many subsidy programmes in the Arab Gulf states, such as the land purchasing programme, was to distribute part of the oil wealth to the population. The fundamental decision was that the state (or the ruler) should share

part of the oil revenue with the population. The role of the government was thus defined as being a partial distributor of oil wealth among the population. The other form of oil wealth distribution in the Arab Gulf countries, according to Al-Qaady (1985), is the high wages and salaries for their citizens compared with neighbouring countries, and the obligation on the government to employ all university graduates. In the oil rich states of the Gulf, public sector employment is a most important way of securing loyalty and redistributing income (Al-Bulaimi, 1990). Subsidy in the UAE, argues Abdulla (1984), is a form of income redistribution and a diffusion of public wealth generated by oil production.

3.2 HOUSING IN THE UNITED ARAB EMIRATES

This section provides a background to housing in the UAE in both the pre and post oil eras. An understanding of the housing conditions in the pre oil era will help an understanding of the root of the current housing conditions. The pre oil era covers the period prior to 1970. Although oil was discovered in the 1960s its revenue started to affect the country in the early 1970s.

3.2.1 HOUSING IN THE PRE OIL ERA

Until the 1950s there were no formal housing in the country and housing provision was solely due to the efforts of the individual. The scarcity of resources at that time did not enable local rulers to be involved in housing provision, with the exception of land provision. Land for housing, which belonged to the rulers of the emirates (Cantacuzino and Browne, 1977; Heard-Bey, 1982), could be obtained by individuals by direct petition to the ruler or to the head of the tribe. The land could be obtained free or on payment of a nominal charge imposed by the ruler. For the majority of the people, who were poor, the required labour for construction was provided by members of the households and their relatives on the basis of a commitment to patrilineal descent (Dostal, 1983). Groups of merchants and rulers hired local builders and labour for the building process.

The majority of people lived in houses built of date-palm products. Dwellings built from date-palm products were called "barasti", "arish" or "khaimah" according to the district they were built in. Such housing goes back to the 17th century and accounted for most of the homes in many villages and towns in the area (Kay and Zandi, 1991) (see plates 3.5 and 3.6). The date-palm house was quick and cheap to build, easy to erect, and easy to dismantle (Cantacuzino and Browne, 1977; Kay and Zandi, 1991).

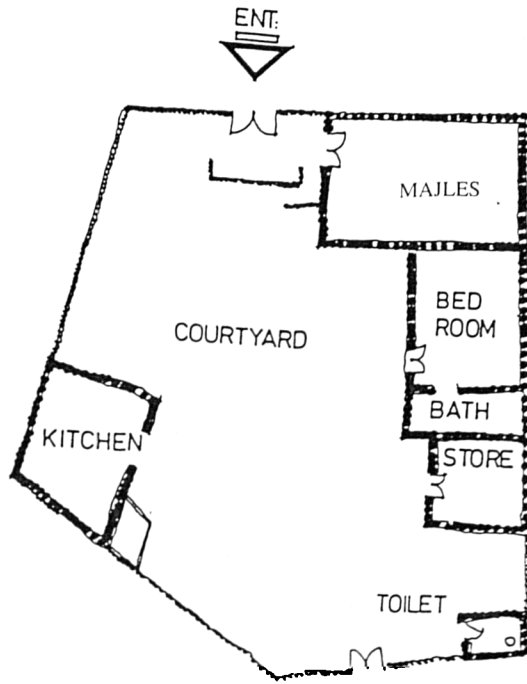


Plate 3.5. Plan of traditional house built of date-palm products
Source: Alife, 1981

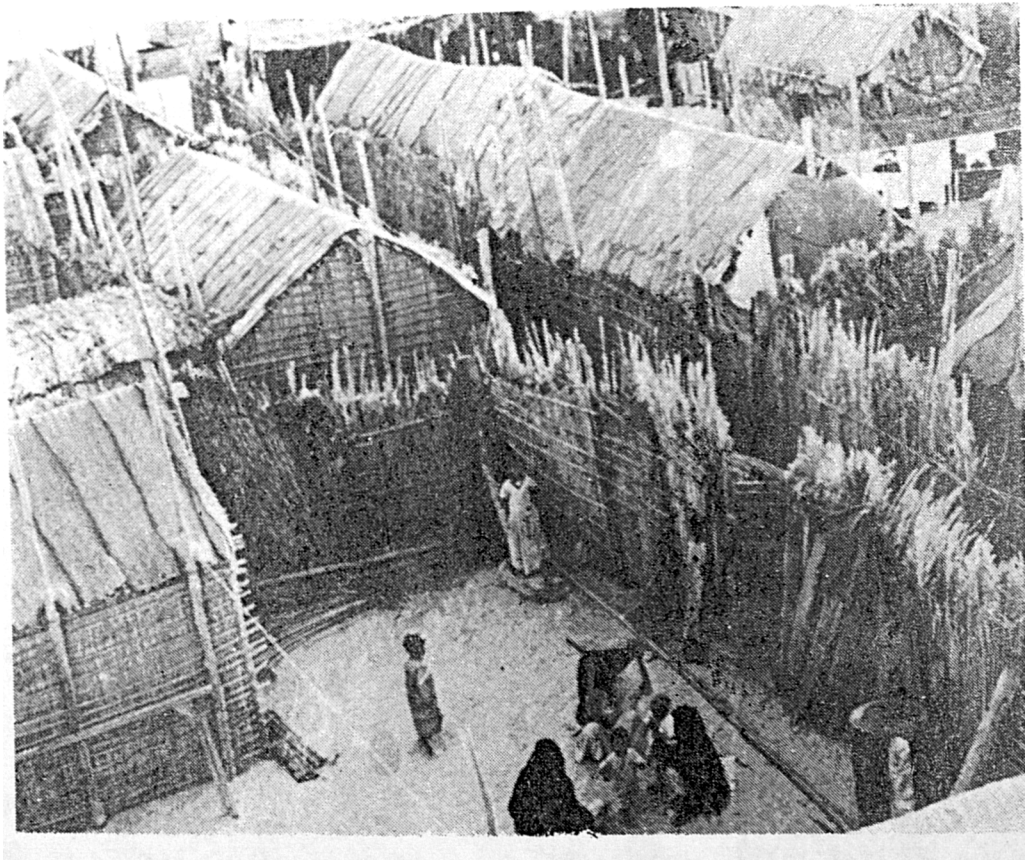


Plate 3.6. Traditional house built of date-palm products
Source: Al-Itihad newspaper (unknown data)

**Plate 3.7. Traditional house
roofed by mangrove poles
and palm-date mates**

source: The researcher



**Plate 3.8. Traditional house
built of coral stone**

source: The researcher



The date-palm house usually consisted of one or more rooms surrounded by a fence to provide privacy to the households. The walls were constructed from the date-palm branches tied together, and supported with date-palm fronds or imported mangrove wood locally called "candale". The roof was built of date-palm branch mats. Along with these building materials people also used stone and mud to build their houses, as can be seen in plates 3.7 and 3.8. People built stone houses in mountain areas and used mud-bricks in the oases (Kay and Zandi, 1991; Kanno, 1971).

The richer ruling families and merchants built their houses of coral stone, mud bricks and imported mangrove wood. The timber joists of mangrove and other wood used for doors and windows was imported from Iran, south east Africa and India (Kano, 197; Al-Rostomany, 1991; Kay and Zandi, 1991). Load bearing walls was the common construction technique used in these houses (Kano, 1971). The walls were built of coral stone and mud bricks. Mangrove poles was the most common wood used in roofing. Date-palm branches or bamboo poles were laid in a diamond pattern across wood poles. Matting of palm-date branches was put into position and then a mixture of lime-mud and small stones was laid 20 centimetres deep above the matting (Kay and Zandi, 1991). Such construction techniques served the region well for centuries. They were simple to build, utilised available local building materials and provided flexibility and durability (Kano, 1971).

3.2.2 FORMAL HOUSING

The end of the 1950s and beginning of the 1960s witnessed a transitional change in housing. The oil revenue, which started to affect the governments and people alike, opened the door for change in housing institutions, building regulations and materials.

Local government started to establish institutions to regulate town planning and building development. The first municipal council was set-up in 1957 in Dubai Emirate to institute planning and building regulations (Hawley, 1970). In Ras Al Khaimah Emirate, a municipality department was established in 1965 to regulate and control planning and building developments. In 1969, Ras Al Khaimah Municipality issued its first official law to regulate building permission (Government of Ras al Khaimah, 1969). This law was the beginning of formal housing in the emirate.

Along with establishing the local institutions, local government started also to appoint foreign consultants to step up planning and building regulations and standards and to run the newly established departments since the local people lack the qualifications

and skills to run such departments. Architects and engineers from Europe, Egypt, Sudan and Jordan were responsible for planning and establishing the town planning and local municipalities. In Dubai Emirate, for example, most of the infrastructure projects were commissioned to Sir William Halcrow & Partners from England (Hawlay, 1970). The foreign consultants and experts simply transferred most of the building regulations and standards which prevailed in their own country to the newly established departments.

The improvement of economic conditions also opened the door for the introduction of new building materials and new building techniques to the country. Building materials of cement, steel bars, glass, paints and wood started to enter the building market. These imported building materials started to diminish the traditional building industry in the country (Abdul Jallel, 1987) and shift people's attention towards these new building materials to improve their housing conditions. The influx of foreign engineers and architects also helped to introduce new construction methods such as the use of reinforced concrete. New types of residential building such as villas and multi-storey apartments were also introduced to the country.

As the economy expanded and with the availability of the new building materials and foreign experience, wealthy people started to build new style of western villas replacing the traditional coral and mud houses. Private investors have also began to build multi-storey apartments to accommodate the new comers from different parts of the world. The new wealth enabled the majority of native people to improve their housing conditions.

The majority of indigenous people began to replace their date-palm branch houses with new ones built of cement-sand block. People started to build additional rooms to their date-palm branches houses according to their financial ability until eventually they were able to replace all the old date-palm branch rooms with rooms built of cement-sand blocks. Load bearing walls of cement-sand block 15 or 20 centimetres width was the main construction element for building the new rooms. The roof consists of wooden joist, and wooden sheet covered with cement-sand mortar. The external and internal walls were plastered with cement-sand mortar and then painted. The new houses, which replaced the old houses of date-palm branches, were called the "Arabic houses".

3.2.3 GOVERNMENTAL HOUSING PROGRAMMES

The first governmental housing programme in the UAE was established by the Trucial Council Development Office's (TCDO) second development plan and commenced in 1965-1966. According to Bin-Abood (1992:105)

" in 1965 Sheikh Muhammed al-Sharqi of Fujairah requested the Development Fund to implement a low-cost housing development programme in his Emirate instead of the electricity programme, a scheme which was given priority by the Trucial States Council. Accordingly, 42 houses were built by the TCDO in Fujairah and completed by 1968 ".

Other areas in Ras al Khaimah, Ajman and Umm al Qaiwain emirates also received low-cost housing.

These low-cost houses were designed by the staff of the Engineering Department in the TCDO which was run by British and Indian engineers. They consisted of two bedrooms, a hall, kitchen and toilet. The compound of the house was surrounded by a three metre high cement block wall. The foundations were built of reinforced concrete, 20 centimetres hollow cement-sand block was used for the wall. Reinforced concrete was used for the roof. The external and internal walls were plastered with cement-sand mortar and then painted with emulsion paint. Building materials of cement, steel and paints were imported from Japan. The construction work was completed using Indian labourers and was supervised by British and Indian engineers⁴.

The local government of Abu Dhabi also established a programme of low-cost housing in 1966. Abu Dhabi's first five development plans aimed to build 4,000 low-cost houses to be offered free to its citizens (Sadik and Snavely, 1972). The new houses, according to Heard-Bey (1982), was a very decisive step towards transforming the way of life of large numbers of families since such houses were built of concrete and provided with electricity, sewage disposal and running water.

In conclusion, the housing conditions in the emirates in the pre-oil era, according to Sadik and Snavely (1972), were backward since a high percentage of houses consisted

⁴ Based on interview with Mr. C.J.Samuel, Building Foreman in the Department of Engineering at TCDO. The interview done on September 1994.

of one or two rooms and the average number of persons per room was large. The first official housing census conducted in 1968 showed that detached single storey date-palm houses represented 40 per cent of the housing stock in the country. 46 per cent of the houses were built of stone and mud. 41 per cent of the houses consisted of one room and 36 per cent consisted of two rooms. Felelon (1976) however stated that generally there was no overcrowding, as extra rooms could easily be built of date-palm branches if the household increased in size.

3.2.4 HOUSING IN THE POST OIL ERA

By the early 1970s and with the growth of oil revenue and the establishment of the UAE, the housing sector had witnessed quantitative and qualitative developments. In this era the government expanded its programmes for housing both UAE and foreign nationals. This section studies the development of the government housing programmes with emphasis on the Federal low-cost housing programme. It also focuses on the development of the building industry and housing for non-citizens.

GOVERNMENT HOUSING PROGRAMMES

By the early seventies, at the beginning of the establishment of the UAE and with economic expansion as a result of oil revenue, government housing programmes were expanded. On the local level, the oil emirates established housing programmes to serve the local people. Abu Dhabi emirate continued the low-cost housing programmes established in the late 1960s. Dubai and Sharjah emirates also established low-cost housing programmes in the early seventies similar to the Abu Dhabi programme. Local departments in these emirates took on the responsibility of financing and designing the low-cost housing. Private construction firms built the houses under the supervision of the government department or private consultants' offices. Electricity, water and road services were also provided free by local government to these houses. These housing units were later allocated to UAE citizens according to the criteria of the department or according to directives from the ruler of the emirate.

Along with low-cost housing programmes, local authorities in Dubai and Abu Dhabi emirates established housing programmes to serve other income groups amongst UAE nationals. By the early eighties Dubai local government had established the "National Housing Programmes" which provided free funds of Dh 200,000 with serviced land. In addition, both the Governments of Abu Dhabi and Dubai established interest-free

housing loan programmes for their nationals in 1990 and 1993 (Government of Abu Dhabi, 1990; Government of Dubai, 1993). The local authorities of these emirates also provide local people who can afford to build their own houses with free serviced land together with electricity, water, road and sewerage services free or for a nominal charge (Al-Sayid, 1988; Dubai Municipality, 1989; Ministry of PW&H, 1995; Government of Sharjah, undefined date; Government of Abu Dhabi, undefined date).

In the Northern emirates housing, electricity and water provision are totally dependent on the Federal institutions, since these emirates lack the financial resources to provide such services for their nationals. The local authorities of Abu Dhabi and Dubai have also contributed to building low-cost housing in the Northern emirates (Ministry of PW&H, 1995). The Federal Ministry of PW&H has taken the full responsibility for building low-cost housing in these four emirates. Electricity and water services in these emirates are provided by the Federal Ministry of Electricity and Water. Local authorities in the Northern Emirates provide land for those who are able to build their own houses. Generally land is provided free for any UAE subject.

BUILDING MATERIALS INDUSTRY

The traditional free enterprise environment in the country and the economic expansion combined with large scale government investment in building the country's infrastructure and social services, have encouraged both the private sector and individuals to become involved in the construction industry in different ways. The government's investment in industry, generally, aims to provide the basic needs for new development and establish local industry which can participate with the oil industry in the national economy (Al-Feal, 1978).

At the beginning of new development most of the building materials in the Arab Gulf countries had to be imported, since they lacked the building materials required for modern building (BRE, 1977). Such a situation of total dependency on imported building products affected the cost since any fluctuation of world prices affected building costs (Al-Jardawi, 1978).

Therefore, along with the establishment of government housing programmes, both local and Federal governments also set up policies and regulations to encourage the establishment of local building material industries. In 1974, the Federal government established the Emirates Industrial Bank which aimed to provide loans to the private sector and thus encourage the establishment of local industry (Al-Feal, 1978). In

addition to government financial support for the local building materials industry, the local government also provided free land or charged nominal fees for private sector investment in the building industry. The government also encouraged local industry by exempting local factories from licence tax. All imported machines, spare part and raw materials for local factories are exempt from customs duty and local products are given priority in government purchasing (Al-Ghorfa Magazine, 1996). Government policy, however, has not imposed any restriction on the importation of building materials with the exception of a 4 per cent customs duty that is imposed on all imported products.

The country now, according to building industry reports, does not suffer from any building materials shortages since there are 8 cement factories, 2 factories for ceramic tiles and sanitary products, 18 paint factories, one large factory for aluminium sections, one factory for electricity cable and wire, bricks factories and glass factories. Along with these large scale industries, the country also has a large number of small building material industries for cement-sand blocks, mosaic tiles, marble and paving tile products. Since the emirates are small in size, some of these locally produced building materials are exported to other Gulf countries (Al-Khaleej, 5.6.94; Al-Khaleej, 28.12.1994). However, the country still suffers some shortages of steel bars used for reinforced concrete, since the supply is still dependent on importing from the neighbouring countries of Qatar, Saudi Arabia and Turkey (Al-Bayan, 2.2.1993). Local investors, according to Al-Bayan (12.10.1992), are planning to establish a steel factory to meet local demand.

LABOUR

The manpower required for the construction industry is totally dependent on expatriate labour from the Indian Sub-continent. The large scale of construction and infrastructure development projects has created a great demand for both skilled and semi skilled labour. The small size of the country's population and its lack of skilled labour meant the government had no other option than to encourage and ease the entry of the foreign labour force. Since the seventies, the expatriate labour force has played a major role in development projects (Khasab, 1978). 54 per cent of the expatriate labour force were employed in the construction industry in 1980. Only 0.5 per cent of those employed in the construction industry were citizens in 1980 (Alif, 1980). Generally, it is unlikely that the current immigration regulations, which do not impose any restrictions on expatriate labour, will give rise to any kind of labour shortage in the construction industry.

GOVERNMENT HOUSING PROGRAMMES FOR NON CITIZENS

The need for foreign expatriates and labour for the development projects has increased the non-citizen population in the country. At present this population is about three times the indigenous population, a situation which has forced the government to intervene to set policies and regulations for their housing.

The government's plans and programmes to house non-citizens have been diverse. The government institution provided furnished accommodation or housing allowances for non-citizen governmental employees. The private sector, according to the regulations of the Ministry of Labour and Social Works, should provide housing for non-citizens. Local government provides free land or charges nominal fees to private firms who have a large number of immigrant labourers in order to encourage them to build accommodation for their employees. The local governments in Abu Dhabi and Dubai control the rent in the these two cities indirectly. They provide interest-free loans to UAE nationals willing to build multi-storey apartments through the Sheikh Khalefa Project for Commercial Building and Dubai Construction Board. The local authorities then control the rent in these properties until the loan is repaid.

Highly paid non-citizens usually occupy villas or luxury flats. According to Alif (1981) their occupancy rate is 1.7 person per room. On the other hand, the low-paid and manual labourers usually occupy old Arab houses in the old districts of the main cities and labour camps built by their employers. Immigrant labourers also live in squatter settlements built by themselves on government land since many employers do not provide them with housing. In Al Ain city, for example, more than 20,000 bachelor immigrants live in squatter settlement built on government land. The dwellings in this settlement are built from corrugated iron and plywood (Wasfi, 1981).

Overcrowding among immigrant labourers is high and the occupancy rate ranges between 5 and 15 persons per room (Alif, 1981; Al-Khyaate, 1988). Bonine (1980) sees this overcrowding as voluntary, since the immigrants want to save as much money as possible to take back to their homeland. Al-Mansoori (1995), on the other hand, investigated the situation and found out that the rental market in Abu Dhabi city is not affordable. The lower income group can not afford the majority of the city's housing stock even if they were to pay 50 per cent of their income for rent.

Generally, housing for the lower paid non-citizen has not been well addressed by the housing institutions of the UAE. Part of the problem has been that government bodies lacked essential data about the non-citizens. According to government reports, it is difficult for the government to set up clear housing policies for the non-citizen population without knowing their number, their nationality, whether they are coming with their families, their income, how long they intend to stay and who will replace them when they leave (Ministry of Planning, 1981). In addition, non-citizens are not allowed to own land in the UAE, therefore they have to rely totally on rented accommodation or government housing if they are government employees. The justification for such a regulation is that, if the government allowed non-citizens to own land, then the majority of the country's land would eventually be owned by foreigners since they are the majority in the country. However, since these non-citizens are still required for the country's development programmes, the government should urgently address their housing needs.

3.3 FEDERAL GOVERNMENT HOUSING PROGRAMMES

With the establishment of the UAE Federation in December 1971, the duties of the TSDC, which was responsible for development and construction activities, moved to the newly established Ministry of Public Works and Ministry of Housing (Ministry of Public Works, 1975). The Ministry of Public Works & Housing has continued with the responsibility of building government houses which the TSDC had in the 1960s. The Ministry is in charge of design, preparing building specifications, tendering documents and construction supervision, as well as allocation of government housing.

Government houses in the early seventies consisted of two bedrooms, a majles (men's reception room), hall (for houses built in the Coastal area), bath/toilet and kitchen (see plate 3. 5). The built-up area of houses ranged from 108 to 116 square metres, while the plot size was 400 square metres. The building materials used were similar to those used in houses built in the 1960s, by the TSCD. Reinforced concrete was used in foundations, tie beams, columns, beams and roof slabs. Walls were built of 20 centimetre hollow cement-sand blocks. The walls were further plastered with cement-sand mortar and then painted with emulsion paint. Mosaic tiles were used for the floors, while ceramic tiles were used on the walls and floor of the bath/toilet room. The bath/toilet room had a ceramic wash basin and WC with all necessary sanitary equipment. Electricity and running water were provided in all the houses, as well as a septic tank and soakaway sewerage system. The construction cost of one of these houses was Dh 40,000 (\$ 10,800).

According to Federal Law No. 9 for 1973 government houses were distributed free to UAE households applicants who do not own adequate houses to live in and whose income do not enable them to build their own houses. The Federal Law also states that those who are allocated government houses only have the right to use the house but not to sell or rent it.

3.3.1 RATIONALE BEHIND FREE LOW-COST HOUSING

The low-cost housing programmes in other Arab Gulf states such as Qatar, Bahrain and Kuwait, served as an example for the low-cost housing programme in the UAE, since they established their housing programmes much earlier (Kanoo, 1971; Cordes and Scholz, 1980). However, the allocation of the UAE low-cost housing is the only one among the Arab Gulf states which is free. The Kuwait government, for example, charge the beneficiaries of the low-cost housing 30 to 40 per cent of the actual cost while the remaining part is subsidised by the government (Sadik, 1990). In Bahrain the government housing was subsidised according to income groups. The subsidies ranged from 78 per cent for the low-income group to 26 per cent for middle income (Alwatani, 1992).

The policy of free allocation in the UAE may be attributed to many reasons if we consider that the rationale behind the welfare programmes and subsidies discussed earlier also applies to low-cost housing provision. Official justification of the policy can be understood by looking at the three main official sources, Presidential statements, Federal National Council, and official housing documents of the Ministry of PW&H.

The UAE president has stressed on many occasions the role of the government in providing adequate housing for UAE nationals. The people of the country, according to the UAE president, suffered deprivation and lack of basic services for many years and it is now the duty of the government, which has substantial wealth, to provide all requirements and means of comfort in order to improve their living conditions (Ministry of Information, 1980; Ministry of Information, undefined date).

The FNC in its statements and recommendations also emphasised the importance of providing adequate housing for UAE nationals. The council criticised the first type of low-cost houses built. According to an FNC statement, low-cost houses built by the Ministry of PW&H did not reflect the country's prosperity and the UAE people of

low-income should have housing that better reflected the country's wealth. The council regularly calls on the government to improve the quality of low-cost housing and to provide free low-cost housing for UAE nationals in the low-income group (FNC, 1980; 1980a; 1984; 1991; Al-Ittihad weekly, 3.4.1991).

Official documents of the Ministry of PW&H show that an adequate house is regarded as a right of every UAE citizen especially those from the low-income group. The Ministry's aims are to provide every UAE citizen with an adequate housing unit that meets their needs (Ministry of PW&H, 1979; Ministry of PW&H, 1979a; Ministry of PW&H, 1983). Such a policy approach has been constantly mentioned in the Ministry's official documents from the seventies until the nineties (Ministry of PW&H, 1995). Recently, the housing approach of the Ministry of PW&H has been to provide free housing of high building specification based on the new housing needs of the UAE household (Ministry of PW&H, 1995).

Low-income UAE households are entitled to free low-cost housing since they cannot afford to build their own houses, according to official housing documents. This inability obliges the Ministry of PW&H to provide free housing for them. This policy orientation has been constantly stated by housing officials and mentioned in official housing documents (Al-Khaleej, 6.1.1986; Al-Khaleej, 26.7.1988; Sultan, 1993). However, no official documents have ever defined what is meant by the low-income group or what is the maximum level of income of this income group.

In addition, the low-cost housing programme in the seventies was aimed at resettling the Bedouin who formed a great portion of the country's population, mainly in Abu Dhabi Emirate. The Federal and local governments embarked on building new villages in the desert and providing them with all facilities: water, electricity, roads, shops, clinics and mosques. The aim was to encourage the Bedouin communities to settle in permanent dwellings, educate their children, improve their living standard and participate in the development of the new state. The philosophy was expressed by the UAE president Sheikh Zayed as follows " I do not want the Bedouin moved to civilization. I want the civilization moved to the Bedouin" (Ministry of Information, 1977). Some of the Bedouin abandoned the new dwellings and returned to their traditional areas of subsistence (Cordes and Scholz, 1980). The government then tried to encourage them to stay in these houses by paying them Dh 4,000 (\$ 1,080) every six months (Rashid, 1988).

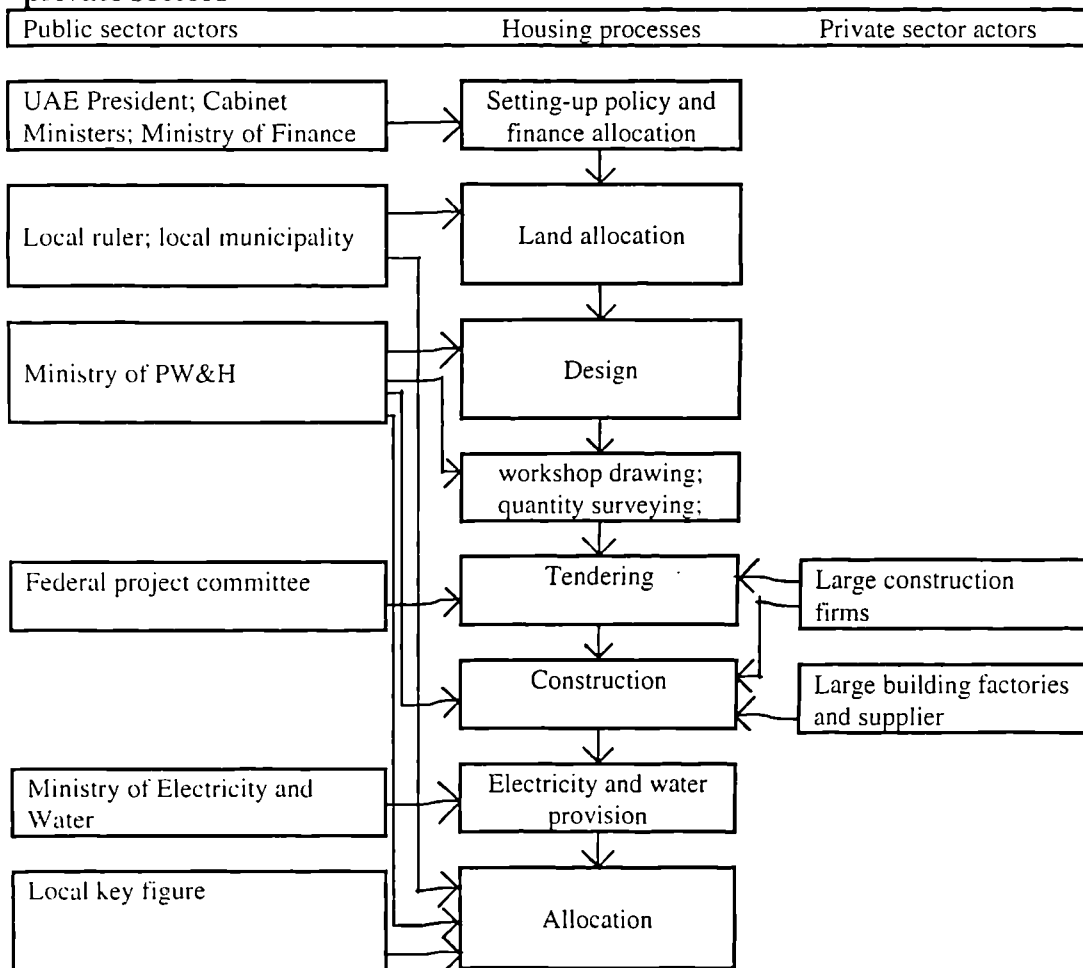
The low-cost housing programme in the desert was seen by many as serving other purposes. According to Heard-Bey (1982), such programmes served the purpose of assuring the inhabitants of outlying villages that they were not forgotten by their ruler. Others like Plascope (1982) argue that low-cost housing programmes to settle the Bedouins had the advantage of helping to dilute the territorial and tribal divisions in the areas. Such programmes were also designed to encourage the Bedouin population to participate in the labour process, to encourage them to settle permanently in their area of origin (Cordes and Scholz, 1980) and not to leave these areas and settle in the main cities in the coastal area (Abdul Jallel, 1987).

Moreover, the country's extreme poverty in the sixties and the ambitious plans of government to improve the living standard and accelerate the pace of development as a result of its sudden oil wealth led the government to be the main financier for such change. The commitment of the Abu Dhabi Government to maintaining a good standard of housing and to ensuring that all citizens were provided with adequate, safe, and hygienic housing, argues Al-Mansoori (1995), led the government to become the main supplier for housing. The government's ambitious plan was to house people in a higher standard of housing than they ever had before. Such a standard was beyond most citizens' affordability. Most of them could only afford to house themselves in date-palm branch houses and a few more fortunate ones could afford mud houses. Therefore, such housing standards could only be achieved with full government subsidies.

From the above discussion we can come to the conclusion that the policy of free low-cost housing provision was based on the convictions of the decision makers that a wealthy country like the UAE should provide free adequate housing for those who can not afford to build their own adequate housing. In addition, the government's policy to settle the Bedouins and to improve the housing standard of the majority of UAE people, together with the sudden oil wealth, led to massive government investment in building low-cost housing.

3.3.2 HOUSING PROCESSES OF LOW-COST HOUSING

Figure 3.5 Housing processes of low-cost housing and the role of the public and private sectors



Source: Ministry of PW&H, 1983; field work, Dec 1994-April 1995.⁵

Figure 3.5 shows the housing processes of low-cost housing. The provision of low-cost housing on the federal level started with a decision made by the UAE President or the Cabinet ministers to build a certain number of houses in different locations. The decision to build low-cost housing sometimes is made according to Ministry of PW&H recommendations⁶, and sometimes comes as a result of the UAE President's visiting different areas in the emirates and hearing housing requests from citizens (Al-Ittihad, 16.7.1989; Al-Khaleej, 16.12.1995). After such a decision is made, the Ministry of Finance allocates the required funds for the building process. The UAE

⁵Part of this diagram was based on an interview with Mr. Ahmad Al-Abdooly, the former Deputy Minister of the Ministry of PW&H on 31 March 1994.

⁶Based on an interview with Mr. Ahmad Al-Abdooly, the former Deputy Minister of the Ministry of PW&H on 31 March 1994

President sometimes intervenes and funds the building of low-cost housing from his own finances since the Ministry of Finance lacks funds. In 1992 the UAE President allocated Dh 500 million (\$ 135 million) from his own finances⁷ to build 2000 low-cost houses (Al-Khaleej, 10.4.1996).

After the fund allocation, the Ministry of PW&H starts the architectural design stage which is then presented again to the president and the cabinet ministers to be approved (Ministry of PW&H and Dept of Works, 1976; Al-Ittihad, 9.2.1991). The next stage is to allocate land according to the requirement of each emirate with a co-ordination between the emirates rulers and the local municipalities. After approving the design and the location, the Ministry prepares the workshop drawings and building documents in order to start the tendering process. Construction firms which apply for Ministry projects have to meet certain criteria of capital, qualified staff, labour force number and experience in constructions projects (Al-Khaleej, 8.8.1992; Al-Ittihad, 2.5.1992.). The approved construction firms take on the duties of the construction process under the supervision of the Ministry of PW&H. The Ministry of Electricity and Water provides its services after the completion of the construction process.

3.3.3 ALLOCATION OF LOW-COST HOUSING

The accessibility of low-cost housing to the target group is one of the fundamental issues in housing provision, particularly in the context of the free grant as is the case in the UAE. Housing allocation is a highly sensitive area as it is directly linked to high officials in both the Federal government and local authorities, as discussion will show in Chapter 4. This section will examine the eligibility criteria and the processes of housing allocation and the role of the different actors within this process.

An application for low-cost housing, as figure 3.6 shows, does not require any kind of payment or even an administration or stamp fee. The applicant has only to present certain certificates as mentioned in Figure 3.6. The priorities for low-cost housing, according to Federal Law, are widows with children, those who do not own an adequate house and those of a low-income group whose income do not enable them to own their own houses. The Ministry of PW&H, according to Deputy Minister of

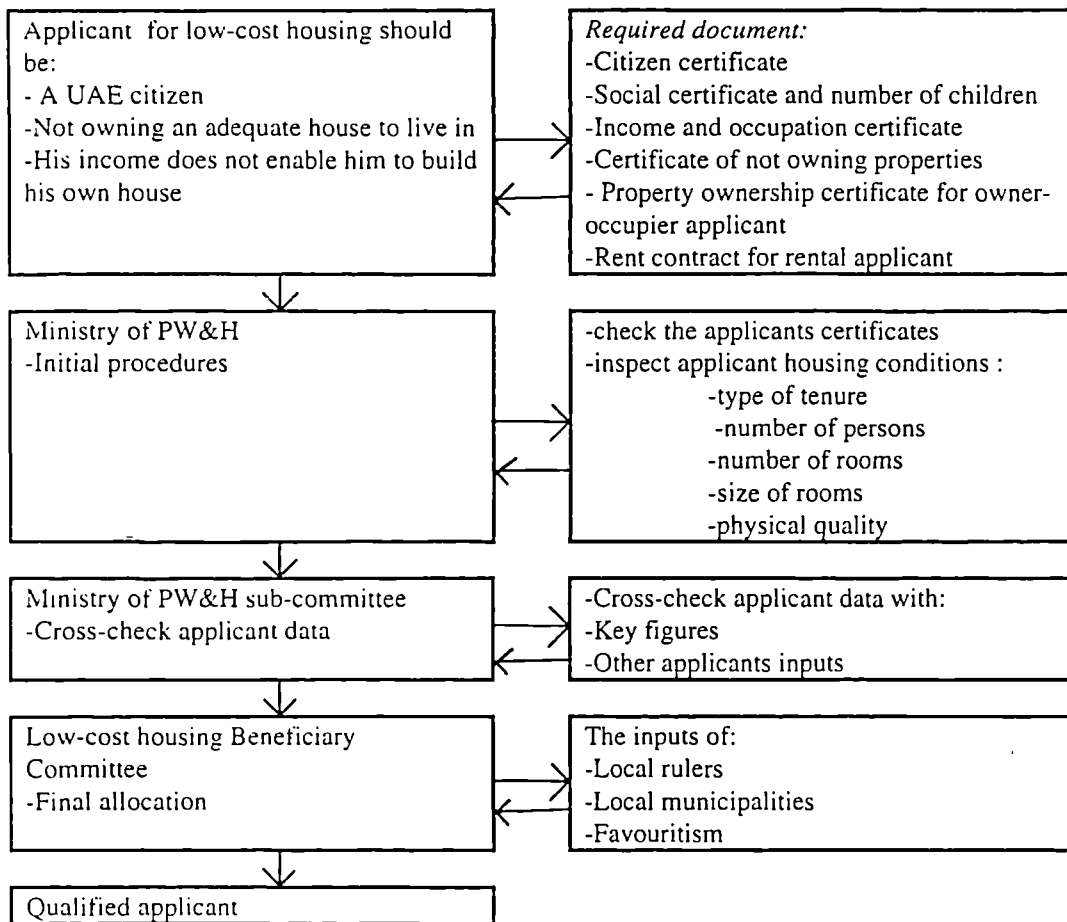
⁷ According to Saad Al-Deen (1981) in the UAE there is a great complexity in separating between the finance of the emirate ruler and the finance of the emirate. Some rulers consider the emirates' revenue is their own, and after they take their own shares, they then allocate the emirate finance. Others do not make such separation and therefore there is a great overlapping between the ruler finance and the emirate finance.

PW&H, also considers those with large households and low-incomes to have priority in housing allocation (Al-Khaleej, 1.10.1994).

The Federal law does not define the term "adequate" house. It is the Housing Department who define the criteria for a "adequate" house according to its condition. Housing conditions are judged by 1) the physical quality (defined by the presence of cracks in concrete element and block work, steel corrosion, and water leaking from the roof); 2) the size and number of rooms; 3) type of tenure. Therefore, applicants with lower number of rooms, smaller size of rooms and lower physical quality should get more chance to qualify for free low-cost housing⁸ and generally they have to prove to the Housing Committee that their houses are not fit to live in.

⁸During the site inspection, according to some housing officials, some applicants take the Housing Department Committee to their old house which is of a very low physical quality while they are in fact living in another of higher physical quality.

Figure 3.6. The processes of low-cost housing allocation



Source: Federal Law No. 9 for 1973; Ministerial Order No. 1 for 1974; Ministry of PW&H, 1994; Field work survey, Dec 1994-April 1995.

Low-cost housing allocation goes through various procedures. Figure 3.6 shows different phases of housing allocation and the contributions of different actors in housing allocations. The applicants first apply to the Housing Department with all the required personal documents. Later, a Housing Committee inspects the applicant's personal documents and the housing conditions. Once the Housing Department Initial Committee finishes its first inspections the process of cross-checking applicant's data starts. The process of cross-checking is done with the help of the key figures, local authorities, and others applicants. The involvement of those actors in housing allocation contributes in conducting cross-checking the applicants data, mainly regarding property ownership and type of tenure of the applicant's present accommodation.

Some applicants voluntarily present data about other applicants in their area such as the ownership of other properties. By doing so they hope to increase their chances of

qualification and, of course, lessen the chances of other applicants. At the same time, the Housing Department contacts the local authority in each emirate⁹ to inquire about the applicant's economic status and property ownership, as the local authorities control the property registrations. The contact is also intended to discover whether the local authorities have their own candidates for low-cost houses in a particular area.

By this stage the number of applicants is reduced, as the Housing Department finds that many applicants have other properties or they own their own houses, whether under construction or occupied by other relatives. The final applicants are presented to the Low-cost Housing Beneficiary Committee which according to the Federal Law No.9 for 1973 has the authority to allocate low-cost houses on the federal level.

Key figures

The Housing Department examines the applicant's data credibility by contacting key figures of the area. Although this input by key figures may be helpful to the Housing Department in checking the applicants' data, it may on the other hand, be misleading. Experience of the key figures' involvement in the housing allocation since the establishment of the low-cost houses programme has shown that many key figures have their own interests regarding housing allocation. A key figure may have relatives among the applicants or he himself may even be among the applicants. In some cases the key figures have no knowledge about other peoples' incomes or property ownership.

Moreover, as the key figure of the area is usually the head of the tribe in the area, this may result in the key figure supporting applicants from his own tribe. In other words, they may deliberately mislead the Housing Department and exclude other applicants. In many cases, mainly in the Inland area, the involvement of heads of tribes in housing allocation resulted in the applicants from one tribe having access to low-cost houses regardless of whether they were in need or not, while applicants from other tribes were excluded. According to a report in *Al-Azmenah Al-Arabayah* magazine (1979) the involvement of some tribes in acquiring low-cost houses for their people regardless of need excluded other applicants in the same area who were in desperate need.

The involvement of the key figures in housing allocation resulted in some cases in low-cost houses being allocated to the key figure himself or to his relatives. One of the applicants said:

⁹ The local authorities refer to local municipalities or emirate rulers courts.

"The hazardous process of housing allocation mainly in our area (referring to the Inland zone) resulted in some people receiving two low-cost houses, or even more, even some children under 10 years old got low-cost houses."

During the field survey the researcher came across some low-cost houses which had never been occupied. According to some local people in these areas these houses had been allocated to the key figure of the area or some of his relatives. This situation resulted in some citizens with more than one low-cost house renting out a spare house or, in some cases, keeping it vacant. The ruler of Ras al Khaimah Emirate in 1985 issued an order to the local authorities stating that all vacant low-cost houses of good construction quality should be reallocated and utilized in a more effective way (Al-Bayan, 17.7.1985)

Others Applicants

Moreover, the input of the other applicants from the same area had a similar type of effect. The desire of some applicants to report others comes from the intention to lessen others' chances and increase their own chances. This encourages rumours among applicants and has led to the reporting of partial truths. In many cases some housing officials considered the inputs of other applicants to be of great value to help cross-check data. During the field work the researcher observed that some housing officials encourage applicants to expose data about other applicants' properties. The excuse made by housing officials for doing so was that such methods are more effective in obtaining valid data about the applicants in the absence of other official documents regarding sources of income and property ownership. The Housing Minister emphasizes that the Ministry will use all available "legal" efforts to obtain valid data about applicants seeking low-cost houses (Al-Shuruq, 1995). The long experience of some applicants misleading the Housing Department was considered to justify the cross-checking procedure by any available means.

Local authorities

The Housing Department contacts the local authority which controls the land registration from one side, while on the other side it represents the ruler of the emirate. The ruler of the emirate who controls all internal affairs of the emirate is the most

influential actor in the housing allocation process and those who get his support will qualify for low-cost houses regardless of the Housing Department criteria. The tribal setting in the country combined with the traditional culture has resulted in the intervention of the ruler in housing allocation in order to strike a balance between the political and the tribal setting.

The free grant of low-cost housing in some parts of the country, mainly in the Inland area, is considered more as a means for political stability than housing provision. When the government provides low-cost houses to a particular tribe in a particular area it is guaranteed its loyalty and this, therefore, ensures more political stability in such an area. Thus, some tribes may not be in need of low-cost houses but, through the support of the local authority, the tribe or certain individuals from the tribe may be given access to low-cost houses anyway. According to the proceedings of the Housing Benefit Committee, some citizens with the support of the local authority have access for a second time to low-cost houses (Ministry of Public Works & Housing, 1986, 1988b, 1989). The former Deputy Minister stated that the Ministry of PW&H comes under pressure from others during the housing allocation process (Al-Azmenah Al-Arabayah, 1979a). Some applicants may not meet the eligibility criteria of low-cost houses but the support of the local authorities will qualify them for such houses.

Favouritism

Another factor affecting the housing allocation is favouritism. This behaviour is widespread as tribal and social relations between people are stronger than those based on constitutions or institutions. This attitude is not only found in housing allocation but in many other aspects of life in the country. For instance, when citizens apply for a government job or land grant the most effective way to acquire such things is to have good relations with some influential person. Those who have such a link will have easy access to any government institution and a high chance of having their demands met, while others who do not have such access have to wait for long bureaucratic procedures. In the UAE, according to Al-Khayat (1988:345)

"it is common to see the interest of family and friends given priority over other people's interest if a person is fortunate enough to have an influential relative or friend, it is comparatively easy for that person to obtain an attractive job or win promotion ahead of others"

On many occasions however, senior housing officials in the Ministry of PW&H have denied that the low-cost houses are ever allocated to those who are not in need. In an interview with Al-Shuruq (1995), the Minister of PW&H stated that all low-cost housing applications are treated with fairness and equity and there is no favouritism. Similarly, the director of Ras al Khaimah Municipality denied that low-cost houses go to those who are not in need (Al-Shuruq, 1995a).

3.3.4 STANDARD OF LOW-COST HOUSING - CHANGING THROUGH TIME

This section examines the space and construction standard of low-cost housing. It discusses the development of low-cost housing standards since the establishment of such programmes in the early seventies and the rationale behind the development of housing standards.

HOUSING STANDARD IN THE 1970S

The aims of the low-cost housing programme, according to official documents are to provide adequate, comfortable, healthy, modern dwellings for low-income UAE nationals (Ministry of PW&H and Dept. of Works, 1976), to build decent, hygienic housing with adequate space to meet the actual needs of households (Ministry of PW&H, 1981), and to establish a comfortable environment by providing a supportive infrastructure as well as social services for every household (Ministry of PW&H, 1983; Ministry of Planning, 1981).

In the seventies the design of low-cost house, according to the Ministry of PW&H and Dept. of Works (1976: 137-139) should consider the size of family and the local climate conditions. The structure should protect residents from the heat of the summer and the coldness of winter.

"Each dwelling therefore incorporated two or three sleeping rooms, a sitting room, a dining room and the necessary home utilities...The houses will be made of reinforced concrete...The quality of finish and durability of the structure will be of a very high grade...Each of the houses is expected to have a life span of at least twenty-five years or more if properly maintained" .

In order to accomplish the above housing standard, the government employed foreign architects and engineers to design and supervise the construction of low-cost housing projects. According to the first Housing Minister in the UAE, once the Ministry was

established in the early seventies part of his duties was to fly abroad and employ 35 architects, engineers and draftsmen to design and manage the large number of low-cost housing projects financed by the government ¹⁰. Foreign consultants such as Sir William Halcrow & Partners from England and Sauti-Renardet-ICE Rome from Italy were also put in charge of the design and construction supervision of low-cost houses (Cantacuzino and Browne, 1977; Ministry of PW&H and Dept of Works, 1976). It was essential to employ foreign experts in these fields since local people lacked the relevant qualifications¹¹.

Based on the above standard of low-cost house, the initial provision was a single storey house of two bedrooms, majles, kitchen, and two bath/toilet rooms. The built-up area of these first housing units ranged from 90 to 120 square metres. The housing unit was built on a 400 square metres plot (20m x 20m), with a surrounding fence 3 metres high built of cement-sand blocks. Reinforced concrete was used for the foundations, tie beam, columns, beam and roof slab. The walls were built of cement-sand blocks. All housing units were provided with all the necessary finishing building materials as well as electricity and water services.

The first type of low-cost houses were considered at that time to be the most adequate housing for nationals since they were designed by qualified architects and engineers of international reputation and built by large construction firms from different parts of the world (Ministry of PW&H and Dept of Works, 1976). Compared with housing units built of mud, stone and date-palm leaves, or even houses built of cement-sand blocks and roofed with wood joists, these new houses built of reinforced concrete and finished with modern building materials were considered by most in authority in the country to be the ultimate in provision for a modern life style for their nationals.

However, the post-occupation survey conducted by the Ministry of PW&H in 1979 showed that these prototypes did not meet the social and cultural requirements of the users. The number and size of bedrooms were not adequate for household size, and the design and configuration of bedrooms, kitchen, and majles did not meet the social requirements of households.

The Ministry survey conducted on 450 low-cost houses aimed to

1) study the adequacy of low-cost houses to the users social and customs requirements,

¹⁰Based on an interview with Dr. Saed Salman, the First Minister of Housing, on 16 November 1993.

¹¹ Based on an interview with Dr. Saed Salman, the First Minister of Housing, on 16 November 1993.

- 2) examine the target group directions in designing their own houses,
- 3) use the study outcome to design future low-cost houses.

The survey outcomes were:

- both built-up area and number of rooms were inadequate for the UAE household size and life style;
- the number of bedrooms was inadequate;
- 67 per cent of the users built extensions to their house which shows their need for more rooms;
- 81 per cent of the sample state that the low-cost houses did not meet their needs;
- 64 per cent asked for more bedrooms.

The survey recommendations were to enlarge room size, to separate the majles and kitchen from the housing compound, to enlarge the kitchen space, and to increase the fence height (Ministry of PW&H, 1980). Such findings were evidence for the housing officials that the previous provision of low-cost houses had not improved the housing conditions of the low-income group and that reconsideration should be given to any future provision of low-cost housing.

The first type of low-cost houses were also criticised by the First Housing Minister. According to the Minister they were of low quality and should thus be rejected by a country with huge wealth. The aim of the Ministry in the seventies, according to the Minister, was not simply to build low-cost houses but to build ideal houses. The Ministry, however, built low-cost houses in the seventies in order to meet the high demand for housing and to build large number of houses quickly for the large number of people who were living in poor conditions ¹². An unpublished report by the Ministry of PW&H (1988a) showed that limited fund allocation in the early seventies hindered the Ministry from making any improvements to either the built-up area or the number of rooms.

Members of the FNC also criticised the small size of the low-cost house. Some members regarded the houses as being as small as a hut and it was felt that the government was degrading its citizens by providing such houses. Some members stated that the low-cost houses did not reflect the wealth of the country. Oil revenue, they argued, should serve the interest of the poor nationals by providing more adequate housing. For some FNC. members, low-cost housing raised class differences between people, and therefore it became vital not to have some living in

¹²Based on an interview with Dr. Saed Salman, the First Minister of Housing, on 16 November 1993.

houses costing Dh 50 million (\$13,500,000) and some living in houses costing Dh 120,000 (\$ 32,432) (referred to low-cost houses)(Rabea, 1980). In its final recommendation, the FNC stated that the provision of low-cost housing had not improved the social standing or housing conditions of nationals and, therefore, consideration should be given to a new type of low-cost housing in the future (FNC, 1975, 1980).

In addition, an unpublished report of the Ministry of Planning (1981a) stated that the low-cost houses built since the UAE was established were disproportionately low cost and low quality when compared with the high income per capita of the UAE citizen which amounted to Dh 105,000 (\$28,370). The report also recommended that emphasis be placed on greater use of reinforced concrete in order to increase the life span of the buildings. The UAE President also called for improvement of low-cost housing. The President called for an increase in the number of bedrooms, for each room to have its own bathroom/toilet, for the majles to be separate from the house compound and to increase the plot area to 1,089 square metres (30mX30m) instead of 400 square metres (20X20) (Al-Itihad, 25.3.1980).

HOUSING STANDARD IN THE 1980S

In response to the above criticisms and to the Ministry's survey recommendations, the Ministry of PW&H increased the number of bedrooms and built-up area of the new low-cost houses. The built-up area was increased to 160 square metres, the number of the bedrooms was increased to 3 and both the kitchen and majles were separated from the main bedroom compound. Later the Ministry changed again to a further improved low-cost house where the built-up area was increased to 193 and 209 square metres and the number of bedrooms was increased to 4. This prototype was again modified to "prototype no 513", as can be seen in plates 3.11 and 3.12, where the built-up area was increased to 244 square metres. This prototype was considered by the Ministry of PW&H the ideal low-cost house. In an unpublished report submitted to the FNC, the Ministry stated that with the aim to provide adequate and hygienic housing the Ministry had finally arrived at a design which met the actual needs of the UAE household (Ministry of PW&H, 1981).

HOUSING STANDARD IN THE 1990S

At the end of the 1980s the low-cost housing standard was not still seen by the Ministry as ideal. The design of low-cost houses, according to Ministry of PW&H (1988), should change with the time and reflect the existing civil, cultural and living standards of the UAE. New low-cost houses in the UAE should consist of three main areas; guests, family, and services areas. The guest area should consist of a majles and bath/toilet rooms, the family part should contain the bedrooms, and the service part should include a servant room, kitchen, store, and laundry room. The call to improve low-cost house was also supported by the UAE President. The President called for an increase in plot size to 1,650 square metres (Al-Ittihad, 16.7.1989). The call for further improvement of low-cost house, according to the Minister of the Ministry of PW&H, came as a result of observing that extensions were still being built to the previous types of low-cost housing which showed that such houses were inadequate for UAE households' housing needs. The Ministry's concept of a low-cost house was to keep providing a better house which took into account the changing housing needs of UAE households (AL-Baladeyat, 1992). The low-cost house, according to housing officials, should meet the current and future needs of its users. The house should meet both users' needs and their children's housing needs until they got married (Al-Ittihad, 9.2.1991;15.10.1992)

The Deputy Minister of PW&H stated that consideration should be given to the building and construction of low-cost house as more modern and better quality building materials become available for use (Al-Ittihad, 15.10.1992). The low-cost house should be two storey in the Coastal zone, according to some housing officials, in order to reduce the social differences between low-cost house users and other nationals staying in their own villas (Al-Ittihad, 15.10.1992).

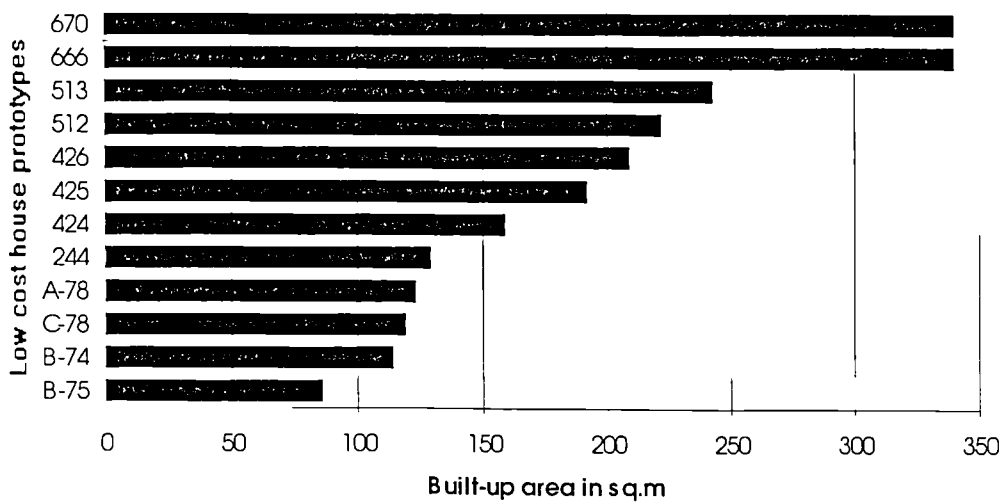
According to the latest concept of low-cost housing standards, the Ministry has designed a new prototype as can be seen in plates 3.9 and 3.10. The house consists of 4 bedrooms, one hall (2 halls for Coastal area type), a majles, dining room, 5 bath/toilet rooms, kitchen, servant rooms, and store. The built-up area is 340 square metres and the plot area ranges between 1,089 to 1,650 square metres.

The new low-cost house, according to housing officials, are modern, provide households with all their housing needs, meet the social and customary needs of users and above all is " a house which every one dreams to live in" (Al-Ittihad, 9.2.1991; Al-Ittihad, 15.3.1993: Al-Khaleej Supplementary, 2.12.1996). Although it will cost

more, according to former Deputy Minister of PW&H, " our concern is only to provide a more adequate environment for our people and the next generation, our ultimate aim is to provide comfort and happiness for our people " (Al-Ittihad, 15.3.1993). Al-Mansoori (1995) states that such a development in low-cost housing concentrate on qualities and standard, compared to the first housing units built in the 1970s which only achieved a minimum standard since the aim then was to build as much low-cost housing as quickly as possible.

With all these changes and the improvements, the built-up area has increased dramatically. Figure 3.7 shows that the built-up area has increased by four times from 1973 to 1992. The plot area has increased by 2.8 times.

Figure 3.7 The changing built-up area of low-cost housing 1973-1993



Source: Ministry of Public Works & Housing (1983)
 Ministry of Public Works & Housing (1988)¹³

¹³ Part of the data in this chart was obtained from the Department of Building and Housing documents and drawings of new low-cost housing built in 1992 and 1993 (prototype 666 and 670).

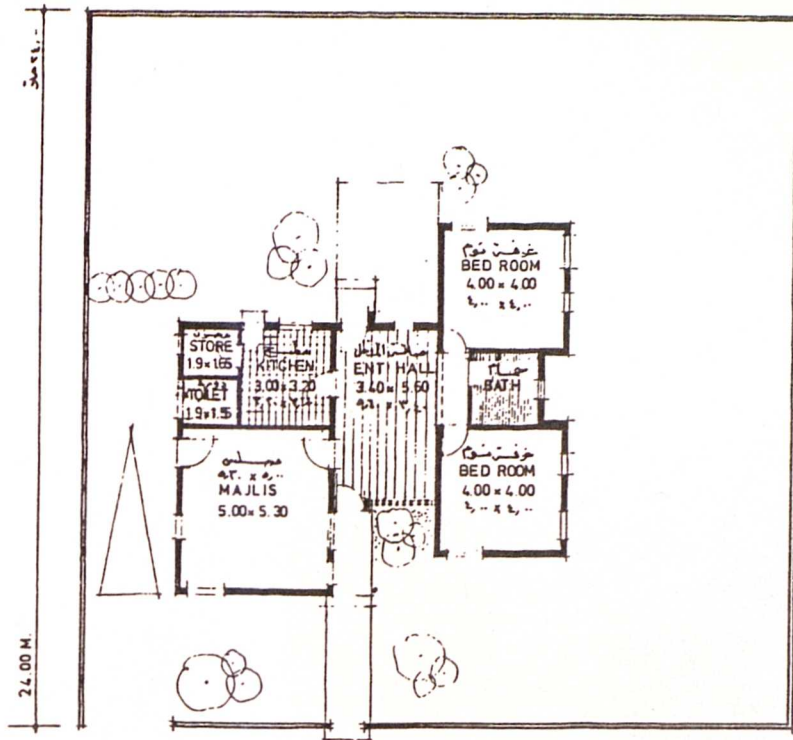


Plate 3.9. Floor plan of low-cost house in 1970s
Source: Ministry of PW&H, 1988

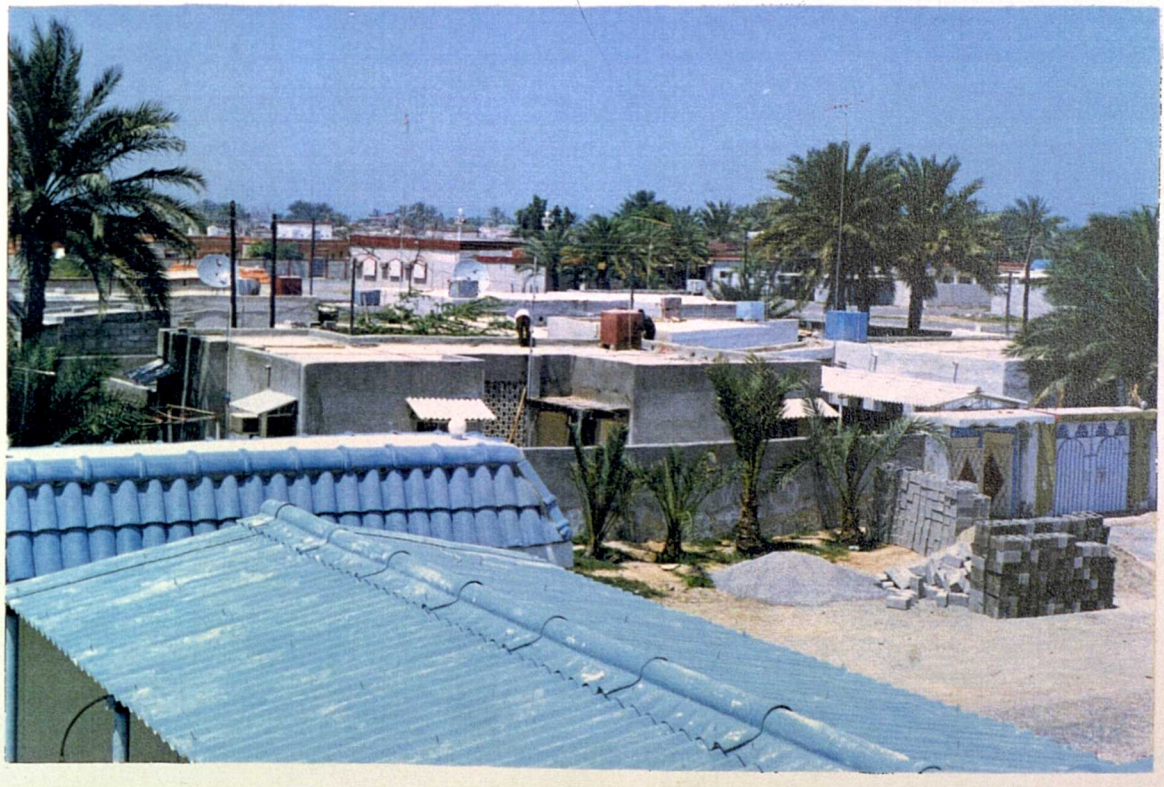


Plate 3.10. Low-cost house in 1970s
Source: Field work survey, Dec 1994-April 1996.

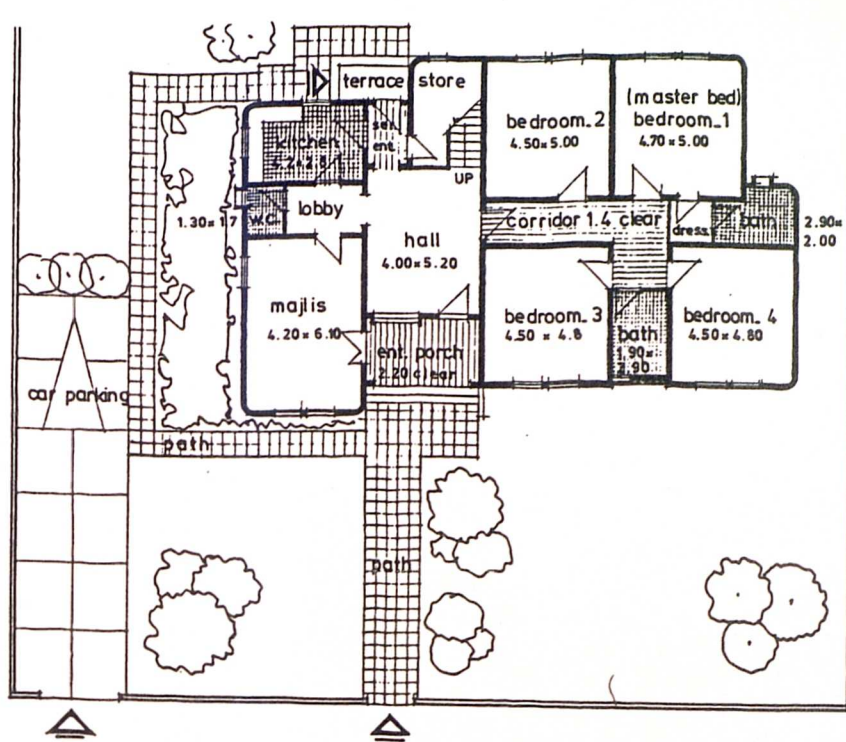


Plate 3.11. Floor plan of low-cost house in 1980s
Source: Ministry of PW&H, 1988



Plate 3.12. Low-cost house in 1980s
Source: .Ministry of PW&H,1988

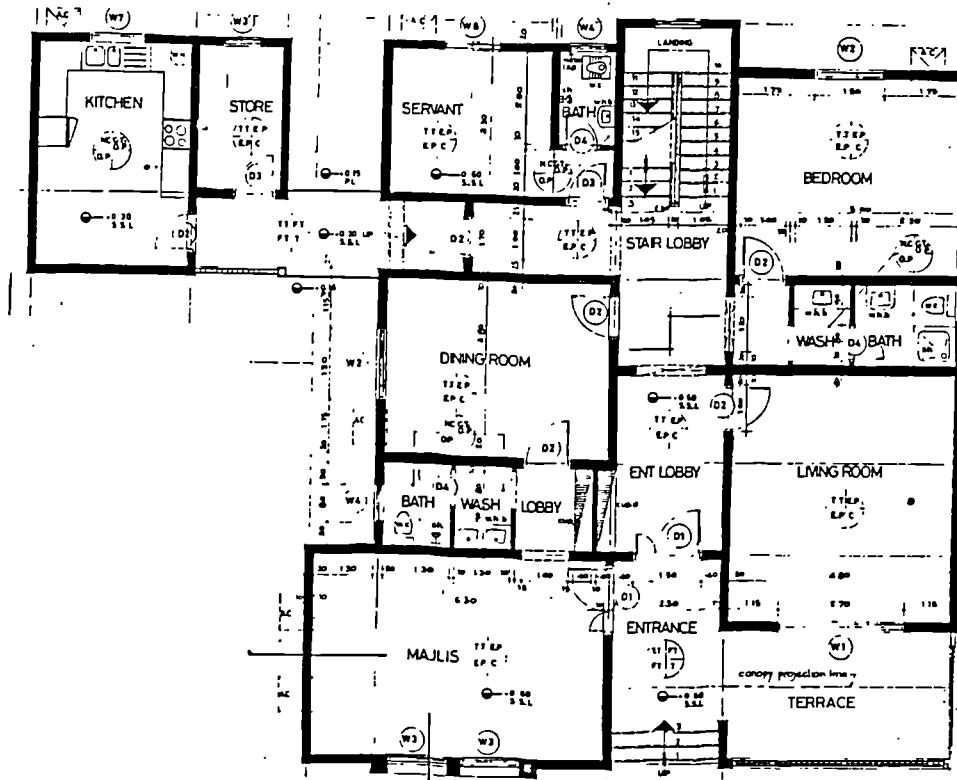


Plate 3.13. Ground floor plan of low-cost house in 1990s.

Source: Department of Building, Ministry of PW&H

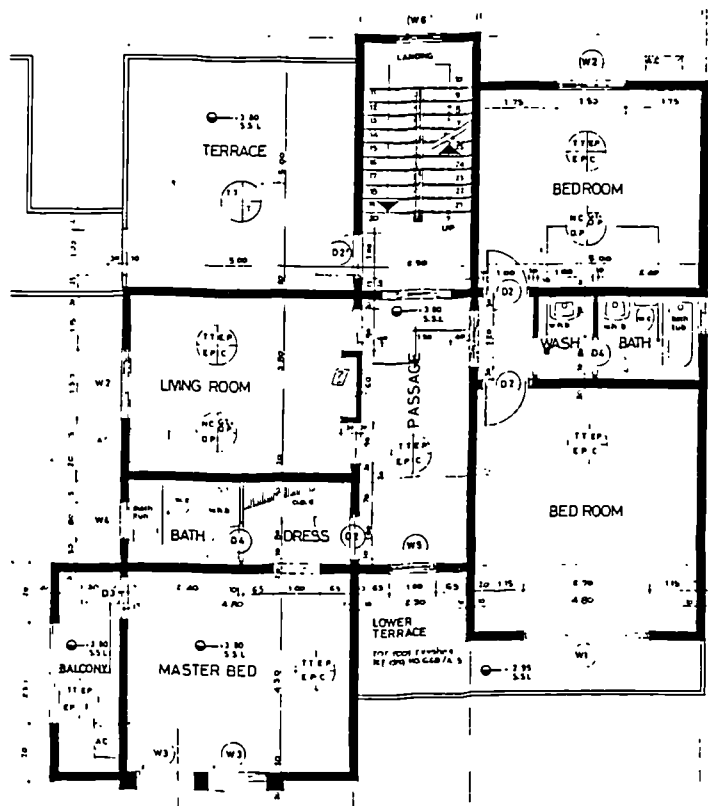


Plate 3.14. First floor plan of low-cost house in 1990s.

Source: Department of Building, Ministry of PW&H



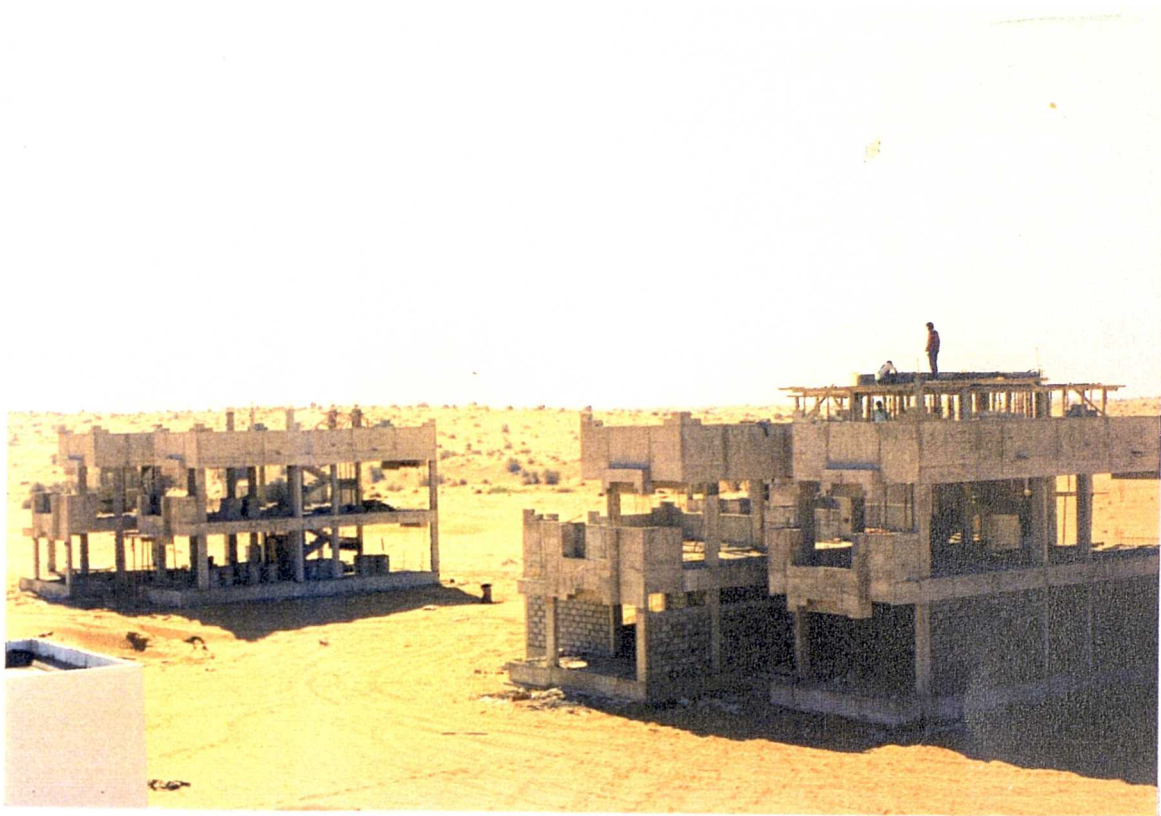
Plate 3.15. Low-cost houses -1993

Source: Researcher, April 1994



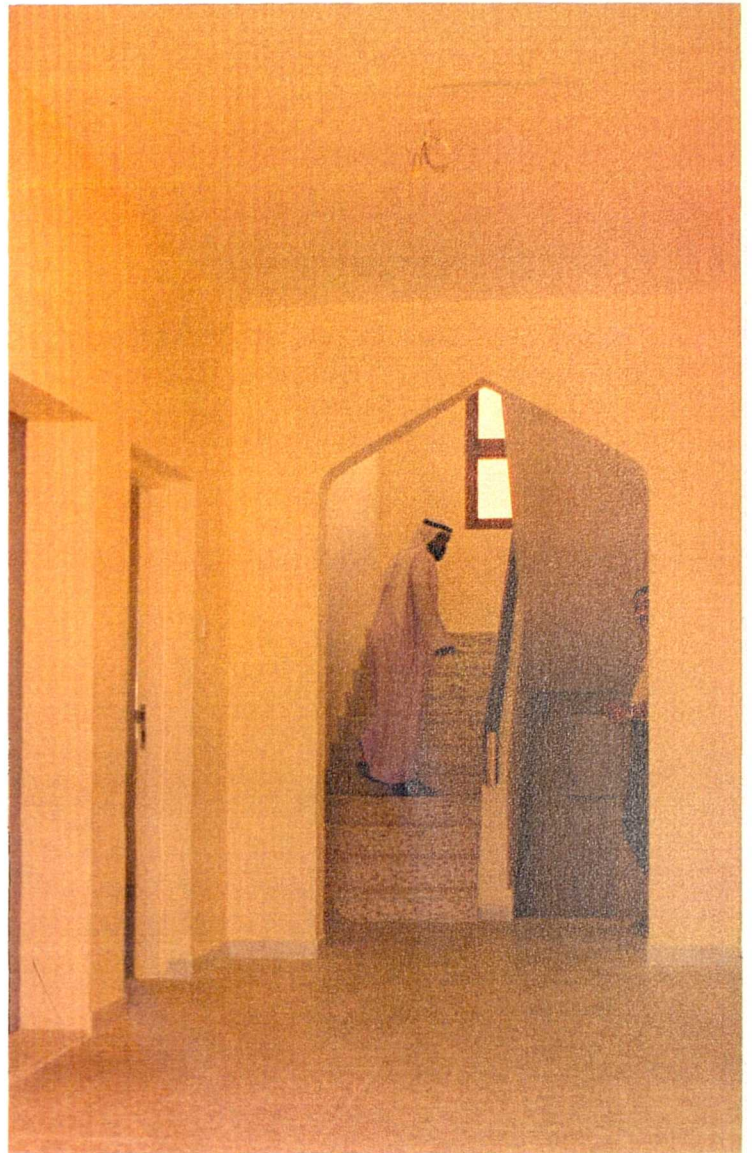
Plate 3.16. Low-cost houses-1993

Source: Field work survey, Dec 1994-April 1995



Plates 3.17. and 3.18. Low-cost houses under construction

Source: Field work survey, Dec 1994-April 1995



Plates 3.19. and 3.20.

Internal view of low-cost houses-
1993.

Source: Field work,
Dec 1994-April 1995



The improvement and changes of low-cost house shows the following:

-The development of spaces and built-up area of low-cost house were not based on precise criteria of cost, space per person, number of persons per housing unit, number of persons per room or bedroom, but rather on what is subjectively believed by the decision makers and housing officials to be the requirements of low-cost housing users.

-There is no precise definition of what is meant by an "adequate house" since so often the Ministry changes the standard of low-cost house. There is also no definition of what is meant by users' "housing needs".

-Despite the fact that the low-income group, has never been properly defined in terms of income, it is considered to have to rely totally on the government to improve its housing condition, since the UAE is a wealthy government and the top decision makers should look after their people generously.

-The government should provide an "adequate house", a term which has never been clearly defined by the Ministry in term of space and cost. This "adequate house" should be a finished housing unit build of durable material and should accommodate all the requirements of the low-income group. The house should meet both present and future users requirements.

-The need to build an extension to a low-cost house is considered by the housing officials to be a sign of a defect in the house.

-People will always ask the government for more space, rooms and improvements to their low-cost houses because they know that they are not going to pay for them.

COST OF LOW-COST HOUSING

Table 3.2 shows the development of low-cost house construction costs from 1973 to 1994. The construction cost during this period has multiplied 10 times. Part of this cost increase can be attributed to the increased built-up area of low-cost house and the development of the building specifications.

Table 3.2. Low-cost house construction cost 1973-1994.

Year	Construction cost	Cost per square metre
1973	Dh 40,000 (\$ 10,810)	Dh 344 (\$ 93)
1978	Dh 103,000 (\$ 27,837)	Dh 643 (\$ 173)
1980	Dh 172,000 (\$ 46,486)	Dh 822 (\$ 222)
1987	Dh 235,000 (\$ 63,500)	Dh 964 (\$ 260)
1992	Dh 350,000 (\$ 94,590)	Dh 1,029 (\$278)
1994	Dh 400,000 (\$ 108,100)	Dh 1,176 (\$ 317)

Source: Low-cost houses building contracts 1978, 1980, 1987, 1992, 1994, Department of Building, Ministry of PW&H.

Table 3.2 shows the cost of low-cost house according to 1994 prices. These costs do not include the land cost and the cost of design and management processes, since they are completed by the Ministry staff.

Table 3.3. Low-cost house cost according to 1994 prices.

Cost input		Dh
Land	Free	-
Design and tendering documents	Ministry of PW&H	-
Supervision	1.744% of construction cost	6,976
Construction		400,000**
Electricity provision*		32,287
Water provision*		11,659
Total		450,922 (\$121,870)

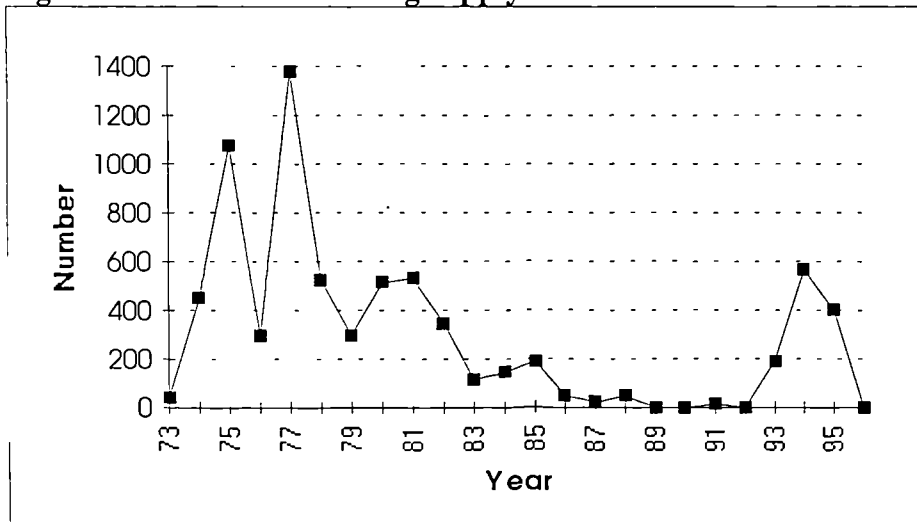
Source: Department of Building, Ministry of PW&H; Dubai Municipality, 1994

* The price of electricity and water provision is based on figures obtained from Dubai Municipality which differs slightly from Ministry of Electricity and Water since there is no available data from the Ministry.

** Cost of construction in Table 3.2

3.3.5 SUPPLY AND DEMAND OF LOW-COST HOUSING

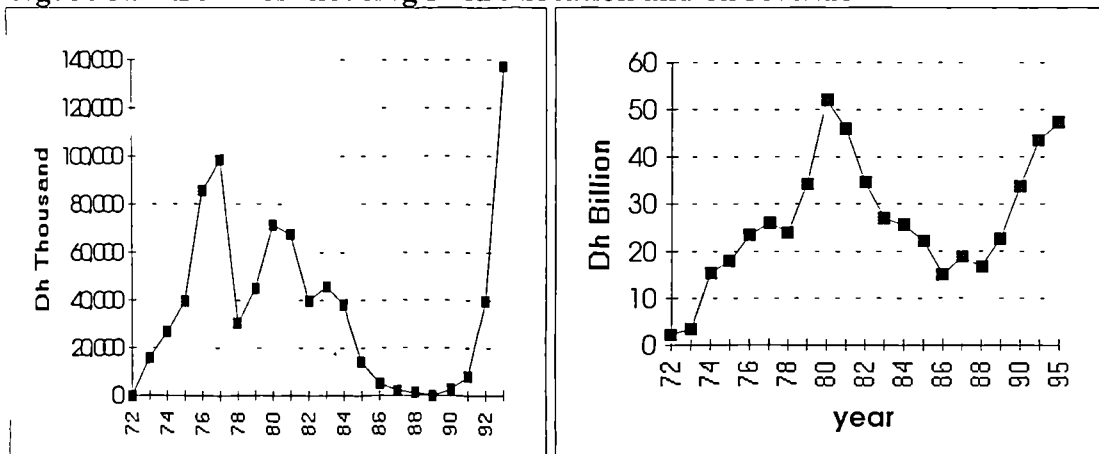
Figure 3.8. Low-cost housing supply 1973-1996



Source: Housing Dept, 1992; Al-Khaleej, 11 April 1995; Al-Ashqal Wal Al-Eskan, 1993; Al-Khaleej Supplementary, 2 Dec 1996

Figure 3.8 shows the fluctuating supply of low-cost housing. In the 1970s, the Ministry built more than 4,500 housing units while in the 1980s only 1,446 were built. In 1989 and 1990 the whole process came to a halt, but was resumed in 1992. 1,175 low-cost houses were built between 1992 and 1995.

Figure 3.9. Low-cost housing fund allocation and oil revenue



Source: Dept of Finance, 1994; Ministry of Planning, 1987; Al-Mutawa, 1991; EIU, 1992; Al-Yusif, 1993;

The fluctuation of the construction of low-cost houses is basically due to fund allocation from the Federal government whose revenue comes from oil. Figure 3.9 shows the relationship between the oil revenue and low-cost-housing fund allocation. In the early seventies there was a gradual increase in oil price which resulted in high oil income and, therefore, there was continuous fund allocation for building low-cost

houses in the 1970s. The fall of the world oil price in the early 1980s diminished the country's oil income and consequently curbed the government's expenditure on social services. The decline of oil prices combined with a total dependency on one source of income forced the government to adopt an austerity policy in public spending (Fyfe, 1989). The building of low-cost houses was a part of the social services which suffered from government fund allocation cuts. By the early 1990s, and with Iraq's invasion of Kuwait, the oil price soared to \$ 40 per barrel and thus the country's oil revenue started to grow (Al-Yosef, 1993) and government funds for housing increased.

The fluctuation of low-cost housing allocation is also linked to the interventions of high level decision makers. As discussed earlier, high level decision makers occasionally order the Ministry to build low-cost houses in certain areas and allocate funds for such building from their own finances. In 1992 the UAE President, for example, issued directions to build 2000 low-cost houses and paid for them from his own finance (Al-Khaleej, 10.4.1996), as discussed earlier.

From 1994, the Ministry of PW&H planned to build 1,000 low-cost houses every year to meet the growing demand for low-cost housing (Al-Khaleej, 1.10.1994; 7.11.1994; 20.12.1995; 10.4.1996; 2.1.1997; Al-Ittihad, 15.6.1994). However such plans have not been fulfilled since no funds were allocated by the Federal government.

The demand for low-cost houses, according to Ministry of PW&H reports, is based on the number of applications. As can be seen from Table 3.4, there is a constant gap between the supply and demand of low-cost houses. This gap increased towards the end of the 1980s and early 1990s. By 1991, the number of low-cost house applications was 8,575 and by 1993 it was 12,000. The number of low-cost housing applications in 1993 represented 46 per cent of the total of UAE households.

The increase in applications in the 1990s can be partly attributed to the halt in building low-cost housing at the end of the 1980s and to the increase in construction costs. It may also be due to natural growth of new households encouraged by the establishment of the Marriage Fund which provides a free grant of Dh 70,000 to newly weds. During the period from 1992 to June 1994, the Marriage Fund provided 3,000 free grants (Al-Bayan, 5.7.1994).

Table 3.4. Number of low-cost houses applications, number of low-cost houses and number of UAE households in the Northern Emirates

Year	Low-cost houses applications	Federal low-cost houses	Low-cost houses*	No of citizen households
1974	4,990			
1975	5,878			
1980	na	4,569	8,065	14,072
1985	na	5,897	11,236	16,930
1987	3,531			
1990	na	6,015		20,870
1991	8,575	6,030		23,300e
1992	na			
1993	12,000			25,730e
1994	na			
1995		7,190	15,397	30,590

na not available

e estimated

* Low-cost houses built by the Federal government and local governments.

Source: Al-Khaleej, 6 June 1993; Ministry of PW&H, 1991, Ministry of Information, 1975; Ministry of Planning, 1980, Ministry of Planning 1990; Ministry of Planning, 1997; Al-Khaleej supplementary, 2.12.1996.

The increased number of applications may also be linked to the fact that applications are free of charge and only require the presentation of certain documents as discussed earlier. Any UAE citizen, therefore, can apply for a free house and it is up to the Ministry committees to decide eligibility.

Future demand for low-cost housing units until the year 2000 is likely to be 17,122, according to an unpublished report of the Ministry of PW&H (1991). This number represents 56 per cent of the total UAE households in year 2000. The report still does not make any clear definition of the low-income group. The fund required to meet such housing needs is Dh 6,8 billion (\$ 1,8 billion). This figure is based on the present cost per housing unit of Dh 400,000 (\$ 108,100). From 1991 until 1996 only Dh 0.5 billion has been allocated for low-cost housing (Department of Finance, 1994; Al-Khaleej, 1.10.1994; 7.11.1994; 20.12.1995). If the government would allocate Dh 0.5 billion every five years for low-cost housing then the above demand will be met within 68 years.

The 25 year long low-cost housing programme has provided housing for 50 per cent of UAE households in the Northern Emirates. In 1991 with the natural growth of households and oil revenue fluctuating, the gap between supply and demand has increased dramatically. The number of applicants in 1991 represented 37 per cent of UAE households.

Table 3.5. Low-cost housing supply, fund allocation and built-up area.

	Built-up area square metres	Fund allocation Dh	Supply of low-cost housing
1970s	120	341 million	4,055
1980s	200-244	285 million	1,960
1990s	340	411 million	1,175

Table 3.5 summarises the changes in the low-cost housing supply, fund allocation and built-up area. The Table shows the negative relationship between the built-up area and the supply of the low-cost housing, as the built-up area increased, the supply decreased. The Table also shows a disassociation of the built-up area development and the allocated fund. The built-up area increased 2.8 fold from the 1970s to the 1990s while the allocated funds decreased in the 1980s, but by the 1990s funds have increased 1.2 times more than those allocated in the 1970s.

3.4 SUMMARY

Oil wealth and the ambitious plans of the decision makers to improve living conditions for nationals have led the UAE government to act as a provider of housing by building and distributing housing units to the UAE households. The low-cost housing programme provides free finished housing "adequate house or ideal house" for UAE households who do not already have their own houses or who can not afford to build their own houses.

Since the government is the provider and financier of the housing then it too set the housing standards. This standard, as the previous discussion has shown, has changed through time. The adequate house, according to the government's present standard, is a finished house built of reinforced concrete and consisting of 4 bedrooms, 5 bath/toilet rooms, hall, majles, servant room, and kitchen.

The programme of low-cost housing in the UAE is associated with three main principles; the availability of oil revenue, free provision and providing a high housing standard. These three principles aim to meet growing demand and provide "adequate" housing of a high standard for the target group. We can assume that these three principles are variables in an equation aimed at achieving an output. This output is a supply of housing units of a certain standard which in turn meets the demands of the target group. The relation between these variables and outputs is conditional. Any change in these variables will affect the output. For example, if there is a fluctuation in oil revenue then the output will also fluctuate. In reality, as the above discussion

shows, the fluctuation in oil revenue has affected the allocated fund for low-cost housing and, thus, there is now a gap between supply and demand. Although there is a fluctuation in oil revenue, both the free provision policy and high housing standard variables have remained in the equation and there was an improvement in the latter.

Therefore, despite the fluctuation of allocated funds for building low-cost housing, the improvement in the standard, the increase in cost and increase in number of applicants, the government remains committed to providing free housing for UAE nationals, committed to developing and improving the low-cost house, and committed to taking the full responsibility of financing the low-cost housing.

The argument now is that, if the government is committed to the free housing policy, then it should allocate sufficient funds to meet the growing demand for free housing and thus close the gap between supply and demand. Moreover, if the government is committed to improving housing standards, then it should also allocate more funds to meet both the growing demand for free housing and high housing standard.

CHAPTER FOUR
THE RESEARCH METHODOLOGY

CHAPTER FOUR

THE RESEARCH METHODOLOGY

4.0 INTRODUCTION

This chapter discusses the methodology applied in this research. It lists the methods of data collection and the reason for using each method of data collection. This chapter starts with focusing on the distinguishing features of the UAE as a place of study, and the different constraints imposed on conducting research in this country, with particular reference to political, cultural, and administrative dimensions. This chapter also details how the survey was conducted, the selection of the survey population, the selection of areas of study, the processes of the fieldwork, and the obstacles confronting the researcher in conducting the survey.

4.1 RESEARCH ENVIRONMENT IN THE UAE

Conducting any research in any part of the world requires an understanding of the area being studied. An extensive knowledge of the political, economic, cultural, religious, and traditional parameters prevailing in the area is a great advantage in formulating the most effective method of data collection. Therefore conducting research in the UAE requires a comprehensive knowledge of what goes to make up that society, and an awareness of the dramatic social and economic developments which have taken place within the last twenty years. This section discusses the different constraints upon research in the UAE and investigates to what extent these constraints influence the processes of data collection.

Historically the government in the UAE was (and still is) concentrated in the hands of the sheikhs. Within the traditional tribal mechanism is embodied the tenet that the sheikhs will not be criticised by their people and consequently the people interviewed were not used to questioning the actions of their leaders. The relationship between the head of the tribe and the individual members of the tribe is still based on the traditional tribal structure and demands total obedience and submission to the head of the tribe, thus preventing people from refusing orders or protesting about practices of the higher levels of authority. This traditional attitude has been transferred to the institutions of the newly established state and its departments. In most cases,

individuals regard government programmes and policies, such as health services, low-cost housing, electricity services, etc., as a direct grant from the sheikhs, and not an obligation from the government to its people. This was demonstrated time and again during the interviews when particular issues of government housing policy were raised, the researcher was confronted with some interviewees refusing to give an opinion. The usual response from such interviewees (especially the older ones) was

"The 'Sheikhs' do the best for us and whatever they do we have to accept, and may God extend their lives".

Therefore, one difficulty encountered in conducting the survey was that for some of the people interviewed, the concept of criticising government policies and giving personal opinions about particular political issues was unknown and raising such issues was not seen as acceptable. Any individual who dares to criticise government policies in such a conservative community is considered to be suspect. It goes without saying that the research was hampered by the above attitude - in the UAE asking people for their opinions; and responses towards government policy is so uncommon as to provoke distrust and/or uncomfortable feelings.

The prevailing thought is that any government housing policy is acceptable as long as the housing is free of charge. When the researcher raised the question of whether the government should continue with its present low-cost housing programme or transfer to some other type of housing provision, during the pilot survey, many applicants' response was

"It is not for me to concern myself with such matters, these are matters for sheikhs and government".

One interviewee's response was

"The government knows what is best for us and whatever the government provides for us we will accept...whether it is a large house or a small one or even only one room".

Raising specific issues in the society of the UAE such as housing policy, land issues and distribution, the allocation of low-cost housing, was sensitive and potentially hazardous for both the researcher and the informants, as many of the questions asked to ascertain what people thought of the issues could be considered as interference in

sensitive political issues. The sensitivity of such topics highlights the role of top officials in the country in housing matters. The sensitivity of these issues could affect the researcher himself and the possibility of carrying on this research as long as it is sponsored by the government. The socio-political environment of the UAE imposes certain constraints on getting the required data, and an awareness of the hazards of raising such issues is essential. Gabriel (1978) in his research on the design of urban environments for the Middle East desert areas said that in the case study of the UAE the use of questionnaires to obtain information could be misunderstood by the authorities who would query its political intention.

The other main sensitive point of the inquiry concerns the significance of low-cost housing for the people of the country. Low-cost housing is a free-grant house, and the value of such a grant is equal to five times the annual salary of a newly graduated worker. Thus it is a valuable asset to anyone from any income bracket. Bearing this point in mind, one would not expect people to be very honest in providing the researcher with any information which could affect their chances of acquiring such a concession, even when they have the researcher's assurance that all information will be treated as confidential.

Moreover, as the UAE is a relatively newly established state, its government ministries and departments are still, to some extent, in the process of evolution, and many do not yet have adequate records. Some still lack the principle of documentation for their information. This was particularly so in the Housing Department in the Ministry of PW&H and other municipalities in the Northern Emirates. There was also a dearth of document data and information institutions for housing or other related subjects, such as architecture, building industries, planning and urban studies.

The researcher found that gaining access to particular data was usually a long procedure and confrontations with bureaucracy were common. Al-Mehaire (1993) in his study of the role of the transportation network in the development and integration of the seven emirates forming the UAE stressed that one of the main problems which he encountered in his research was the restriction on access to, and confidentiality of, many studies and officials reports about transport in the UAE. Al-Jassim (1990) in his research on national participation in the work force in the UAE stated there was a paucity of reliable data and access to what there was difficult. The researcher faced the same problem and had great difficulty in obtaining the data and reports which are

required from the Central Housing Department and from other municipalities in the Northern Emirates.

For instance, although the Housing Department has records and a complete list of applicants for low-cost housing since 1973, these have not been documented in a way which would enable them to be referred to, either by official housing staff or any researcher from outside the Ministry. Moreover, the records of the old users of low cost houses are not easily accessible as they are not archived and they are incomplete. Moreover, the absence of updated lists of the users of low-cost housing who still stay in their original houses and of those who have left them has resulted in a total dependency on the knowledge of the key-figures in each area.

Whilst some data is available in some government departments and any official can obtain such data for purposes of research, there are doubts as to the accuracy or completeness of such information because of the sensitivity of the issues involved. This sensitivity regarding records and reports relating to housing is attributed to the close links between the issue of housing distribution and the top decision-makers in the country. This was demonstrated very clearly in the Central Housing Department when the researcher asked for some information relating to housing distribution. Another sensitive area of data was that of land policy. When the researcher asked for some details regarding the number of applicants for residential plots, the authorised official refused this. Some officials in the local municipalities justified their refusal to the fact that their previous experience with other researchers does not encourage them to provide the researcher with the required data and information. They claimed that some researchers have criticised the policies of some local municipalities and showed drawbacks of such policies according to the data provided to them. Alwatani (1992), in his study about land scarcity in Bahrain (one of the Gulf states which has the same political, economical and social characteristics as the UAE), stated that the data collected in this research was limited because of the complexity of the land issue and factors relating to it such as political constraints.

In addition, the paucity of, and inaccessibility to existing housing studies and data in the UAE generally and in the Northern Emirates in particular, has affected the availability of data and references required for this research. Such a situation has confronted other researchers conducting housing research and studies in the UAE. Alif (1981a) in his study of housing low-income groups in the UAE stated that his study was based on estimated data, and on some data generated from housing officials. Alif (1984:10) in his final report of housing in the UAE, (undertaken as the

United Nations expert on the UAE), stated that one of the main constraints challenging his task in the UAE was

"the inadequacy of reliable statistical and other information on housing and related subjects".

Housing, town and urban planning, and the building industry in the UAE are all fields in which research is rarely done. Of what does exist, most of the studies on housing in the UAE were done by the United Nations' experts during the period 1976-84. Most of these studies focused on developing the official cadre of the Housing Department, formulating housing policy and descriptive studies of the existing nature of the institutions for housing provision evolving in the country. As mentioned earlier, the studies of the United Nations were based on projected data and figures since the country in that time suffered from an absence of reliable data, mainly due to the fact that it was a newly established state. These studies and research are now considered out of date and could be misleading in interpreting the current housing situation in the country.

Although a lot of fieldwork research has been conducted in the country, much of this has been carried out on specific target groups such as schoolchildren, government officials, etc. There are few studies that deal with the different classes of population in different areas of the country. This means that most of the uneducated people whether in Coastal or Inland areas are not used to a stranger asking them personal questions or their opinions about government policies. The introduction of a stranger to such people is bound to raise doubts and suspicions about the purpose of his questions as it is the first time for those people to be in such a situation. Therefore, conducting a survey in such areas required careful planning as to the way questions would be asked. It also required an acquaintance with, and co-operation of the key-figures of these areas to introduce the researcher to the population, explain his work and calm the doubts of interviewees.

Regardless of the above, limitations imposed by the political, cultural and administrative environment of the UAE this research provided the opportunity to explore the implication of free housing provision on the target group. The chance to study the free housing provision in a rapidly developing country during its first 25 years is a valuable contribution to knowledge and one which has not been researched before. It is the study of housing in a society, of high wealth and small population, which is changing rapidly from a rural to an urban existence within a very short time.

4.2. METHOD OF DATA COLLECTION

Table 4.1. The objectives of the research and the methods of data collection

Main objectives	Inquiry object	Aim of inquiry	Method of data collection
Study the implication of the free low-cost housing programme on the housing conditions of the target group	Federal low-cost housing programme	1. Study the housing processes of Low-cost housing.	1. Reports and documents published by governments bodies; 2. Interviews with housing officials in the Ministry of Public Works and Housing. 3. Correspondents of the Ministry of Public Works and Housing 4. Local newspapers archives
	1. The users of low-cost housing; 2. The applicants for low-cost housing .	See table 4.2	1. Pilot survey 2. Main survey 3. Observation. 4. Interview
Study the housing preference of the target group.	1. Users of low-cost housing; 2. Applicants for low-cost housing	See table 4.3	1. Pilot survey 2. Main survey 3. Observation. 4. Interview

Data-collection options and strategies for any particular research inquiry depend upon many considerations such as the kinds of information required, and the availability of resources (Patton, 1990). Moreover, whatever method of data collection is employed, it must take into account the setting of the study, and the data available relating to the research subject already available, and whether it is readable and able to be depended upon. As mentioned earlier, while conducting this research in the UAE, the political, economical, as well as the cultural characteristics of this country must be taken into account.

The dearth of previous studies and research, together with the absence of any system of data and information centres in the country about housing and urban studies, complicates the conduct of research. It is hoped, however, that an understanding of these parameters will enable the researcher to develop a suitable method of data collection in the area of study, taking into consideration the political, economical, cultural, and administrative parameters.

Given the above, the researcher felt that in order to achieve the research objectives, the adoption of, and reliance on, one technique of data collection could adversely affect the validity and reliability of the study. In addition, reliance on one method of

data collection could result in a lack of comprehensive cover to the area of study. For instance, total reliance on the reports, documents, and file lists of the Ministry of PW&H in understanding the socio-economic and housing conditions of the target group would, the researcher believed, provide an insufficient and incomplete picture because most of this information is out of date, incomplete, or inaccessible. The reliance upon interviews with housing officials could result in incomplete coverage because some of those officials are newly appointed and they still lack the experience of old staff. Equally when officials cannot reveal the truth or when they can give only part of a story due to the political environment in the country, an incompleteness and bias results.

Therefore, this research will employ a number of data-collection techniques in order to achieve its objectives and to avoid the weakness of using one method of data collection in the environment of the UAE. Every method of data collection is only an approximation to knowledge. Each provides a different glimpse of reality, and all have limitations when used alone (Warwick and Lininger, 1975). At the same time, the employment of different technique will provide both the quantitative and the qualitative data required to achieve the research objectives. Quantitative data is required as the low-cost housing programme serves a broad spectrum of low-income people in the country with various social and economic variables. On the other hand, the qualitative data is necessary to understand, interpret, and provide intensive understanding to the quantitative data.

The employment of different methods of data collection is also important for cross-checking the data obtained.

"In many studies the ideal solution is to develop a methodological mixture which will capitalise on the strengths of each approach. A design which combines participant observation or other qualitative methods with a sample survey provide opportunities for cross-checking and for a much more complete picture of the situation being studied" (Warwick and Lininger, 1975: 12).

This research will employ three main methods of data collection: the sample survey, the interview, and observation (see table 4.1). The sample survey method will use structured interviews, with both users of low-cost housing and the applicants for low-cost housing in order to generate quantitative data. Different methods of qualitative

generated data will be employed. The utilisation of qualitative methods will assist in understanding the quantitative data, and give more intensive depth for interpretation of the quantitative data. Interviews will take place with various people involved in housing provision. Site observation of different locations of low-cost housing and housing applications will take place. All these methods of data collection will be treated as being complementary to each other and it is hoped the multiplicity of data collection techniques used will thus enhance the quality of data used in this research.

4.2.1 SAMPLE SURVEY

The aims of this research are to study the implication of the of the free low-cost housing programme on the housing conditions of the target group and to examine the target group housing preferences. The sample survey method will be employed because of its appropriateness to achieve the objectives of this research, and it will generate the kind of data needed to answer the questions posed by the study. The sample survey has been widely utilised as a tool for policy formation and programme design, and is increasingly employed as an instrument for evaluation of a programme (Bulmer and Warwick, 1993).

The sample survey has the advantage of extensively and broadly studying populations having various economic, social, and cultural variables. The result of the survey can be generalised to a large population as long as it has the same characteristics, and provides a representative picture for all the population.

"A primary aim of the survey is to collect standardised information from relatively large number of individuals in order to generalise from the sample to the population from which it is drawn" (Bulmer and Warwick, 1993:9)

Equally, the sample survey tests the responses of different groups for the same issue of the same setting and provide diverse type of responses. The diverse types of responses from both the users of the low-cost housing and the applicants for the low-cost houses gives the advantage of comparing these responses and fulfilling the objective of the research. Moreover, the rationale of using such technique are to obtain a higher rate of response from a wider range of the target group.

The sample survey is a study in which information is gathered from a fraction of the population chosen to represent the whole (Warwick and Lininger, 1975). The use of

a sample survey in this research is fundamental to obtain the different characteristics of the target group, and also their responses toward particular issues. The sample survey will serve such aims by studying samples of the target group. The sample survey provides comprehensive coverage of the broad population of the target group of low-cost housing, and describes the diverse characteristics of this population such as socio-economic characteristics, housing conditions, etc., by studying only a sample of it.

According to the limitations of the resources of the researcher and the limitation of time of the study, the sample survey was found to be the most appropriate method of data collection to serve the objectives of this research. Most researchers want methods which provide high accuracy, generalizability, and explanatory power with low-cost, high speed, and a minimum of management (Warwick and Lininger, 1975). It was felt the sample survey technique provided this.

Two sample surveys will be used in this research: the user survey and the applicant survey. Each of the sample surveys aims to generate different data. The aims of both surveys are discussed in next section.

4.1.2.1 THE STRUCTURED INTERVIEW

The survey instrument to collect data is the structured interview. The selection of this particular method was motivated by the following:

1. The diversity of language in the area of study was great and led the researcher to select the structured interview in order that he could explain the meaning of the terminology and the words used in the interview and ensure that, despite the differences, the users understood the precise meaning of all questions.
2. The response to questions on matters which can be considered private family affairs in a very conservative society was likely to be a refusal, unless done very tactfully and this is difficult except in a self-administered situation. Such questions include the income of the household. The response to such questions means revealing the financial status of informants which they are naturally disinclined to do when the subject is connected to their eligibility for low-cost housing. The face-to-face interview gave assurance to the informants that such data is only for research purpose.

3. The pilot survey revealed a tendency for respondents to use relatives to answer the questionnaire when the self-administration method was used, mainly because many were illiterate. In 1970 the illiteracy rate in the country was more than 90 per cent (Al-Khaleej, 9.1.1995). To avoid the bias which is concomitant with the introduction of a third party and to increase the level of accuracy, precision, and credibility of the data obtained, the researcher was virtually forced to adopt the interview method.

4. The pilot survey showed that some informants had misunderstood some questions when the self-administration method was used. Thus, to reduce the level of bias or inaccuracy which could occur from misunderstanding some questions, the direct interview provided the researcher the opportunity to illustrate more clearly the purpose of the questions and to avoid any bias.

5. It was noticed in the pilot study that some respondents showed a high level of response and were more co-operative in providing the researcher with data beyond that required by the structured interview. In addition, the researcher found that some respondents had a story to tell regarding their low-cost houses or an experience worth recording. Therefore, the pilot study demonstrated that the interview was more successful in obtaining qualitative data and in giving a richer understanding to the quantitative data. The face to face meetings enabled the researcher to investigate particular issues in greater detail and go beyond the structured interview to gain a deeper insight into the subject.

A. The users structured interview

The users structured interview aims to study the followings:

1. The socio-economic characteristics of the those who got access to low-cost houses by examining the age, education level, occupation, income and household composition;
2. Housing conditions of the users before moving to low-cost housing by examining previous type of tenure, type of house, occupancy rate, number of rooms;
3. Housing conditions of users after moving to low-cost house by examining occupancy rate, physical quality; number of rooms and the intention of the users to stay or move out of the low-cost house;
4. Housing preferences of the users by examining their willingness to pay for an interest-free housing loan.

Table 4.2. The users survey aims

Inquiry objective	Aim of inquiry
The socio-economic characteristics of low-cost house users. -Age -Education level -Occupation -Income -Financial capability -household size	<ol style="list-style-type: none"> 1. Identify the socio-economic characteristics of those who got access to free low-cost houses; 2. Study the relationship between these characteristics and what is provided by the low-cost housing programme.
The housing conditions of low-cost house users. -tenure -housing type -construction type -land ownership -number of rooms -occupancy rate -physical quality	<ol style="list-style-type: none"> 1. Identify users housing conditions before moving to low-cost houses and after occupying the low-cost houses in order to examine: how the free low-cost has improved their housing conditions; how users house themselves before moving to low-cost houses; study the changes which take place on the low-cost houses after occupation; examine the users intentions to stay or move out the low-cost houses.
Housing preferences of low-cost house users -willingness to pay -type of construction	<ol style="list-style-type: none"> 1. Identify these preferences and examine the match between these preferences and what is provided by the government.

B. The applicants structured interview

The applicants structured interview aims to study the followings:

1. The socio-economic characteristics of those who are applying for free low-cost housing;
2. Housing conditions of the applicants before moving to free low-cost housing by examining tenure, house type, number of rooms, land ownership and occupancy rate.
3. Housing preferences by examining the motive behind applying for free housing; their responses if they couldn't have access to free housing; willingness to pay for housing and their affordability to their housing preferences.

Table 4.3. The applicant survey aims

Inquiry objective	Aim of inquiry
The socio-economic characteristics of low-cost house applicants. -Age -Education level -Occupation -Income -household size	<ol style="list-style-type: none"> 1. Identify the socio-economic characteristics of those who are applying for free low-cost houses; 2. Study the relationship between these characteristics and what is provided by the low-cost housing programme;
The housing conditions of low-cost house applicants. -tenure -housing type -construction type -land ownership -number of rooms -occupancy rate	<ol style="list-style-type: none"> 1. Identify applicants housing conditions before moving to low-cost houses; 2. study how applicants house themselves before moving to low-cost houses.
Housing preference of the low-cost housing applicants -why apply for low-cost housing? -willingness to pay for housing -affordability to pay for housing preferences	<ol style="list-style-type: none"> 1. Identify these preferences and examine the match between these preferences and what is provided by the government; 2. Examine the implication of these housing preferences on the current free low-cost housing; 3. Examine whether such housing preferences are feasible within the current political, economical environment of the UAE.

4.2.1.2. THE TARGET POPULATION

The population of the study are the occupants (hereinafter called the users) of the federal low-cost housing programme, and the applicants for low-cost housing who are on the waiting list. The users of low-cost housing are citizens of the UAE who were granted low-cost housing (whether of the old design or the new one) between 1973 to 1994. The applicants for low-cost housing are citizens of the UAE who have applied for low-cost housing and were on the waiting list at the time of this study

according to the records of the Housing Department in the Ministry of Public Works and Housing.

The sample survey focused on the male head of each household granted low-cost housing. Only households still living in low cost housing were approached. Those households with females heads living in low-cost housing have been excluded from the sample survey because of the cultural problems of a male researcher gaining access for interview purposes to females in such a conservative, tribal society. In the applicants' survey the same method was applied and female applicants were excluded from the survey for the same reason. Al-Saati (1987) in his study of resident satisfaction in subsidised housing in Saudi Arabia had to confront the same problems as regards interviewing females due to the similar traditions, religion and customs of that region. Al-Zaher (1990) in his study of housing conditions and aspirations of housing tenants in Kuwait also excluded female heads of household from interview because the prevailing custom in that country prevented females being interviewed by stranger males.

4.2.1.2. ACCESS TO THE OBJECTS OF INQUIRY

Gaining access to the objects of inquiry, mainly the users and applicants of low-cost housing, was the one most important step required in order to implement the research objectives.

*" Gaining access is an essential phase in the research.
For access is a prerequisite; a precondition for research
to be conducted " (Burgess, 1984:45).*

This phase is especially important in the context of the UAE, because of the nature of the country: it is a society which is characterised by conservatism and tradition. For example, strangers approaching any settlement of low-cost housing and access by a stranger or non-national to the houses of nationals, is guaranteed to raise suspicion in the inhabitants of such areas.

In the UAE, the justification of conducting research is often not enough to gain access to citizens' houses. When the researcher came to areas of low-cost housing with his questionnaires and his camera, the residents of the area gathered around him and asked him about the purpose of his visit. Any unplanned entry to areas of low-cost

housing was liable to affect the possibility of co-operation of the residents, the objects of inquiry, to a great extent.

Taking the above into account, the researcher felt it would be useful at this point to discuss the methods he adopted to approach the objects of inquiry, such as the users of low-cost housing and applicants for low-cost housing, and areas of low-cost housing. This section will also highlight the roles of the key-figures in getting access to low-cost housing areas and explore the personal relationships necessary to gain access to the objects of the inquiry.

1. Key-figures

The main source of data of this research was the users and applicants of low-cost housing. Therefore, ensuring access to this source of data was the key to achieving the research objectives. The locations of low-cost housing are spread throughout the country. There are low-cost housing settlements in both the Coastal and Inland zones of the UAE. Low-cost housing was usually built near existing settlements. For a long time, these settlements were considered to be very 'closed' communities, based as they were on the Bedouin and tribal customs, particularly in the Inland zone. The occupants of the low-cost houses in one area usually all belong to the same tribe, share the same language, habits, and tradition. The tradition of privacy, isolation from the outside world, suspicion of strangers still exists and entering such areas is therefore not without difficulty.

However, having access to these areas was crucial in order to conduct the sample survey and the key to access was usually the key figure of the village (*al-muarf*) who is the leader of the people of the area. The key-figures of the different areas usually visit the Housing Department from time to time as they are involved in the allocation of low-cost houses (see Chapter 3), so the researcher tried to set up meetings with them on such occasions and succeeded in establishing good relations with many key-figures of the areas selected for the study.

The introduction of the researcher to the key-figures of the different areas of low-cost housing usually took place in the Housing Department. Housing officials played an important and valuable role in the research by introducing the researcher to the key-figures and stressing the importance of the research to the Ministry of Public Works and Housing. The benefits of the research for users and applicants in the future was promoted. The introduction of the researcher in the Housing Department to the key-

figure gave the key-figure the impression that the work of the researcher was considered very important to the Housing Department and therefore the position of the researcher was strengthened, facilitating approval for his entry to the areas of low-cost housing.

Having been introduced to the key-figures, the researcher initiated the next phase of the research by approaching the areas of low-cost housing. This approach was via the majles (men's reception room) and the first step was to visit the majles of the key-figure of each area.

The majles is one of the main features of the social life in the UAE and has been part of the tradition of UAE society for a long time. It is a space located away from the main living quarters but within the plot and thus distanced from private spaces like bedrooms and kitchen. This is to prevent direct sight of the private areas of the interior of houses, especially those parts frequented by the females of the household. The majles is the space where the males of the community gather daily, mainly in the evenings, to discuss day to day issues. It is similar to a small parliament where discussion is conducted in a free manner and without any reservations between the people of the community (Al-Muqames, 1986).

Majles are found throughout all the residential areas in the country whether in Coastal or Inland zones. The majles was, therefore, obviously the natural starting point for the research to enter the low-cost houses areas. Through the majles of the key figure of the area, the researcher introduced himself to the people of the communities; raising issues relating to housing provision and to acquire information beyond that derived from the average structured interview.

Gaining the trust of the key-figures and establishing a good relationship with them was not only a great help to the researcher in being allowed to enter the different areas of low-cost housing, but also in obtaining the trust of the people of these areas. This trust was to produce a valuable relationship and enable the researcher to enter these areas, conduct structured interviews, observe houses, and have the opportunity to extend the discussion beyond the structured interview on to informal discussion.

2. Personal relations

The previous experience of the researcher in his employment in the Ministry of PW&H as an architect since contributed to the achievement of a close and fruitful

relationship with the various personnel involved in housing such as housing officials, architects, engineers, contractors, etc. As the researcher is familiar with the environment of housing provision, this contributed to a greater understanding of the setting of the various administrative matters relating to housing provision which take place in the Ministry. The previous employment of the researcher in the Ministry of PW&H meant many personal relations with officials in the Ministry were already established, and this facilitated access to personnel involved in housing provision.

Personal relations in the UAE generally play a substantial role in the ability to acquire any sort of information from government departments and in most cases is more important than whether one has permission to do so from a high ranking official. For example, although the researcher had obtained permission from the Deputy Minister for data from various department in the Ministry, nevertheless some Ministry officials refused to provide the researcher with such data. However, by taking advantage of personal relations with some housing officials, the researcher was able to acquire this data later. Personal relations also enabled the researcher to acquire many reports, files and, in some cases, even confidential reports directly without having to seek permission from high ranking officials.

The personal relations established also contributed to the success of meetings with various housing officials and meant discussions were more likely to be informal, revealing and conducted in a friendly environment. Such informal discussions involved various matters relating to housing provision and issues relating, or arising from, the problems encountered in housing provision and this contributed to a greater understanding about the provision of housing. Personal relations were also useful in the context of the Ministry and in obtaining data and information from other governmental departments and organisations. It also enabled the researcher to trace the different housing processes such as the process of application for a house as well as the process of allocation. During the four months of the fieldwork, the researcher observed the process of application, the means of selection, method of recording the information in the Ministry files. The researcher also followed the involvement of various personnel in the process of allocation. Such day-to-day work in the Ministry offices was noted and added to the rest of the research and formed part of the observation data.

4.2.1.3. THE PLACE OF STUDY-RAS AL KHAIMAH EMIRATE

This study covers the low-cost housing programme in the Northern Emirates. However, as there are many similarities between the Northern Emirates, the decision was made to select Ras al Khaimah Emirate for this study for the following reasons:

1. According to statistics of the Ministry of Public Works and Housing, the Emirate of Ras al Khaimah has the largest number of low-cost houses and more sites of low-cost houses than any other emirate. There are 2,385 low-cost houses in Ras al Khaimah, on 40 sites, distributed throughout both Inland and Coastal zones. The number of low-cost houses built up to and including 1994 were as follows: Ajman-725, Umm al Qaiwain-603, Fujairah-1,973. There were 7 sites of low-cost housing in Ajman, 11 in Umm al Qaiwain and 30 in Fujairah (Ministry of Public Works and Housing, 1994). The above has meant that Ras al Khaimah has a diversity of areas which gave the researcher the advantage of being able to select different areas according to their geographic location (Coastal and Inland) and according to the type of design.

2. There is also diversity of the population in the emirate of Ras al Khaimah which gives the research a good balance. The population ranges from urban people in the Coastal zones to Bedouin in the Inland zone and this gave the researcher the opportunity to conduct his work in these different environments and to obtain different responses on the subject of housing. Sixty percent of the population in Ras al Khaimah lives in the Coastal area, with the remaining 40 per cent in the Inland area which provided a well balanced mix, whilst in Ajman and Umm al Qaiwain 80 per cent of the population live in the Coastal zone and only 20 per cent in the Inland zone. In Fujairah 40 per cent of the population is settled in the Coastal zone , and 60 per cent in the Inland zone (Gunaim, 1985).

3. As each emirate has its own local authority, to study in all four would require permission from all four authorities to conduct the survey. It was felt this would take too much time given the bureaucratic nature of local government.

4. The researcher had already established a good working relationship with many people involved in Housing Department in Ras al Khaimah in his previous employment as an architect in that emirate and was personally acquainted with many housing officials, Land Department officials, and municipality officials. Thus it was obvious that it would be advantageous for the researcher to choose this emirate in

which to conduct the research. The advantage of having access to different government departments in this emirate was felt to be of help to the researcher in obtaining data, especially taking into consideration the significance of personal relation in the context of the UAE. Moreover, personal relations is also considered to be a valuable first step in gaining access to the different areas of low-cost housing and to building up a strong trust with both the key-figures and the users of low-cost housing. It was felt that conducting research in four emirates would diffuse effort but by concentrating time and effort in one emirate, more would be achieved. It was hoped mutual trust would be stronger also due to the concentration on the key-figures involved in housing provision in one emirate than in four.

Moreover, the housing officials in Ras al Khaimah Emirate were very co-operative and provided the researcher with many different types of data. Without the personal relationship of the researcher and the Ras al Khaimah housing officials a lot of data would have been unobtainable. This included having access to the list of applicants in the emirate of Ras al Khaimah, the use of the files of the applicants in this emirate to enable the researcher to cross-check information gained to insure its validity, and many worthwhile discussions between the researcher and many housing officials in this emirate. All the above encouraged researcher to concentrate his efforts on this particular emirate.

Furthermore, the housing officials of this emirate very kindly offered the premises of the Housing Department to the researcher to use for interviewing the applicants for low-cost housing. Such a degree of help and co-operation was not found in any other emirate and it was felt that it would have taken a long time to build up a similar degree of personal relations and achieve such co-operation in other Emirates. The assistance from the Housing Department of Ras al Khaimah extended to recommending the researcher to some of the key-figures in the low-cost housing areas, and the request to them to aid the researcher whenever possible. During the pilot study, housing officials also accompanied the researcher to remote areas in the Inland zone where the researcher had no previous acquaintances or knowledge to help him in his research.

A. The selection of areas of study in Ras al Khaimah Emirate

In 1994 the number of low cost houses in Ras al Khaimah Emirate was 2385, distributed in more than 40 locations in both the Coastal and Inland zones (Ministry of Public Works and Housing, 1988; Housing Department, 1994). Because this is a

relatively large number and resources and time were limited, the decision was taken to use a sample.

The selection of the low-cost housing areas is based on two criteria: the geographical location and the type of low-cost houses. The topography of the emirate of Ras al Khaimah is divided into two distinct zones (as are the other emirates), the Inland and the Coastal, and the study included settlements in both zones. This means the study produced different responses from the different types of target group and means it could be considered representative of the emirate being studied and also the other emirates to which it is similar. It was envisaged that this would mean that the coverage would provide a comprehensive picture of the target group.

In addition, the sampling process took into consideration the different types of low-cost housing. The design can be divided mainly into two categories; the old and the new. The old-type houses were built during the period 1973 to 1985 while the new design were built in or after 1992, as discussed in Chapter 3. The rationale of selecting both types of low-cost houses is to achieve different responses from the users, and to compare the differences in responses between the old and the new.

"Comparative work can help to avoid the dangers of parochialism by discouraging the investigator from over-generalising...it also cautions us not to make generalisations on the basis of limited evidence, for it bring us into contact with a variety of housing responses"
(Gilbert, 1991: 82-83).

The old low-cost houses are selected to study how housing conditions have been changing over time. The new designs were chosen to study to what extent the new improvement of the low-cost houses could have affected the user responses and to test to what extent these improvements in standards of space and cost have improved the housing condition of the target group. The selecting of old and new low-cost houses is also aiming to test responses of those who are occupying the old houses and those who are occupying the improved houses of high standard, taking into consideration that the Ministry of PW&H consider these new types as the ideal housing provision.

Selection of the old type low-cost houses in the Coastal zone

The old type low-cost housing is concentrated in the main Coastal settlements which are: Ras al Khaimah, Mayreed, Al-Shaam, Rams, and Jazirat al Hamra. These areas are the main settlement areas in the Coastal zone according to the 1985 census (Ministry of Planning, 1985). Therefore, these five areas were selected to be the areas of the study for the user survey of the old type low-cost housing in the Coastal zone. In 1988 the total number of low-cost houses in these areas was 236 (Ministry of Public Works and Housing, 1988).

The outcome of the pilot survey showed that some of these houses were not occupied by their original tenants, and some low-cost houses had been abandoned altogether. Also, the researcher found difficulty in gaining access to the Jazirat al Hamra area, because the key-figure was unavailable and therefore this area was excluded from the study. Table 4.4 shows the number of low-cost houses built in each area, and the number of houses occupied by the origin users.

Table 4.4. The old type of low-cost housing in the Coastal Zone, and the number of occupied houses

The area	No of low-cost houses	No of occupied houses by origin users
Mayreed	36	18
Ras al Khaimah	140	80
Al-Sham	20	15
Rams	20	17
Total	216	130

Source: Ministry of PW&H (1988); fieldwork, Dec 1994-April 1995.

Selection of the new type low-cost housing in the Inland zone

The selection of the low-cost housing areas in the Inland zone was determined by whether access to the key figure of the area was possible, and the size of areas in terms of population which was based on the 1985 census. The main areas in the Inland zone are Burairat, Dahyah, Hamranya, Al-aribi, Digdaga, and Uthun (Ministry of Planning, 1985). These areas were selected for the user survey for the old type of low-cost houses in the Inland zone.

The outcome of the pilot survey revealed that, in some areas, it was difficult to find who is the key-figure, and in some areas the key-figures refused to co-operate with the researcher. Therefore, the areas selected in the Inland Zone were reduced to: Burairat, Dahyah, and Hamranya. The number of low-cost houses in these areas is

75. Table 4.5 shows the number of low-cost houses in the areas of study in the Inland zone and the number of houses occupied by the original users.

Table 4.5. The old type low-cost houses in the areas of study in the Inland zone, and number of occupied houses by the origin users

The area	No of low-cost houses	No of occupied houses by origin users
Burairat	40	24
Hamranya	20	15
Dahyah	15	15
Total	75	54

Source: Ministry of PW&H (1988); fieldwork, Dec 1994-April 1995.

Selection of new type of low-cost housing in Coastal and Inland Zones

Table 4.6. The new type low-cost houses in the Coastal zone, and the number of occupied houses

The area	No of low-cost houses	No of occupied houses
Mayreed	50	46
Gallila	10	10
Total	60	56

Source: Ministry of PW&H (1994); fieldwork, Dec 1994-April 1995.

The areas selected in the Coastal zone for the new type design of low-cost housing for the user survey were Mayreed and Gallila; and in the Inland Zone Burairat, Bini Zaidi, Alhail, Seh al Fahlain, and Seh al Ghob. These are the only areas where the new type of low-cost housing is in occupation in the Ras al Khaimah Emirate. Table 4.6 and 4.7 show the number of new type low-cost houses in the areas of study and the number of occupied houses. Figure 4.1 shows the location of areas of study in both Coastal and Inland zones in Ras al Khaimah Emirate.

Table 4.7. The new type low-cost houses in the Inland zone, and number of occupied houses

The area	No of low-cost houses	No of occupied houses
Burairat	5	3
BiniZaidi	5	4
Alhail	5	3
Seh al Fahlain	5	3
Seh al ghob	5	5
Total	25	18

Source: Ministry of PW&H (1994); fieldwork Dec 1994-April 1995.

4.2.1.4. THE FIELD WORK SURVEY

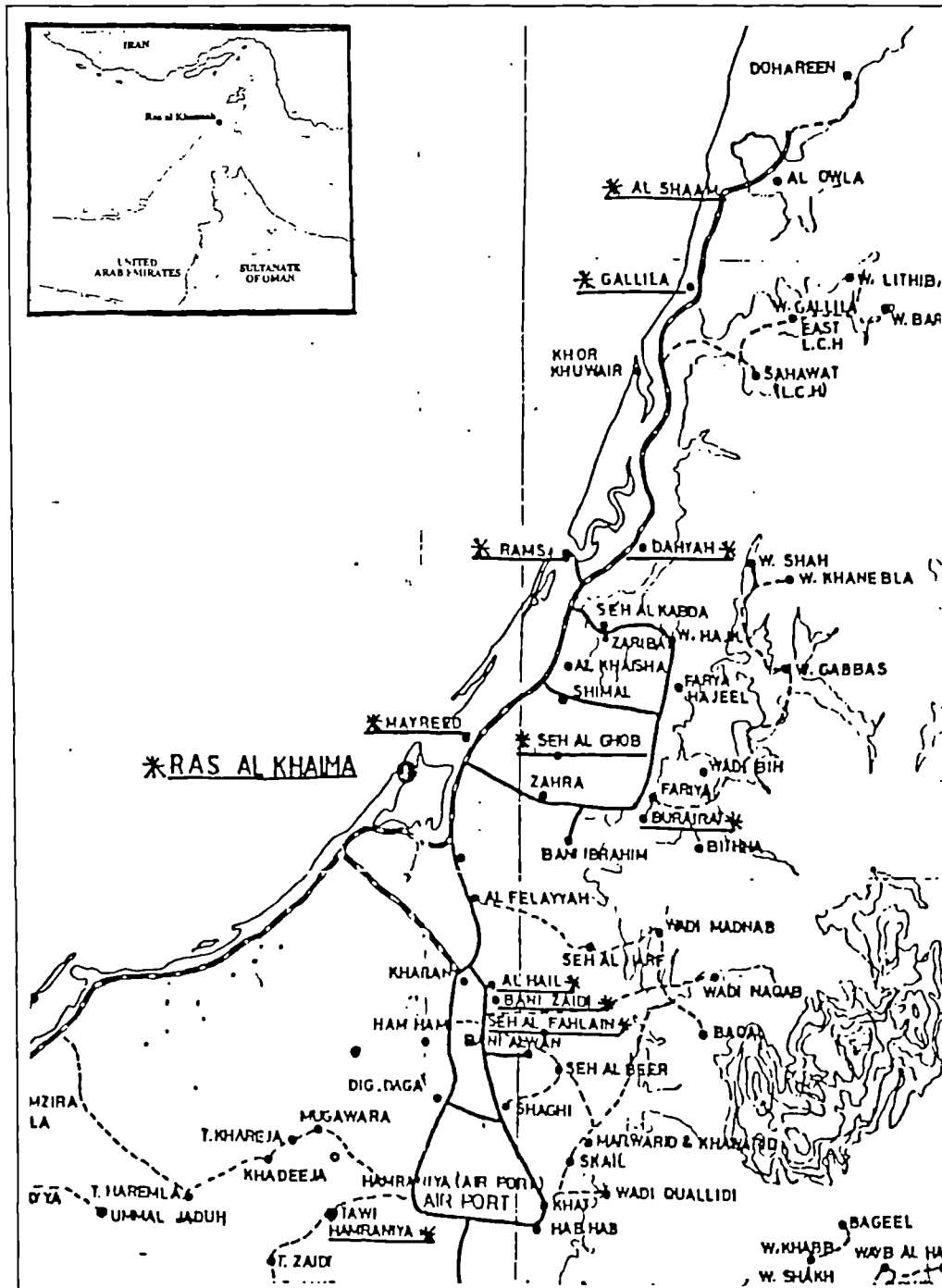
A. The pilot survey

The pilot survey work started in October 1994 by identifying the areas of the low-cost housing in both the Coastal and Inland zones. The pilot survey was very important for the following reasons: to obtain more experience of some aspects of survey techniques such as having access to areas of study; to practice interview techniques and learn more about the interview technique in the distinctive environment of the Emirates; to become familiar with the area of the study; to learn more about the issues involved; to test the questionnaire, the main instrument of data collection, in a locality where such surveys are not common.

The researcher took the following steps before entering the area of low-cost housing :

1. Getting permission from the deputy secretary of the Ministry of PW&H for access to the records and files of the Housing Department. This official approval of the research by the Ministry also extended to assuring the researcher of the assistance and support of housing officials. Having the assistance of housing officials at this stage of the fieldwork was vital because of their wide experience from the beginning of the low-cost housing programme, their knowledge of all types of housing and areas, and their personal relations with key-figures in the low-cost housing areas.

Figure 4.1 The location of areas of study in both in Coastal and Inland zone in Ras al Khaimah



*----- marks the area location

Scale 1cm:3.3 Km

Source: Ras al khaimah Land Department.

2. Once the support of Housing Department officials was gained, the next step was to meet and gain the support of the key-figures of the different low-cost housing areas. Once a meeting was arranged, the researcher explained the purpose of the research to the key-figures and assessed their level of co-operation.

3. The researcher later set-up a timetable to visit all areas of low-cost housing selected for the study. Wherever possible the researcher tried to arrange to be accompanied by the key-figure of the area. The object of the visit was to become familiar with the site and to test the structured interview. In the Coastal zone, where the role of the key-figure is not so active as in the Inland zone, the researcher visited the low-cost housing areas accompanied by the local housing official.

Through the pilot survey the researcher selected some of the users of the low-cost housing to test the survey methods employed in order to examine the level of understanding to questions raised and to determine whether any questions were ambiguous. At the same time the researcher took the opportunity to raise different issues of housing provision in an open discussion to obtain more in-depth understanding about the research subject from users. The pilot study also gave the researcher the opportunity to observe the physical characteristics of the low-cost houses, and any alterations which have taken place in them during the period of occupation.

During the pilot survey the researcher applied two methods of data collection. The first was the structured interview, and the second the self-administered questionnaire to find out which was the more appropriate method for data collection.

The outcome of the pilot survey

1. During the pilot survey the researcher observed that in the old type of low-cost houses some users had abandoned their houses and moved elsewhere. Some users of low-cost housing had rented their houses to other householders. It was also noted that some of the new type low-cost housing have not yet been allocated at the time of the study because the construction work had not finished on schedule.

2. The researcher also deduced from the pilot study that some questions were either unclear or too vague to be understood by the informants, and that the order of some questions such as those requesting information on income was not appropriate. Accordingly, the structured interview was redesigned to correct the above.

3. The self-administered questionnaire method was found to be unsatisfactory, for example, some questions were ignored, e.g., those concerning family income, and some of the open-ended questions were not answered. Moreover, as most of the users of the low-cost housing are illiterate they were unable to answer the questionnaire by

themselves, and so enlisted the help of relatives, thus introducing a third party with all its consequences for accuracy and bias.

B. The main survey

The users survey

The main survey started on the 15 December 1995 and lasted until the end of April 1995. The researcher was the only person to conduct the survey. The survey involved 476 informants.

The first step of the main survey was to set up a timetable aiming to devote a certain number of days per area. This involved co-ordinating times so that the key-figure of the area or a housing official was able to accompany the researcher. In the event the timetable proved to be ineffective due to the difficulty of ensuring that key-figures and users of the low-cost housing kept to the appointment times. For example, when the researcher arranged an appointment with a key-figure and users of low-cost housing in order to conduct interviews, often the key-figure or some users did not turn up for the appointment. New appointments had to be *made and such re-arrangements* took up a great deal of time. In some areas it took the researcher more than three weeks to interview only 20 users, the reason being that most users were not committed to keeping the appointment and did not consider the meeting important to them. The researcher was forced to travel frequently to some areas in the Inland zone, sometimes visiting an area more than five times before his mission was accomplished. This often involved distances of more than 30 to 40 kilometres per visit.

The above problem forced the researcher to set up a timetable for every week designed to cover as many areas as possible in order to fit in with re-arranged appointments and to avoid any disruption to both the key-figures and users. For instance in one week the researcher travelled five times to one area to interview five people as it was difficult to gather them together at one time. The disposition to unpunctuality resulted in a gross underestimate of the time it would take to interview the target population.

The meeting between the researcher and the users of low-cost housing usually took place during the period late afternoon to early night, the time when most users were available on site. The researcher's first approach to the users was in the company of

the key-figures or, in some instances, in the company of a housing official. Meetings generally took place in the majles of the key-figure or the user, in the mosque area, and sometimes in the folklore clubs which are common in the Inland zone.

The initial visit to most areas was to the majles of the key-figure of the area. In the majles the researcher met for the first time the users of the low-cost housing in the area. The first reaction to the introduction of the researcher and his mission were suspicion and doubts were usually raised about the real purpose of the researcher. The researcher usually started the meeting by presenting the main objectives of the research, and tried to do so in such a way as to dispel suspicion and to build mutual trust between himself and the object of inquiry. This often encouraged the informants to voice their doubts and encouraged them to be more co-operative. Gaining the trust of the informants at this stage was vital as it would encourage openness and co-operation, and, thereby, provide the researcher with a positive environment for the structured interview.

When the researcher began to explain the main objectives of the research, some users expressed doubts of the value of the research:

"What will we gain from your research, and will the senior officials in the Ministry read your research and learn of our suffering and the poor circumstances in which we live?"

On the other hand, some informants proved more willing to co-operate with the researcher when they were convinced that they would not lose anything by so doing. Some users invited the researcher to their houses so he could see the houses at close range and encouraged other users to be more co-operative with the researcher.

The time taken by interviews varied, usually according to whether the informants were educated or not. Interviews with educated informants tended to last about 25-30 minutes whilst uneducated users needed more time to understand the questions and took longer to answer the questions, particularly in the housing areas in the Inland zone. The time of the interview did not include the time taken in responding to the hospitality of the informants and the researcher was often offered a meal and refreshment by key-figures and users which, for the sake of establishing a good relationship, were accepted despite the fact that they were very time-consuming. Sometimes, when the researcher was able to interview groups of users in one place,

the interview of an individual lasted more than an hour as others intervened to correct the user's answer or add new information and even in some cases to help the interviewee in answering the questions. Some users related long stories about their houses and spent more than one hour to answer half of the questions.

When holding meetings with groups of users, the researcher always tried to extend the discussion beyond the contents of the structured interview and tried to involve all the members of the groups to participate in the discussion in order to elicit more information about low-cost housing issues and to be aware of the different opinions about such topics.

The initial sample population of the user survey was 258 distributed in 5 areas in the Coastal zone, and 7 areas in the Inland zone. Tables 4.8, 4.9, 4.10 and 4.11 show the number of low-cost houses in each area, number of users interviewed, number of users not found, and the response rate in each area. Tables 4.9 and 4.11 show that the response rate in the Inland area was higher than in the Coastal zone. This can be attributed to the fact that the key-figures in the Inland zones were more co-operative.

Table 4.8. The old type of low-cost housing in the areas of study in the Coastal zone, number of interviewees, and response rate

The area	No of low-cost houses	The occupied houses by the original users*	The desired sample	Interviewed	excluded	not found	The response percentage
Mayreed	36	18	18	13	0	5	72 %
Ras al Khaimah	140	80	80	65	0	15	81 %
Al-Shaam	20	15	15	15	0	0	100 %
Rams	20	17	17	7	0	10	41 %
Total	216	130	130	100	0	30	76.9 %

Source: Ministry of PW&H (1994); fieldwork, Dec 1994-April 1995.

* Some of the low-cost houses are abandoned by the original users or rented to others.

Table 4.9. The old type of low-cost housing in the areas of study in the Inland zone, number of interviewees, and response rate

The area	No of low-cost houses	The occupied houses by the original users	The desired sample	Interviewed	excluded	not found	The response percentage
Burairat	40	24	24	21	0	3	87.5 %
Hamranya	20	15	15	14	0	1	93.3 %
Dahyah	15	15	15	10	0	5	66.6 %
Total	75	54	54	45	0	9	83.3 %

Source: Ministry of PW&H (1994); fieldwork, Dec 1994-April 1995.

Table 4.10. The new type of low-cost housing in the areas of study in the Coastal zone, number of interviewees, and response rate

The area	No of low-cost houses	The occupied houses by the original users	The desired sample	Interviewed	excluded	not found	The response percentage
Mayreed	50	46	46	35	6	5	76 %
Gallila	10	10	10	7	1	2	70 %
Total	60	56	56	42	7	7	75 %

Source: Ministry of PW&H (1994); fieldwork, Dec 1994-April 1995.

Table 4.11. The new type of low-cost housing in the areas of study in the Inland zone, number of interviewees, and response rate

The area	No of low-cost houses	The occupied houses by the original users	The desired sample	Interviewed	excluded	not found	The response percentage
Burairat	5	3	3	2	0	1	66 %
Bini Zaidi	5	4	4	4	0	0	100 %
Al hail	5	3	3	3	0	0	100 %
Seh al Fahlain	5	3	3	2	0	1	66 %
Seh al ghob	5	5	5	5	0	0	100 %
Total	25	18	18	16	0	2	88.8 %

Source: Ministry of PW&H (1994); fieldwork, Dec 1994-April 1995.

From Table 4.12 we can see that the total number of users being interviewed is 203 represented 78.6 per cent of the planned sample and 8.5 per cent of the total number of low-cost houses (old and new) in the Northern Emirates up to 1994.

Table 4.12. The total number of interviewee for the different type in each area

	interviewed	The desired sample
Users of the old type -Coastal Zone	100	130
Users of the old type -Inland Zone	45	54
Users of the new type-Coastal Zone	42	56
Users of the new type -Inland Zone	16	18
Total	203=78.6%	258

Source: Fieldwork, Dec 1994-April 1995.

The applicant survey

It was initially intended that the applicant survey would be comprised of applicants who were selected by the Housing Beneficiary Committee in the final phase of selection but did not subsequently qualify to get low-cost housing. However, in the event, top ranking officials in the Housing Department refused to provide the researcher with the lists of these people and consequently a different method of selection had to be adopted. The justification of the housing officials was the sensitivity of the information. They felt that releasing these lists could affect the credibility of the Housing Department in the allocation process.

In order to overcome the aforementioned obstacle the researcher asked the Housing Department if they could supply him with the updated applicants lists. The updated applicants lists covered 13 areas, 4 of them located in the Coastal zone and 9 in the Inland zone. The total number of applicants in the 13 areas was 481. These lists were the only updated lists in the Housing Department at the time of the fieldwork survey, there were other lists of applicants for other areas but these were still in the process of being updated.

According to the Housing Department records, up to June 1991 the number of applicants for low-cost housing in Ras al Khaimah was 4577 (Department of Housing, 1994). Most of the applicants applied between 1980 to 1991. Using old applicants lists was considered to be useless because many of the applicants had changed their address and telephone numbers and it would be difficult and time-consuming to trace them.

After the researcher was given the name of applicants in each area from the Housing Department lists, a systematic sample was applied to select the sample of the applicant survey. An approach was made to the applicant in one of two ways: first, through the key-figures¹ of the area in order to arrange a meeting with the selected applicants, or second, by phoning the applicants and asking them to come to the Housing Department office for a meeting. It was found that the first method of arranging a meeting through the key-figure was very effective, since the key-figures carry a degree of authority with the people of the area and this was particularly marked in the Inland zone. The second method was inefficient because many applicants were not keen to meet the researcher, knowing that he is conducting

¹ One of the key-figure in the Inland area refused to co-operate with the researcher, the area (Saad al Khawater) has been excluded from the applicant survey.

research and that they will not gain anything from this research. Some of the more educated applicants were doubtful that the Ministry would do a good job even with the findings of the research.

As table 4.13 shows, within the 4 areas (Ras al Khaimah, Mayreed, Al-Shaam, and Julfar) the number of applicants in the Coastal zone was 391. The sample number was 193, of which only 135 responded, representing 69.9 % of sample.

Table 4.13. The number of applicants in the areas of study in the Coastal zone, number of interviewees, and response percentage

The area	No of applicant	desired sample-50% of the No of the applicants	interviewed	not found	The response percentage
Ras al Khaimah	193	96	78	18	81
Mayreed	98	49	24	25	48.9 %
Al-Shaam	41	20	15	5	75
Julfar	59	28	18	10	64.2 %
Total	391	193	135	58	69.9

Source: Ministry of PW&H (1994); fieldwork, Dec 1994-April 1995.

As can be seen from table 4.14, the number of applicants in the Inland zone was 133. The sample number was 66, of which only 49 responded, representing 74.2 % of the sample.

Table 4.14. The number of applicants in the areas of study in the Inland zone, number of interviewees, and response percentage.

The area	No of applicant	desired sample-50% of the No of the applicants	interviewed	not found	The response percentage
Burairat	34	17	11	5	62.7 %
Seh al ghob	8	4	4	0	100 %
Bin Zaidi	6	3	2	1	66.6 %
Seh al Fahlain	6	3	1	2	33.3 %
Alhail	18	9	8	1	88.8 %
Khat	16	8	7	1	87.7 %
Dahyah	25	12	8	4	66.6 %
Hamraniya	20	10	8	2	80 %
Total	133	66	49	16	74.2 %

Source: Ministry of PW&H (1994); fieldwork, Dec 1994-April 1995.

4.2.1.5. SURVEY OBSTACLES

This section discusses the various obstacles which faced the researcher while he conducted his survey in the area of study.

1. The tribal setting

Until recently the population of the Inland areas of the country consisted of Bedouin tribes. Most of people of these tribes were illiterate and adhered closely to traditional ways of life.

For this research and for any future research an awareness of the tradition and customs of the people of the different areas must be a research priority. This understanding and appreciation must not only encompass a particular area per se, but all the nuances within the area - there are variations between different tribes in the same area. For instance, the behaviour of the researcher upon entry into the majles in the Inland zone differed from that in the Coastal zones. The people in the Coastal zones are more urbanised and better educated, and are, therefore, to some extent, less beholden to tradition which meant the researcher was able to start interviewing informants directly without having to go through a protracted procedure of hospitality. The case is different in Inland zones where tradition and custom impose a lengthy ritual of hospitality which can take more than two hours in some areas. Thus, hospitality in the Inland zone took much more time than the interview. It behoves any researcher to respect such traditions if s/he desires to gain the trust of the people of the community.

Moreover, as some interviews took place in the majles of the key-figures of the areas who, in most cases, are also the head of the tribes, the researcher perforce must always interview him first to show he appreciates his status. However, this has an unfortunate consequence: when the researcher interviews the next informants, they usually try to give the same answers as the head of their tribe and avoid contradicting him. This was most obvious in the answers to questions about alternative housing provision. This attitude is attributed to the fact that the head of the tribe or area is considered to be the only person who has the right to raise any issue and when he expresses an opinion, the other men of the tribe or area are expected to agree and follow his advice. In Dahyah (an area in the Inland zone) the users of the low-cost housing told the researcher that whatever the head of the tribe said, they agreed with, because they believed he would not recommend anything that was wrong for his people. In an effort to avoid duplication in responses and to avoid any social pressure on the informants, after the initial introductory meeting of the men of the area under the aegis of the key-figure, the researcher interviewed every informant separately.

Another problem was that most people of the Inland zone were uneducated and, for the most part, still retained all the characteristics of their tribal background. Both these factors meant they were naturally suspicious about the researcher and his work. Most of the people in these areas were anxious to prove that their housing conditions were very poor and that they deserved one of the new-type low-cost houses. This attitude perhaps derived from their belief, despite being assured to the contrary, that the researcher was a housing official doing his official job under cover of a research project. Having gained this impression from the informants, the researcher tried to dispel such suspicions to avoid any inaccuracy in the data obtained.

In addition, it was found during the research that the people of the Inland zone were very loathe to reveal their salary and any other income coming into the household. When the researcher asked informants if they had other income, they were very reluctant to reveal such information and their answers gave the impression of being suspicious of the actual purpose of the work of the researcher. Only 4.9 per cent of those interviewed answered this question.

2. The problem of sample selection

As rumours spread quickly among the people of the Inland zones where most of the population was illiterate, the danger was that the research would be jeopardised by harmful rumours. The interpretation of the real task of the researcher was misunderstood by many of the population of the study. The key-figures of the Inland zones who were not selected to be part of the sample size questioned why only some people were being interviewed and why the research was only taking place in particular areas. They thought that the selection revealed a plan of the Ministry of PW&H to build more low-cost houses in these particular areas and that their area would be excluded from this plan. Consequently, they complained to the researcher and to other housing officials in the Ministry of PW&H about the research. Later, to dispel these rumours, the researcher was asked by housing officials to visit the excluded areas and interview some people from these areas.

Moreover, when the researcher systematically selected applicants for interview using the Housing Department list, suspicions were raised by other applicants about the reason for such selection. The illiteracy and the tribal customs prevalent in the society contributed to the growth of such suspicions. The rumours spread that those interviewed would obtain low-cost housing. Consequently, applicants who had not been selected for interview complained to the Housing Department about

discrimination. Although the housing officials took pains to explain the purpose of the interviews, some applicants still had doubts and asked the housing official and the researcher to interview them.

3. "What's in it for me?"

Some of the target population believed that as they were not likely to benefit from the research, there was no point in their being interviewed. These people usually had an adverse previous experience with one or more housing officials who had visited their areas to inspect housing conditions. The repetition of such visits from outsiders asking about housing issues was thus not viewed positively, there having built up an attitude in some areas of reluctance to comply with anything pertaining to housing, and the fact that the researcher was a stranger further enhanced this unwillingness to co-operate.

Some interviewees refused at the beginning of the survey to co-operate with the researcher. Behind this refusal was usually the belief that the researcher was a housing official in disguise and that he would reveal the information given to Ministry officials. The key-figures of the areas played a significant role in dispelling such doubts and, subsequently, some users agreed to be interviewed.

4. Restrictions on females

The conservative life of the people in the country and long-standing traditions affected the selection of the household head. The main problem was the difficulty of having access to female members of the community, and the sensitivity of conducting interviews with them led to the decision to exclude female heads of households. This exclusion ruled out studying the responses of females to the housing provision programme, which could have been a significant part of the research. Excluding females from the study meant the role of women in housing provision within the context of the UAE would not be tackled.

5. Unpunctuality

The UAE shares the Middle Eastern unfamiliarity with the fixed appointment. Thus the arrangement of appointments was bedevilled by a lack of commitment of potential interviewees to turn up and a lot of time was wasted in attending appointments when no-one turned up. The first appointment was always with the

key-figure, and then, after this, the key figure would arrange appointments with the people of his area and then inform the researcher of such arrangements. The mechanism of arranging meetings with both the key-figure and the target group usually took a lot of time and in some areas the researcher had to wait for many days before meetings were arranged.

It goes without saying that when anyone did not turn up to an appointment, the whole process described above had to be gone through again. The attitude was found in every area of the study and resulted in consuming a lot of time and therefore in extending the period of the field survey. This put more pressure on the researcher and he was forced to travel many times to some areas, often travelling more than 80 km every day in order to ensure everyone within a target group was interviewed.

6. Incorrect data

As mentioned earlier when dealing with the importance of low-cost housing and its monetary value, the researcher soon became aware that some informants, particularly applicants, provided incorrect and inaccurate data regarding their income, their ownership of other houses, current tenure, etc. Cross-checking data with the information available in the records of the Housing Department highlighted many instances. According to housing officials in the Housing Department such practice is common and therefore housing officials try to overcome this attitude by asking the key-figure of the area and other applicants from the same area about the validity of information given to them by applicants. The researcher excluded all the interviews which were found to be inaccurate or which contradicted the records of the Ministry. The number of interviews excluded was 12.

7. The diversity of population

Originally the people of the UAE belonged to many different tribes. Although there are common characteristics between these tribes which means they share some traditions and customs, the diversity of tribes has resulted in a variety of dialects existing in the UAE. For example, the accent in the Coastal zone differs from that in the Inland zone, and there are even some differences in dialect between nearby villages in the same area. Moreover, the dissimilarity in the tribes in the Inland zone has resulted in some differences in custom and tradition. Because of these many differences, great care had to be taken during interviews, especially when using some terminology to make sure that informants understood all the questions and that they

would answer correctly. Being from the same country, the researcher coped as best he could with the diversity of the delicate situations which arise in the above circumstances and with the many different customs.

4.2.2. INTERVIEWS

In addition to using the sample survey to collect data, the interview method was employed in this research to collect qualitative data.

"Qualitative interviewing begins with the assumption that the perspective of others is meaningful, knowable, and able to be made explicit.. and ... we interview people to find out from them those things we cannot directly observe"(Patton, 1990:278).

The interview was used to collect qualitative data from the different personnel involved in the housing provision processes. These people include decision-makers behind housing policy, like the housing minister; the deputy minister; the Director of the Housing Department; etc. Others include private individuals or firms involved in the housing programme such as construction firms (contractors), and some housing officials directly involved in the process of housing allocation. The aim of using such techniques is to collect the various sorts of data relevant to the research subject; since the data is not found in any other written document or report, and to use such data to help in interpreting the quantitative data obtained by the sample survey method. The dearth of data relevant to the subject of the research forced the researcher to use the interview method. This can be demonstrated by listing relevant topics not found in reports or other existing sources: how the administration of housing provision operates at the top level, who actually takes decisions in the decision making process, the process of housing allocation. For many of the above topics, the interview seems the only method available at the time to obtain such data;

"To understand the processes of housing and the invisible structure which shapes those processes we need stories which correctly represent the world out there into which housing programmes intervene. We need, in other words, accurate details about processing, about connections, and about the working rules of the housing system or real estate market. The way to get such details is to ask

knowledgeable people, that is to say, people who are involved in the processes, who either make or are subject to the rulers or 'invisible structure', which one wants to comprehend" (Peattie, 1983:231)

4.2.3. OBSERVATION AND SITE OBSERVATION

Site observation is employed to obtain more accurate qualitative and quantitative data. The information obtained by such observation has the advantage of being direct rather than through the reports of others (Moser and Kalton, 1979). Observational evidence is often useful in providing additional information about the topic being studied, and it adds new dimensions for understanding either the context or phenomenon being studied (Yen, 1989). Observation method is used to assure the accuracy and reliability of information obtained by the structured interview such as physical characteristics of the low-cost housing, number of extensions to low-cost housing, type of construction used in the extensions.

"There are limitations, however, to how much can be learned from what people say. To understand fully the complexities of many situations, direct participation in and observation of the phenomenon of interest may be the best research method" (Patton, 1990:25).

The observation of low-cost housing and the applicants' houses focused on the following:

1. Physical characteristics: housing conditions such as the physical quality of construction, type of building materials used in additional rooms, number of additional rooms, quality of finishing the user has installed to replace the original finishing, quality of decorations and furniture in the new house.
2. Tracing the alterations which have taken place in the low-cost houses such as alteration of some rooms, changing the doors, painting, equipment in the WC, etc.
3. Photographing the external physical characteristics of the houses during the different periods of the study. The researcher traced the alterations which have taken place on the new low-cost houses since the houses were allocated until occupation.

The main obstacle confronting the researcher in applying this method is the restriction on entering some of the low-cost houses and the applicants' houses. This is caused by the cultural behaviour of privacy imposed on houses in order to prevent anyone getting a close look at the females inside the houses. In some cases the researcher took the opportunity of photographing house interiors before the houses were occupied, or on visits to occupied houses when he accompanied staff of the Housing Department during their official inspection on applicants' houses.

4.3. SECONDARY DATA

In addition to the above methods of data collection other sources of data are also used in this research. Publications, reports, laws, statistics and drawings of the Ministry of PW&H were significant sources of information. Correspondence of the Ministry of PW&H to both the Cabinet of Ministers and Federal National Council (FNC) were also used. Publications and statistics of Ministry of Planning, Ministry of Information and Culture, Dubai Municipality, Al-Ain Municipality, Ras al Khiamah Municipality are also used as secondary data.

In addition, data from UAE newspaper archives of Al-Ittihad, Al-Khaleej and Al-Bayan is also used. Books, articles, master and PhD. theses relating to the study of housing provision in general, to UAE and to housing provision in the Arab Gulf states, which share the same economic and political conditions with the UAE, were also consulted.

4.4. DATA MANIPULATION

Data collected through the structured interview has been coded and a computer programme, Statistical Package of Social Science (SPSS), was used for analysing the data. Percentage table were used to describe the data and cross-tabulation tables were used to show the presence or absence of a relationship between two variables. The Chi-square test is used to test the relationship between nominal data (Healey, 1993; Kinnear and Gray, 1994). The chi-square value and probability value (P.value) were shown in each cross-tabulation table. The linear correlation test is also used to test relationship between interval data (Healey, 1993; Bryman and Cramer, 1990).

The logit regression is also used to find out which variables (independent) influence the dependent variable which has two values (0 and 1). Willis (1991), for example, used this test to find out which variables influence the house condition (of being good or not) in Kumasi. This analysis is used to find which variables influence the

maintenance of low-cost house and which do not (maintain the house and not maintain the house). This test is also used to find which factors affect the applicants decision of whether or not to pay for housing.

Data generated from the structured interview is linked together with qualitative data from the interviews and observation, to provide explanation and understanding of the issues under investigation in this research. Whenever possible data from secondary sources, mainly Ministry of PW&H reports, are also presented to provide a clearer picture of the issue being studied.

4.5. SUMMARY

This chapter showed the methods of data collection employed in this research and the rationale behind it. It also detailed the various constraints imposed on conducting research in the UAE and discussed the process of field work and obstacles confronted it.

CHAPTER FIVE
SOCIO-ECONOMIC CHARACTERISTICS AND HOUSING
CONDITIONS OF THE TARGET GROUP

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SOCIO-ECONOMIC CHARACTERISTICS AND HOUSING CONDITIONS OF THE TARGET GROUP

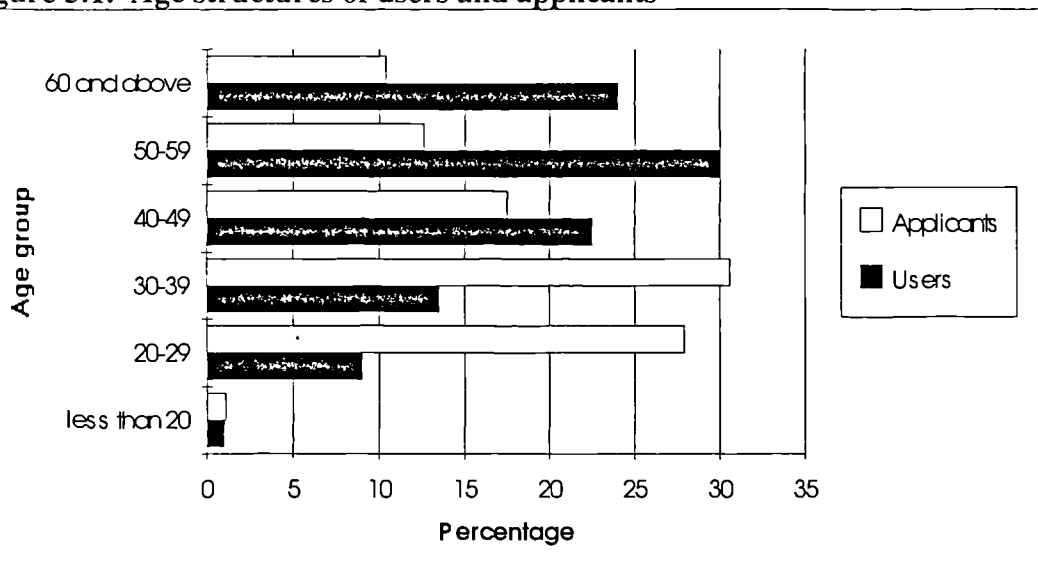
5.0 INTRODUCTION

This chapter is the first part of the analysis of the field work. Its objective is the study of the socio-economic characteristics of both the users, or those who got access to low-cost housing, and those who are applying for the low-cost housing. An additional objective of this chapter is to study the housing conditions of the users and applicants, the manner in which the users housed themselves before moving to low-cost houses, and how the applicants are housing themselves at the time of the survey. Discussion in this chapter also extends to examine the housing processes by which users and applicants house themselves.

5.1 SOCIO-ECONOMIC CHARACTERISTICS OF THE TARGET GROUP

5.1.1 AGE

Figure 5.1. Age structures of users and applicants



Source: Fieldwork, Dec 1994-April 1995

Significant differences are found between the users' and the applicants' age structure as can be seen from Figure 5.1. There are more under 40s in the applicant survey (60%) than in the user survey (24%), while there are more over 50s in the users survey

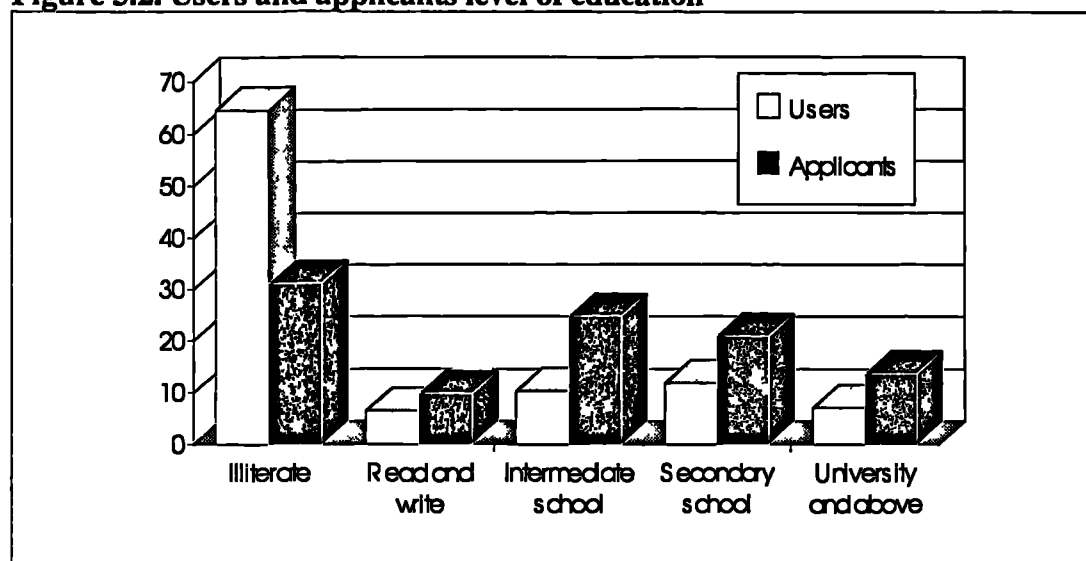
(54%) than in the applicants' (23%). The age median of the users survey (50) is higher than that of the applicants (35). This difference in age profile may be attributed to the larger supply of low-cost houses in the seventies, resulting from the oil boom, than in the eighties, as discussed earlier. The users of the low-cost houses who averaged 25 years of age at that time, are now over 40. Conversely, since from the end of eighties and early nineties the supply of low-cost housing has decreased, the numbers of applicants has accumulated, mainly newly-weds.

In addition, the requirement of having a large household to qualify for low-cost housing has excluded a large number of younger citizens, as most people under 30 have a small household. The large household condition is not applied across the board, however, and some young users have access to low-cost houses through contacts with influential officials or with key-figures in their areas. In addition, some of the low-cost houses were built in areas where there was no demand from large households. This situation opened the door for newly-married applicants to apply for and be allocated low-cost houses. According to some housing officials, some applicants have had to marry in order to get low-cost houses, as the Ministry of PW&H does not provide low-cost houses for bachelors.

Moreover, although the large number of applications combined with the low supply of low-cost houses suggest a long waiting period, the fact remains that some applicants get housed quickly. Some applicants may get a house after one year while others have to wait much longer as the coming discussion on housing allocation shows.

5.1.2 EDUCATIONAL LEVEL

As can be seen from Figure 5.2 the majority of respondents are illiterate. However, comparing the level of education in the applicant survey with that in the user survey shows significant differences between the two groups. It is clear that more users are illiterate than applicants' and fewer have secondary or higher education. The high proportion of illiterate users can be linked to the high percentage of the older people in this group, as discussed above. The older generation of Emirate nationals did not have the opportunity to attend schools, since modern (formal education) schools and other educational institutions were only established in the country in the late 1950s (Ajawee, 1991).

Figure 5.2. Users and applicants level of education

Source: Fieldwork , Dec 1994-April 1995

5.1.3 OCCUPATION

Table 5.1. Users' and applicants' occupation

Percent	Users	Applicants
Civil servant	60	46
Working in the army and Ministry of Interior	20	40
Business man(private work)	6	2
Retired and craftsman	14	12

Source: Fieldwork, Dec 1994-April 1995

According to Table 5.1 the overwhelming majority of respondents are government employees (civil servants working in government bodies, the army, and the Ministry of the Interior). Those who are running private businesses such as merchants, construction contractors, and real estate owners are a small percentage. No case was reported of any nationals working as employees in the private sector or having no work.

The majority of government employees in the sample is a consequence of the following: First, the government has a policy of providing employment opportunities for all Emirate nationals in the different government bodies. A job for life, as discussed earlier, is the policy of the government and it has committed itself to providing jobs for nationals whether they are qualified or not, as long as they are citizens of the country. Second, another policy involves the replacement of foreigners who make up the majority (80%) of the work force in the different government bodies (Esaa, 1981) with nationals. Most of the foreigners were appointed to government

bodies in the seventies due to the rapid process of development which took place during the oil boom when most nationals were unqualified.

The combination of having a government occupation while also running a private business is widespread among nationals and there are no restrictions from the government on such matters. So, although the number of respondents solely running private businesses represents a small minority, some of the government employees are also involved in private business. These individuals choose to report their government occupation as the main one and consider the private business as a personal matter. Similarly, some of the retired respondents also run their own businesses, but they do not usually reveal this source of income.

5.1.4 INCOME

Income level is one of the three main conditions stated by Federal Law No 9 for 1973 which qualifies a beneficiary for low-cost housing as discussed in Chapter 3. According to Article 2, income of an applicant for the low-cost houses should not enable him to build his own private dwelling (Federal Law No.9 for 1973).

Determining the income of a citizen's household is difficult in the UAE where there is no official definition of income, no income tax, and where the citizens represent about 20 per cent of the total population. Citizens have many privileges through government legislations giving nationals control over the wealth of the country. Laws in the UAE insist that citizens must own at least half of every business in the country and must be the sole owners of import agencies (Field, 1982). This situation has encouraged most nationals to become involved in private business while at the same time having a government occupation. Therefore, having different sources of income is common in the country but it is not clear what the percentage is of nationals who have more than one source of income. According to the Ministry of PW&H survey (1980) about 37 per cent of those in low-cost houses have more than one source of income. A survey carried out by the Dubai Municipality (1986) reported that 13.4 per cent of the citizens in the Dubai Emirate have other sources of income besides their government occupation.

As income is associated with access to low-income housing, most of the applicants and users in the field work survey tried to conceal sources of income other than government occupations. Only 4.9 per cent of respondents in the user survey (10 cases) and 1.1 per cent of applicants (2 cases) revealed their other incomes, while the

remaining majority refused to do so or denied having other sources of income. Therefore income from the main occupation will be considered as the main indicator of user income regardless of the fact that some of the respondents have other sources of income, as it is beyond the limits of this study to obtain information about any other income of the survey population. However, in order to get a clearer picture of the users' economic status, an attempt is made in this survey by asking them to spell out the cost of alterations and extensions they have done in their low-cost houses. Such findings will reveal part of the users financial capability in the absence of any other source of income.

Although there is no government definition, based on income, of the low-income group who are eligible for low-cost housing, this study divided respondents into three income groups; low income, middle income, and high income. The monthly income of the low income group ranged between Dh 1,000 and Dh 4,000 (\$270 to \$1080); for the middle income the range is between Dh 4,001 and 9,000 (\$1,081 to \$2,432), and for the high income it is over Dh 9,001 (\$2,433). This definition of the different income groups is based on the Social Support Programme and the Federal Government Administrative Structure, as most of the respondents are civil servants.

The Social Support Programme is a governmental programme providing monthly financial support for citizens in the low-income group. According to Federal Law No. 21 for 1991 the government provides monthly social support for citizens who are widows, divorced females, older people, and people who do not have a constant source of income (nationals who do not have a government job or craftsmen). These categories are considered to be the low-income group in the society who deserve financial support from the government¹. Households which consist of one adult get Dh 1300 per month (\$342), those consisting of two get Dh 1600 month (\$432), and every child gets Dh 300 per month (\$81) (Federal Law No.21 for 1991). The social support for a household which consists of six children (the average number of children per household in the user survey is 6.46) is Dh 3,400 per month (\$ 919).

Alif (1981) tried to determine the range of income for the low-income group (or what he called "the household of limited means") in the UAE. He estimated that Dh 600 is the maximum monthly income limit per person, and for a household with an average

¹ According to a senior official in the Ministry of Labour & Social Affairs some citizens who are involved in private business and have different sources of income also benefit from social support as long as they are not government employees.

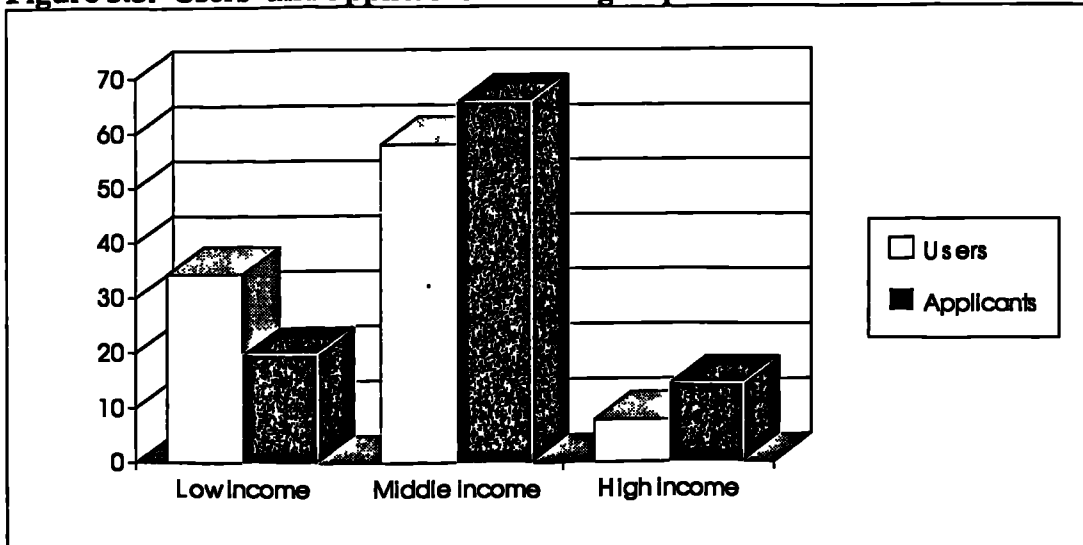
of 6.5 persons the monthly income was Dh 3840 (this figure could be rounded off to Dh 4000).

On the other hand, the Federal Government Administrative Structure² divides employees into four categories; high level occupation employees, senior executives, clerical staff and services' employees (Al-Jassim, 1990). The high level occupation category includes high level directors, while the senior executive category includes the highly qualified graduates and those who achieved secondary level education. The average monthly income for the high level occupation and senior executive categories range between Dh 5840 and Dh 9850, while the average monthly income for the clerical staff and services' employees range between Dh 1680 and Dh 2405 (Esaa, 1981)³. The average monthly income after adding the monthly child benefit (Dh 300 per child) is Dh 7640 to 11650 for the first two categories and Dh 3480 to 4205 for the latter categories.

The foregoing suggests that the maximum monthly income for the low-income group which covers Social Support Programme beneficiaries and government clerical staff and services employees is Dh 4,000. Thus, those whose income is more than Dh9,000 could be considered as high income and those whose incomes range between Dh4,000 and Dh 9,000 could be considered as middle income.

² Although the salary structure of the army and Ministry of the Interior is higher than the Federal Government Administrative Structure, this structure can give an approximation of the income of different groups as the majority of respondents are civil servants.

³In the December 1996, the U.A.E Precedent ordered an increase of 25% of basic salary for all Federal government employees. Discussion and analysis in this research, however, will be based on data gathered in the time of the survey.

Figure 5.3. Users' and applicants' income groups

Source: Fieldwork, Dec 1994-April 1995

Figure 5.3 shows that the majority of both users and applicants have a monthly income ranging from Dh 4,000 to 9,000 per month (middle income), while only a minority have monthly income over 9,001 (high income). The monthly income median for the users is lower (Dh5,000) than that for the applicants (Dh 6,400). This difference in median income is related to the difference in education level which determines occupation and therefore the income. Although the comparison shows that there is a difference between users' and applicants' incomes, the difference is quite small. For instance, the difference between percentage of users and applicants in the high income group is only 7 per cent.

Moreover, the range between income among the users is very wide. The lowest income is Dh 1,164 while the highest income is Dh 17,000. There is also a great difference in median and range among users' income groups. The medians of low-, middle- and high-income groups are Dh 3,000, Dh 5,600 and Dh 10,700 respectively while the ranges are Dh 3,000, Dh 4,900 and Dh 7,500.

USERS' INCOME GROUPS AND EDUCATION LEVEL

Table 5.2. Education level by user income groups

Col %	Low-income	Middle-income	High-income
Uneducated	91	67	0
Educated	9	33	100
Chi-square = 49.77		P.value < 0.00000	

Source: Fieldwork, Dec 1994-April 1995

Table 5.2 shows the relationship between education level and income group. 91 per cent of the low-income group are uneducated. The educated represent 33 per cent of the middle income group but more of the high income group. The relationship between income level and education is statistically significant as the P.value is much less than 0.01.

USERS' INCOME GROUPS AND AGE GROUPS

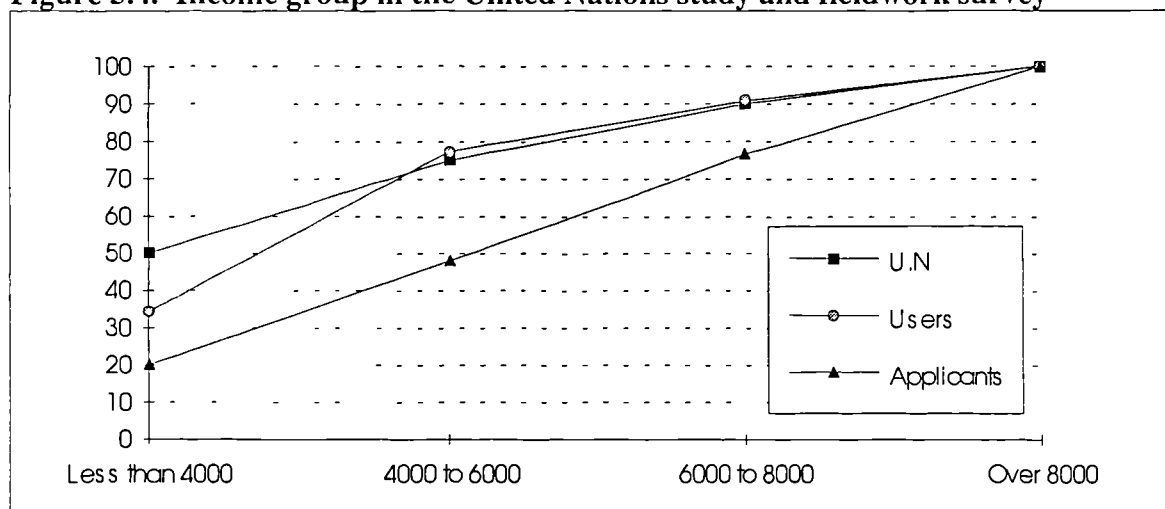
Table 5.3. Users' income groups and age groups

Col %	Low-income	Middle-income	High-income
Less than 29	5	13	20
30 to 49 years	15	44	73
50 and over	80	43	7
Chi-square = 36		P-value < 0.00000	

Source: Fieldwork, Dec 1994-April 1995

Table 5.3 which presents the relationship between income and age, shows a significant association between the two. The majority of respondents in the low-income group (80%) are over 50 years. Only 5 per cent and 15 per cent respectively are under 29 and between 30 and 49. Those who are over 30 years of age are the majority of the middle income group; only 13 per cent are under 30 years. The majority of the high income group (73%) are between 30 and 49. The relation between income and age is statistically significant as the P.value is much less than 0.01.

As discussed earlier, the younger age group are better educated and therefore form a higher proportion of the high income group, while the older age group are uneducated and therefore constitute a higher proportion of the low-income group. As the new generation has more access to education, the chance of more citizens moving into the high income group from the low and middle income groups will increase. The high percentage of educated people will result in better occupations and consequently better incomes if the current economic conditions of the country remain constant.

Figure 5.4. Income group in the United Nations study and fieldwork survey

Source: Fieldwork, Dec 1994-April 1995; Farman, 1982.

As can be seen from Figure 5.4 the middle income group in the user and applicant surveys is most common among the target group. The United Nations study shows that 40 per cent of citizens are from the middle income group and 50 per cent are from the low-income group. This difference in the percentage on the low-income group may be linked to the change of occupation type in the country.

In the seventies a high proportion of the citizens were working as craftsmen, farmers and fishermen. According to Ras al Khaimah master plan, 45 per cent of the population worked in agriculture compared to only 15 per cent in government occupations (Government of Ras al Khaimah, 1975). The Ministry of PW&H survey (1980) showed that only 15 per cent of low-cost housing users were government employees compared to 50 per cent working in agriculture or running small private businesses in 1978.

The sudden economic change which rocked the country in the seventies, combined with the provision of the free education for all citizens, changed the profile of occupations for many citizens. Many of them abandoned their previous occupations, especially those who had worked in agriculture or fishing, and joined government departments. Educated citizens often have easy access to government occupations and therefore get the privileges of having more allowances. Government occupation provides a higher monthly salary than other sectors and pays allowances for children, transport and citizenship. A citizen with a university qualification receives a monthly salary of Dh 7,400 (\$2,000) once he joins a federal department. Such occupation transformation has resulted in higher incomes since government occupations have

more privileges. Economic changes altered the social structure of the country and resulted in a large and growing middle class consisting of educated and highly qualified citizens.

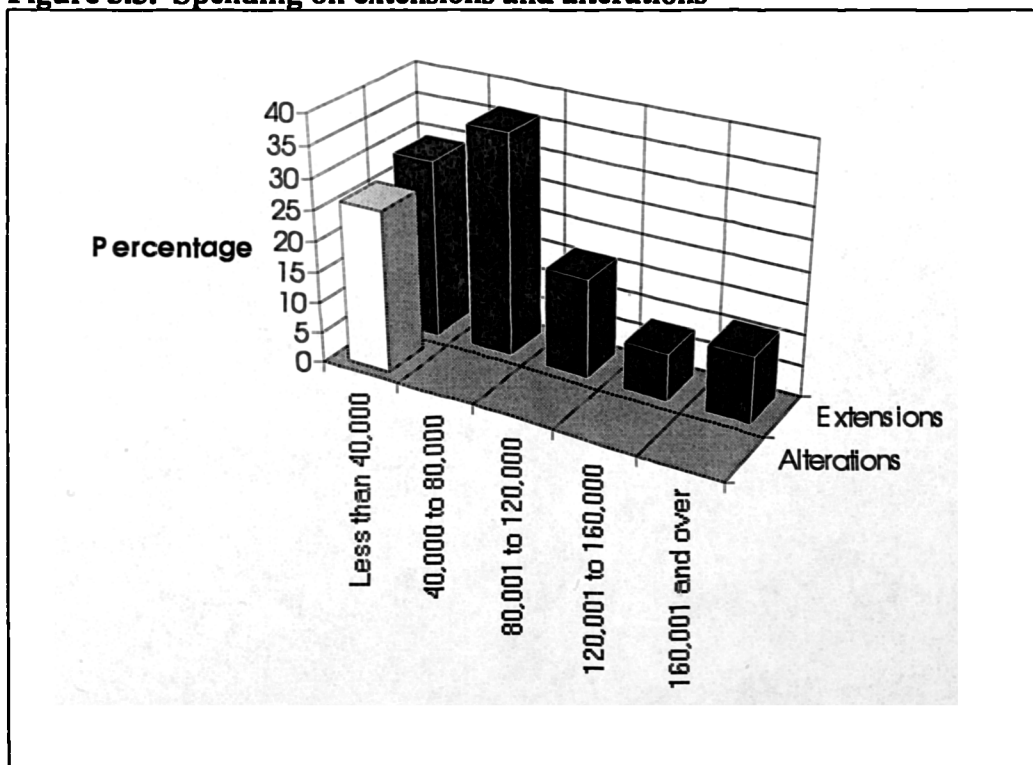
In conclusion, the findings show that all nationals from different income groups have access to low-cost houses and there are no definite rules for maximum or minimum income. Significant differences in median and range suggest that there is no rule or limit defining the income of the users of the low-cost houses. The findings also show that those who are from the middle and high income groups already have access to low-cost houses while many of those from the low-income group are still on the waiting list.

5.1.5 USERS' FINANCIAL CAPABILITY

This section discusses the financial capability of the users by investigating how much users spend on extensions, alterations and furniture. More emphasis will be given to new houses, as most of their occupiers have moved in recently and still have records of their spending.

USERS OF OLD LOW-COST HOUSES

Figure 5.5. Spending on extensions and alterations



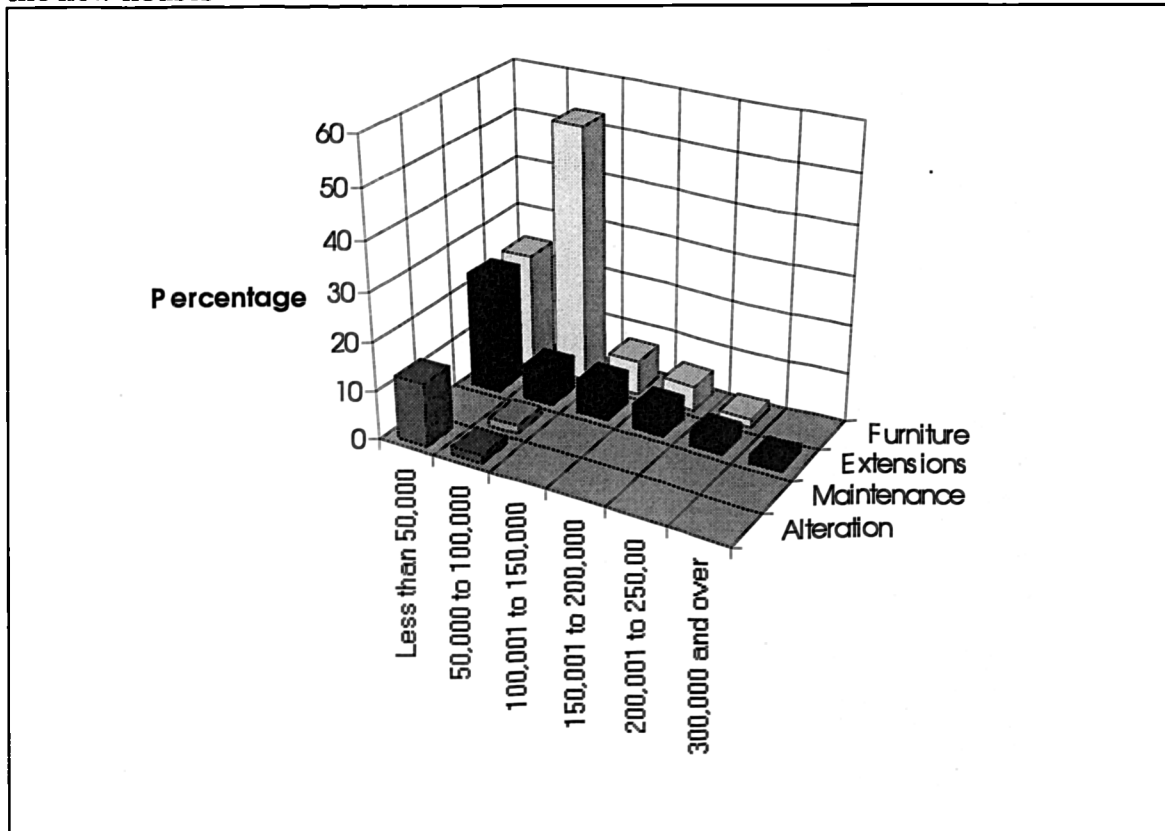
Source: Fieldwork, Dec 1994-April 1995

In Figure 5.5, 90 per cent of users of the old low-cost houses built extensions such as bedrooms, majles, kitchens, and bath/toilet rooms. The mean cost of these extensions is Dh 75,250 (\$20,340) which is double the construction cost of the old low-cost house (Dh 40,000 (\$10,800)). One quarter of users spent less than Dh 40,000 on extensions while 10 per cent spent four times the construction cost on extensions. The total cost of the old low-cost houses in the sample is about Dh 5,800,000 (\$1,570,000) while the total cost of all extensions is double this amount (Dh 9,780,000).

26% of users made alterations to their houses such as demolishing the interior walls between rooms to have a larger space or changing the kitchen and the bath/toilet room to a bedroom. The mean cost of alterations is Dh 4,100 (\$1,100). The correlation between spending on extensions and alterations and income is very low (0.1310)⁴.

⁴ Correlation coefficient less than 0.19 is very low; 0.20 to 0.39 is low; 0.40 to 0.69 is modest; 0.70 to 0.89 is high and 0.90 to 1 is very high (Bryman & Cramer, 1990).

USERS OF NEW LOW-COST HOUSES

Figure 5.6. Cost of extensions, alterations, maintenance, and furniture in the new houses

Source: Fieldwork, Dec 1994 - April 1995

Figure 5.6 shows that 48 per cent of the users of the new houses built extensions. The mean cost of extensions is Dh 37,500 (\$10,100) in the Inland zone and Dh 90,400 (\$24,400) in the Coastal zone which represents 26 per cent of the new low-cost house construction cost. The cost of extensions in some cases represents 70 per cent of construction cost and even more. The most remarkable observation is that all these extensions took place before users moved in.

Table 5.4. Alterations in the new houses

Alteration	Percent
Changing the w.c & wash basin & ceramic tiles	10
Changing the paint	20
Changing the door	4

Source: Fieldwork, Dec 1994-April 1995.

Table 5.4 shows that 20 per cent of users changed both the exterior and interior paint of the low-cost house. The painting of one low-cost house cost the Ministry of PW&H about Dh 17,353 (\$4,700) (Ministry of PW&H, 1993), the users redecorated with better quality and more up to date work. 10 per cent

changed the w.c, wash basin and ceramic tiles in the bath/toilet rooms. 4 per cent of the users changed the wooden door for an aluminium and glass door. The mean cost of alterations was is Dh 35,883 (\$9,680). The provision by the Ministry for those users may not have been of high quality and therefore such items were replaced with items of higher quality and cost (see Plates 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 5.10).

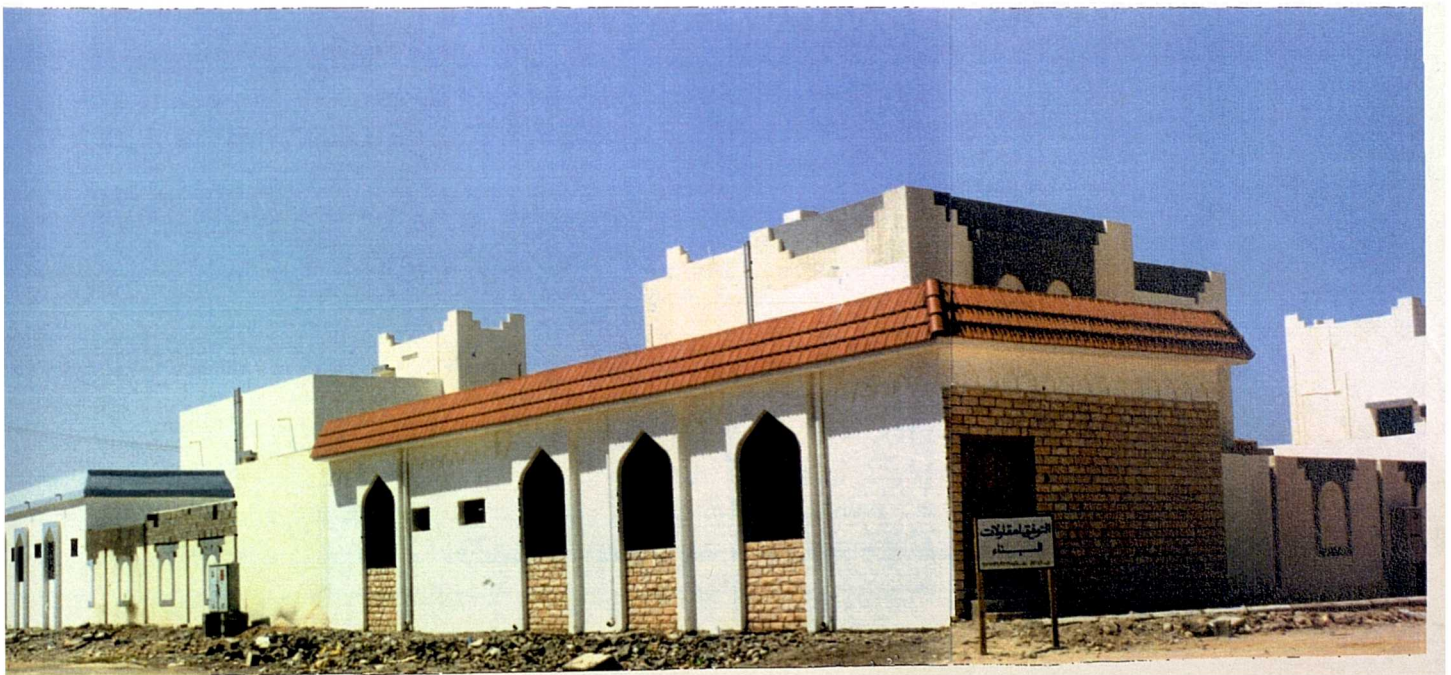
Spending on furnishings was high among the users. The mean cost of furniture was Dh 57,600 (\$15,570) in the Inland zone and Dh 78,500 (\$21,200) in the Coastal zone which represents 23 per cent of the construction cost. The quality and cost of the furniture and decoration is high, as can be seen in Plates 5.11 and 5.12).

Table 5.5. Cost of furniture and extensions in new houses in Coastal zone

Col %	Cost of extensions		
	Less than 50,000	50,000 -1000,000	100,001 and over
Less than 50,000	27	20	0
50,000 - 1000,000	54	80	43
100,001 and over	19	0	57

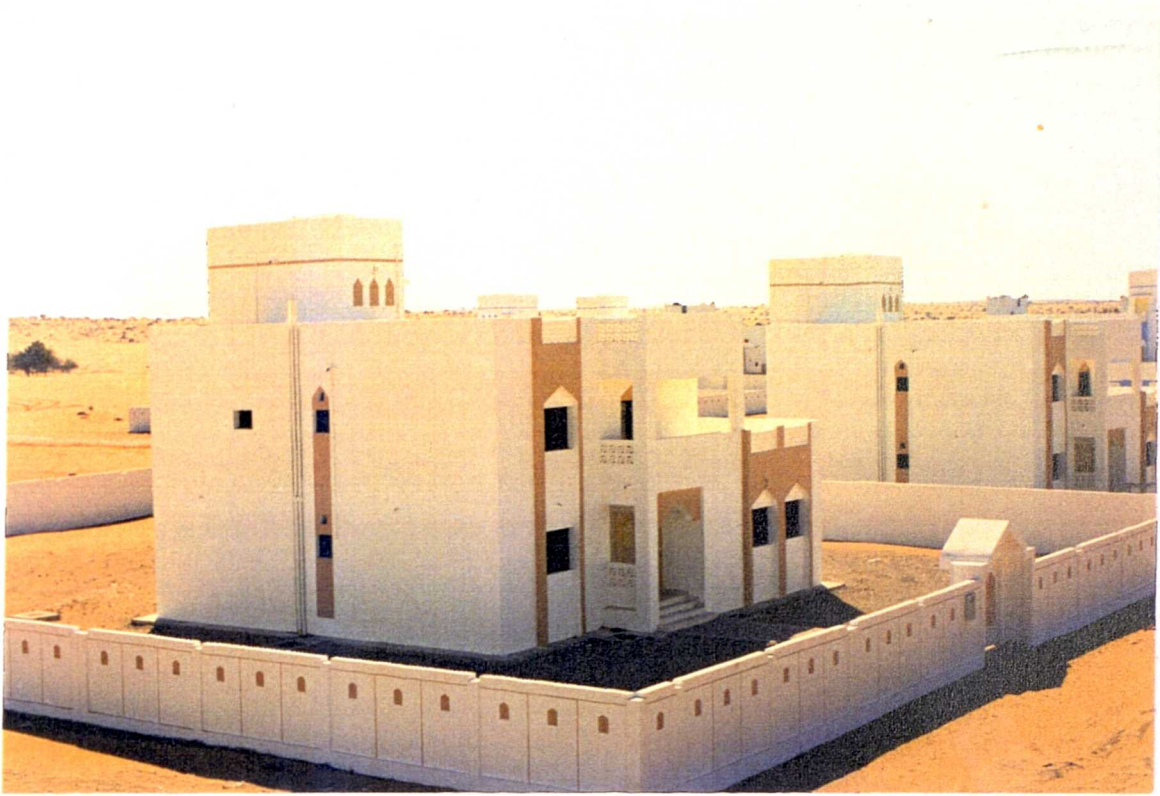
Source: Fieldwork survey, Dec 1994 -April 1995

Table 5.5 shows that more than half the users in the new houses in the Coastal zone spent money on both extensions and furniture. 17 per cent of the users spent over DH 400,000 (\$108,100) for extensions and furniture which exceeds the construction cost (Dh 350,000). A modest positive correlation is found between cost of the extensions and cost of furniture (0.6295) which show that most of the users in the new low-cost houses had the financial capability to spend on both equally.



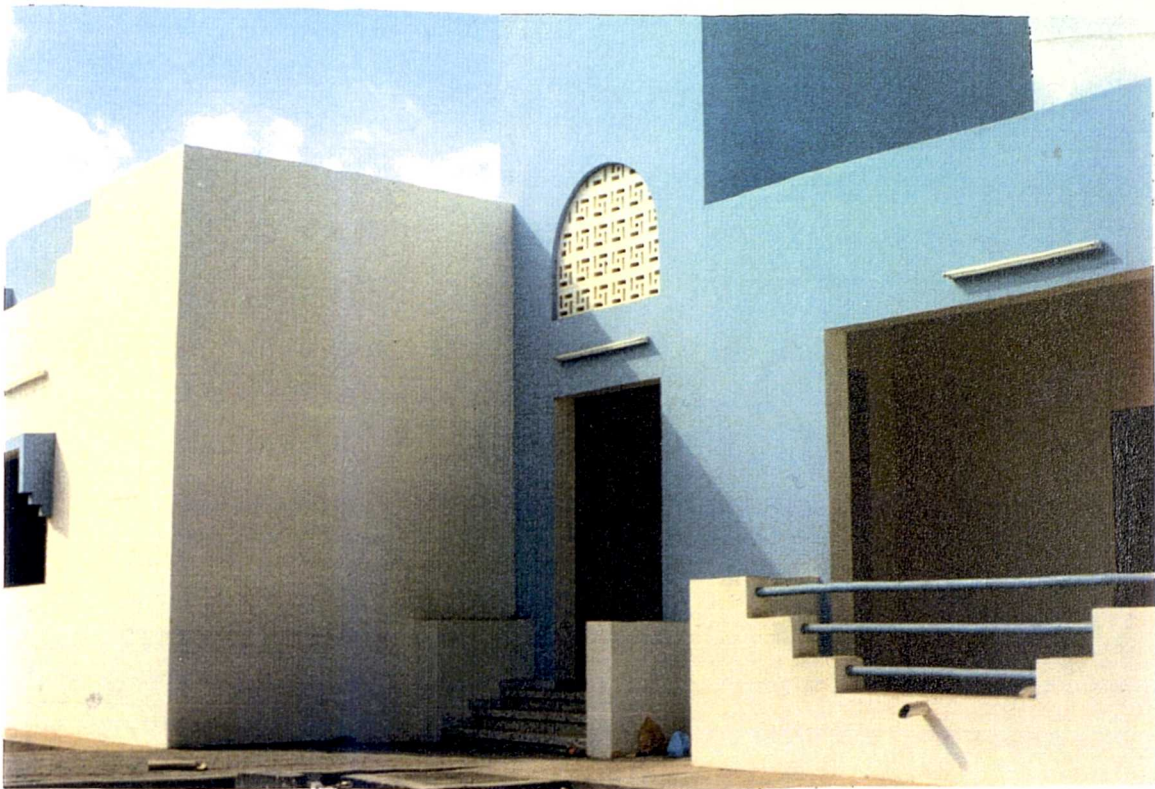
Plates 5.1. and 5.2. Extensions for new low-cost houses

Source: Field work, Dec 1994-April 1995



Plates 5.3. and 5.4. A new low-cost house before and after alterations

Source: Field work, Dec 1994-April 1995



Plates 5.5. and 5.6. A new low-cost house in the Inland area before and after alterations

Source: Field work, Dec 1994-April 1995



Plates 5.7. and 5.8. Alterations of paint and doors in the new low-cost houses.

Source: Field work, Dec 1994-April 1995

Plate 5.9. The original provision of the WC by the Ministry of PW&H



Plate 5.10. A high quality WC being installed by the user
Source: Field work, Dec 1994-April 1995



**Plates 5.11. and 5.12. Decoration
and furniture of new low-cost house**
Source; fieldwork, Dec 1994-April 1995

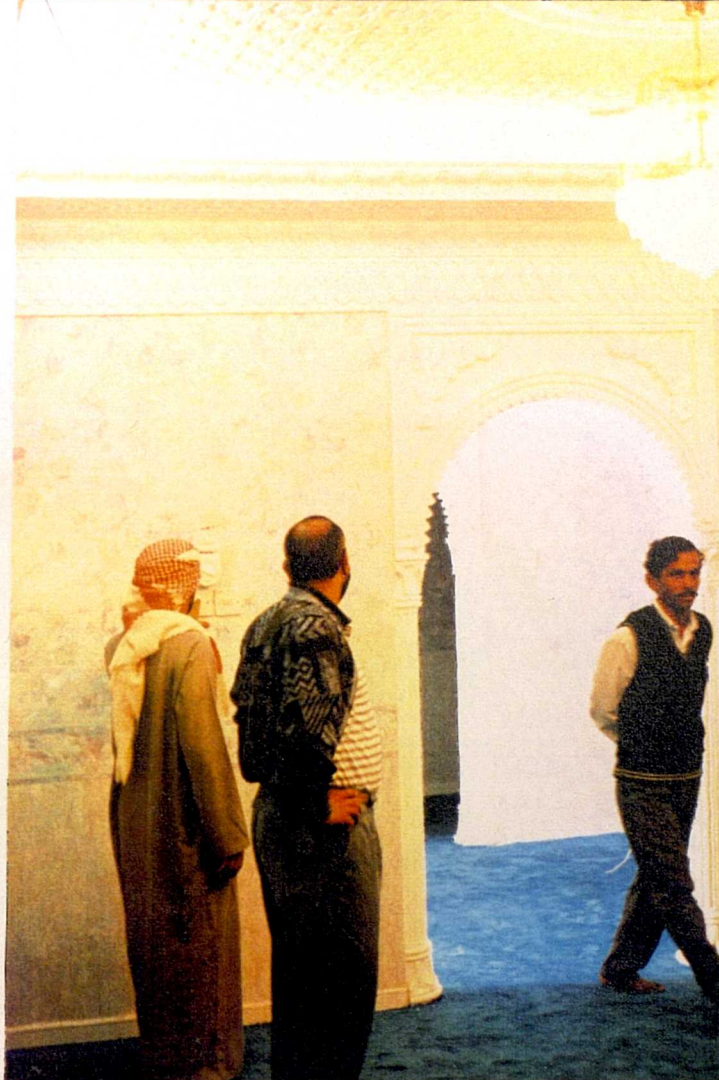
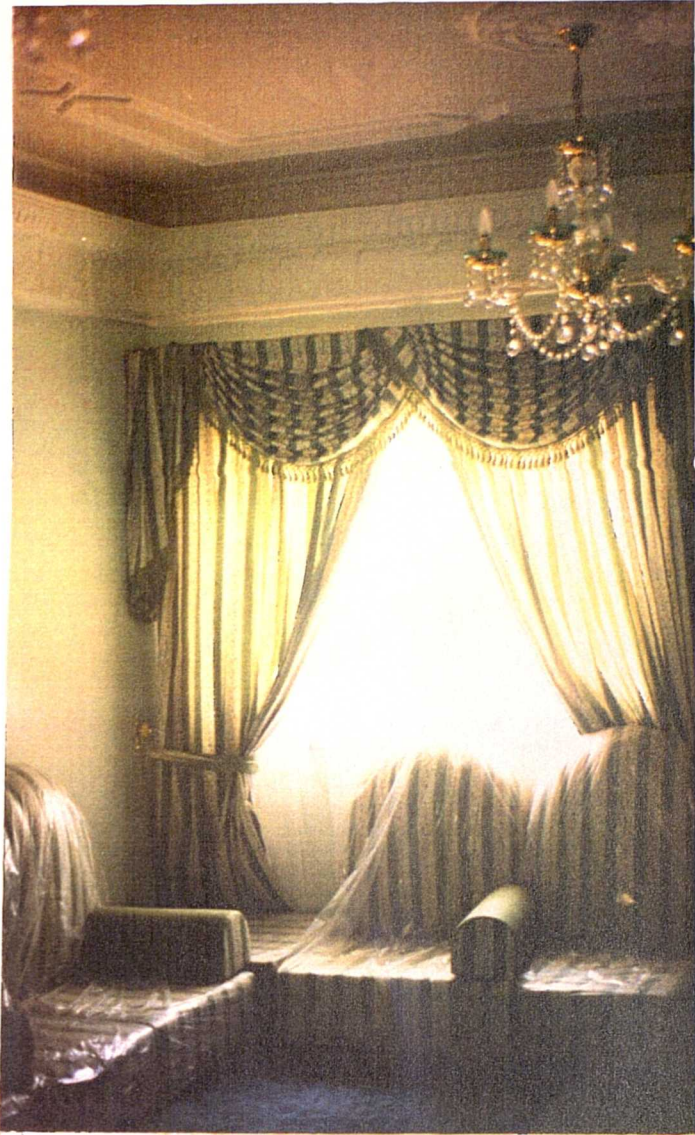


Table 5.6. Percentage of the users and their total spending compared to construction cost

Percent	
Less than 25%-less than Dh 87,500 (\$23,000)	54
25% to 50%-between Dh 87,500 to 175,000 (\$23,000 to 46,000)	27
51% to 75%-between Dh 175,001 to 262,500 (\$46,000 to 69,000)	9
76% to 100%-between Dh 262,500 to 350,000 (\$69,000 to 91,890)	5
100% and over- Dh 350,000 and over (over \$91,890)	5

Source: Fieldwork, Dec 1994-April 1995

Table 5.6 shows that more than half of the users in the new low-cost houses spent about 25 per cent of the low-cost house construction cost. 10 per cent spent more than 75 per cent of the construction cost. Table 5.7 shows that about one third of the users would have needed less than 5 years to save the amount they spent if they had saved 25 per cent of their monthly salary.

Table 5.7. Number of years required to save the amount of total spending at 25% of monthly salary

Percent	
Less than 5 years	30
5 to 10 years	25
10 to 15 years	20
15 to 20 years	13
Over 20 years	10

Source: Fieldwork, Dec 1994-April 1995

The correlation coefficient between users income and total spending (extensions, alteration and furniture) is very low (0.0387). The mean total spending of the low-income users (Dh 138,000 (\$37,200)) is higher than that of high-(Dh 119,000 (\$32,100)) and middle-income users (Dh 94,000(\$25,400)). This disassociation between stated income and spending may be linked to the fact that some users have other sources of income. It may also be attributed to the fact that those from the low-income group are older (mean age 56) than those of the middle- (mean age 45) and, high-income (mean age 38) groups and, therefore, they have had a longer time to save from their income. In addition, 20 per cent of low-income group have sold their previous houses compared to 9 per cent of the middle-income group and therefore they may use such funds to spend on extensions and alterations. Moreover, the mean number of households per house of the low-income group (1.6) is higher than that of middle- and high income groups (1.3) which indicates that users from the low-income group have a large number of their sons or daughters' families who are still staying with them which may contribute to higher spending.

The researcher raises the question of whether users got a bank loan or instalment arrangement to finance such high cost spending. Some users sold their previous houses to furnish their new house, as discussed above, while others stated that they received support from relatives, mainly sons and daughters. Only two users revealed that they had arranged instalment payments with furniture companies, but no users reported having other sources of income.

With such high spending some of the low-cost houses, which were already considered to be of a high standard, were transferred to an even higher quality. Some users considered the quality of the new low-cost houses to be low and, therefore, they paid for alterations in order to have a higher standard of luxury. Those who may be in need of only little support from the government to improve their housing conditions receive more support than they need and thus spend their savings on achieving higher quality houses.

The majority of the users of new low-cost houses were previously living in Arabic houses, half of which were of low physical construction quality and one third of which were of modest physical quality of construction (Ministry of PW&H, 1993a). The owner-occupiers who were previously not keen to spend to improve their housing conditions are now, after moving to low-cost houses, willing to spend more on luxury furniture and extensions. The explanation for this could be that some users were not keen to improve their previous housing conditions because they needed to show that they lived in poor housing conditions in order to comply with the eligibility criteria for housing allocation. The free grant together with the current eligibility criteria may be the main motives for such initiatives.

Moreover, providing owner-occupier applicants with free low-cost housing results in encouraging some of this group to sell out their housing assets and spend the gained capital on luxury alterations and furniture. The free high standard low-cost house, therefore, encourages established owner-occupiers to get rid of their existing housing resources. Established owner-occupiers should, therefore, not have been granted low-cost houses in the first place, which gives them the incentive to sell out their existing housing resources, but rather should have been encouraged to improve such resources.

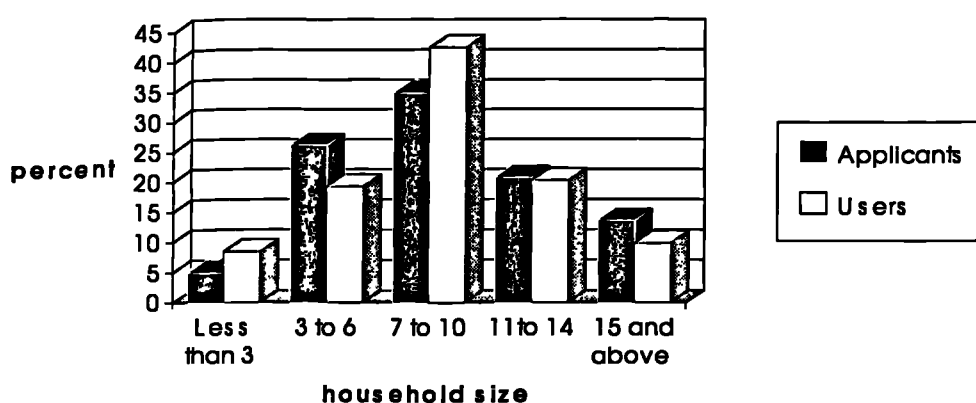
The above findings also show that some low-cost houses are allocated to those who are not in need. Some of the users have the financial capability to build their own

houses but prefer not to do so in order to gain a free house from the government. The new low-cost house costs the government Dh 350,000 (1992 price) and some users spent an equal amount to improve such a house. Thus some users, who are considered to be from the low-income group, are occupying houses costing more than Dh700,000, which is even beyond the affordability of the high income group.

5.1.6. HOUSEHOLD COMPOSITION

HOUSEHOLD SIZE

Figure 5.7. Users and applicants household size



Source: Fieldwork, Dec 1994- April 1995

Figure 5.7 shows that in both the user and applicant surveys those which have 7 persons or more in their household represent the majority (71% and 67% respectively). The household size is slightly larger in the applicant survey (9.2) than in the user survey (8.9). This difference may be due to the high percentage of extended family households among the applicants compared to users, as many applicants stay with their parents or relatives. The high average of household size (8.9) may be explained by the following; the high average of children per household (6.4 children/household), the practice of having more than one wife, the tradition of sons living with their parents after they are married which leads to an extended family household, and the strong social ties where relatives still live in the same house.

The smallest household in the user survey contained one person and the largest 23. The average household size is 8.9, but the average in the old houses is higher than in the new. This difference can be attributed to the fact that the majority of respondents in the new houses in the Inland zone are nuclear family households and 56.3 per cent have no children. Smaller households are more common in new houses in the Inland

zone (56% less than 3) probably because of the large proportion of household heads (69%) who are under 29 and recently married.

There is a difference when we compare the average current users' household size with the size when the occupants first moved to the low-cost houses. The current average household size in old houses in the Coastal and Inland houses is 9.3 and 10.7 persons respectively while the previous household size for the same area is 6.3 and 4.9 persons respectively. This increase in household size can be attributed to the increase in the number of children in the household, and the fact that many of the respondents' sons have married and stayed with their father.

Table 5.8. Household size figures

	household size	average number of children
Ras al Khaimah master plan-1975	5.5	3
Al-Ain survey-1985	8.6	-
Al-Ain 1995*	8.6	-
Abu Dhabi low-cost houses survey-1988	8	-
User survey	8.92	6.46

Source: Fieldwork Survey, Dec 1994- April 1995; Government of Ras al Khaimah, 1975; Emirate of Abu Dhabi, 1986; Emirate of Abu Dhabi, 1988.

* expected figure for 1995

Table 5.8 shows the figures of the household size in other surveys and the user survey. The respondent household size in the user survey is similar to that in the Al-Ain City Survey in 1985 and to the projected figure in 1995, but higher than the Abu Dhabi low-cost houses survey. By comparing our findings with the figures of 1975 for the Ras al Khaimah Emirate, we find significant differences. The household size and average number of children per household in the user survey is higher than in the 1975 figures. This difference can be attributed to the welfare policy adopted by the government which provides free education, health services and monthly child benefit for every new child. This policy has encouraged the citizens to have more children. Moreover, the custom of having more than one wife, mainly among the older people, has increased household size.

MARITAL STATUS

Table 5.9. Users' marital status.

percent	Users	Applicants
Married with one wife	82	90
Married with more than wife	14	9
Widowed	1	-
Head of the household (unmarried) ⁵	3	1

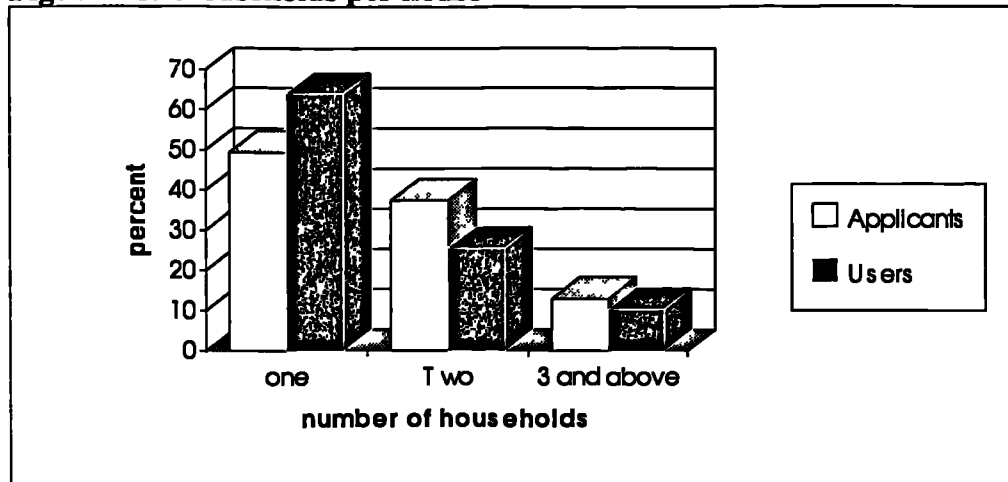
Source: Fieldwork, Dec 1994- April 1995

The great majority of the respondents in the user and applicants surveys, as seen from Table 5.9, are married with one wife. Federal Law No. 9 does not state that the applicant should be married in order to qualify for low-cost housing, it is commonly accepted however among housing officials and applicants that those who are not married, regardless of their age and income, do not have the right to apply. The only exception is made for those who are looking after their family as a head of household. The low-cost housing therefore serves only the married citizen and give no access for unmarried people despite their housing needs.

HOUSEHOLDS PER HOUSE

The percentage of extended family households sharing a house in the applicant survey(50%) is higher than that in the user survey(36%), as Figure 5.8 shows. Further, the average number of households per house is higher in the applicant survey (1.7 households per house) than in the user survey (1.47 households per house). This difference may be due to the fact that the majority of applicants, as the coming discussion on type of tenure shows, live with their parents or relatives until they get a low-cost house or can afford to build their own house.

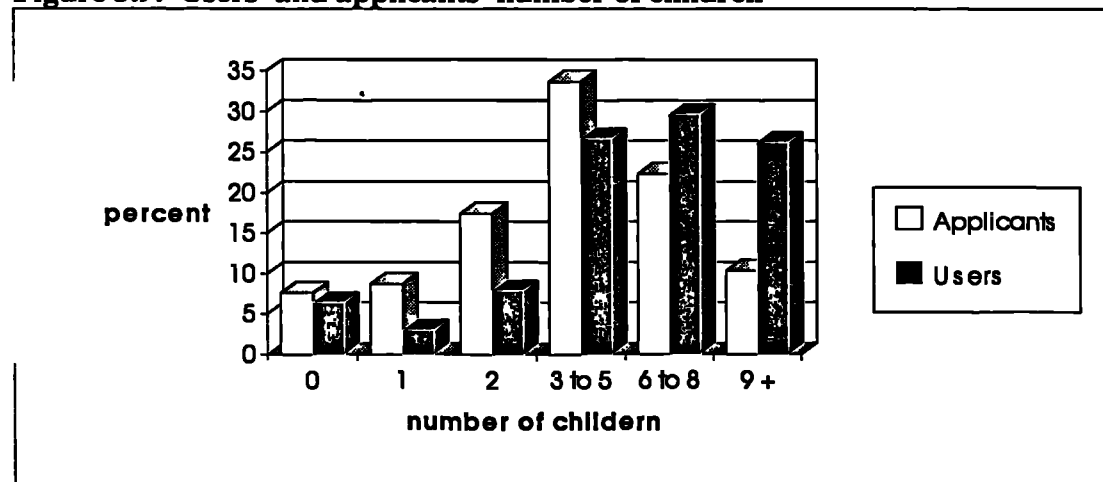
⁵The unmarried respondent is the head of the household who is looking after the household after the male head has married another woman, abandoned the house or died.

Figure 5.8. Households per house

Source: field work, Dec 1994-April 1995

On the other hand, when a comparison is made with the users of low-cost houses in Abu Dhabi there is a difference. The average number of households per house in Abu Dhabi is 1.14 which is lower than in the users' survey findings. This difference can be explained by the fact that the supply of low-cost houses in Abu Dhabi continued in the eighties while in the Northern Emirates it was reduced. The number of low-cost houses in the Abu Dhabi Emirate in 1985 was 17,023 compared to 11,236 in the Northern Emirates (Ministry of Planning, 1989). This continuous supply in the Abu Dhabi Emirate has enabled a great number of nationals to have access to low-cost houses, while in the Northern Emirates the majority of nationals, mainly the newly-weds, were forced to stay with their relatives or parents.

NUMBER OF CHILDREN

Figure 5.9. Users' and applicants' number of children

Source: Fieldwork, Dec 1994-April 1995

Figure 5.9 shows that a large majority of users and applicants have 3 children or more. However, the number of those with less than 3 children is higher in the applicant survey (34%) than in the user survey (17%). The average number of children in the user survey (6.4) is higher than in the applicant survey (4.4). This difference is due to the difference in age profile between the groups. The young age profile in the applicants' sample shows that a larger number of the applicants are recently married and have fewer children than those with an older age profile in the user survey where the duration of marriages is long and the number of children is large. In addition, marriage to more than two wives is more common among older people.

Household size, as discussions on housing allocation showed, is one of the criteria for accessing low-cost housing. This criterion is vital mainly with the new low-cost housing of 4 bedrooms. The larger the household size, the greater the chance they have obtaining low-cost housing. However, the above finding shows that there are applicants with households of 11 persons and more who are still on the waiting list, while some households of 2 or 3 persons have access to low-cost housing. 44 per cent of users of 2 person household size (newly married couples) in the Inland area have been allocated new low-cost houses with 4 bedrooms. In the same area 30 per cent of users with 3 and 4 person households also have access to new low-cost housing. This raises the issue of building standard low-cost houses of 4 bedrooms and 5 bathroom/toilet regardless of household size, and also to the unbalanced distribution of housing resources among the users.

5.2 HOUSING CONDITIONS

5.2.1 TYPE OF TENURE

A. USERS

The type of tenure is one of the three eligibility criteria for low-cost housing. Article 2 in Federal Law No.9 for 1973 states that any applicant for low-cost housing should not own an adequate house to live in. Although the law does not define what is meant by "adequate", the Housing Department set up some defining criteria. These are concerned mainly with the physical quality of housing, housing tenure, number and size of rooms in the house and number of persons in the house.

Table 5.10. Users previous type of tenure

percent	Old/Coastal	Old/Inland	New/Coastal	New/Inland	All
Owner	50	89	81	25	63
Rented house	25	7	-	6	14
With relative	25	4	19	69	23

Source: Fieldwork, Dec 1994-April 1995.

Table 5.10 shows that 63 per cent were owner-occupiers, 14 per cent were tenants and 23 per cent were living in their relatives' houses. The owner-occupier is quite common in the UAE. The Ras al Khaimah survey showed that 78 per cent of the citizen population were owner-occupiers and 22 per cent were tenants (Government of Ras al Khaimah, 1975). According to the 1980 census, out of 61,971 Arabic houses in the UAE, 60,141 (97%) were owned by individuals and, out of 17,247 villas, 14,614 (84%) were owned by individuals. The percentage of owner-occupiers in 1980 was 52 per cent in the Northern Emirates which is a high percentage in a country where foreigners represent about 80 per cent of the population and they are not allowed to own properties (Ministry of Planning, 1983).

The strong social relationships between parents and relatives explains the percentage (23%) of users living with their relatives, mainly their parents. The low proportion of tenants (14%) may reflect the fact that citizens do not like rented houses, as a great number prefer to stay with their parents or relatives until they can afford to build their houses or get assistance from the government. The high percentage of tenants found in the old houses in the Coastal zone (25%) can be explained by the fact that in the seventies a large number of emirate citizens, mainly from the Coastal zone, had been working abroad for many years as it was very difficult to get jobs in the country before the discovery of oil. By the seventies and with the start of the oil era, everyone from the emirates returned to their country where some of them stayed with their relatives or in rented houses until they could build their own houses or get government assistance.

TYPE OF PREVIOUS TENURE AND AGE

Table 5.11. Type of previous tenure by age groups

Col %	Owner-occupier	Rented houses	Staying with relative
Less than 29	2	0	37
30 to 49	31	46	43
50 and over	67	54	20
Chi-square = 59.83		P.value < 0.0000	

Source: Fieldwork, Dec 1994-April 1995

Table 5.11 shows the association between the users previous type of tenure and their age. Only 2 per cent of the owner-occupiers are less than 29 years old while 67 per cent are 50 and over. On the other hand, 37 per cent were staying with relatives and are under 29 and only 20 per cent of them are 50 and over. All tenants were 30 years and over. The P.value shows a strong association between age and type of tenure. This demonstrates that older people have had a long time to save from their income and therefore to build their own houses. On the other hand, those who are young have to stay with their relatives until they can afford to build their houses.

TYPE OF TENURE AND INCOME

Table 5.12. Type of previous tenure by income groups

Col %	Low-income	Middle income	High income
Owner-occupier	72	60	33
Rented houses	18	10	27
Stay with relatives	10	30	40
Chi-square = 14.4		P.value < 0.0059	

Source: Fieldwork, Dec 1994-April 1995

Table 5.12 shows the relationship between the type of tenure and income group. The majority of the owner-occupiers are from the low- and middle-income groups. The majority of those who stay with their relatives are from the high income group. The P.value is less than 0.001, which shows strong association between income group and type of tenure.

These findings show that there is no relation between having a high income and being an owner-occupier as those who are from the middle and low-income group represent the majority of owner-occupiers. This may be explained by any of the following; a) those who are from the low-income group may have other sources of income which enable them to build their own houses, b) those who are from the high income group and the middle income group may prefer to stay in rented houses or

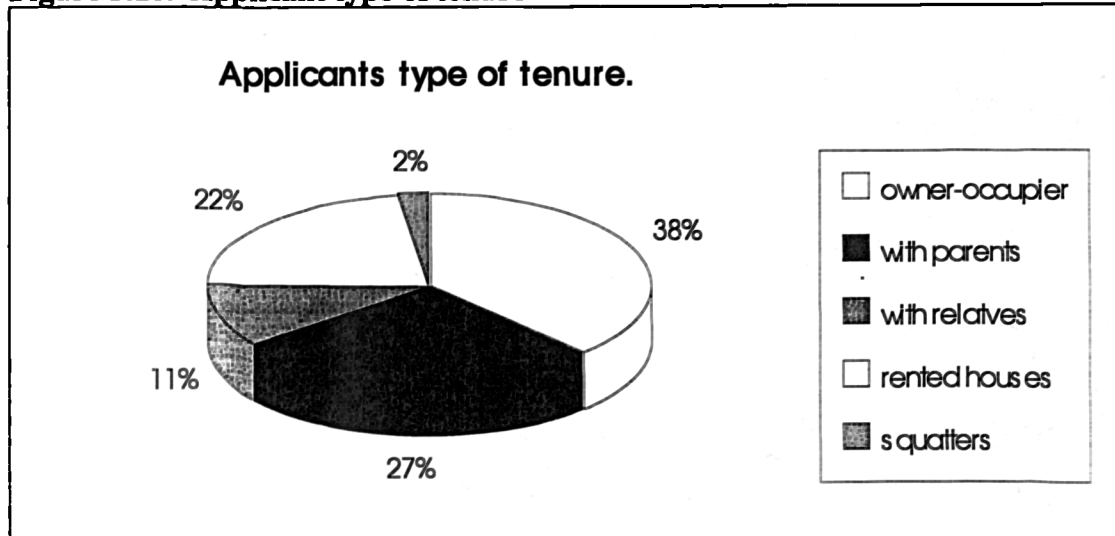
with their relatives until they have access to government houses; they may prefer to avoid building their own houses in order to increase their chances of obtaining government assistance, and c) as has been discussed earlier regarding the relationship between type of tenure and age and between age and income, the older people have had a longer time to save and most of them reached adulthood in the seventies when the chances of building their own houses were high.

This discussion leads to the conclusion that some nationals, despite their high income, may not intend to build houses from their savings until they have access to government provision, since the type of tenure is one of the criteria determining access to low-cost houses. Moreover, the level of income accompanying the government occupations does not represent the actual income of some of the nationals as many citizens have several sources of incomes.

B. APPLICANTS

Previous tenure was not a sensitive issue to users of the low-cost houses as they had already got their low-cost houses. By contrast, this was not the case with the applicants, since this issue could affect their chances of getting such houses. The task of uncovering the current tenure was not only difficult for the researcher but also for the housing officials themselves. According to some housing officials, it is very difficult for them to ensure that the data provided by the applicants about their type of tenure is correct as long as the system of land registration in the Northern Emirates remains inefficient.⁶ Some of the owner-occupiers transfer their ownership to their relatives or move to rented houses once they know that there is some low-cost housing under construction. By doing so, they increase their chance of obtaining a house free of charge. Therefore, the percentage of owner-occupiers may be higher than that reported in this survey. On the other hand, the proportion of those who are tenants or who live with their relatives may in reality be lower.

⁶According to some housing officials, some Land Departments or Municipalities in the Northern Emirates have refused to provide the Housing Department with a list of land tenures for low-cost housing applicants. This may be due to the fact that some Land Department and Municipalities are not well organised and some local authorities don't want to put obstacles in front of some applicants if they want them to get low-cost houses.

Figure 5.10. Applicant type of tenure

Source: Fieldwork, Dec 1994-April 1995

Figure 5.10 demonstrates again that owner-occupiers are still a high proportion (38%) of applicants, while about one fifth (22%) of the applicants claim to be tenants. Those who claim to live with parents and relatives represent more than one third (38%). This again demonstrates that social relations are still considered to be strong among the national people.

Those who live in squatters' houses represent only 2 per cent (4 cases). These houses are built of plywood, palm-leaves and corrugated sheet and occupy the land illegally. They can be seen in Plates 5.17 and 5.18. The four applicants are members of one tribe who, according to some housing officials, were only recently granted Emirates citizenship. Squatting is most common among immigrants from neighbouring countries. In some cases, they can obtain land legally from the ruler of the emirate when they have been in the country for a long time. Others can apply for citizenship which consequently gives them the right to apply for low-cost houses.

Type of tenure and age

Table 5.13. Type of tenure and age groups

Col %	Less than 29	30 to 49	50 and over
Owner-occupier	7	43	72
Stay with relatives and parents	68	30	15
Tenant and squatter	25	27	13
Chi-square = 47.17		P-value < 0.0000	

Source: Fieldwork, Dec 1994-April 1995

Table 5.13 shows the same outcome for the applicants as for the users. The majority of the owner-occupiers are 30 years of age and over, while on the other hand the majority of those who are staying with their relatives are under 30. The P-value shows a strong relationship between age and tenure.

Type of tenure and income

Table 5.14. Type of tenure and income groups

Col Pct	Low-income	Middle income	High income
Owner-occupier	58	39	20
Stay with relatives	29	42	40
Tenant and squatter	14	19	40
Chi-square=11.36			P-value< 0.02

Source: Fieldwork, Dec 1994-April 1995

Table 5.14 shows the relation between applicants' tenure and income groups. Those who are from the low-income group represent the majority (58%) of the owner occupiers. The majority of those staying with their relatives and tenants are from the middle income group. The P.value shows a strong association between type of tenure and income group. This findings again match with the users' tenure with income and age groups.

When comparing the applicants' and users' previous tenure we find there is a difference. The percentage of owner-occupiers is higher among the users than the applicants, while, on the other hand, the number of those who live with relatives is higher among applicants than users. The most likely explanation is the reluctance of the applicants to admit owner occupation. Moreover, such difference may be also related partly to the difference in age profile of the users and the applicants. The users who are older have had many years to build their own houses from their savings, while those who are newly married need some time before they can build their own houses. In addition residential land was more easily accessible in the seventies, and the cost of building houses in the seventies and eighties was far lower than in the nineties; it is now difficult to get residential land, as discussion in Chapter 7 will show.

Although Federal Law No.9 stated that priority should be given to non-owners, the findings show that those who were owner-occupiers have gained access to low-cost houses (two thirds) while two thirds of the applicants (62%) are tenants or living with their relatives are still on the waiting list. Further, the findings suggest that, although

some of the applicants are already owner-occupiers, they still apply for low-cost houses as they see other owner-occupiers acquiring them free.

5.2.2 TYPE OF HOUSING

A. User

In the pre-oil era the majority of traditional Arabic houses were built of mud bricks, coral-blocks, and date-palm leaves (Dostal, 1983). This was the most common type of housing in the country. The room/rooms in the Arabic house opened directly on to the court yard. The kitchen and the toilet were located on the opposite side to the bedrooms. Those who could afford it (mainly the high-income group) built a majles, located at the front of the house away from the private rooms with a separate entrance in order to not affect the privacy of other, mainly female, household members. This type of housing was suitable for the people's life style, privacy and the climatic conditions (Fathy, 1970; Al-Sulaymani, 1989). The great majority of people at that time, particularly the low-income group, were living in this type of housing (Framan, 1982) built with locally available materials by a local builder or the people themselves (Al-Ittihade 17.9.1987; 13.6.1990).

This was the type of housing most commonly used by the low-income group in the past, and it is still the predominant type used by the same group and the middle-income group at the present time. According to the last census figures (1985), the Arabic house represents 47 per cent of the total housing units in the Northern Emirates (Ministry of Planning, 1990)(see plates 5.13,14,15 and 16).

Table 5.15. Type of users' previous houses

Col %	Old/Coastal	Old/Inland	New/Coastal	New/Inland	All
Arabic house	96	62	93	25	82
Villa	-	-	5	-	2
Mud & palm leaves house	4	38	-	-	10
Low-cost house	-	-	2	75	6

Source: Fieldwork, Dec 1994-April 1995

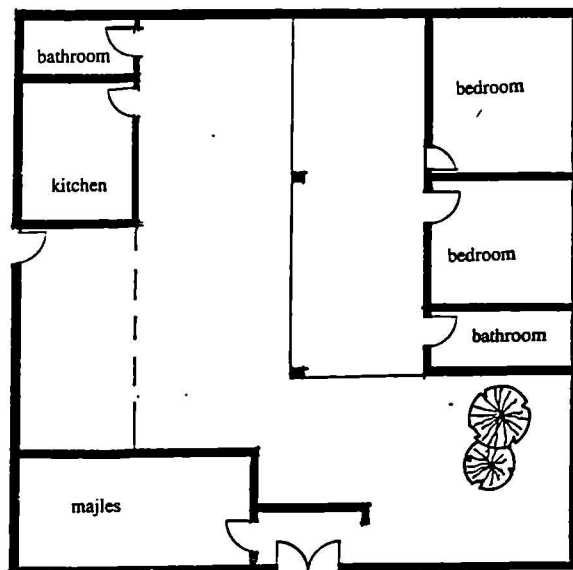


Plate 5.13. Plan of a traditional Arabic house built of cement-sand blocks
Source: fieldwork, Dec 1994-April 1995

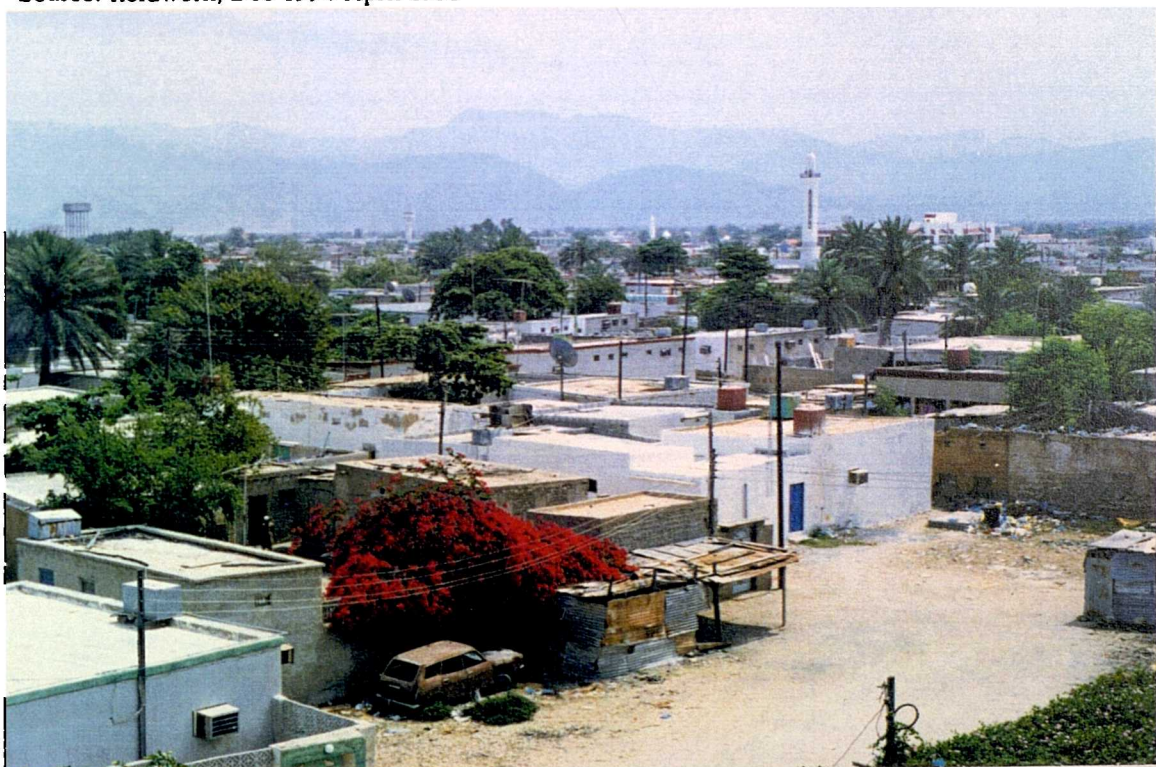


Plate 5.14. Traditional Arabic houses built of cement-sand blocks in the 1970s
Source: fieldwork, Dec 1994-April 1995

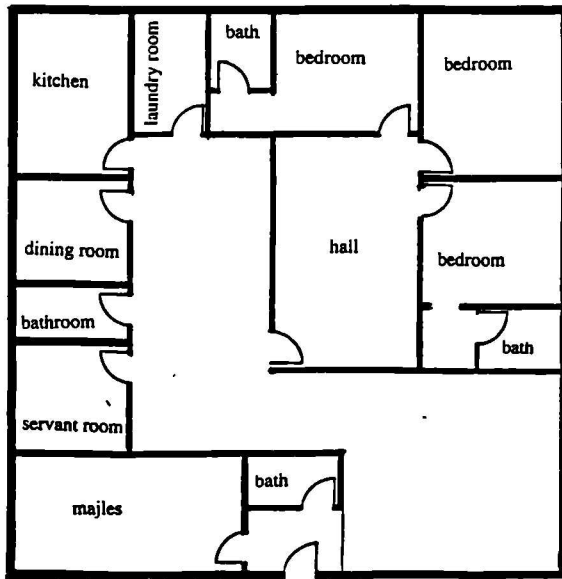


Plate 5.15. Plan of a Arabic house in the 1990s

Source: fieldwork, Dec 1994-April 1995



Plate 5.16. Arabic houses in the 1990s

Source: fieldwork, Dec 1994-April 1995



Plates 5.17. and 5.18. Squatter houses built of palm leaves and plywood

Source: fieldwork, Dec 1994-April 1995

The findings of our study are compatible with the aforementioned discussion. Table 5.16 shows that 82 per cent of the users lived in Arabic houses, 10 per cent in mud and palm leaves houses, 6 per cent in low-cost houses, and 2 per cent in villas before they moved into their low-cost houses. Those who lived in mud and palm leaves houses were mainly from the Inland area as the economic situation there did not enable them to build Arabic houses at that time. Table 5.16 shows that 62 per cent of the owner-occupiers, 17 per cent of the tenants and 21 per cent of those sharing with relatives were previously living in Arabic houses.

Table 5.16. Type of tenure and type of house

Col %	Arabic House	Villa	Mud & Palm leaves	Low-cost house
Owner-occupier	62	100	95	15
Tenants	17	-	5	-
With relatives	21	-	-	85

Source: Fieldwork. Dec 1994-April 1995

The above shows that the majority of owner-occupiers (62%) lived in Arabic houses, which are considered to be a good type of housing compared with mud and palm leaves houses. Thus, they cannot be said to have been unadequately housed. Some of the users in the new houses were even acquiring low-cost houses for the second time (15%) despite the fact that housing regulations theoretically prevent people from having two low-cost houses.

B. Applicants

Table 5.17. Applicants type of house by type of tenure

Col %	Owner-occupier	with relative	Tenants	Squatters	Total row
Arabic house	57	33	44	0	45
Villa	27	23	39	0	27
Low-cost house	16	44	5	0	23
Flat	-	-	12	0	3
Shacks and others	-	-	-	100	2
Total column	38	37	23	2.	100

Source: Fieldwork Survey, Dec 1994-April 1995

Figures in Table 5.17 show that more than one third of the applicants (38%) are owner-occupiers who still apply for low-cost houses despite the fact that they already live in Arabic houses, villas and low-cost houses. Only 12 per cent of the applicants were living in flats as tenants. Nationals prefer to stay in single or two storey houses or villas as these types of houses are more suitable to their life style than living in flats. In addition, the Arabic house is most common among the target group and current users of low-cost housing also apply for additional low-cost housing.

Some of the low-cost houses are not occupied by the original users and are rented out (5%). The renting of low-cost houses is considered a misuse of the house according to Federal Law no.9. Article 16 stated that the users of the low-cost houses should not sell or rent their houses and if they do so the Committee of Beneficiary should repossess them. Renting low-cost houses to others suggests that the original user is not in need of such housing or that he has already built another house and moved into it. This practice of renting out low-cost houses is quite common among the nationals, according to the 1980 census and, out of 16,717 low-cost houses, 1,238 (7.4 %) were rented to other people (Ministry of Planning, 1983)⁷. The Abu Dhabi low-cost house survey showed that 13 per cent of low-cost houses were rented out (Emirate of Abu Dhabi, 1988).

5.2.3. EXISTING HOUSING RESOURCES

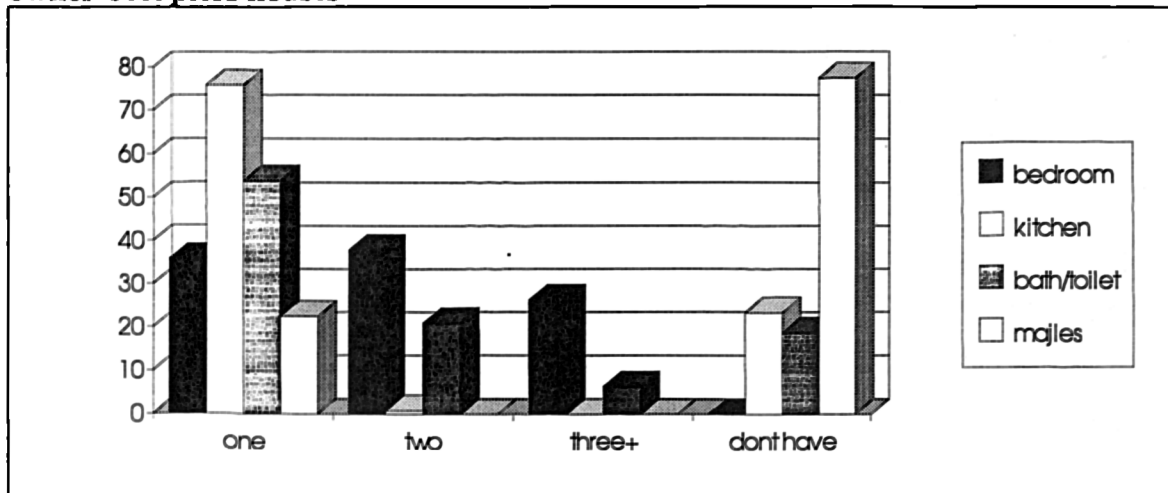
Two thirds of the users and one third of the applicants are owner-occupiers who had already housed themselves by their own efforts in Arabic houses or villas. This section focuses on the existing housing resources of the target group such as number of rooms and land. Moreover, it examines the applicant owner-occupiers satisfaction with their current houses.

A. Users

Figure 5.11 shows that about a third of the owner-occupiers (36%) have one bedroom, and two thirds (64%) have two bedrooms or more. Those who have one kitchen accounted for 76 per cent, while 54 per cent have one bathroom/toilet and 27 per cent have two bathrooms/toilets or more. Those who have a majles make up only 23 per cent.

⁷ Although the researcher has come across some rented low-cost houses, the fieldwork survey in this study has excluded all houses occupied by non-original occupiers.

Figure 5.11. Number of bedrooms, kitchens, bathroom/toilets and majles in owner-occupiers houses



Source: Fieldwork, Dec 1994- April 1995

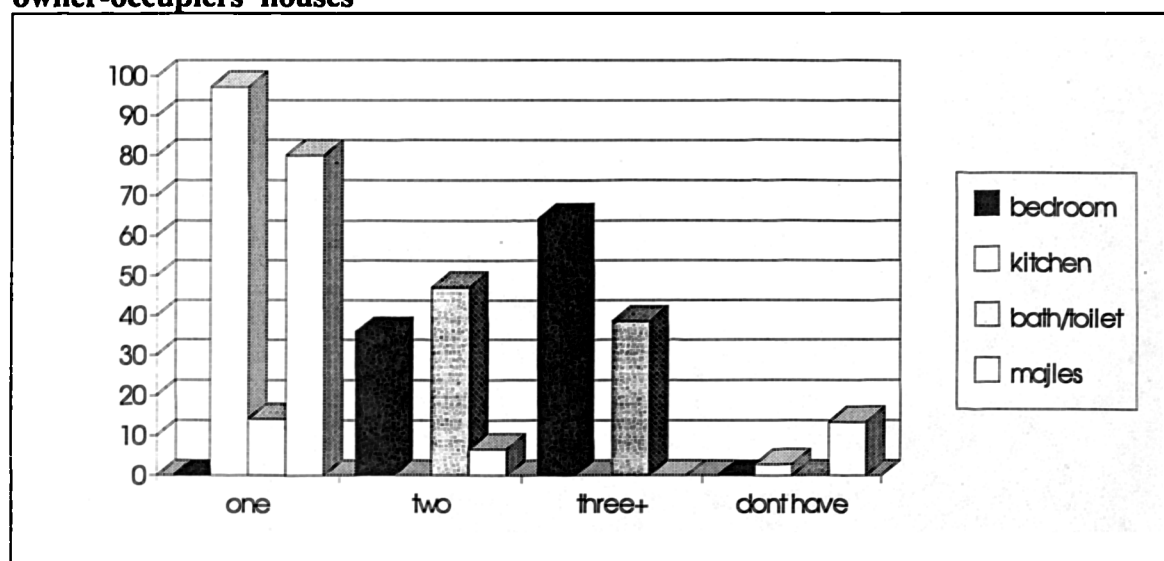
Although some of the owner-occupiers did not have a bathroom/toilet (19%), kitchen (23%) and majles (77%) the fact remains that the majority of them were able to afford to build their houses and such an existing resource is considered a high value asset.

Only 20 per cent of owner-occupiers sold their previous house, and 26 per cent kept and rented out their previous house, giving them an additional source of income. The remaining 54 per cent have refused to answer this question as they consider such questions an intrusion into their private business. This reveals that the users of low-cost housing not only obtained a new house but also gained benefit from their previous one. In addition, 30 per cent of the users are land owners and 13 per cent are both owner-occupiers and land owners⁸.

⁸ 30 % of the users refused to reveal whether they have residential land or not.

B. Applicants

Figure 5.12 Number of bedrooms, kitchens, bathroom/toilets and majles in owner-occupiers' houses



Source: Fieldwork, Dec 1994- April 1995.

Figure 5.12 shows that about one third of the applicants have two bedrooms, and 64 per cent have three bedrooms or more. 80 per cent have one majles, 7 per cent have two majles, and only 13 per cent do not have any majles. 14 per cent have one bathroom/toilet, 47 have two bathrooms/toilets, and 39 have three bathrooms/toilets or more. 97 per cent have a kitchen. Therefore, these findings demonstrate that the great majority of the owner-occupiers are living in good quality houses and have a majles, a kitchen and 2.4 bathrooms/toilets per house. One third of houses (33%) were built during the last ten years, 36 per cent were built between 11 to 15 years ago, 17 per cent were built between 16 to 20 years ago, and only 14 per cent were built more than 20 years ago.

ROOMS PER DWELLING

Table 5.18. Number of rooms per dwelling (mean)

	Users present	Users Previous	Applicant	Owner	Non-owner
Room/dwelling	6.2	2.5	4.5	4.7	4.45
Bedroom/dwelling	3.9	2.2	2.9	3.1	2.8
Majles/dwelling	1.3	0.3	0.9	0.9	0.9
Kitchen/dwelling	1.3	0.8	1	1	1
Bathroom/toilet/dwelling	4.2	1.2	2.4	2.4	2.3

Source: Fieldwork, Dec 1994-April 1995

Table 5.18 shows that the number of bedrooms, majles, kitchens, and toilets per dwelling of the applicants is higher than users previous houses but lower than users

present houses as the majority of applicants have majles (0.9 majles per dwelling), kitchen (one kitchen per dwelling) and more than two bath/toilet (2.4). The number of rooms (bedrooms, majles, hall, and dining room) per dwelling of the applicants is 4.5 compared to 6.2 for the present low-cost houses and 2.5 for the users' previous houses.

Findings in Table 5.18 also shows that the present applicants are better housed than the old applicants (users now). This difference is related to the change of economic conditions between the seventies and the present time as the majority of people in the pre-oil era lacked the financial ability to build high quality houses and more rooms. The difference between the previous and present applicants suggests that present applicants have more resources and therefore more thought should be given to encouraging them to utilise such resources.

Table 5.19. Number of bedrooms and bath/toilets per low-cost house (mean)

	Old low-cost houses		New low-cost houses	
	original provision	after extensions	original provision	after extensions
Bedroom	2	4.6	4	4.2
Bath/toilet	2	3.3	5	5.5

Source: Fieldwork, Dec 1994-April 1995

Table 5.19 shows that the mean number of bedrooms in the old low-cost house after extensions is higher than the original provision of the new-low-cost houses. The users of the old low-cost houses have improved their housing conditions at their own expenses and have now an even larger number of bedrooms than those in the new low-cost houses. Discussion in the next chapter will show that such extensions have been achieved at a lower cost than that of the new low-cost houses. On the other hand, users of the new low-cost houses built additional bedrooms and bath/toilets to the improved low-cost housing, a step which may be considered by the Ministry of PW&H officials as showing up a deficiency in the new low-cost housing and therefore future Ministry plans may consider building additional bedrooms for new low-cost housing⁹.

In conclusion, we can argue that the provision of the old low-cost housing of 2 bedrooms at a low construction cost has provided large numbers of users with access

⁹The built-up area of the new low-cost housing will be increased to 380 square metres. Such improvement is done in accordance to the findings of a survey conducted on low-cost houses built in early the 1990s where users of houses desired more space and bedrooms (Al-Khaleej, 31.5.1997; Al-Khaleej, 2.6.1997).

to land, infrastructure and core houses. Users then built extensions at their own expense and improved their housing conditions. On the other hand, the new low-cost houses of high cost have only provided access of housing services to a few users. The call for increasing the number of bedrooms and the built-up area of the low-cost house has increased the construction cost and decreased the supply. However, such improvements could be achieved by the users themselves if they would be provided with access to land, infrastructure and a small core house, as was the case with the old low-cost housing.

OWNER-OCCUPIERS' SATISFACTION

The owner-occupier applicants have been asked to present their level of satisfaction with their present houses. The objective of this question is to find out whether there is any pattern to applicants' dissatisfaction with their current housing.

In order to measure satisfaction a scale was used. Scaling methods are widely used to measure attitude (Moser & Kalton, 1971) and perception (Ebong, 1983). The scale starts from 1 (dissatisfied) to 9 (satisfied). The respondents were asked to relate their responses to the scale, i.e., 1 to 4 for dissatisfaction, 5 neither satisfied nor dissatisfied and score 6 to 9 for satisfaction. So those who score 4 and below will be considered dissatisfied and those who score 6 and above will be considered satisfied. During the fieldwork, the researcher found it difficult to assess the respondents choices as some of them did not define them clearly. For example, some respondents, mainly the older ones found it difficult to assess their satisfaction in numbers. They could only express their satisfaction level in words such as "very bad" or "good". The researcher, therefore, had to transfer these words to numbers on the satisfaction scale. This may have introduced a significant interviewer bias but it was probably similar for each component.

Table 5.20. Satisfaction means and ranks

	mean-out of 9	Rank
Location of majles	4.9	1
Plot size	4.6	2
Size of majles	4.3	3
Location of kitchen	4	4
Size of hall	3.6	5
Size of toilet	3.5	6
Number of toilet	3.3	7
Size of bedroom	3	8
Number of bedroom	2.7	9

Source: Fieldwork survey Dec 1994-April 1995

Table 5.20 shows that the majority of the owner-occupier applicants are not satisfied with their houses since the average mean for all factors is 3.8 (less than 5). For example, 86.3 per cent are not satisfied with the number of rooms, 76.4 per cent are not satisfied with the size of the bedrooms. The lowest factors reported are the number of bedrooms (2.7) and the size of bed rooms (3), while the highest factors are for the location of the majles (4.9) and plot size (4.6). This shows that the majority of the owner-occupier applicants would prefer additional bedrooms and bathrooms/toilets.

Owner-occupiers and land owners

Table 5.21. Owner-occupier and land owner applicants

percent	
Owner-occupiers	38
Owner-occupiers and land owners	11
Land owners	23

Source: Fieldwork, Dec 1994-April 1995

Table 2.21 shows that about 38 per cent of the applicants are owner-occupiers, 23 per cent are land owners and 11 per cent are both owner-occupiers and land-owners.

5.2.3 OCCUPANCY RATE

A. Users

Table 5. 22. Users and applicants mean occupancy rate by area

User	Person /bedroom	Applicant	Person/bedroom
Coastal /old	2.62	Coastal zone	2.97
Inland/old	2.5	Inland zone	3.68
Coastal/new	1.8		
Inland/new	1.02		
All	2.27	All	3.14
Previous	2.79		

Source: Fieldwork, Dec 1994- April 1995

When comparing the four geographical areas of the study, there are significant differences (Table 5.22). The occupancy rate in the new houses in both zones is lower than that in the old houses. The lowest occupancy rate is found in the new houses in the Inland zone (1.02) while the highest is found in the old houses in the Coastal zone (2.62). These differences not only relate to the large number of bedrooms in the new houses but also to the fact the some small households (2 persons) have been granted low-cost houses with 4 bedrooms. For example, 56.3 per cent of households of two

persons in the new houses in the Inland zone have been granted houses with 4 bedrooms.

Variation in occupancy rate is also found between the new houses in both zones. The occupancy rate in the Coastal zone is 1.8 while in the Inland zone it is only 1.02. This difference is due to the imbalance between the household size and the size of the low-cost houses. The Ministry builds standard low-cost houses with a standard built up area and number of rooms without any consideration of the different household needs and sizes. For instance a household of 10 persons is provided with the same low-cost houses as a household of 2 persons. The other main explanation for the improvement in the occupancy rate is the large number of extensions which are built by the users themselves. About two thirds of the users have built extensions to their houses. Out of 798 bedrooms, 274 were built by the users (34%).

B. Applicants

As can be seen from table 5.22 the occupancy rate for the applicants is 3.14 persons/bedroom; higher than the present user figure (2.27) and even the previous user occupancy rate (2.79). In the Coastal zone the figure is lower (2.97) than in the Inland zone (3.14). This can be attributed to the large household size and the number of households per house in the Inland zone. As shown earlier, the mean of household size in the Inland zone is 9.75 compared to 9.02 in the Coastal zone, which relates to the larger number of household per house in the Inland zone (mean=1.8) compared to the coastal zone (mean=1.66).

Table 5.23. Occupancy rate figures from different sources

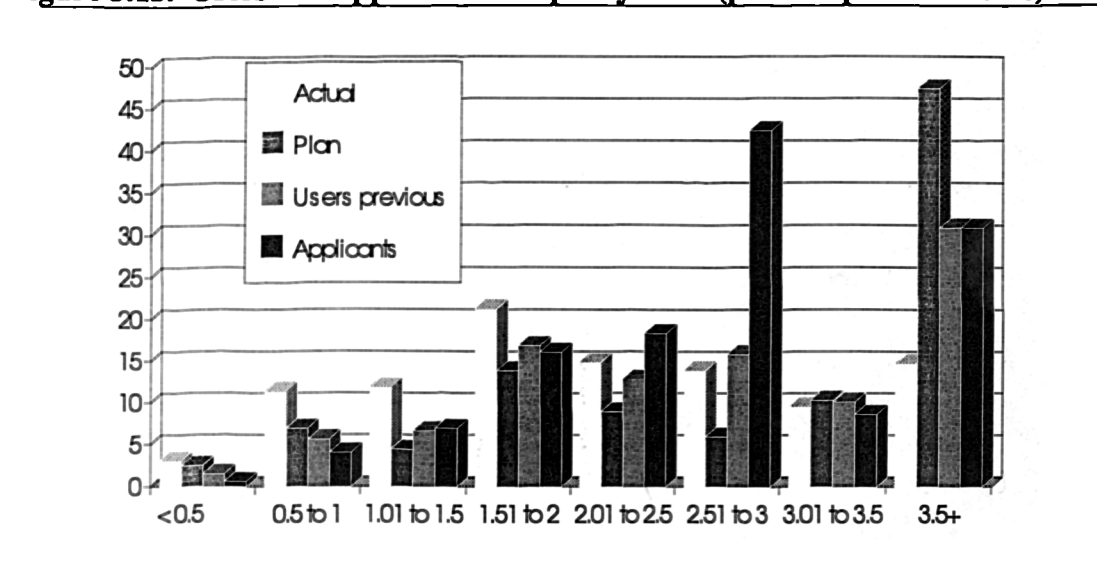
	person per room
Ras al Khaimah master plan-1975	2
Abu Dhabi survey-1978	1.1 for villas 2.04 for citizens 2.26 for low-cost houses
Abu Dhabi low-cost houses survey-1987	2.18
Ministry of Public Works survey-1979	2.86
Ministry of Planning target-1981	1.5
User survey	2.27 present 2.79 previous
Applicant survey	3.14

Source: Fieldwork, Dec 1994-April 1995; Government of Ras al Khaimah, 1975; Ministry of PW&H, 1980; Ministry of Planning, 1981; Emirate of Abu Dhabi, 1979; Emirate of Abu Dhabi, 1988.

By comparing the present users occupancy rate with the other figures, Table 5.23 shows that they are typical for the Abu Dhabi survey for low-cost houses in 1978 but still higher than the target of the Ministry of Planning. The figure in the Ministry of

PW&H survey is higher (2.86) than the user survey finding (2.27) but quite similar to the occupancy rate of the old houses in both the Coastal (2.62) and Inland (2.5) zones. These differences can be attributed to the fact that the old low-cost houses only have 2 bedrooms while the new houses contain 4 bedrooms. On the other hand, the users' previous occupancy rate (2.79) is higher than in the Ras al Khaimah master plan in 1975 (2.0) which covered all income groups. This gives the impression that the users were living with a high occupancy rate compared with the other income groups.

Figure 5.13. Users and applicants occupancy rates (persons per bedrooms)



Source: Fieldwork, Dec 1994- April 1995

Figure 5.13 shows the occupancy rate (persons per bedroom) for the users and the applicants. The occupancy rate for the users is presented in three ways; the occupancy rate for the users previous houses, the actual occupancy rate which shows the occupancy rate after the users extended their houses, and the planned occupancy rate which shows the occupancy rate of the low-cost houses as built by the Ministry. The findings show great differences between the four types of occupancy rate, mainly between the actual and the planned showing the major effect extensions have on improving the housing conditions.

Although occupancy rate is one of the criteria determining the housing conditions, there is no target defined or set by the Ministry of PW&H. The only target occupancy rate was set by the Ministry of Planning in the first five-year plan 1981-1985 at 1.5 persons per room (Ministry of Planning, 1981). According to this criterion only 26 per cent of the users have achieved this target (actual occupancy rate), although 13.7 per cent of them did so before moving to low-cost houses, while only 11 per cent of the current applicants achieve this target. Figures 5.13 shows also that 15 per cent of

the users are living with an occupancy rate of 3.5 and above while 47 per cent per cent of them would live in the same occupancy rate if they lived in an unaltered low-cost house. When a comparison is made with the Dubai Emirate figure a great difference is found. 48 per cent live with an occupancy rate of 1.5 and below in the Dubai Emirate (Dubai Municipality, 1986) while in the user survey this figure is only 26 per cent (actual occupancy rate).

The actual occupancy rate is lower than applicants' and users' previous occupancy rates. The provision of the low-cost houses, with extensions built by the users, improves the occupancy rate for some users while the remainder are still not at the target occupancy rate. In contrast, the planned occupancy rate is higher than applicants' and users' previous houses as many of the users were living with relatively low occupancy rates before moving to the low-cost houses. So the provision of the low-cost housing, based on the original number of bedrooms, did not contribute to improving the occupancy rate for the majority of users. However, the building of extensions by the users, in addition to the original provision, has done so. Therefore, improving housing conditions in terms of occupancy rate has not been achieved by the original government provision alone but with the contribution of the users in building extensions. The improved low-cost housing, we can argue, has ignored such potential and the government, therefore, has paid an unnecessary high cost to achieve more bedrooms.

The earlier findings show that a great majority of the target group have established their own housing resources. All these resources have been established and represent the theoretically unsatisfactory housing which the government attempts to improve on through the low-cost housing programme. Findings in this chapter show also that users from a variety of income groups, households sizes, tenures and housing conditions have access to low-cost housing. The majority of users have spent a large amount of money on improving their low-cost houses. On the other hand, findings also show that the majority of both users and applicants are owner-occupiers, some applicants have already built their own houses, some even have land.

Based on the above, the following discussion will examine how people manage to build their own houses before moving to low-cost housing. The discussion of how people build their own houses and establish their own housing resources will focus on the concept of self-provided housing.

5.4. SELF-PROVIDED HOUSING

Self provided housing, as defined by Duncan and Rowe (1993:1332)

" refers to all housing provision forms where it is the household itself that acts as promoter and developer. In principle the household (alone or collectively) finds finance, buys land, manages the project and owns the finished products. In one form of self-provision, households do not engage in much of the actual building works, but rather accept a tender from commercial builders (ranging from large house building firms to self-employed trade people) to build the dwelling "

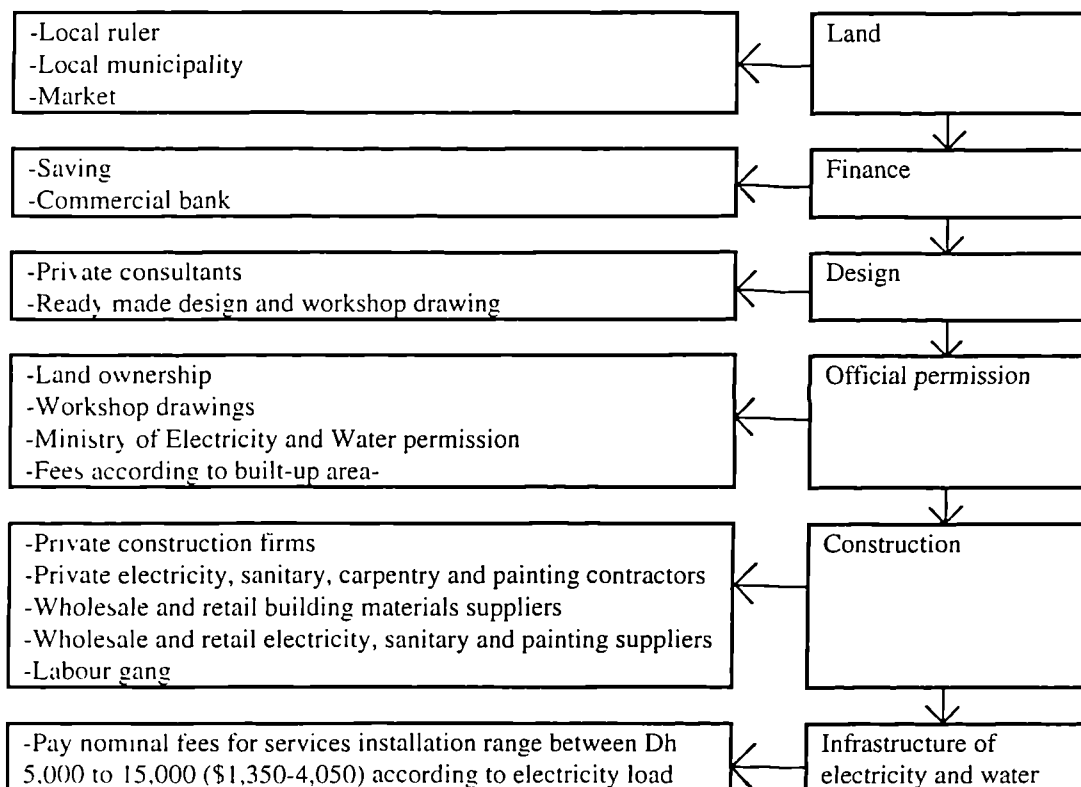
This definition is widely applicable to housing built by UAE individuals. The householders are involving in most stages of the housing processes in Figure 5.14 and arrange for land, finance, design and construction.

Householders get access to land through applying directly to the local municipalities or by direct petition to the ruler of the emirate. Residential land, which belongs to the rulers of the emirates, is a right for all UAE citizens. The land is provided free of charge if the applicant is over 18 years old and pledges to build within six months (Government of Ras al Khaimah, 1990). No data on land supply was available but generally acquiring land for residence was possible for all citizens in the 1970s and early 1980s since the demand for land was small and the country was in the early phases of development. In the 1990s and with the increase in population, the increased demand for land, people have had to wait longer to get any. Access to land is also associated with having links with influential officials in the local government. Generally, and since the early 1970s, local governments are still providing free land.

Finance for self-provided housing generally come through saving since there are no housing finance institutions in the Northern Emirates. Commercial banks provide housing loans but their participation in housing finance is limited. The terms offered by these banks are generally prohibitive for investment in housing particularly for low- and middle income groups. Real estate mortgagee loans bear more than 12 per cent interest and run for less than five years. The maximum financing offered is 60 to 70 per cent of the construction cost (Tessema, 1983). Applicants for commercial bank housing loans have also to prove that they can repay the loan since the law in the UAE prohibits banks to hold repossessed properties for more than six months if a

borrower fails to repay the loan (Al-Ittihad, 9.1.1993). The majority of households generally do not apply for commercial housing loans since these banks charge high interest rates over a short period of time (Faraman, 1983).

Figure 5.14. The self-provided housing process



Source: Field work, Dec 1994-April 1995

The design of self-help housing can be done through private architectural consultants mainly if reinforced concrete construction will be used. These private firms usually charge between 3 to 4 per cent of the construction cost. Some private firms charge only lump sum fees. Ready made designs are also often used. Local municipalities provide ready made designs for those who want to use popular construction and charge only a nominal fee of Dh 250 (\$55).

To obtain official building permission, developers of self-provided housing have to provide evidence of land ownership, workshop drawings, Ministry of Electricity and Water permission showing that there is no public network of electricity or water crossing the land. Building permission can usually be obtained within three weeks.

The construction process can be done in a variety of ways. Developers may make a contract with a private construction company to carry out all construction work. They may also authorise private construction firms to build only the main structure of the house which includes foundations, walls, roof, flooring and plaster works. The developer later hires other private electrical, sanitary and painting contractors to carry out the remaining work. In addition, the developer may also hire labour gangs and provide them with building materials. The latter method may be used to save on the construction cost.

Arabic houses and villas are the most common types of housing produced by self-provided housing. These two main types are the most common for UAE citizens to live in, as earlier finding shows. Figure 1.1 shows that Arabic houses and villas together represent 47 per cent of total housing stock in the Northern Emirates.

The supply of housing is generally influenced by price and availability of land, price and availability of skilled and unskilled labour, the efficiency of the official framework, official standard, the cost and availability of building materials and the price of infrastructure (UNCHS, 1996). Having a high supply of self-provided housing is also linked to the availability of free land, building material, labour and infrastructure. The free enterprise environment, as discussed in Chapter 3, also helps in having sufficient building materials and a high number of construction firms able to meet the demand for housing construction. Table 5.24 shows the number of private firms working in the building industry in Ras al Khaimah in 1996.

Table 5.24. Private firms operate in Ras al Khaimah Emirate in 1996

Activity	Number
Building contractors	394
Building materials suppliers	95
Ceramic tiles manufactories	1
Cement manufactures	5
Painters and painting contractors	114
Steel workshop	92
Aluminium Fabricators	20
Concrete block manufactures and suppliers	66

Source: Ras al Khaimah Commercial Directory-1996-1997, 1996

The large supply of Arabic houses may also be attributed to the popular construction used in its construction which costs less than the reinforced concrete construction, as discussion in the next chapter will show. The cost of building an Arabic house using the popular construction was generally affordable for the majority of citizens in the early 1970s and 1980s. For example, the construction cost of an Arabic house

consisting of 2 bedrooms, one kitchen, and 2 bathroom/toilet cost less than Dh 30,000 (\$ 8,000) in the seventies and about Dh 50,000 (\$ 14,860) in the eighties¹⁰. The large supply of Arabic houses can also be attributed to the fact that they are built by nationals not only to house themselves but also for investment. Since the non-citizens, who represent two thirds of the population, are not allowed to own land in the country the only way for them to get housing is through the rental market. UAE nationals, therefore, invest in building Arabic houses and villas and rent them out to non-nationals. According to Alif (1981) the majority of non-citizens with low-income occupy Arabic houses.

In conclusion, the availability of free land, building materials, labour, infrastructure and permanent income enable a high proportion of UAE nationals to build their own houses.

5.5. SUMMARY

This chapter has shown the socio-economic and housing conditions of the target group. The findings show, as can be seen in Table 5.25, that nationals from different income groups, different household sizes, different types of tenure and different housing conditions have access to low-cost housing. Although some of the low-income group are benefiting from such housing, the great majority of the beneficiaries are from the middle- and high-income group while, on the other hand, some of the low-income group are still on the waiting list. Moreover, while some households of 2 persons have access to low-cost houses, a great number of the larger households are still on the waiting list. In addition, many owner-occupiers have access to low-cost housing while a high proportion of non owner-occupiers who are tenants or living with their relatives are still on the waiting list. Some low-cost houses have been allocated to those who are not in need. Thus some users, who are claiming to be from the low-income group, are occupying houses costing more than Dh 700,000 to which they have contributed Dh 350,000, which is even beyond the affordability of many from the high income group.

This bias in housing allocation comes as a result of the lack of clearly defined criteria for the assessment of income and housing conditions and the process by which low-cost houses are allocated. The previous discussion shows that the Federal Law does not clearly define the income criteria. There is no maximum or minimum limit for

¹⁰ According to some local contractors the cost of one square metre of an Arabic house was less than Dh 200 in the seventies, Dh 400 in the eighties and in 1990s the cost is around Dh 600.

income. Further, the deficiency in official resources with which to obtain information on other sources of income and property ownership make it impossible for the Housing Department to obtain full data on the applicant. In addition, discussion in Chapter 3 and the findings of this chapter show that unclear eligibility criteria and the role of different actors in housing allocation have created, to a great extent, gaps and unfairness in the housing allocation process.

The high quality of low-cost houses and the many gaps in the housing qualification which enable easy access, combined with the current political and traditional setting, encourage people with high income to apply for them. In contrast, those who are from low- or middle-income groups have to work very hard to comply with the criteria for such houses and still see many undeserving people getting access to them, thus some of them try to mislead the Housing Department in order to qualify.

Table 5.25. Summary of the findings

Percent	Users	Applicants
Low-income group	34	20
Middle-income group	58	66
High-income group	8	14
Household size less than 3 persons	8	5
Household size between 3 to 6 persons	19	26
Household size between 7 to 10 persons	43	35
Household size above 11 persons	30	34
Owner-occupier	63	38
Non owner-occupier	37	62
Land owner	30	22

Source: Fieldwork, Dec 1994-April 1995

All households, whether of 2 person or 10 persons, have access to the same type of low-cost house of 340 square metres built-up area, 4 bedrooms and 5 bath/toilet rooms. The Ministry of PW&H build standard low-cost housing with a standard built-up area and number of bedrooms without any consideration of the different needs of households of different sizes etc. Further, standard low-cost houses have resulted in an imbalanced distribution of resources among the target group.

The results also show that the majority of users have the financial capability to spend on housing. Users who were previously not keen to spend to improve their housing conditions, after moving to low-cost houses, spend more on luxury furniture and extensions. Users were not keen to improve their previous housing conditions because they needed to show that they lived in poor housing conditions in order to comply with the eligibility criteria for housing allocation. The free grant and the current eligibility criteria therefore seem to discourage people from improving their housing conditions.

The free grant not only encourages people to apply for a free house but it also provides motivation for them to show they are in desperate need of housing.

With such high spending, some of the low-cost houses, which were already considered to be of a high standard, transferred to an even higher quality. Those who are in need of only little support from the government to improve their housing conditions receive more support than they need and thus spend their savings on achieving higher quality houses.

Part of the target group were only in need of a small portion of government support to improve their housing conditions, however, they got more than they needed while others who were in more need of government support are still waiting with their existing resources. Those who were owner-occupiers and land owners were granted extra housing resources by gaining access to low-cost housing while others who have no existing housing resources or have only land did not receive any government support from the government.

Two thirds of users and one third of applicants are already owner-occupiers before moving to low-cost housing. Users and applicants build their own housing in relation to the availability of housing supply inputs of land, construction materials, permanent income, labour and infrastructure. Many users were better housed before moving to the low-cost houses in terms of occupancy rate. However, the provision of low-cost houses has improved the occupancy rate mainly in the new type of low-cost houses. It has also transferred some of the users from mud and palm leaves houses to those built of concrete and cement sand block and finished with high quality building materials.

CHAPTER SIX
IMPLICATIONS OF STANDARDS OF CONSTRUCTION AND
CONDITIONS OF TENURE

CHAPTER SIX

IMPLICATIONS OF STANDARDS OF CONSTRUCTION AND CONDITIONS OF TENURE

6.0 INTRODUCTION

The provision of low-cost housing is intended to improve the housing conditions of those who do not already own an adequate house and those who cannot afford to build their own. The approach of the government to date, as discussed earlier, has been to provide free, adequate, comfortable, healthy, modern dwellings of high building specification to achieve the above aim. In order to attain the required high quality and durability, reinforced concrete construction and cement-sand blocks are used in building these houses. Low-cost housing is also provided free for the right of use only, the user has no right to sell or rent out.

This chapter attempts to examine the implications of using the above standards of construction and the tenure conditions on the users housing conditions, with stress placed on the physical condition of the house. It also extends to a discussion about the relationship between tenure conditions and standard of construction on one side and low-cost housing maintenance on the other. Finally this chapter will discuss whether users intend to stay in their low-cost housing or to move out, and the motivation behind any such decision.

6.2 PHYSICAL QUALITY ASSESSMENT BY THE USERS

As discussed earlier, reinforced concrete structure and cement-sand block infill is used as the method of construction in the low-cost housing (see Plates 6.1, 6.2, 6.3 and 6.4). Using such a method is intended to improve the housing conditions of the target group since the majority of them were previously staying in houses built of popular construction, mud and palm leaves. The users of the low-cost houses were asked to assess the physical quality of the main structure based on the presence of cracks and steel corrosion in the columns, beams, roof slab and block work as well as the presence of water leaks from the roof. Such assessment is needed to examine how the standard of construction affects the housing condition of the users.



Plate 6.1. Reinforced concrete construction for single storey low-cost house



Plate 6.2. Reinforced concrete construction for two storey low-cost house

Source: The researcher

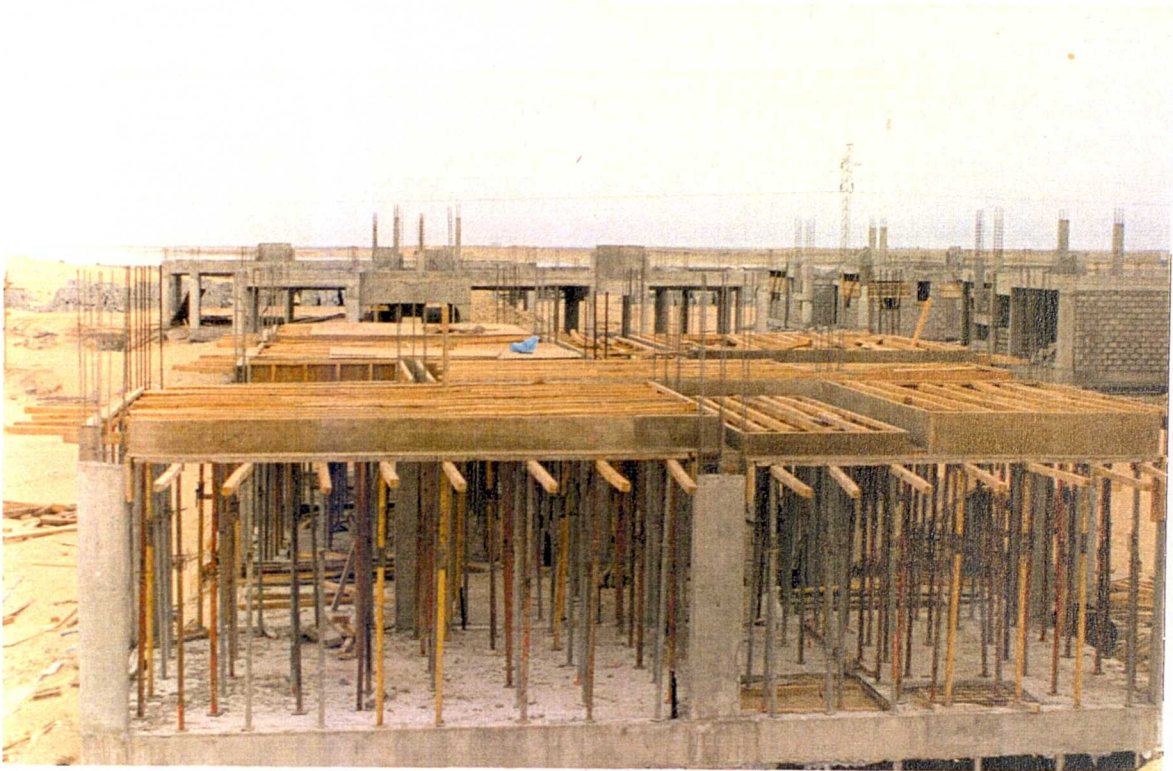


Plate 6.3. The scaffolding work for roof slab of low-cost house under construction

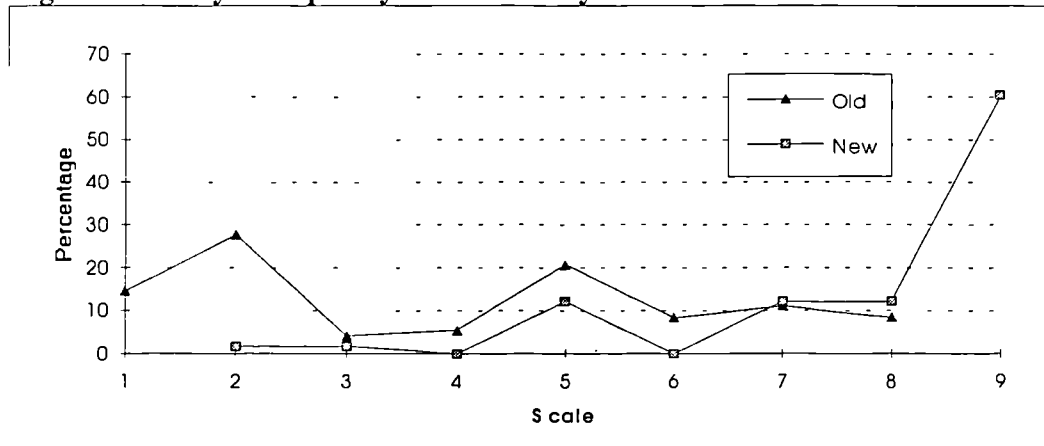


Plates 6.4. The steel work for roof slab of low-cost house under construction

Source: The researcher

The users were asked to assess the physical quality of their house by using a scale of 1 to 9 points, where 1 is low and 9 is high quality. In most cases the researcher observed that the physical quality of the house matched the users' assessments. In some cases the users allowed the researcher to enter the house and observe the level of deterioration taking place on the main structure as can be seen in Plates 6.5 and 6.6.

Figure 6.1. Physical quality assessment by the users



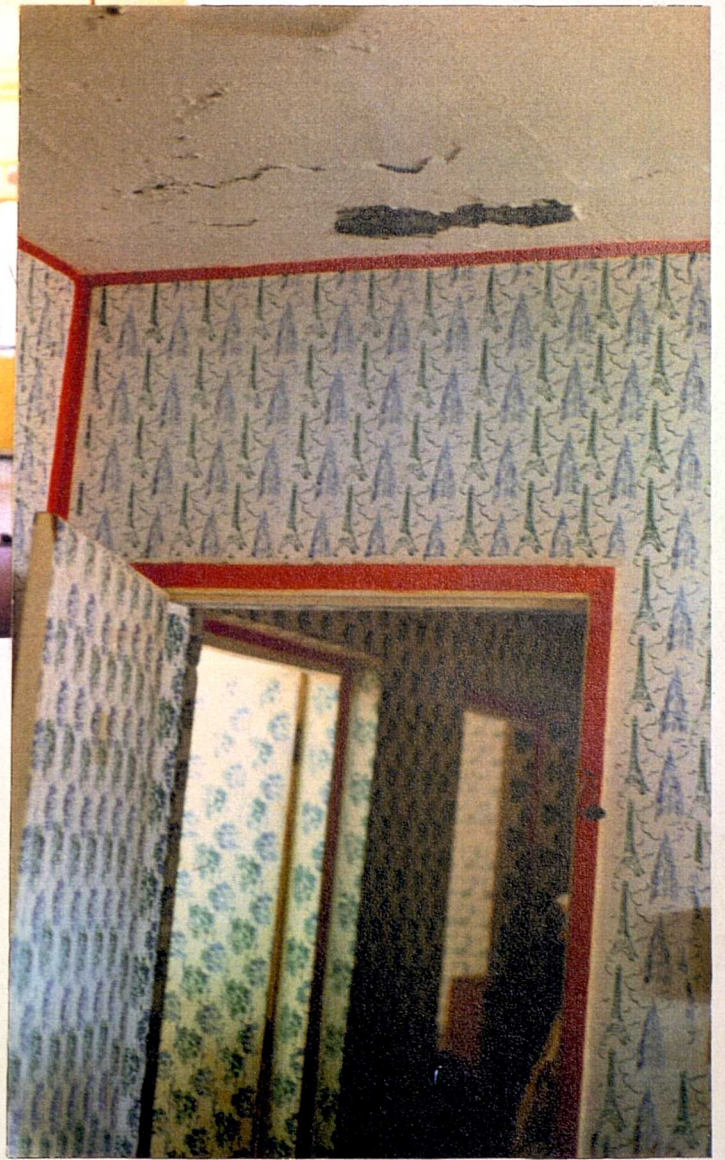
Source: Fieldwork, Dec 1994-April 1195

Figure 6.1 shows that about half of the old house users evaluated their houses as being of low physical quality while the vast majority of new house users, as expected, evaluated their house as being of high physical quality since these houses had been occupied for only one year. The deterioration of the old low-cost houses built 15 to 20 years ago was obvious through cracks in reinforced concrete columns, beams, roof slabs, as well as block works and cement plaster.

6.2.1 IMPLICATION OF THE LOW PHYSICAL QUALITY

The deterioration of the low-cost houses over 15-20 years has very severe implications on the housing conditions of the low-cost house users. The deterioration of the main structure, mainly in the reinforced concrete, has forced many users to abandon some rooms in the house or even abandon the entire house as it is no longer safe to live in. There are no available official figures about the number of users abandoning their old low-cost houses but, as has been discussed in Chapter 4 (Tables 4.8 and 4.9), 36 per cent of original users in the areas of study had done so. Although some of the low-cost houses were rented out, a greater part were totally abandoned due to the potential threat to the safety of the occupiers. The deterioration of low-cost houses is widely reported in the daily newspapers (Al-Khaleej, 3.11.1991; 30.1.1993; 10.12.1995; Al-

Ittihad, 21.11.1984; 27.5.1992). The low-cost users frequently report construction deterioration to the



Plates 6.5. and 6.6. The starting phase of reinforced concrete deterioration.
Source: Field work, Dec 1994-April 1995



Plates 6.7. and 6.8. The deterioration of reinforced concrete slab forced the user of this low-cost house to abandon his house and occupy the extensions built of asbestos.

Source: Field work, Dec 1994-April 1995

Ministry of PW&H offices. The office of the Ministry of PW&H in Ras al Khaimah Emirate, for example, receives reports of about two cases every week according to the Director¹. The users reported deep cracks in reinforced concrete parts as well as small concrete parts falling from the roof slab.

The researcher came across some cases, mainly in the Inland zone, where users had abandoned their low-cost houses and returned to their previous houses. Some users even moved to rented accommodation. One user said

"I'm going to leave my low-cost house and rent another house but my father will not join me, he is going to stay in his old house of palm leaves in the mountain".

The majority of low-cost users in the Wadi Gallella area in Ras al Khaimah Emirate abandoned their houses and built rooms of plywood in the vicinity waiting for the Ministry of PW&H to respond and repair their houses (Al-Khaleej, 15.1.1995). An unpublished report from the Ministry of PW&H to Cabinet Ministers stated that 120 low-cost houses in Ajman Emirate were abandoned by their users as the rain affected the reinforced slab roof². The Ministry saw no point in repairing such houses since the cost of repair could be double the cost of building new low-cost houses at 1980 price, thus the Ministry recommended their demolition and the construction of new houses (Ministry of PW&H, 1980a).

To avoid the threat of falling concrete, some users construct false ceilings made of plywood. Such a response hides the potential threat. In many cases such a response was the main cause of sudden falls of concrete from the roof. One user who experienced such an incident raised the question of who would be responsible if one of his family should die in any future incident (Al-Khaleej, 30.1.1993).

The official reports concerning the physical quality of the low-cost housing coincide with the outcome of field work survey findings and together present a very gloomy picture of the existing stock of low-cost housing in the Northern Emirates. An

¹ Based on an interview with Ministry of PW&H office Director in Ras al Khaimah on 22 January 1995.

² Situated between 22 and 26 degree north, the UAE lies within a sub-region of the northern desert belt characterized by scarce rainfall and high levels of temperature, humidity and sunshine. Most rain falls in the winter months, from November to April. The average annual rainfall recorded between 1966 to 1995 was 117 mm. However, 1971 recorded the lowest annual rainfall for the above period of 15mm while 1995 recorded the highest level of 308mm (Al-Abed, Vine and Vine, 1996; Ministry of Agriculture and Fishing, undefined date)

unpublished report by the Ministry of Planning (1981) showed that all low-cost houses built before 1979 should be replaced since they are no longer appropriate or safe. A recent unpublished survey³ on the maintenance requirements of low-cost houses carried out by the Ministry of PW&H (1992) shows that more than 87 per cent (11,663) of the existing low-cost housing stock are no longer appropriate to live in unless replacement and massive maintenance are undertaken. 16 per cent of the existing low-cost houses needs to be demolished and replaced with new low-cost houses costing a total of Dh0.769 billion (\$0.207 billion). 28 per cent need urgent maintenance which would cost Dh0.489 billion (\$0.132 billion), and 40 per cent needs regular maintenance amounting to Dh0.472 billion (\$0.127billion). The survey estimates the demolition and reconstruction cost per house to be Dh400,000 (\$108,100), Dh150,000 (\$40,500) for urgent maintenance, and Dh100,000 (\$27,000) for regular maintenance.

The total cost of rehabilitating the existing stock of low-cost houses was estimated to be Dh1.73 billion (\$0.467 billion) at 1992 prices. Such amount would build 4,325 low-cost houses at price of Dh400,000 per house. Although this report was submitted to the Cabinet of Ministers in 1992, to date no action has been taken and the estimated cost of Dh 1.73 billion at 1992 prices will, of course, increase with time due to both inflation and ongoing deterioration.

6.3 CAUSES OF THE LOW-COST HOUSING DETERIORATION

Concrete deterioration in the Gulf area is common. The harsh environment of high temperature and high humidity contributes to such deterioration. The ambient temperature causes severe thermal stresses in concrete especially when first cast and increases the rate of water evaporation leading to a reduction in concrete workability and difficulty in compaction (Alamri, 1988). Direct sunshine and wind speed causes also high evaporation of concrete mixture and results in low durability (Zein Al-Abideen, 1994).

The hot climate also increases the presence of service cracks in the concrete structure (Al-Ayyoubi, 1994). Micro-cracks arising from thermal gradients and high temperature levels are identified as the main factors causing the early deterioration of reinforced concrete in the Gulf area (Sharafi, Shahrour and Chetty, 1994). In the UAE cracking problems in reinforced concrete buildings, according to Sabouni (1994), are

³ The survey covered all low-cost houses built before 1992. It does not include the new low-cost houses built from 1992 onwards.

aggravated by the relatively harsh environment especially in coastal areas. Such an environment provides exposure conditions that are favourable for promoting corrosion in the reinforcement of cracked reinforced concrete members.

Moreover, the corrosion of the reinforcing steel is expected to be faster in the UAE environment due to high reaction rates and carbonation as well as high permeability (Alamri, 1988). Reinforced concrete located close to the coast in the Arabian Gulf can be expected to deteriorate at a much faster rate than anticipated by most design codes (Davies and Dector, 1994; Zein Al-Abideen, 1994). Cracks due to corrosion of reinforcement is one of the major problems in many existing reinforced concrete buildings in the UAE (Sabouni, 1994). Concrete in hot climates, therefore, requires special technological measures to reduce the effect of cracking in the first days of casting (Bin-Daham, 1994) such as intensive curing (Alamri, 1988) and adding chemical admixture to reduce water loss (Zein Al-Abideen, 1992a).

In addition, according to Zein Al-Abideen (1988), reinforced concrete structures in the Arab world generally have a shorter life span than in Europe and the United States. This is due to ignorance regarding the application of quality control during manufacture; ignorance regarding early maintenance at the onset of structural deterioration and the application of western building codes without considering local environmental conditions and building industries. Saudi Arabia, according to Zein Al-Abideen (1992), lacks regulations that monitor concrete quality which contributes to low durability concrete. 60 per cent of concrete manufacturers in Saudi Arabia do not produce durable concrete and 38 to 50 per cent do not use water and aggregate that match with specifications (Zein Al-Abideen, 1992a).

Building deterioration in the Gulf area is also due to the use of unskilled labour. According to Abu al Hassan (1986), building deterioration in Kuwait is partly attributed to the use of unskilled labour which gained its experience from working in the country and not through training institutions. Al-Ibrahim (1994) argued that lack of knowledge regarding quality control in building with reinforced concrete among the ordinary people who build their own housing using such construction is part of the cause of building deterioration in the area.

In order to overcome the problem Al-Ibrahim, therefore, recommended that government institutions should educate people who intend to build their own houses using such methods, about the necessary precautions regarding reinforced steel design, actual fabrication and placement. Zein Al-Abideen (1992a) recommends that there

should be courses for engineers and technicians which introduce them to advanced methods of concrete quality control in hot areas. Others, like Sharafi, Shahrour and Chetty (1994) and Strobel and Pedersen (1992), recommend the use of reinforcing steel coated with different types of coating, chemical admixture and corrosion inhibitors which provide adequate life to reinforced concrete structure. Such recommendations to ensure the concrete quality, however, will result in high cost, argues Zein Al-Abideen (1994), and it will be beyond the affordability of individuals wishing to build their own houses using such construction.

An aggressive environment such as the Gulf area, therefore, provides a most severe challenge and test to the engineers, materials scientists and builders to provide a quality of concrete that will ensure stability and long service (Swamy, 1994). In the UAE environment, which is characterised by high temperatures and high humidity⁴ so far it has proved very difficult to produce a reinforced concrete as durable, for example, as that in Europe (Alamri⁵, 1988; 1992). The UAE environment conditions dictate special precautions that need to be taken into consideration in the use of concrete as the main construction material (Sabouni, 1994). In conclusion, Alamri (1992:4) stated that

"we may not be able to solve the problem of concrete deterioration all together, but certainly we should do our best to prolong the design life of these structure to minimise the economical and ecological burden of such a problem"

Low-cost housing deterioration, according to many officials in the Ministry of PW&H, can be attributed to the improper use of concrete, the employment of unqualified staff to inspect the construction site and the use of salty sand and water. Some housing officials blame such deterioration on the desire of certain construction contractors to gain more profit by ignoring the building specifications. All these factors, from the housing officials' point view, have decreased the life of the low-cost houses to less than 15 years (Al-Azmehan Al-Arabayah, 1979b; Al-Khaleej, 14.3.92). An unpublished report by the Ministry of Planning (1981) states that the use of cement-sand block resulted in the short life of low-cost houses and, therefore, most

⁴ The temperature in the summer months ranges from 35 degrees C. to 42 Degrees C., and occasionally tops 49 degrees C. at the height of summer (Al-Abed, Vine and Vine, 1996).

⁵ Dr. Abdulla Alamri is a UAE lecturer on reinforced concrete in the Department of Civil Engineering, UAE University. In meeting with the researcher in March 1996, he said that he built his own house using popular construction since he is not convinced that reinforced concrete construction could last very long in the UAE. environment.

emphasis should be given to the use of reinforced concrete. Thus, technical aspects during the construction process could be behind the deterioration. However, private houses built by individuals do not have the same construction problems, although the same building materials were used and the same construction firms did the work. The deterioration in the low-cost housing is also on a larger scale than even other public buildings.

6.3.1 MAINTENANCE RELATED PROBLEM

Generally the maintenance of public housing is costly and needs regular heavy subsidies from the government (Turner, 1982). In developed countries such as the US and England, some public housing projects have been demolished since management and maintenance had become so uneconomic (Turner, 1976a; Daly, 1988). In many developing countries there is a tendency toward neglecting the maintenance of the existing housing stock (UNCHS, 1987; Moavenzadeh, 1987), although the need for such maintenance is necessary because of the low-quality construction in most low-income settlements and since most residents are on a low-income and cannot afford the maintenance cost themselves (UNCHS, 1996). This is partly related to an over-emphasis on building new construction, mainly by the decision makers who tend to prioritise it (Turner, 1976, UNCHS, 1987). Maintenance neglect is reflected by the modest share of maintenance expenditure in developing countries and the younger age of its facilities. Neglect of maintenance has social and economic consequences since extensive repairs will be more costly and there will be a need for more advanced labour skills (Moavenzadeh, 1987).

The high public cost of maintenance has forced some developing countries to offer tenants generous subsidies in order to encourage them to buy their units (Burns and Ferguson, 1987). The Israeli government housing policy focuses on the sale of the dwellings to the residents in a step to shift the responsibility of maintenance of the dwelling to the residents. However, this step has been less successful since " most of the renters have been reluctant or unable to take care of their housing " (Werczberger, 1990:142).

The low-cost house in the UAE as discussed earlier, is provided free for the right of use only. The user of the low-cost house, according to Federal law No. 9 for 1973, should make every effort to use the house in a proper way and should take care of it. The law does not define specifically what is meant by "should take care of the house", and whether it means general, major or minor repairs. The following discussions

examine whether users repair their houses and discuss the factors which affect the decision to maintain or not maintain the low-cost house.

Table 6.1. Did you maintain your low-cost house?

Maintain	70%	Not maintain	30%
Reinforced concrete structure	56.4%	Do you plan to maintain you house	
Blockwork and plaster	30.7%		
Water proof	30.6%	Yes	13.3%
Painting	49.5%	No	86.7%

Source: Fieldwork, Dec 1994-April 1995

Table 6.1 shows that 70 per cent of the old low-cost users maintained their houses, while 30 per cent did not. More than half of those who maintained their houses repaired the reinforced concrete structure such as roof slab, column, and beam. One third repaired the block works, cement plaster and roof water proofing. This indicates that these parts have most faults in the low-cost houses. Out of those who did not maintain their low-cost house, 86.7 per cent did not have any plan in the foreseeable future to do so.

COST OF MAINTENANCE

Table 6.2. Cost of maintenance by number of time being maintained

Col %	Number of maintenance				
Cost of maintenance	1	2	3	4 and above	Row total
Less than Dh 30,000	100	88	70	54.1	73.5
Dh 30,000 to DH 60,000		12	25	21.6	16.3
Dh 60,000 and above			5	24.3	10.2
Column total	16.3	25.5	20.4	37.8	
Mean of maintenance cost= Dh 20,000 (\$ 5,400)					

Source: Fieldwork survey, Dec 1994-April 1995

The Ministry survey estimated the cost of demolishing and building a new house is Dh 400,000, Dh 150,000 for urgent maintenance per house, and Dh 100,000 for regular maintenance⁶ (Ministry of PW&H, 1992). Table 6.2 shows that the majority of the users (73.5%) spent less than Dh 20,000 on maintenance, raising the question, do users spend less than necessary on maintenance, or has the Ministry of PW&H overestimate the cost of maintenance?

To answer the above question, emphasis should be given to the Ministry of PW&H building specification (1990) regarding reinforced concrete structure maintenance,

⁶The Ministry report did not define how often regular maintenance should be done.

which state that such maintenance should involve the following: on deterioration of the reinforced concrete structure, the surface parts of the concrete should be removed in order to reach the steel bars; the corrosion on the bars should be removed by "sand blasting" or metal brush, and a chemical materials of "zinc resin coating" should be applied, followed by a bonding agent. Curing compounds should then be applied to the bonding agent to ensure the durability of the structure. If either the concrete or a steel bar are found to be in a very deteriorated condition, they should be removed completely and replaced. The above technique makes it clear that both skilled labour and specific building materials are necessary to ensure the durability of reinforced concrete. This, of course, increases the maintenance cost. The mean amount spent by the users on maintenance is (Dh 20,000) which represents 20 per cent of that recommended by Ministry of PW&H (1992) for regular maintenance and 13 per cent for urgent maintenance.

The Ministry of PW&H is fully aware of the actual size and type of maintenance necessary but lacks funding, which has led to the problem simply being ignored. In 1980, Dh 50 millions was allocated for the maintenance of the 4,600 low-cost houses (Dh 10,800 for each house). Such amount was considered by the Ministry as insufficient to carry out the required maintenance. Unpublished report submitted to the Cabinet of Ministers by the Ministry of PW&H (1980b) stated that

"if the Ministry carried out the maintenance of the existing low-cost houses, the allocated of Dh 50 million would not be sufficient to cover the expected cost and more funds would have to be allocated to cover such extensive maintenance"

Therefore, the Ministry recommendation is to allocate a cash grant of Dh 10,000 for each user who should then carry out the required maintenance without the involvement of the Ministry (Ministry of PW&H, 1980c). Moreover, in his address to the Federal National Council, the Minister of PW&H stated that

" the maintenance of the low-cost housing needs both huge funds and specialized construction contractors to carry out the work, both things are beyond the Ministry's budget" (Al-Khaleej, 15.6.1994).

If the maintenance of low-cost housing, which is built of reinforced concrete, requires specialized constructions firms and huge funds which are beyond the Ministry budget,

then why does the Ministry in the first place use such construction in building the low-cost housing?

MAINTENANCE AND QUALITY OF CONSTRUCTION

Table 6.3. Maintenance and user's perception of quality of construction

Col %	Maintain	Not maintain
Low quality (4 and below)	52.4	51.2
Medium (5)	22.8	16.3
High (6 and above)	24.8	32.5
Chi square=1.29	P.value < 0.52235	

Source: Fieldwork, Dec 1994-April 1995

Table 6.3 shows that both houses which have been maintained and those which have not have a similar physical quality. This may be attributed to the fact that the users maintained the reinforced concrete structure according to their limited knowledge and resources. They employed unskilled labour at a low cost to repair the deterioration. Repairs, according to many users, were done by removing the deteriorated parts of reinforced concrete, applying a new concrete mixture and then painting over the repaired parts. This method clearly does not comply with the Ministry of PW&H building specification described above. Concrete repairs using a sand cement mortar with minimal cleaning of the reinforcing steel in many instances lasted less than a year (Davies and Dector, 1994). The inaccurate processes of reinforced concrete maintenance, therefore, result in more deteriorated concrete (Zein Al-Abideen, 1994).

More than 68 per cent of users repeated this process of maintenance as many as 3 times without any improvement in physical quality. Frequent maintenance was considered by some users to be a waste of money;

"If we had known that these low-cost houses would need such regular maintenance we would not have moved in...all our savings have been spent on maintenance with out any improvement.

Another user said;

"If we had built our own house it would have cost us less than spending on such maintenance every time".

Other users even saw no point in maintenance at all, because the physical quality would not be improved, as some users said;

"I don't have a plan to maintain the house because there is no benefit in doing so, the house is already deteriorated".

WHY NOT MAINTAIN LOW-COST HOUSES?

Table 6.1 shows that one third of users did not maintain their low-cost house and the great majority of them have no plans to do so. Why are users not keen to maintain their house? And what is the effect of free housing provision and the tenure condition on the maintenance process and therefore on the housing condition of users.

Factors influencing maintenance of the low-cost houses

A logit regression is used to find out variables affecting low-cost house maintenance. This test is used to discover which variables (independents) influence the maintenance of low-cost houses and which do not. This type of regression is applied when the dependent variable has two values, 1 and 0 (those who maintained the house and those who did not). A set of variables are selected to be used as independent variables such as age, income, area (Coastal or Inland), number of persons in the house, number of bedrooms, time spent in the house, physical quality assessment, and cost of extension.

Table 6.4. Logit regression outcome

Variable	Beta	P
Income	.0004	.0196
Time in the house	.2406	.0250
Age	.0129	.5546
Area	-.4320	.3987
Physical quality	-.0654	.5109
Total bedrooms	-.1673	.2845
Cost of extension	.00001	.7451
Number of persons	-.0523	.3727
Constant	-3.6233	.1874

Number of observations=145

Number of rejected case because of missing value=12

Number of cases included in the analysis=133

The outcome of logit regression shows that the income and the time spent in the house (house age) are the two significant variables determining the decision to maintain the house, as the P-value of the two variables are 0.019 and 0.025 respectively (i.e. both are less than the 0.05). The remaining variables did not prove to be statistically significant in determining the decision to maintain the house.

By applying the same test using only two significant variables, Table 6.5 shows that the time spent in the house (house age) and user income are the most significant variables determining the decision to maintain the low-cost house

Table 6.5. Logit regression outcome

Variable	Beta	P
Time in the house	.2889	.0010
Income	.0003	.0121
Constant	-5.5305	.0012

Number of observations=145

Number of rejected cases because of missing value=10

Number of cases included in the analysis=135

Age of the house

Table 6.6. Maintenance and house age

Col %	15 years and below	16 to 19 years	20 years and above
Maintain	51	64	90
Not maintain	49	36	10
Chi-square=17.27			P.value < 0.00018

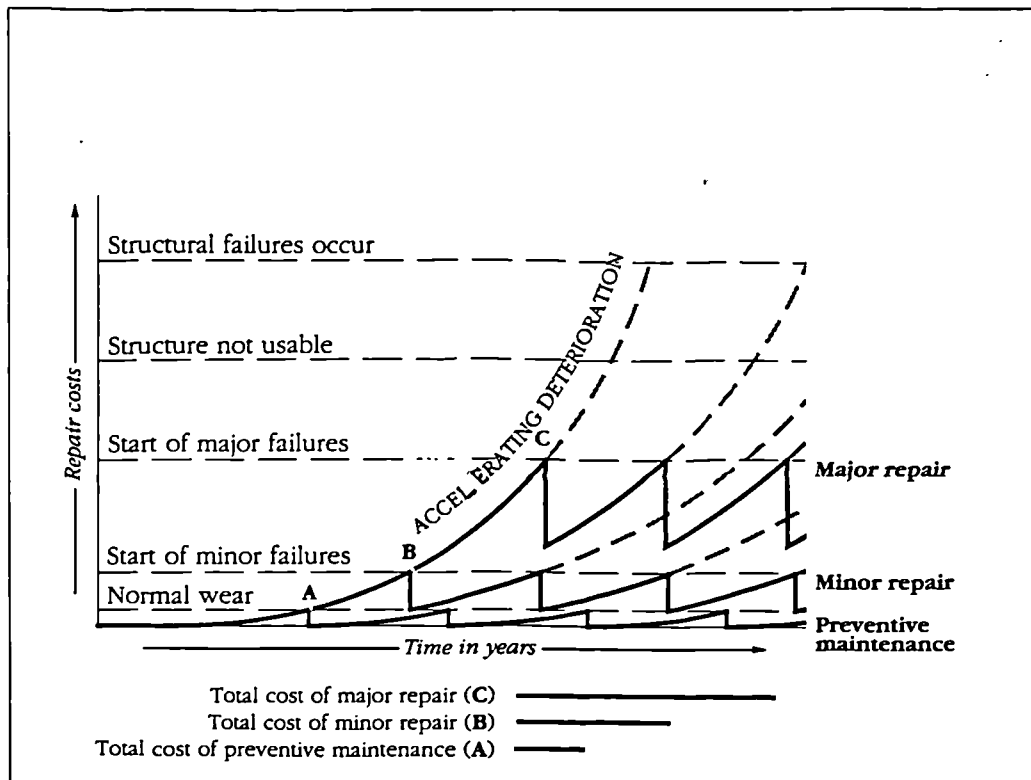
Source: Fieldwork, Dec 1994-April 1995

Table 6.6 shows that the lower the age of the house the lower is the percentage of the houses being maintained. This finding may suggest that users of low-cost house do not begin to look after their houses until they have deteriorated and reached a low physical quality.

Studies by Nutt et al (1976) showed that physical condition of buildings deteriorate with age and, as can be seen from Figure 6.2, failures starts to occur in the building eventually if there are no preventive and minor repairs taking place. The start of major failures requires major repairs at high cost.

Deterioration of low-cost houses is likely to be of the type shown in Figure 6.2. Users generally ignore preventive maintenance and minor repairs until the appearance of major failures in house structure. The presence of cracks in the columns, beams and roof slab, after a long time, may force the user to start maintenance work. Such maintenance may not improve the physical quality of the house since the reinforced concrete began to deteriorate a long time ago. This finding coincides with Table 6.3 which shows no relationship between the structure quality and whether the house is maintained or not.

Figure 6.2. Type of failures, repairs and repair costs



Source: Brand, 1994

Income

Table 6.7. Maintenance and income group

Col %	Low-income	Middle-income	High-income
Maintain	57	76	91
Not maintain	43	24	9
Chi-square=7.36455		P.value < 0.02517	

Source: Fieldwork, Dec 1994-April 1995

Table 6.7 shows a positive relationship between user income and the maintenance of low-cost houses. The lower the income of the user, the lower is the percentage of houses being maintained. Low-income affects the users affordability to maintain their low-cost houses.

6.3.2 BUILDING OR REPAIRING: THE ISSUE OF CONSTRUCTION STANDARD

Table 6.8. Percentage of users who built extensions and done maintenance

	Old low-cost housing	New low-cost housing
Built extensions	94 %	45 %
Done maintenance	70 %	-
Mean cost of extensions	Dh 75,000	83,148
Mean cost of maintenance	Dh 20,000	-

Source: Fieldwork, Dec 1994-April 1995

As can be seen from Table 6.8, 70 per cent of low-cost users maintained their houses while on the other hand the great majority of users built extensions to their houses. The mean cost of maintenance was Dh 20,000 (\$ 5,400) while the mean cost of extensions was Dh 75,000 (\$ 20,200). Table 6.9 shows that the great majority of extensions were built of popular construction. The users spent more than three times as much on building popular construction extensions as on maintaining the existing low-cost house built of reinforced concrete.

Table 6.9. Type of construction used for extensions

Percent	Old low-cost housing	New low-cost housing
Popular construction	81	77
Reinforced concrete construction	9	4
Asbestos	10	19

Source: Fieldwork, Dec 1994-April 1995

Table 6.10 shows that overwhelming majority of users from different income groups have built extensions to their low-cost houses. No great difference is found between the percentage of extensions among the three income groups. However, findings indicate that users from different income group built high proportion of bedrooms, kitchens and bath/toilet rooms

Table 6.10. Percentage of extensions by income groups

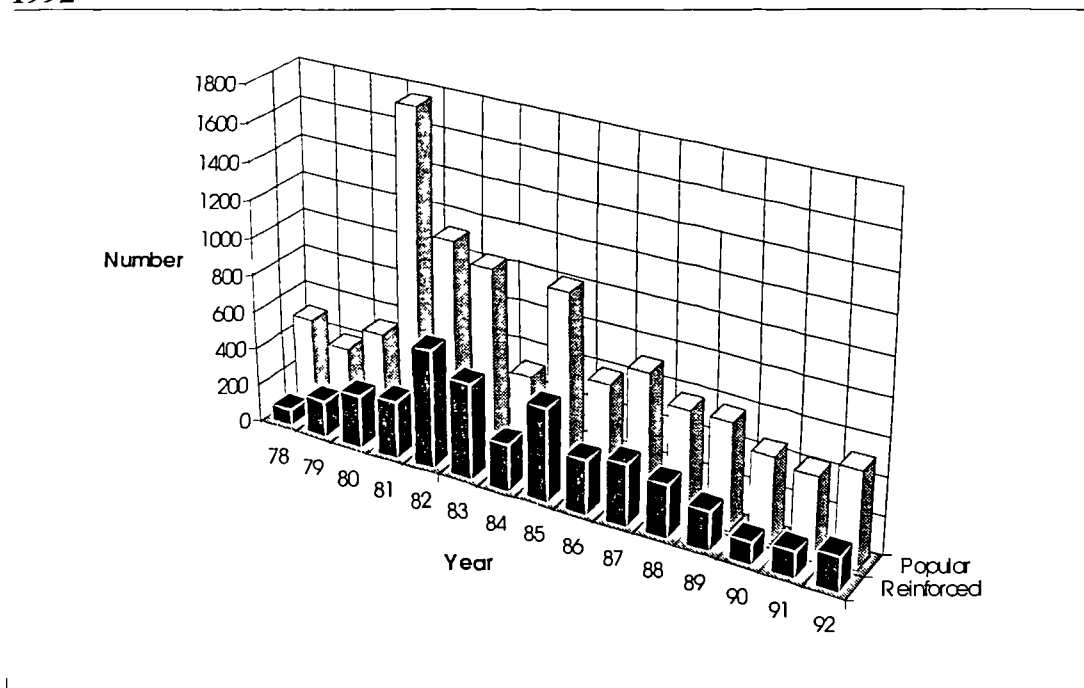
Per cent	Low-income group	Middle-income group	High income group
Built extensions	96	91	100
1-2 bedrooms	54	41	63
3 and above	18	36	9
1 majlis	26	23	72
1 kitchen	64	60	100
2 kitchens	14	15	-
1-2 bath/toilet rooms	56	54	45
3 and above	6	18	27
Servant room	34	27	27

Source: Fieldwork, Dec 1994-April 1995

The preference for spending on extensions rather than repairing the existing house can be linked partly to the type of construction used in extensions. The popular construction is a common type of construction in the Northern Emirates. As the discussion in Chapter 5 showed, a great majority of users who were owner-occupiers were staying in Arabic houses built of popular construction. The discussion also showed that this type of house represents a high proportion of the housing stock in the Northern Emirates.

Popular construction involves simply load bearing walls of cement-sand block, a roof of wooden joist (2"x3") covered with plywood, water proofing and cement-sand mortar (see Plates 6.9 and 6.10). The wide spread of reinforced concrete in the country resulted in using such building materials in popular construction by early 1970s. Reinforced concrete tie beams, columns, beams were used to strengthen this type of construction as can be seen in Plates 6.11, 6.12, 6.13 and 6.14.

Figure 6.3. Building permission for private houses by type of construction, 1982-1992



Source: Ministry of Planning, 1981b; Ras al Khaimah Municipality, 1993.

Figure 6.3 shows the number of building permissions granted for private houses by Ras al Khaimah Municipality between 1981 to 1992. During this period building permissions granted for popular construction were 2.4 times greater than those for reinforced construction. Such widespread use of popular construction in building private houses and building extensions may be attributed to its low cost compared to

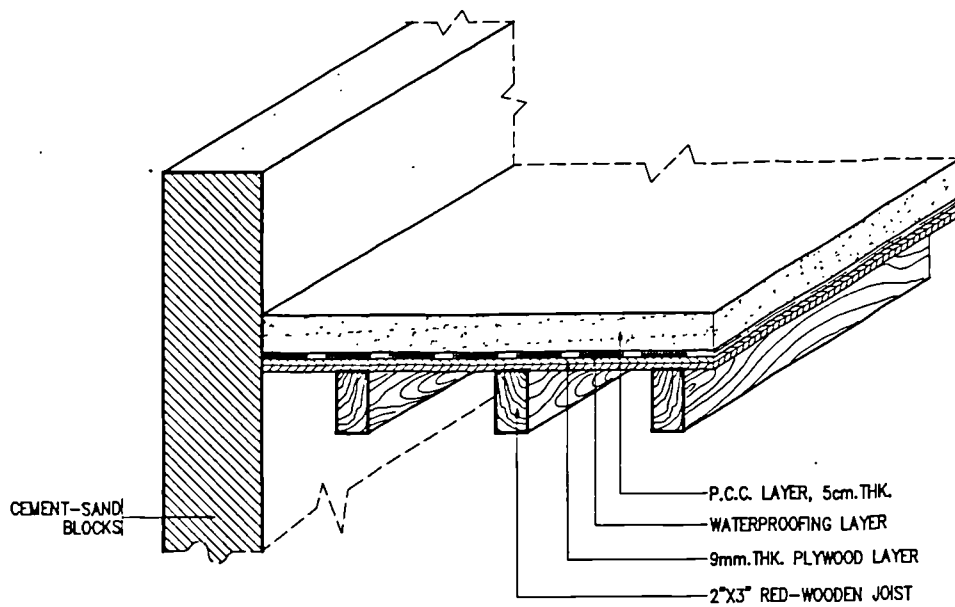
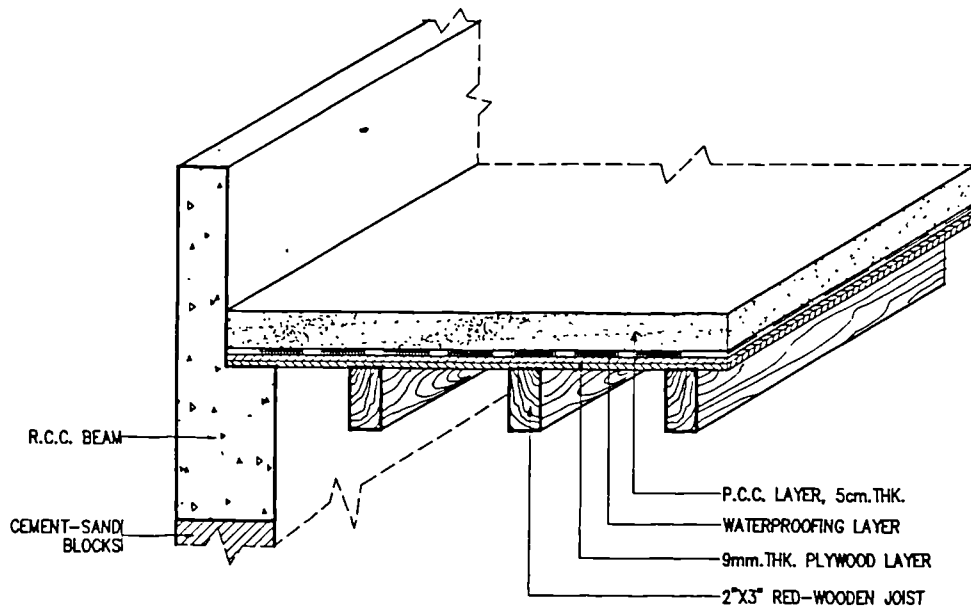


Plate 6.9. Popular construction detail



Plates 6.10. The use of reinforced construction in popular construction

Source: Field work, Dec 1994-April 1995

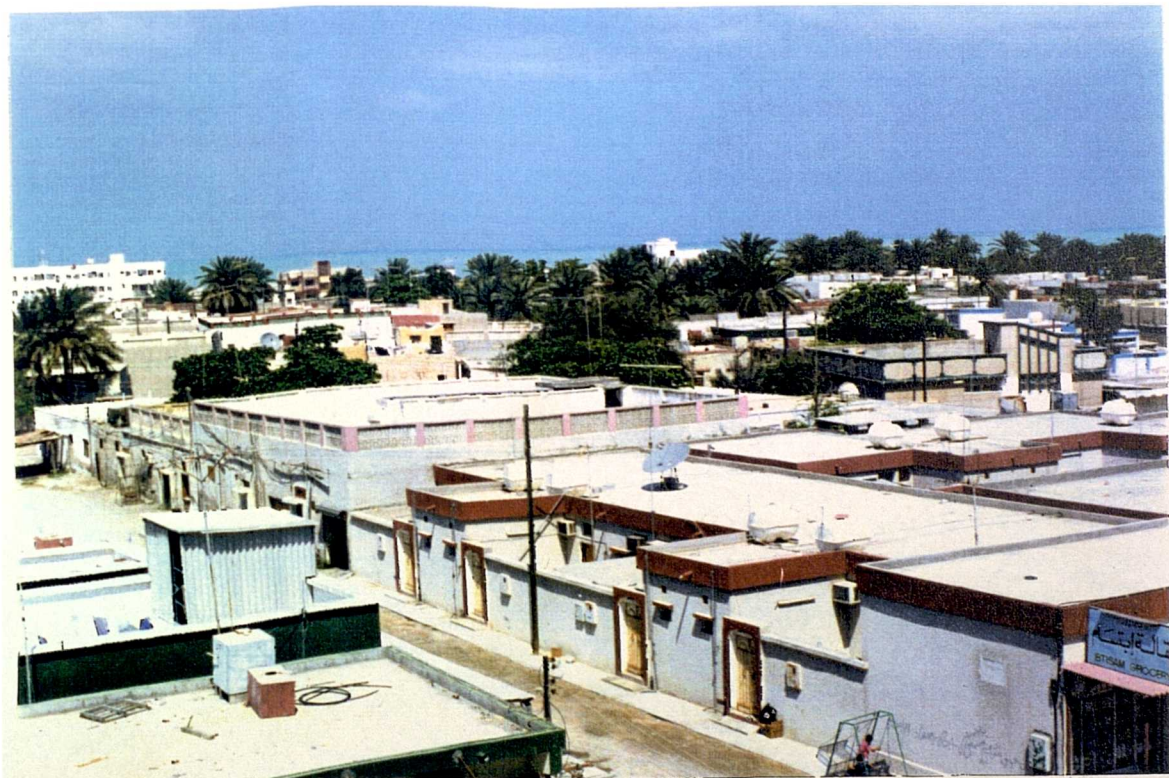


Plates 6.11. and 6.12. Private house built of popular construction

Source: Field work, Dec 1994-April 1995



Plate 6.13. Private house built of popular construction during construction phase



Plates 6.14. A bove house after occupation

Source: The researcher

the reinforced construction. The cost of reinforced concrete per square metre is 1.5 times of the popular structure (Jakkah, 1992). In addition, such construction does not need skilled labour, workshop drawings or qualified engineers to supervise the construction work. The local municipality generally provide ready made designs for those who wish to build using such methods. People generally hire local construction firms or labour gangs for the building process and they supervise the construction work themselves since most individuals have enough knowledge to supervise popular construction. Local regulations do not impose any conditions on contracts working in popular construction which reduce the overhead costs of such contracts and thus reduce the total cost of the building.

In contrast, the reinforced structure requires workshop drawings, produced by private engineering consultants, and qualified engineers to supervise the construction work. Private engineering consultants usually charge clients 2 per cent of the total construction cost for preparing designs and workshop drawing and 2 per cent for construction supervision. Contractors working in reinforced construction have also to comply with certain conditions such as employing qualified civil engineers or architects, having a bank guarantee and the use of certain construction equipment (Ras al Khaimah Government, 1981). Such conditions on contracts contribute to increasing the overhead cost of those firms and, therefore, increase the price of the building.

The preference for spending on building rather than on repairs can also be linked to the availability of large numbers of construction firms for new building and scarcity of building firms for maintenance particularly for reinforced concrete repair. In the Gulf area there is a general tendency, as in many other developing countries, towards building new construction and neglecting the maintenance of existing buildings. In Saudi Arabia, for example, the Real Estate Development Fund provides interest free housing loans for new construction and gives no consideration for rehabilitation of the existing housing stock (Alghamdi, 1993; Alrahman, 1994). In Kuwait, according to Abu al Hassan (1986) the government did not regularly repair government buildings. The Federal government in the UAE, since the 1971, has built more than Dh 9.5 billion worth of government buildings, however no regular maintenance was done until the end of the 1980s. Only in 1988 did the Federal government establish a maintenance department to take the responsibility of repair and rehabilitation of Federal government public building (Al-Khaleej, 1.8.1992; Sultan, 1993a).

The tendency to concentrate on new constructions is reflected in the private sector and the availability of specialised maintenance firms. The majority of construction firms in the country have concentrated on new construction projects and only a few are involved in maintenance and repair projects. According to Al-Khaleej (11.9.1992), the building industry in the UAE lacks specialised maintenance firms although there is growing demand for them. Local expertise in the diagnosis and repair of reinforced concrete building is scarce (Sabouni, 1994). As can be seen from Table 6.11, out of 609 construction firms in the Northern Emirates only 26 (0.04%) are qualified by the Ministry of PW&H to carry out maintenance work, particularly on reinforced concrete. Thus the general environment of the construction industry encourages people to prefer new construction projects rather than to repair existing buildings.

Table 6.11. Construction firms and maintenance firms approved by the Ministry of PW&H in the Northern Emirates

	Ras al Khaimah	Ajman	Fujairah	Um al Qaiwain
Construction firms	394	59	93	63
Maintenance firms	19	3	3	1

Source: Ras al Khaimah Commercial Directory 1996-1997; Commercial Directory of Umm al Qaiwain 1994-1995; Fujairah Commercial Directory 1995; Ajman Commercial Directory 1991-1992; Ministry of PW&H, 1996.

In addition, the preference to build by popular construction may also be attributed to the low-cost of maintaining such constructions. Users were asked whether they thought they could afford to maintain their house. Table 6.12 and 6.13 show that the vast majority of them regarded popular construction to be within their affordability to maintain. In contrast, only a minority regarded the reinforced construction to be within their affordability to maintain.

Table 6.12. Could you afford to maintain your house if it is built of reinforced concrete construction?

Per cent	Old houses	New houses
Yes	15	17
No	77	81
I don't know	8	2

Source: Fieldwork, Dec 1994-April 1995

Table 6.13. Could you afford to maintain your house if it is built of popular construction?

Percent	Old houses	New houses
Yes	75	83
No	16	15
I don't know	9	2

Source: Fieldwork, Dec 1994-April 1995

These findings can probably be attributed to the low-cost and ease of maintaining popular constructions. The presence of any decay in timber joists can be easily identified and replaced without affecting the whole structure. When the whole or part of the roof needs to be replaced the remaining structure, i.e. the walls, column and beam, are not affected as is the case with reinforced concrete. On the other hand, as we have seen, reinforced concrete structure repair involves more complicated methods. Some users believe that maintaining a new two storey low-cost house is far beyond their affordability, as one user said;

"How can I maintain a two storey house built of reinforced concrete ... I could hardly furnish the house... the furniture forced me to sell my previous house and some of my neighbours to sell their cars".

Other users raise the concern that the new houses may deteriorate the same way as the old ones if the Ministry of PW&H does not intervene and maintain them, as one user said;

"This is a large house, how can I maintain it without the help of the Ministry?".

Other users feel that the new low-cost houses are built in a very complicated way which is not familiar to them. There are also some who know nothing about reinforced concrete construction, as one user said;

" We used to live in popular construction, we have known that system for a long time .. but the matter is totally different for concrete...which is a mix of sand, water and steel. How can we be sure that we are safe under such a roof?"

For some users of new low-cost houses, a large house built of reinforced concrete is not only beyond their affordability to maintain, but it is also even beyond their affordability to remain living there, as some users said;

" How can I maintain this two storey house.. After I moved to this house I could not even afford to pay the electricity and water bill, mainly in summer time, which is now much higher than my previous house. Before I had three bedrooms with three air-conditioners and three bath/toilet rooms but now the house has 4 bedrooms and 5 bath/toilet rooms. It is very costly to live in this house how can I afford to maintain such a house ?"

Another said;

" Moving to this house has affected our way of life, we have to spend more in order to live in this house, it is beyond the way of life we used to live....how can we maintain the house?"

In conclusion, users spent more on building extra rooms through popular construction. From the users point of view, it could be assumed that building rooms of popular construction which will last for a long time is not considered a waste of money compared to repairing the reinforced concrete. Spending an amount to maintain parts of reinforced structure for some users can not be compared with spending the same amount or more and producing an extra room or rooms through popular construction. The users spent an average of Dh 20,000 (\$5,400) to maintain the existing house built of reinforced concrete of 2 bedrooms, 1 majles, 1 kitchen, and 2 bath/toilet rooms. On the other hand, they spent an average of Dh 75,000 (\$20,200) on building extensions in popular construction and asbestos, which produced 2.6 bedrooms, 0.3 majles, 0.9 kitchen, 1.3 bath/toilet rooms, and 0.38 servants room per house. So the cost of maintenance of a high standard construction can be similar to the cost of building new rooms of a lower standard. The trade off between the two options means the user will definitely go for extra rooms, as the above findings show.

Table 6.14. Number of rooms and cost in popular construction

	Dh 75,000	Dh 150,000
Bedroom	2.6	5.2
Kitchen	0.9	1.8
Majles	0.3	0.6
Servant room	0.4	0.8
Bath/toilet room	1.3	2.6

Source: Fieldwork, Dec 1994-April 1995

Table 6.14 shows the mean number of bedrooms, kitchens, majles, servant rooms, and bath/toilet rooms per low-cost house built of popular construction and produced with a mean cost of Dh 75,000. Doubling this value, which is equal to the estimated urgent maintenance cost for a low-cost house (according the Ministry estimation the maintenance of one low-cost house is Dh 150,000) could presumably produce 5.2 bedrooms, 0.6 majles, 1.8 kitchen, 2.6 bath/toilet rooms, 0.8 servant rooms if the house is built of popular construction. Therefore, more funds have been directed to building in popular construction than towards maintaining existing reinforced concrete structures.

6.3.3 USER-OCCUPIER OR OWNER-OCCUPIER: THE ISSUE OF TENURE

Federal law No.9 for 1973 coordinates the relationship between the individuals allocated low-cost houses and the Ministry of PW&H which build such houses. Article 13 states that a user or a "beneficiary" of a low-cost house has no authority or power to sell, let out, exchange or grant the house and the user should make every effort to use the house in a proper way and should take good care of it. Article 17 states that the user is forbidden to carry out any major alterations which may change the interior or exterior design of the house without the permission of both the Housing Minister and the Low-cost Housing Beneficiary Committee. When the low-cost house users have spent 10 years as beneficiaries, they can apply for ownership (Ministry of PW&H, 1987). The new draft housing law may reduce the required time as a beneficiary from 10 to 5 years (Al-Khaleej, 13.3.1995).

The law gives households the right to use and benefit from the low-cost house but they have no right of ownership. They are tenants for an unlimited time and free of charge. They do, however, have the right to build extensions. Article 15 states that the Ministry has a right to repossess the low-cost house in the case of misuse and the Ministry should pay compensation for any extensions built in the low-cost house by the user.

In 1980 the government granted ownership rights for the first time to the low-cost users. This ownership is conditional; the user has no right to sell or let out the house. The title of ownership is only related to the house and not to the land which remains government property (Ministry of PW&H, 1980d).

Those who were given ownership still only have the right to use the house and not the right to sell or rent it out. Thus, it has no resale value for them. This situation raises the issue of whether maintenance responsibility belongs to the Ministry of PW&H or the user.

WHOSE RESPONSIBILITY?

A. MINISTRY OF PW&H

Since the Ministry of PW&H started building the low-cost houses in 1972, no clear cut legislation has been made stating who should be responsible for low-cost housing maintenance. In 1979 the Cabinet Ministers allocated Dh 50 million (\$ 13.5 billion)

to maintenance (Ministry of PW&H, 1980b). This step came after 7 years of building the low-cost houses and as a direct response to users' complaining of their rapid deterioration. The Cabinet of Ministers commissioned the Ministry of PW&H to set up the executive process of low-cost housing maintenance. Therefore, the Ministry recommendation was to allocate a free cash of Dh 10,000 for each user who should carry out the required maintenance without the involvement of the Ministry. By the end of 1980 only 1,372 users had received the maintenance grant. An unpublished report submitted to the National Assembly by the Ministry of PW&H (1981) stated that the insufficiency of funds meant that the Ministry was unable to carry on the distribution of maintenance grants to the remaining low-cost users.

Since then, the Ministry of PW&H has withdrawn its responsibility for low-cost maintenance and made it the user's responsibility, as the Minister of PW&H stated:

" we are very proud in the UAE that we are the only government in the world providing free houses for our people...but regarding maintenance, there is no law enforcing the government to bear such responsibility, it is entirely the responsibility of the users...the Emirates people should not have the spirit of total dependency on the government they should depend on themselves " (Al-Shuruq, 1995).

The lack of funds make such a process impossible for the Ministry. Therefore, the user must take on the responsibility. The Ministry has thrown the ball of maintenance responsibility into the user's court.

B. THE USERS

Table 6.15. Perceived maintenance responsibility, the users

Per cent	Old low-cost house users	New low-cost house users
The owner	19	19
The Ministry of PW&H	73	67
The user and the Ministry	6	2
Others (local authorities)	2	3
I don't know	0	9

Source: Fieldwork, Dec 1994 to April 1995

The users of low-cost houses were asked who they believed should be responsible for maintaining their low-cost houses. Table 6.15 shows that the vast majority of the users in both the old and new low-cost houses place stress on the role of the Ministry

of PW&H in taking the maintenance responsibility. The right of ownership is the underlying cause of the users' response to the above question.

Many users deny their responsibility of maintenance because they are only users and not owners, as some users said:

" If we were the owners of these houses we would be responsible for maintenance, but while the Government owns the house, it is their responsibility ".

Other users said:

" the government did not give us full freedom with the houses, to sell or to rent, so definitely we are not going to take such good care of it and therefore the houses will deteriorate ".

Some users did not even start to maintain their low-cost house until they got the certificate of ownership from the Ministry of PW&H after 10 years. Others ignored maintenance because they presume that the government will provide them with a new house. Some users justified their attitude to maintenance by saying that they were not sure whether the government would give them the right of ownership after 10 years, some users said:

" Why should we repair a house which belongs to the government...we may not even get given the house and therefore we may lose our money for maintaining the house".

Some users of the old low-cost houses have raised the issue of land ownership. Some have applied for building permission from the local authority to demolish the old low-cost house and build a new house. The local authority, however, rejected their applications because the land is government property and they have no right in law to build on it⁷. The users who built extensions to their houses needed to remove the deteriorated low-cost house and improve their housing conditions by building a new house or additional rooms but even so they are still not the owners, they are only users from the government's point view. The researcher came across some cases where users had spent more than Dh 100,000 (\$ 27,000) on building additional rooms to their

⁷ The researcher came across one case where the user demolished his low-cost house and built a new house. This user may have got an exception from the local authority to do this.

house and they intended to demolish the deteriorated low-cost house in order to build a new house but the local authority rejected their applications. One of those users said:

" The house cost the government Dh 40,000 and I have spent more than Dh 100,000 on the house for extensions and maintenance and still the house is considered government property".

Some users who abandoned their low-cost houses justified their action as a result of the local authority's refusal to demolish their low-cost houses. Others see no point in building extensions or maintaining the house when they cannot sell the house later on. Therefore many users abandoned their low-cost houses to build on land they own. For some users, staying in a low-cost house is a transitional phase until they can save and later build their own house.

The preceding discussions show that the standard of construction and the tenure conditions of the low-cost housing seriously affect the users' housing conditions. The government provides low-cost housing for the target group with a right of use only. The low-cost house user is a tenant free of charge and for an unlimited time. The rationale of enforced tenure conditions, according to the Minister of PW&H, is to ensure that the houses will only be used for residence and not misused to gain benefit by selling or renting out (Al-Khaleej, 15.6.1994). The user, therefore, does not feel responsible for the maintenance of his low-cost house, considering it to be the government's responsibility since it is the government's property.

The tenure condition hinders some users from investing in improvement to the low-cost house, although they have right of use of the house for ever. The discussion in Chapter 2 showed that security of tenure leads to higher rates of investment in housing improvements, whereas users of low-cost housing invest more in building extensions than in repairs to the original government provision. Insecure tenure, as is currently the case with low-cost housing, leads to reduction of housing quality since people do not invest in improving the original housing provision.

The issue is that the government allocates low-cost houses to those who are supposedly from a low-income group (although findings shows that other income groups also gain access) and then requires them to take on the maintenance responsibility, although such maintenance requires specialised construction firms and a subsequently high cost. This appears to be an unfair and illogical stance to take

considering reinforced concrete deteriorates faster in the UAE environment, needs specialised construction firms and qualified labour to undertake the maintenance correctly and there is a scarcity of such specialised maintenance firms in the UAE. The Ministry thus provides a house of high standard on the condition of use only for low-income households (who are considered unable to afford to build their own house) and then expects them to bear the maintenance responsibility which the Ministry itself cannot afford !

Reinforced concrete construction requires certain expertise and skill in design, supervision and construction. The repair of such construction requires also particular technology and a specialised labour force. Thus, in order to ensure the physical quality of the reinforced construction is maintained, more funds must be allocated to meet these requirements. However, the government is currently withdrawing itself from maintenance responsibility, while users, mainly from the low-income group, can not afford to maintain such construction. This situation, consequently, contributes to more deterioration in the physical quality of the low-cost housing. According to Turner (1990) a technology that makes people dependent on large organizations is not appropriate for housing. Therefore, it can be argued that the use of reinforced concrete is not appropriate for those from a low-income group, since its repair requires advanced technology and thus a high cost. However, there is nothing to prevent the government from using reinforced concrete in building low-cost housing if it provides sufficient and regular funds for maintenance requirements.

6.4 MOVE OR STAY IN THE HOUSE

Low-cost housing is provided free, users have no financial obligation towards the government and, as discussed earlier, the majority of old low-cost houses are of a low physical quality which indicates that they are no longer appropriate to live in. So do users intend to stay in these houses for the foreseeable future? Or do they intend to move out? The users were asked this question: how long would you like to stay in this house?

Table 6.16. How long would you like to stay in this house?

Per cent	Old houses	New houses
For ever	25.5	88
Until I can build another house	59.3	0
I don't know	15.2	12

Source: Fieldwork, Dec 1994 to April 1995

As expected, the majority (88%) of new low-cost house users are planning to stay for ever, while on the other hand about two thirds of old low-cost house users intend to move out once they can afford to build their own houses. The new low-cost house users have been in residence for about one year and the houses are still in good physical condition which they consider will last forever. The case was similar for the users of the old houses when they moved in years ago. In the seventies the old low-cost houses were considered " a house forever " since most users had been staying in houses considered sub-standard compared to the quality of the low-cost house. Many users in the seventies did not expect to live even in a modern house (villa) after years of living in Arabic houses of mud and date-palm leaves. The high quality house of 20 years ago has now become a low-quality construction and the majority of users who still live in them intend to move out as many have already done.

The logit regression has been applied to identify which variables affect the intention to move out or to stay in the old low-cost house. Table 6.17 shows that time spent in the house, physical quality and users income all determine the decision to stay or move out, as the P-value of the three variables are 0.012, 0.015 and 0.058 respectively.

Table 6.17. Logit regression outcome.

Variable	Beta	P
Physical quality	.2898	.0155
User income	.0003	.0581
Time spent in the house	.2841	.0121
Number of persons	.0498	.4624
Age of the user	-.0486	.1126
Total number of bedrooms	-.0565	.7322
Constant	4.6888	.1234

Number of observations=145

Number of rejected cases because of missing value=32

Number of cases included in the analysis=113

By applying the same test using only three significant variables, Table 6.18 shows that user income and age of the house are the most significant variables affecting the decision to stay or move out.

Table 6.18. Logit regression outcome

Variable	Beta	P
User income	.0006	.0003
Time spent in the house	.2532	.0139
Construction quality	.2576	.0197
Constant	7.3062	.0011

Number of observations=145

Number of rejected cases because of missing value=30

Number of cases included in the analysis=115

6.4.1 INCOME AND INTENTION TO MOVE OUT OR STAY

Table 6.19. Intention to stay or move by income groups

Col %	Low-income	Middle-income	High-income
Move	57.5	77.3	100
Stay	42.5	22.7	0
Chi-square=9.47		P.value < 0.00878	

Source: Fieldwork, Dec 1994-April 1995

Table 6.19 shows that the higher the income the greater is the intention to move out. A high income encourages users to leave the low-cost house and build their own. Although the findings showed that 57.2% of the low-income group intend to move out, the remaining group will remain which suggests that about half of the low-income users have no other alternative than to stay and wait for government intervention whether it be maintenance of an existing house or provision of new low-cost houses. The intention to stay in the low-cost house may suggest that this group of users are the lowest income group. Even though their low-cost houses are in a low physical quality they do not have any option open to them other than staying .

6.4.2 AGE OF THE LOW-COST HOUSE AND INTENTION TO MOVE OUT OR STAY

Table 6.20. Intention to stay or move by years spent in the house

Col %	15 years and below	16 to 19	20 years and above
Move	70.8	48.8	85.2
Stay	29.2	51.2	14.8
Chi-square=14.92		P.value < 0.00057	

Source: Fieldwork, Dec 1994-April 1995

Table 6.20 shows that the older the house the greater is the intention to move out. This can be attributed to the link between the physical quality and the age of the house, as the older houses are in a worse physical condition.

Table 6.21. Maintenance by intention to move or stay

Col Pct	Move	Stay
Maintain	77.9	52.8
Not maintain	22.1	47.2
Chi-square=7.70402		P.value < 0.00551

Source: Fieldwork, Dec 1994-April 1995

Table 6.21 shows that 47.2 per cent of those who intend to stay did not maintain their houses. This group of users could not afford to maintain their low-cost houses and even have no intention to move out owing to their limited income. This group of users, therefore, are forced to remain in low-cost houses in bad physical condition until the government intervenes to either provide them with new low-cost houses or to provide maintenance. When the researcher raised the question of how long they would like to stay in their houses, the response from the majority of those who intend to stay was:

*" where shall we go?...we have no other place to stay
in...only the government can help us".*

Therefore, this group of low-cost housing users, who are from the low-income group, have to stay in a badly deteriorated house or in the extensions they have built until the government intervenes.

The earlier findings in Chapter 5 showed that some old low-cost house users were allocated new low-cost houses. The low physical quality of the old low-cost house is the main criterion for being allocated a new low-cost house for the second time (Al-Khaleej, 30.11.1995). Although there are no available official figures of the number of users who have been allocated two low-cost houses (old and new), indications show that there have only been a few. The remedy for deterioration, from the point of view of the Ministry of PW&H, is to provide new houses constructed in exactly the same way and which will, therefore, be subject to exactly the same type of deterioration after a certain number of years.

Table 6.22. Total spending by intention to move or stay

Col %	Intention to move or stay		
	Move	Stay	Total row
Total spending			
Less than Dh 75,000	43	84	55.3
Dh 75,000 to 150,000	43	16	35
Dh 150,000 and above	14	0	9.7
Chi-square=18.255	P.value < 0.00011		

Source: Fieldwork, Dec 1994-April 1995

Table 6.22 shows that those who spent more on extensions, alterations, and maintenance are more inclined to move out, while those who spend less intend to stay. This can be clearly linked to income, as the majority of those who intend to stay are from the low-income group. Those who spend more are from the middle and high income group and, therefore, have the ability to spend more on building their own houses. The total spending is Dh 14,413,200 (\$ 3,895,460) or an average of Dh 99,400 (\$ 26,860) per house. Those who intend to move out spent Dh 11,936,200 which represents 82 per cent of total spending. Such spending was directed from the user's own savings in order to improve their housing conditions by building additional rooms, alterations and maintenance. Having such a high majority of users with the intention to move out suggests that the existing resources of the users have not been properly exploited.

The above discussions show that the majority of users of the old low-cost houses intend to move out once they can afford to build their own houses. This intention to move out can also be linked with the absence of any financial obligation from the users toward the government, since the houses are provided free of charge. The majority of those users are from the middle and high income group which again raises questions regarding the allocation of low-cost houses to such groups.

6.5 SUMMARY

This chapter has examined the implication of the standard of construction and tenure conditions on the housing conditions of low-cost housing users. It has been found that the great majority of low-cost houses built prior to 1990 are in low-physical quality and are no longer appropriate to live in unless massive maintenance at a cost of Dh1.73 billion (\$0.467 billion) takes place. The deterioration of low-cost houses can be largely attributed to maintenance ignorance. Users, mainly those of Dh 4,000 income and below, gave no attention to the maintenance. The government, on the other side, due to lack of funds, requires users to take on the responsibility.

It was also found that users spend three times as much on building extensions using popular construction than on repairing existing low-cost housing built of reinforced concrete. Such high spending on building rather than on repairing can be attributed to the type of construction used in extensions and the availability of large numbers of construction firms for new building and scarcity of maintenance firms with expertise regarding reinforced concrete repair. In addition, the repair of reinforced concrete structure required high expenditure and specialized labour which neither users nor the government can afford.

This chapter has also found that tenure condition has affected the physical quality of the low-cost houses since users do not invest in repairing such houses due to perceived insecurity of tenure. The free low-cost houses, of high construction of standard and the tenure condition of use only, become deteriorated by time and thus become unsafe to live in. Consequently a high percentage of users have the intention to move out of the low-cost house once they have the financial ability to build their own house

The standard of construction raises a question regarding the future of the new low-cost houses which were built to an even higher standard than the old ones. The old low-cost house were single storey of a build-up area of 120 square metres, while the new low-cost houses are two storeys of 340 square metres. If the same conditions affecting the deterioration of the old low-cost houses also apply to the new houses, they will deteriorate within the same period. Based on Table 6.5 which shows that half of the low-income group did not maintain their houses, one can predict that the same proportion of the new low-cost house users will not maintain their houses and consequently these houses will inevitably become part of the deteriorated housing stock. The stock of new houses can be expected to need major maintenance after 10 to 15 years at a cost neither the users nor the Ministry of PW&H can afford.

The Ministry of PW&H has improved the standard of new low-cost houses, as discussed in Chapter 3, by increasing the number of bedrooms, size of rooms, the architectural design of the facade, and the use of high quality building materials. Such improvements are thought to be important in order to improve the housing conditions of the target group. But do they actually achieve their aim and encourage the new users to stay in the house for a longer time than the old users did?

The findings of this chapter show that the intention to move out of the old low-cost houses has no connection with problems of occupancy rate or number of rooms but

instead is linked with low physical quality of the building which is directly linked with the type of construction used, type of tenure and maintenance related-problems. These factors still exist and can, therefore, be expected to affect the new houses in exactly the same way as they affected the old ones. In fact, they might affect the new houses even more since the built-up area is higher than for the old ones. Therefore, the intention to move out of the old low-cost houses can also be assumed to apply on the new improved low-cost houses if the free grant, conditions of tenure, the use of same standard of construction, and undefined maintenance responsibility all remain unchanged. The findings in this chapter have shown that the current low-cost housing is unsustainable, and has only a limited life and consequently can be considered a waste of resources for both the state and the users.

CHAPTER SEVEN
HOUSING PREFERENCES

CHAPTER SEVEN

HOUSING PREFERENCES

7.0 INTRODUCTION

The UAE government provides free low-cost housing of 340 square metres built up area, at a construction cost of Dh 400,000 (\$108,100) and built of reinforced concrete for the right of use only. The government's assumption is that the target group needs such provision as it cannot afford to build its own housing without government intervention. The main aim of this chapter is to examine whether or not the current programme is well-matched to the housing preferences of the target group. The discussion will also extend to study the rationale behind such match or mismatch between what is provided by the low-cost housing programme and the target group's housing preferences. This chapter also aims to answer the following questions:

1. What is the cost of the type of house the target group prefer and can they afford this cost?
2. Can the target group afford to build their own houses with or without the government's intervention?

This chapter attempts to assess the housing preferences of the target group by examining the following questions:

1. What does the target group feel they need the government to provide?
2. Why does the target group apply for low-cost housing? Is it desperate need for housing, because it is free, or are there other motives for applying?
3. What would applicants for low-cost housing do if they failed to get access to low-cost housing?

The aim of the above assessment is to ascertain whether the current low-cost housing provision is the ultimate goal of the target group, or whether it is looking for something else. In addition, defining the motive for applying for low-cost housing could result in a better understanding of the target group's housing preferences and therefore help establish ways to meet them.

Having identified the target group's housing preferences the aim then is to find out:

1. How such housing preferences would improve the housing conditions of the target group;
2. Whether such housing preferences are feasible within the current political, economic and cultural environment of the UAE;
3. Whether it is possible in the UAE to establish a housing provision programme based on what people need and prefer rather than what the government decides.

7.1 THE APPLICANTS' PREFERENCE

Table 7.1. The applicants' preferences

Percent	
Maintenance, demolishing and building new houses.	8
Build additional rooms	21
Low-cost houses	55
Fund	16

Source: Fieldwork, Dec 1994-April 1995

The applicants for low-cost housing were asked what suited their housing preference, a low-cost house or something else. Table 7.1 shows that about half (55%) of the applicants asked for a low-cost house, while the remainder required additional rooms to be built on their current houses, maintenance to their current houses, demolition of the existing house and the building of a new one or funding.

Table 7.2. Applicants housing preferences by type of tenure

Col Pct	Owner-occupier	Staying with relatives	Tenancies*
Maintenance, demolishing and building new houses.	18	1	0
Build additional rooms	29	28	0
Low-cost houses	41	54	78
Fund	12	17	22
Chi-square= 39.02		P.value < 0.0000	

Source: Fieldwork, Dec 1994-April 1995

* The squatters (4 cases) are included with the tenants to meet Chi-square test requirements.

Table 7.2 shows a strong statistical relationship between type of tenure and housing preference as the p-value shows statistical significance at 0.01 level. Half the owner-occupiers (47%) asked for maintenance and the building of additional rooms on existing houses. Some of the owner-occupiers who asked for funding (12%) may also need to use such funding to build additional rooms in their houses or to maintain their current houses while 41 per cent of the owner-occupiers asked for low-cost houses. This demand can be explained by:

- 1) the fact that low-cost houses are provided free of charge;

- 2) some of the applicants, although in need of additional rooms or maintenance, would still prefer low-cost houses so that they could rent their present house or sell it;
- 3) applicants see other owner-occupiers gain access to low-cost houses and thus are encouraged to do so themselves.

Although half (54%) of those staying with their relatives asked for low-cost houses, the remainder had other preferences; 28 per cent asked for maintenance and the building of additional rooms in their relatives' houses. This indicates that some of those who are staying with their relatives intend to stay with them for a long time and so building extensions in their relatives' houses will improve their housing conditions. The strong social relations and the pattern of extended households in the country should be considered in housing provision policy. Furthermore, these prevailing social trends may reduce the cost of housing provision, as many of the target group only required the building of additional rooms in their houses or the maintaining of their existing houses. The cost of such provision will be lower than building new houses of a high standard.

Those who hold tenancies are more in favour of low-cost houses, as 78 per cent of them asked for such provision and only 22 per cent asked for funding. This may be explained by the fact that those holding tenancies already live separately from their relatives or do not intend to stay with them. Therefore, they need their own houses, whether their preference is for low-cost houses or for funding to build their own houses.

Table 7.3. Housing preference by type of house

Col %	Arabic house	Villa	Flat and shack	Low-cost house
Maintenance and demolishing	12	4	0	5
Additional rooms	26	21	0	16
Low-cost house	51	47	78	70
Fund	11	27	23	9
Chi-square= 31.05				P.value < 0.02835

Source: Fieldwork. Dec 1994-April 1995

Table 7.3 shows a strong statistical relationship between type of house and housing preference as the p-value show statistical significance at 0.05 level. Although about half of those who are staying in Arabic houses (51%), villas (47%), and low-cost houses (70%) asked for low-cost houses, the remainder asked for maintenance, demolition of the old and the building of a new house, or the building of additional rooms. This indicates that some applicants are satisfied with their current houses and need only additional rooms. It also suggests that some applicants are more intent on improving their existing housing resources than moving to a low-cost house. Only

those who are staying in flats or shacks are totally in favour of the low-cost house. This may be because they do not have resources of any kind.

Table 7.4. Housing preference by income group

Col %	Low-income	Middle- income	High-income
Maintenance and demolishing	17	6	0
Additional rooms	26	20	24
Low-cost house	46	56	60
Fund	11	18	16
Chi-square= 8.3	P.value < 0.21264		

Source: Fieldwork, Dec 1994-April 1995

Table 7.4 shows that no relation can be found between income and housing preference (P.value<0.21264). Less of those from the low-income group prefer low-cost houses than the high income group.

Although the low-cost house is free and of a high standard it does not represent the ultimate goal for half of the applicants. This may be explained by

- 1) the desire of some applicants to stay in their current houses or their relatives' houses, and to maintain the same fabric of neighborhood and friends;
- 2) the perception of some applicants that the location of low-cost houses may not be convenient for them;
- 3) the perception of some applicants that improving their existing resources will meet their preference better than a low-cost house.

7.2 WHY PEOPLE APPLY FOR LOW-COST HOUSING

Why do citizens apply for low-cost housing? Is it out of a desperate need for housing? Is it because it is a free grant? Or are there other motives for applying? Defining the motive for application could result in better understanding of the target group's housing preference, and therefore could help meeting such a preference.

Table 7.5. Applicants and users motives for applying for low-cost housing

Percent	Applicants	Users
Need appropriate house	43	29
Poor physical quality of house	20	64
Need more space and rooms	15	3
No alternative	12	2
Other (see table 7.6)	10	2

Source: Fieldwork, Dec 1994-April 1995

Both the applicants and the users were asked to specify their motive for applying for low-cost housing. As Table 7.5 shows 43 per cent of the applicants stated that the need for appropriate houses (see below for what is meant by appropriate house) had

forced them to apply for low-cost housing. On the users' side two thirds of them (64%) stated that the poor quality of construction of their houses was the main motivation for application.

The need for appropriate or satisfactory housing was the motive for about half of the applicants (45.4%). When applicants were asked what they meant by an appropriate house their responses were, (1) a house like other people's houses, (2) any kind of house, (3) a house similar to other houses, (4) any kind of house large or small, (5) a house to house them and their children. These differing responses may be interpreted in different ways. All applicants need a house like other people in the country, similar to the majority of houses in the country. They did not specify a size or a particular type of building materials. The applicants simply need a house, whether large or small. Thus a house containing two bedrooms, one kitchen and one bathrooms/toilet may be considered an appropriate house. An example of applicants' responses is the following:

"I do not need a two storeys house (referring to the new low-cost houses); my need is only for a small house for me and my family".

Such responses could lead to a conclusion that, like other people, applicants are in need of any kind of house without any specified standard. The coming discussions in this chapter will show in more details the size and the cost of the applicants' preferred type of house.

Other motives for applying for low-cost housing

Table 7.6. Other motives for applying for low-cost housing

- I'm now a tenant and it is my right, as an Emirate citizen, to have a house from the government and not to be a tenant.
- The government builds low-cost houses and as we have not got anything from the government so far, I want a low-cost house.
- I'm an Emirate citizen and it is my right to have a low-cost house.
- I may get a chance to have a low-cost house.
- I got a loan from a bank to build my own house and now I need compensation because I have not got any thing from the government like other people have.
- Since other people are applying for low-cost housing we have to apply as well.
- The other tribes got low-cost houses but we did not, so now we have to get such houses.
- We are in a very underprivileged position because we did not get low-cost housing whereas other tribes did.
- The Ministry built low-cost houses on land owned by our tribe. Therefore we have priority in applying for such houses.

Source: Fieldwork, Dec 1994-April 1995.

The most noteworthy motives for application, as can be seen from Table 7.6, were applicants' consciousness of being Emirates citizens and their desire not to get any less from the government than others. Since they are a minority in their country, and since the UAE has a high oil revenue, Emirates citizens have gained generous welfare provision as discussed in Chapter 3. A low-cost house, for some applicants, is considered a right, the right to get something free from the government; to have a small part of the large oil revenue which is controlled by the ruling families in the country. As a senior housing official said:

"The low-cost house, for some citizens, is obligatory from the government. They deal with us on this basis; they are fighting for their rights and make every efforts to get such rights. The people tend to depend on government provision because the government can afford to build and they deserve one ".

For some people:

" it is not acceptable to live in a rented house in a wealthy country like the UAE. Building low-cost houses is a sort of reciprocation from the government to the citizen because they serve the government".

The researcher came across an owner-occupier applicant who is fighting for a low-cost house although his house was of good physical quality according to a Housing Committee assessment. The applicant's argument is:

" I am struggling for my rights... this is my own house ...I built it with my own money... the government has nothing to do with my own property ...now I want the government grant".

So the motive, for some applicants, is only because they are Emirates citizens, and in having this privilege, they feel they have to get something from the government since they believe most people get something free. Such a motive is enhanced by the adopted welfare policy since the early 1970s.

Such generosity of welfare policy from the government has created a kind of dependency on the government. In Kuwait, for example, housing is part of citizenship (Kuwait paper, 1992), and therefore every Kuwaiti citizen is entitled to government housing assistance as a citizenship right, a practice which planted the seeds of a dependent society and fostered a paternalistic relationship between the state and the people (Sadik, 1990). According to Al-Sayd (1988) the welfare and subsidy policy in the Arab Gulf States has spread the principle of dependency on government which relies on receiving without paying. The welfare and subsidy policies have also increased the spirit of laziness and reliance and resulted in the

"emergence of generation wholly dependent on the government's supposed generosity" (Abdulla, 1984: 276).

People in the Arab Gulf States live a lavish life, a trend based on the assumption that there is a sustainable income from the oil (Al-Mutawa, 1990), and people are used to being receivers of welfare services from the government (Al-Tamemy, 1996). Individuals in Kuwait, as is the case in other Arab Gulf States, have grown up convinced that the state exists to put on their nappies and to be their nanny for the rest of their lives (Allen, 1996).

Abrams (1964:220) stated that:

" default fosters a growing dependency on government in place of honest effort, a breakdown in morale, and the growth of cynicism in relationship between government and its beneficiaries. It tends to make the rest of the people look to government for the big handout and spur their resentment when they do not get it. Default by some people encourages others who are honorable to misrepresent their needs and turns them into willful defaulters."

With the spread of such dependency in a society, it is very difficult to ask only those people in need of housing to apply for free housing and those who are not to house themselves by their own efforts. Within such an environment of dependency everyone will apply which will lead to an over demand for housing. The government has to bear the burden of allocating more resources to meet such demand, a demand ironically created by its own policies. Moreover, the link between citizenship and housing rights could also create excessive housing demand since many people apply for free low-cost housing simply because they are a UAE citizen and not because they are particularly in need of housing.

In conclusion, there are many motives behind applications for low-cost housing, and often they are not the desperate need for housing. Obtaining a free low-cost house is not the ultimate aim of the target group, but they have been forced by lack of other options and the climate of dependency to apply for such housing. Those who are in need of an appropriate house, whatever their definition of such a house, those who only require extra rooms and those who require maintenance are all provided with a finished free house of 340 square metres built up area consisting of four bedrooms, five bathroom/toilets, one hall and one majles at a cost of about Dh 450,900 (\$121,870) and with a high future maintenance cost. This diversity of preferences should be met by a variety of responses from the government rather than only one response, the provision of free housing unit. The diversity of a housing preference among the group suggests also that improving housing conditions could be achieved at a lower cost than the present provision, since some of the applicants are only looking for extra rooms to be built or for their houses to be maintained. The cost of

meeting such preferences will be lower than that of building new houses of a high standard.

7.3. IF YOU DO NOT GET A LOW-COST HOUSES, WHAT ARE GOING TO DO?

The applicants were asked about their responses if they failed to get access to a low-cost house. The aim of this question are to ascertain (1) how the target group would house itself without direct government intervention, (2) how the government might intervene based on such responses, and (3) to discover the existing resources of the target group whether of savings or other sources of income.

Table 7.7. Applicants responses

Applicants responses	percent
Stay in current house	57
Build new house	4
Apply for loan from commercial bank	25
Rent a house	9
Others*	5

-I am going to build additional rooms in my house.(2)
-I am going to build an additional room in my father's house.(3)
- I am going to pay for maintenance to my house.(4)

Source: Fieldwork, Dec 1994-April 1995

When applicants were asked about their responses, more than half (56.6%) stated that they would stay in their current houses. The applicants' responses have a relationship with several variables when chi-square tests was applied. As Tables 7.8, 7.9 and 7.10 show, type of tenure (P.value<0.000), age (P.value<0.008) and income (0.012) have a strong relationship with the applicants' responses.

Type of tenure

Table 7.8. Applicants responses by type of tenure

Col %	Owner-occupier	Stay with relatives	Tenancies
Stay in the current house	77	26	73
Build new house	2	4	7
Apply for loan	16	41	18
Rent and others	5	29	2
Chi-square=48.9	P.value < 0.0000		

Source: Fieldwork, Dec 1994-April 1995

The great majority of owner-occupiers and tenants will stay in their houses and less than 20 per cent will apply for a bank loan. Those who would apply for a bank loan may intend to build additional rooms in their houses or maintain their houses. These findings may lead to a conclusion that a majority of owner-occupier applicants are not in need of a finished house but in need of some support, as mentioned earlier.

On the other hand, 41 per cent of those staying with their relatives will apply for bank loan, 29 per cent will move to rented houses, and only 26 per cent will continue to stay with their relatives.

Age

Table 7.9. Applicants responses by age group

Col %	Less than 30	Between 30-49	50 and over
Stay in the current house	41	56	79
Build new house	10	2	0
Apply for loan	32	28	12
Rent and others	17	14	9
Chi-square=17.18		P.value < 0.00802	

Source: Fieldwork, Dec 1994-April 1995

Age has a strong association with applicants' responses regarding their chosen option if they could not obtain low-cost housing. Table 7.9 shows that young applicants have more intention of applying for bank loans or of building their own houses while the older applicants will stay in their current houses, as most of them are owner-occupiers. Applying for a bank loan does not necessarily mean that the applicant intends to build his own house, it may indicate the intention to build additional rooms in a relatives' house, since the great majority of the applicants are under 30 years of age and staying with their relatives.

Income

Table 7.10. Applicants responses by income group

Col %	Low-income	Middle-income	High-income
Stay in the current house	80	53	42
Build new house	0	5	4
Apply for loan	9	31	25
Rent and others	11	11	29
Chi-square=16.33		P.value < 0.01206	

Source: Fieldwork, Dec 1994-April 1995.

Table 7.10 shows that the majority of the low-income group has no option other than to stay in their current houses, whereas, on the other hand, about half of the middle- and high-income group felt that they have other options, such as applying for a bank loan, moving to rented houses, or building their own houses. The intention of those from the middle- and high-income groups to apply for a bank loan could be a sign that some of the target group may desire to share the cost of housing. It may also indicate that some of the applicants could build their own houses without government intervention in the long run. That only a small proportion of applicants (4%) can

afford to build their own houses indicates that only a small proportion of the target group are not in need of some government support but their only motive for application is that they may get free low-cost houses.

The findings presented above suggest the following:

1. The intention of the owner-occupiers to stay in their houses may indicate that some of them are not in need of government houses, although they may need some support. If they stay in their houses, the owner-occupiers will try to improve their conditions by maintaining them or by building additional rooms.
2. The intention of some of the applicants to apply for a bank loan indicates that some applicants are able to build their own houses in the long term.
3. The intention of some of the target group to build their own houses shows that they are not in need of government support. The existence of free low-cost houses encourages them to apply for low-cost housing.

The researcher came across some applicants who maintained or built additional rooms to their houses after they lost their chance of gaining access to low-cost housing. Some applicants built new houses whether from their own savings or by applying for a bank loan.

According to one housing official:

Some citizens have the financial means to build their own houses, but they have to show the Housing Department that they are in desperate need of housing whether by staying in their old houses which are poorly constructed, or by staying with their relatives or in rented houses. Once the low-cost houses in their area are allocated and they lost the chance to get one they will start to build their new own house or maintain their houses.

Although this statement can be applied to some applicants, others may have been forced to apply for a bank loan and to build their own houses because they do not have any other options.

The practice of some applicants of building extensions, repairing their own houses or building new houses coincides with the finding in Chapter 5 where users who previously occupied low physical quality houses started to spend more on luxury

furniture and extensions. Some applicants have the financial ability to build their own house or build extensions in their own houses but they are not willing to do so in order to stand a chance of a free house from the government. Once they fail to get such houses they start to improve their housing conditions themselves. This again shows that the free low-cost housing and the current eligibility criteria seem to hinder people from improving their own housing conditions. Moreover, the spirit of dependency also encourages people to rely totally on the government and not to take the initiative to improve their housing conditions although they may have the financial ability to do so.

7.4 FREE GRANT OR COST RECOVERY (PREFERENCES OF FREE LOW-COST HOUSING)

There is no doubt that direct questioning of the target group regarding their attitudes to free low-cost housing will result in great support for free housing. Thus, two indirect questions were addressed to the interviewees. The first question was whether or not the applicant would still apply for low-cost housing if there were other housing options available such as the provision of interest-free-housing loans? The aim of this question is to assess the applicants responses to the current low-cost housing programme.

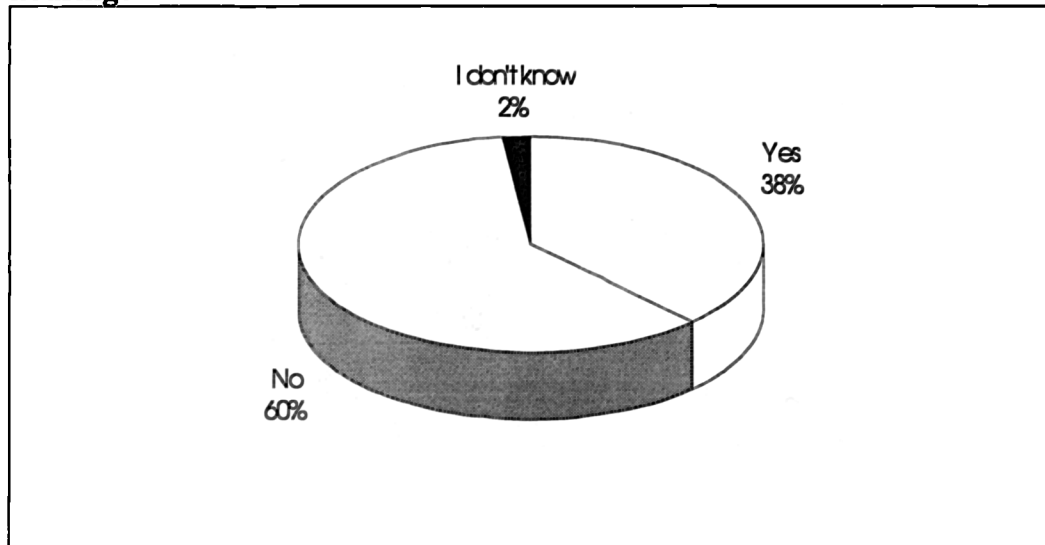
The second question was whether the applicants would agree to pay part of their monthly income to get an interest-free housing loan from the government in order to build their own house in a location of their choice¹. The motives behind this question are;

1. To provide guidelines for applicants' preferences for the current free low-cost housing.
2. To study the characteristics of those applicants who agree or disagree with such type of provision and investigate their motivation.

¹ The suggestion of using a interest-free housing loan to be linked with the free low-cost housing in these two questions is based on the following assumptions;

- A. The outcome of the pilot survey shows that interest-free housing loans were the most preferred type of provision for the interviewees.
- B. The provision of interest-free housing loans is an active housing programme in both the emirates of Abu Dhabi and Dubai and therefore it is believed that such a programme would be acceptable as a trade off with the free low-cost housing to the target group in the UAE.

Figure 7.1. If there were other housing provision programmes such as the provision of free-interest housing loans would you still apply for low-cost housing?



Source: Fieldwork, Dec 1994-April 1995

As can be seen from Figure 7.1, about two thirds of the applicants say they would not apply for the low-cost housing if there were other programmes of housing provision, while the remaining one third would still apply. 63 per cent of those who would not apply for low-cost housing justified their response by saying that they felt that the provision of low-cost housing is not guaranteed whereas a housing loan, for example, would be more guaranteed since the beneficiaries would be repaying the cost of the loan. The remaining 37 per cent state that they would like to be involved in the building processes of their houses such as design, selection of land, and construction supervision. On the other hand, 30 per cent of those who would still apply for low-cost housing account their response to their low monthly salary. 24 per cent felt there was no reason to get into debt themselves when the government is distributing free houses. 22 per cent stated that they already have financial commitments with commercial banks and they are therefore unable to commit themselves further. 12 per cent felt that, as UAE citizens, they have to have a free low-cost house. 12 per cent felt that if other people get free low-cost houses they must also take up that right. These two categories could be reclassified together as those who regarded free houses as a right if they are available. Therefore, the supply might have created the demand.

The earlier discussion of housing allocation is consistent with the unwillingness of the majority of applicants to apply for low-cost housing as they recognize that they will not get a house from the government due to the current housing allocation process. Muth (1976), (see Chapter 2), stated that public housing in the US is similar to a lottery since it served only a few families. The same principle of lottery, we can

argue, applies to the new improved low-cost housing in the UAE since it provides only a small chance of big improvement for a few and chance of no improvement for large numbers of households. With such a situation, people would probably not apply although it is free, and would shift to other programmes if they were available which may offer them more and quicker chances for improvement to their housing conditions.

Moreover, the concern of some applicants at the possibility of not being allocated low-cost houses may be linked to the fluctuation of the low-cost housing supply during the last five years, as discussed in Chapter 3. Such fluctuation, which is associated with the availability of funds from the Federal Government, gives rise to doubts from applicants concerning the length of time that they will be on the waiting list, and the hope that by paying for housing they are more likely to eventually possess their own houses rather than relying on free government provision.

The motives for not applying for low-cost housing for some applicants also comes from their desire to be involved in the housing processes, since currently they are excluded from any participation in them. Although the Ministry of PW&H has improved the quality of the new low-cost houses, as discussed in Chapter 3, by increasing the room size and giving more consideration to the configuration of spaces to satisfy the socio-cultural values, some applicants would still like to be involved in the housing processes. This finding suggests that more research should be conducted to find out to what extent the current design of low-cost houses satisfies the socio-cultural values of the users.

In addition, some of the applicants seek to be involved in the construction process to be sure that their houses will last for a long time. The rapid deterioration of the low-cost housing built under the supervision of the Ministry of PW&H, as discussed in Chapter 6, may be a motive of unwillingness to apply for low-cost housing.

By studying the relationship between the intention to apply or not for low-cost housing and other variables, Table 7.11 shows that more than half the owner-occupier applicants would still apply for low-cost houses compared to about one third of applicants with other types of tenure. The high percentage of applicants who are renters or staying with relatives who have no intention of applying for low-cost houses maybe is because their need is so urgent that they will pay for the cost of housing rather than await the 'lottery'. On the other hand, there are those who would apply for free housing but who are owner-occupiers already and are, therefore, not in desperate

need. There is a statistically significant relationship between the lack of intention to apply for the free low-cost housing and both education level and income group. More discussion of these findings will take place in the section below entitled willingness to pay for housing.

Table 7.11. The intention to apply for the free low-cost housing or not by type of tenure, income group and education level

Col %	Type of tenure		
	Owner	Staying with relatives	Renters
Would still apply for free low-cost housing	53	26	36
Would not apply for free low-cost housing	47	74	64
Chi-square=10.59			P.value < 0.00513
	Income groups		
	Low-income	Middle-income	High-income
Would still apply for free low-cost housing	69	29	33
Would not apply for free low-cost housing	31	71	67
Chi-square=17.85			P.value < 0.00013
	Education level		
	Uneducated	Educated	
Would still apply for free low-cost housing	60	25	
Would not apply for free low-cost housing	40	75	
Chi-square=22.37		P.value < 0.00000	

Source: Field work, Dec 1994-April 1995

7.4.1 TYPE OF PROVISION

Two questions were addressed to the applicants to examine the method of provision they preferred. The first question, addressed to those who do not wish to apply for low-cost housing, asked what method of housing provision they preferred the government to provide for them.

Table 7.12. Preferred type of housing provision

Percent	Applicants
Providing housing loan without interest.	94
Building low-cost housing.	6

Source: Field work, Dec 1994-April 1995

Table 7.12 shows that the majority of applicants preferred the idea of an interest-free housing loan. Only a minority preferred to receive a low-cost house and be charged for the cost in the long term. The preference for a housing loan may be attributed to the fact that such provision allows for more participation of the target group in the housing processes such as land location, design and construction.

The second question was, "If the government were to give an amount equal to the cost of the low-cost house, could you build a better house, more suitable to your needs".

The motive of this question is to find out the applicants' attitudes to the current provision of finished low-cost housing. The aim also is to find the perception of the interviewees regarding the current cost of low-cost houses, whether such cost is considered to be more or less than what the target group needs to build their houses.

Table 7.13. If the government were to give you an amount which is equal to the cost of the low-cost house could you build a better house which is more suitable to your needs?

Percent	Applicants
Yes	54
No	37
Anything from the government I will be satisfied with	9

Source: Fieldwork, Dec 1994-April 1995

Table 7.13 shows that more than half of the applicants are in favour of having the funds and building their own house. 9 per cent cited that they would be satisfied with whatever the government provide and they have no opinion.

40 per cent of the applicants, who were in favour of building their own houses, stated that this was in order to be more involved in the different housing processes. 34 per cent said that the cost of the current low-cost house (Dh 400,000) is more than they need and thus they would only build with part of the amount and keep the remainder for furniture. 14 per cent said that they wanted to be involved in the supervision of the construction work to ensure a high standard and long life construction. 12 per cent stated that they would add an additional amount from their saving to build a more satisfactory house of a higher quality than the existing low-cost house.

On the other hand, 53 per cent of those who prefer the policy of a finished low-cost house said that it is better to be provided with a finished house than to be involved in the housing process. 30 per cent said that the government should be responsible for housing provision and not individuals who may not know sound building practices. 17 per cent said that the government provides the land free with the house which in their area it is difficult to obtain. Thus the house is also a means of gaining land.

The results reveal again that the majority of applicants are not in favour of the policy of providing finished low-cost housing. Some of the applicants wish to be involved in the housing processes. Some consider the current cost of a low-cost house to be more than they need. Some of the applicants said that they would supplement the government's funds with their savings, which indicates that they are only in need of some support from the government.

7.4.2 JUSTIFICATION OF FREE HOUSING PROVISION

Those who would still apply for low-cost housing have been asked why they think that government should provide free low-cost housing. Two thirds (58%) said that housing provision is an obligation on the government to provide to its people. 34 per cent believe that, as others had received free low-cost houses they should also get such free houses. 8 per cent believe that the government has a huge oil revenue and it could afford to provide such free provision. These findings coincide with earlier discussions regarding the motives behind applying for low-cost housing.

7.5 WILLINGNESS TO PAY FOR HOUSING

Whittington, Briscoe, Mu and Barron (1991) used a bidding game to develop useful estimates of willingness to pay for water services in southern Haiti. They considered such a method to be easily understood by the local people as it was similar to the ordinary kind of bargaining which took place in the local market.

Thus the applicants and users of the old low-cost houses were asked whether they would like to pay part of their monthly income to have an interest-free loan from the government over 20 to 25 years in order to build their own houses. Those who answered negatively were asked whether they were able to pay Dh 500 (\$135)² per month. Those who answered negatively were asked to figure out a maximum amount they could pay per month in order to get a housing loan. The aim of these trade off questions is to discover what proportion of people are willing to pay for the cost of their housing.

The willingness to pay for housing can provide a clear indication of people's preference regarding the free housing policy; the more who are unwilling to pay for housing, the greater is the preference for the current free low-cost housing policy and the more willingness to pay for housing, the lower the preference is for the free housing policy. Another aim also is to find out whether applicants are looking for sustainable housing provision or just to get free housing.

" If people are willing to pay the full costs of a particular service, then it is a clear indication that the service is valued (and therefore will most likely be used and maintained) and that it will be possible to generate the funds required to sustain

² Dh 1000 (\$270) and Dh 500 (\$135) are figures usually used by people to refer to as an approximation to the cost of other commodities. Dh 1000 is believed to be a very high amount for those from low-income group to be expected to set aside to repay the cost of a housing loan. Dh 500 is believed to be reasonable amount to repay for a housing loan.

and even replicate the project" (Whittington, Briscoe, Mu and Barron, 1991:189-190).

Table 7.14. Willingness to pay for interest-free housing loan

Would you like to pay a part of your monthly income to have an interest-free housing loan from the government to build your house in a location you choose?

Applicants		Users of old low-cost houses	
Yes	69%	yes	43%
No	31%	no	57%
If no, would you pay Dh 500 to get housing loan		If no, would you pay Dh 500 to get housing loan	
Yes	33%	yes	41%
No	67%	no	59%
If no what is the maximum amount you can pay.		If no what is the maximum amount you can pay.	
0	90%	0	80%
Dh 200	3%	Dh 200	11%
Dh 300	7%	Dh 300	2%
		Dh 400	7%
Total percentage of those who are willing to pay.	80%		71%

Source: Fieldwork survey, Dec 1994-April 1995

Table 7.14 shows that more than two thirds of the applicants (69%) are willing in principle to pay for an interest-free housing loan. This percentage increased to 80 per cent, when applicants were asked if they would be willing to pay Dh 500 per month or less for an interest-free housing loan. 43 per cent of the old low-cost house users are willing to pay for a housing loan. This percentage increased to 71 per cent, when users were asked if they would be willing to pay Dh 500 per month or less for an interest-free housing loan. Having this percentage of old low-cost house users willing to pay in order to build a new house coincides with the findings presented in Chapter 6, which showed that the majority of users would be willing to move out of their current low-cost houses if they had the chance to do so.

FACTORS AFFECTING THE DECISION TO PAY FOR A HOUSING LOAN

The logit regression has been used to identify the factors which affect an applicant's decision to pay for housing (dependent variable). A set of variables: age, income, education level, type of tenure, number of children, and land ownership (independent variables) have been used. Table 7.15 shows that education level, income, and land ownership are the variables which have the greatest influence on willingness to pay for a housing loan, as the P-value of the three variables are 0.04, 0.09 and 0.03 respectively.

Table 7.15. Variables affecting willingness to pay for a housing loan.

Variables	Beta	<i>P</i>
land ownership	.9262	.0385
Education level	1.0889	.0413
Income	.0002	.0993
Age	-.0180	.3885
Type of tenure	.3899	.3748
Number of children	.0089	.8858
Constant	.9793	.2919

Number of observations =184

Number of rejected cases because of missing value =12

Number of cases included in the analysis =172

Source: Fieldwork, Dec 1994-April 1995.

By applying the same test using only three significant variables, Table 7.16 shows that education level, income and land ownership are the most significant variables affecting the decision to pay for a housing loan.

Table 7.16. Logit regression outcome

Variables	Beta	<i>P</i>
Education level	1.386	0.001
Income	0.0002	0.036
land ownership	0.839	0.05
Constant	.9793	0.2919

Number of observations =184

Number of rejected cases because of missing value =12

Number of cases included in the analysis =172

Source: Fieldwork, Dec 1994-April 1995.

EDUCATION LEVEL

Table 7.17. Willingness to pay by education level

Col %	Uneducated	Educated
Pay	47	84
Not pay	53	16
Chi-square = 29.16	P-value < 0.00000	

Source: Fieldwork, Dec 1994-April 1995

Table 7.17 shows that the majority (84%) of the educated applicants (intermediate, secondary and university degree holders) are willing to pay for a housing loan compared to only half (47%) of those who are uneducated (illiterates, read and write only). The association between education level and willingness to pay may be explained by the fact that paying for housing and getting a housing loan require involvement from the applicants in the housing processes, such as in the land location, design and construction processes. Such involvement may need certain skills and

ability to read and write, for examples, in order to deal with private consulting engineering offices and private confirms.

In addition, association between education and income, as discussed earlier in Chapter 5, could be due to the fact that more educated applicants are willing to pay for housing, since the majority of them are from middle and high income groups, while on the other hand the vast majority of uneducated applicants (91%) have low-incomes and thus may not able to pay for housing.

Moreover, the association between education level and age may also affect the decision to pay for housing as the majority of educated applicants are from a younger age group and are thus more willing to become involved in the housing processes than older applicants. The educated applicants may feel that low-cost houses do not meet their needs in terms of design and location. They may also believe that there is a chance they may not get access to low-cost housing considering the current housing allocation process. On the other hand, the uneducated applicants may still insist on free low-cost housing regardless of its design or location.

INCOME

Table 7.18. Willingness to pay (for the first time) by income group

Col Pct	Low-income	Middle income	High income
Pay	31	79	76
Not pay	69	21	24
Chi-square=29.26		P.value < 0.00000	

Source: Fieldwork, Dec 1994-April 1995

Table 7.18 shows that the majority of the middle and high income groups are willing to pay for housing loans compared to only one third of the low-income group. The percentage of those who were willing to pay from the low income applicants increased to more than half (57%) when they were asked to pay Dh 500 or less per month for the loan, as can be seen in Table 7.19. By reducing the amount of monthly installment, the bidding game has increased the proportion of people admitting that they are willing to pay for housing. Only 12 per cent of the applicants from middle and high income groups are not willing to pay Dh 500 for a housing loan compared to about half of the low-income group.

Table 7.19. Willingness to pay (Dh 500 and less) by income group

Col %	Low-income	Middle income	High income
Pay	57	88	88
Not pay	43	12	12
Chi-square=17.67	P.value < 0.00014		

Source: Fieldwork, Dec1994-April 1995

The willingness to pay for a housing loan is acceptable among the great majority of the middle and higher income groups, however only about half of low-income group are willing to pay. This raises many questions. What causes the difference between these groups (those who are willing to pay and those who are not) since they are all from the same low-income group? Are there particular factors that affect their decision?

Table 7.20. Variable affecting decision to pay for housing loan for the low-income applicants

Variables	Beta	P
Education level	1.4306	.3875
Land tenure	1.0216	.2701
Land ownership	.7459	.4548
Constant	3.5131	.4802

Number of observations =34

Number of rejected cases because of missing value =2

Number of cases included in the analysis =32

Source: Fieldwork, Dec1994-April 1995

In order to get some insight into the above findings the data from the low-income applicants was manipulated separately. The logit regression was used to find variables affecting the decision to pay for a housing loan. Table 7.20 shows that no variables have statistical significance regarding willingness to pay. The P-value of type of tenure shows the lowest figure among the set of variables and thus it may be considered as the variable most affecting the decision to pay for housing as Table 7.21 shows.

Table 7.21. Willingness to pay by type of tenure for the first time

Col %	Owner-occupier	Other tenure*
Pay	17.6	47.1
Not pay	82.4	52.9
Total column Pct	50	50
Chi-square=3.359	P.value < 0.06681	

*-renters and those who are staying with their relatives

Source: Fieldwork survey, Dec1994-April 1995

The findings in Table 7.21 show that the majority of owner-occupier applicants are not willing to pay. The applicants who are owner-occupier are mostly not in desperate need of housing, however, they may be in need, for example, of additional rooms. They may be reacting to the "lottery" principle of hoping for free housing from the

government. On the other hand, applicants who are renters or staying with their relatives are more willing to pay than those who are owner-occupiers.

Having said that, the above discussion can only be considered as an attempt at an explanation based on the available data, without overlooking the fact that the income data used in this analysis is only that of the head of the household from the government occupation. Thus the willingness of some applicants to pay for housing may also be influenced by some applicants having other sources of income.

LAND OWNERSHIP

Table 7.22. Willingness to pay by land ownership

Col %	Land owner	Not land owner
Pay	80	64
Not pay	20	36
Chi-square=5.304		P.value < 0.02127

Source: Fieldwork, Dec 1994-April 1995

As discussed earlier, local authorities provide free land for citizens willing to build. Lack of funds may postpone building, and therefore, having access to funds may enable the land owners to build their own houses. However, 20 % of applicants are land owners who are not willing to pay for housing. They may intend to ask for free low-cost houses and keep the land as an investment.

It would seem reasonable to conclude that a change in any of education level, income and land ownership variables might alter the proportion of those who are willing to pay for housing. For example, the higher the proportion of those with an education and higher income, the higher the willingness to pay for housing and the higher the proportion of those who are not willing to apply to the current free low-cost housing programme. We can, therefore, predict that, if we have more educated citizens with a higher income, we are likely to have more people willing to pay for housing.

The illiteracy rate among male UAE citizens, for example, fell from 73 per cent in 1968 to 45 per cent in 1975 to 23.4 per cent in 1985 (Ajawee ,1991). This dramatic change is a direct consequence of massive investment in education and policies intended to encourage people to join educational institutions. Article 17 of the conventional constitution, for example, stated that primary education is obligatory for all UAE nationals and all educational phases are free. Thus, it would be reasonable to assume that the proportion of people willing to pay for housing would be less in the seventies as illiteracy was higher at that time. On the other hand, we can predict that in the coming years, the proportion of those who are willing to pay for housing will

increase as the proportion of educated people increases. Having more secondary and university educated citizens in the coming years may have the same result.

In addition, easing access to land and infrastructure would also contribute to increasing the proportion of those who are willing to pay for housing. The earlier discussion showed that some applicants only prefer the policy of finished low-cost house because it is difficult for them to get access for land in their areas. Therefore, we can predict that the higher the proportion of land-owners the higher the proportion of those who would be willing to pay for housing.

7.6 TYPE OF CONSTRUCTION

Table 7.23. Preferred type of construction

Percent	Applicant	Users
Reinforced concrete construction	44	39
Popular construction	56	61

Source: Fieldwork, Dec 1994-April 1995

The findings presented in Chapter 6 showed that the great majority of users build extensions to their low-cost houses using popular construction. This section discusses the type of construction preferred by both the applicants and users if they had the chance to build their own houses, and the rationale behind such preference.

Table 7.23 shows that the majority of both applicants and users would prefer houses built using popular construction. 43 per cent of those who prefer popular construction justified their preferences by stating that popular construction would last for a long time. 23 per cent said that popular construction costs less than reinforced concrete construction and is within their affordability. 19 per cent said that popular construction is easy to maintain. 8 per cent said that they are familiar with popular construction and know how to supervise its construction. 4 per cent said they feel safer in a house built of popular construction than one built of reinforced concrete construction. 3 per cent said that the construction companies do not build the reinforced concrete constructions properly and it is therefore better to build a house of popular construction.

On the other hand, of those who prefer the reinforced concrete construction, 36 per cent said that building a house of reinforced concrete is considered more modern than building in popular construction, which is seen as being backward. 33 per cent said that building a house of reinforced concrete construction is a kind of status symbol for them in front of their friends and relatives. 21 per cent said that, as other people build

in reinforced concrete construction, they would like to do the same. 10 per cent said that they think that reinforced concrete construction is more durable than popular construction.

Table 7.24. Preferred type of construction by applicants and users age groups

	Applicants age groups		
Col %	Less 29 years	30 to 49 years	50 years and over
Concrete construction	55	51	17
Popular construction	45	49	83
Chi-square=16.7	P.value < .00028		
	Users age group		
Col %			
Concrete construction	45	50	31
Popular construction	55	50	69
Chi-square=7.2	P.value < 0.02730		

Source: Fieldwork, Dec 1994-April 1995

Table 7.24 shows that the majority of those over 50 years in both the applicants and the users groups preferred the popular construction. Those who are under 50 years in both groups are equally divided between the two types of construction. The preference of the older age group for the popular construction maybe explained by the fact they are more familiar with popular construction. In addition, they know how to supervise the construction work, and they feel safer in such a house. On the other hand, status seem to be behind more young applicants preferring the reinforced concrete construction.

Table 7.25. Preferred type of construction by applicants and users income groups

	Applicants income groups		
Col %	Low-income	Middle-income	High-income
Concrete construction	31	43	60
Popular construction	69	57	40
Chi-sqaure=4.85	P.value < 0.08820		
	Users income groups		
Col %			
Concrete construction	27	41	73
Popular construction	73	59	27
Chi-square=11.75	P.value < 0.00280		

Source: Fieldwork survey, Dec 1994-April 1995

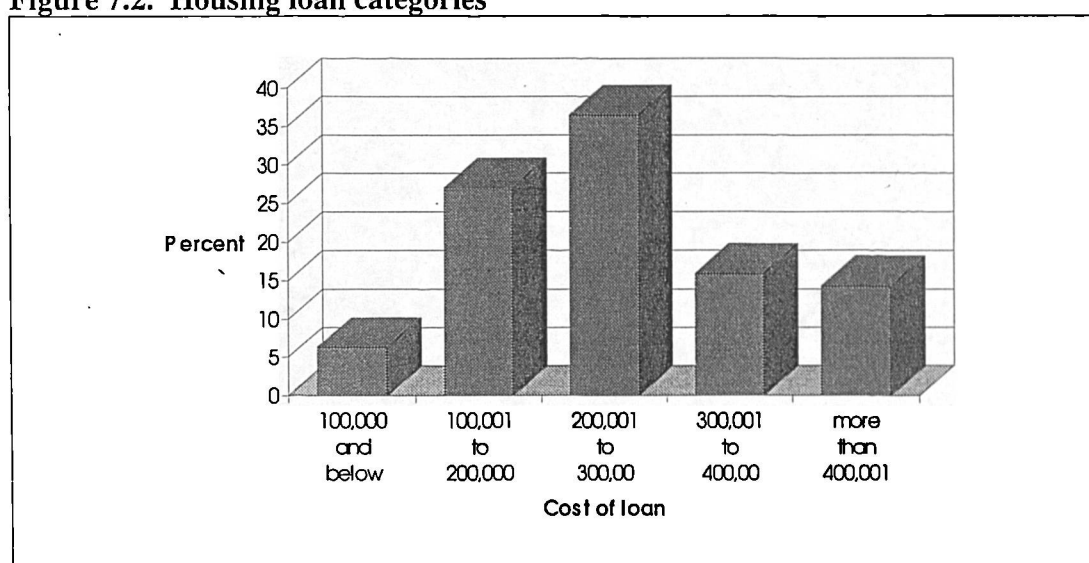
Table 7.25 shows that the majority of the low-income applicants (69%) and users (73%) prefer the popular construction while the majority of those from the high-income group of applicants (60%) and users (73%) prefer the reinforced concrete construction. Having the majority of both applicants and users from the low-income group preferring the popular construction may be attributed to its lower cost. However, having about half the applicants and users from the middle income group

and one third from the high income group seem to indicate that popular construction is not only preferred by users and applicants for its lower cost but also for other factors.

7.7 COST OF THE PREFERRED HOUSE

This section examines the amount of money which applicants believe would enable them to build their own houses. The applicants who are willing to pay for a housing loan have been asked to work out the amount they think they would need to borrow to build their own houses. The applicants also were asked to work out the monthly installment they would be able to pay in order to investigate their affordability to pay the construction cost.

Figure 7.2. Housing loan categories



Source: Fieldwork, Dec 1994-April 1995

Figure 7.2 shows different values of the amounts applicants asked for the interest-free housing loans. More than one third (36%) of the applicants required a loan between Dh 200,000 (\$54,000), to Dh 300,000 (\$81,000) while only 6 per cent required a loan of Dh 100,000 (\$27,000) and below. The lowest value of the preferred loan is Dh 70,000 (\$18,920) and the highest is Dh 750,000 (\$ 202,700). The mean is Dh 294,920 (\$79,700) which represents 73 per cent of the current low-cost house cost (Dh 400,000).

Table 7.26. Monthly payment selected by income groups

	Monthly payment (mean)	Monthly payment (median)	Monthly payment-monthly income ratio
Low-income group	Dh 750	Dh 500	0.22
Middle-income group	Dh 1,600	Dh 1,500	0.23
High-income group	Dh 2,400	Dh 2,000	0.21

Source: Fieldwork, Dec 1994-April 1995

Table 7.26 Shows the amount of the monthly payment applicants from different income groups are willing to repay for an interest-free housing loan. The monthly payment has a positive correlation with income group, the higher the income group the higher the monthly payment. However, the monthly payment-monthly income ratio shows no great difference between the three income groups. Applicants from the three income groups are willing to spend the same proportion of their monthly income to repay the interest-free housing loan.

FACTORS AFFECT THE HOUSING LOAN VALUE

Table 7.27. Multiple regression outcome

	Beta	P
Income	.4193	.0000
Preferred type of construction	-.2922	.0004
Constant		.0000

Multiple R= 0.55654

R Square = 0.30974

Adjusted R square = 0.27920

Source: Fieldwork, Dec 1994-April 1995

The multiple regression has been used to discover which factors affect the housing loan value. A set of variables of age, income, number of children, preferred type of construction and land ownership (independent variables) have been used. Table 7.27 shows that income and the preferred type of construction are the variables which have the greatest influence on the housing loan value.

INCOME

Table 7.28. Scale of housing loan by income groups

Col %	Low-income	Middle-income	High-income
Dh 150,000 and below	54.5	12.1	5.3
Dh 150,000 to 300,000	36.4	61.5	36.8
Dh 300,000 and above	9.1	26.4	57.9
Chi-square=22.79	P.value < 0.00014		

Source: Fieldwork, Dec 1994-April 1995

Applicants from the low-income group asked for a lower housing loan than those from the high income group as can be seen from Table 7.28. The mean and median of housing loan for low-income applicants are Dh 208,181 (\$56,200) and Dh 150,000 (\$40,000) respectively. The median value represents 37.5 per cent of the current low-cost house construction cost (Dh 400,000). The mean and median of the housing loan for the middle income are Dh285,484 (\$77,000) and Dh 300,000 (81,000) respectively.

TYPE OF CONSTRUCTION

Table 7.29. Preferred type of construction by cost of housing loan

Col %	Dh 150,000 and below	Dh 150,000 to 300,000	Dh 300,000 and above
Reinforced concrete	11	38	66
Popular construction	89	62	34
Chi-square= 16.35	P-value < 0.00028		

Source: Fieldwork, Dec 1994-April 1995

Table 7.29 shows that the vast majority of those who asked for a housing loan less than Dh 150,000 preferred popular construction to be used in the building of their houses, while two thirds of those who asked for a housing loan of Dh 300,000 and above preferred reinforced concrete construction to be used in the building of their houses. This relationship between housing loan value and construction is directly linked to differences of cost of both types of construction as discussed earlier.

BUILT-UP AREA OF THE PREFERRED HOUSE

The housing loan value can be converted to the built-up area of the house by looking at the cost per square metre. In the UAE there is no particular institution monitoring construction costs, therefore the figure used in this research is based on data collected from private construction contractors and private consulting engineering offices³. An amount of Dh 150,000 (\$40,500) could provide a house of 215 square metre if popular construction was used and 150 square metre if reinforced concrete construction was used⁴. Based on these prices, the mean and median built-up area is 260 square metre and 214 square metre respectively for the low-income applicants. The median built-up area represent 60 per of the current low-cost house built-up area.

The above findings show the different cost of houses suggested by applicants. These differences in cost come from the variety of peoples' needs and vary dramatically from what is provided by the Ministry. The cost suggested by applicants may also reflect only a part of the house cost, as some applicants are only in need of some support from the government. This suggests that the cost of the low-cost housing provision could be halved from the cost of the current free low-cost house.

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⁴ The data was collected during February and March 1996.

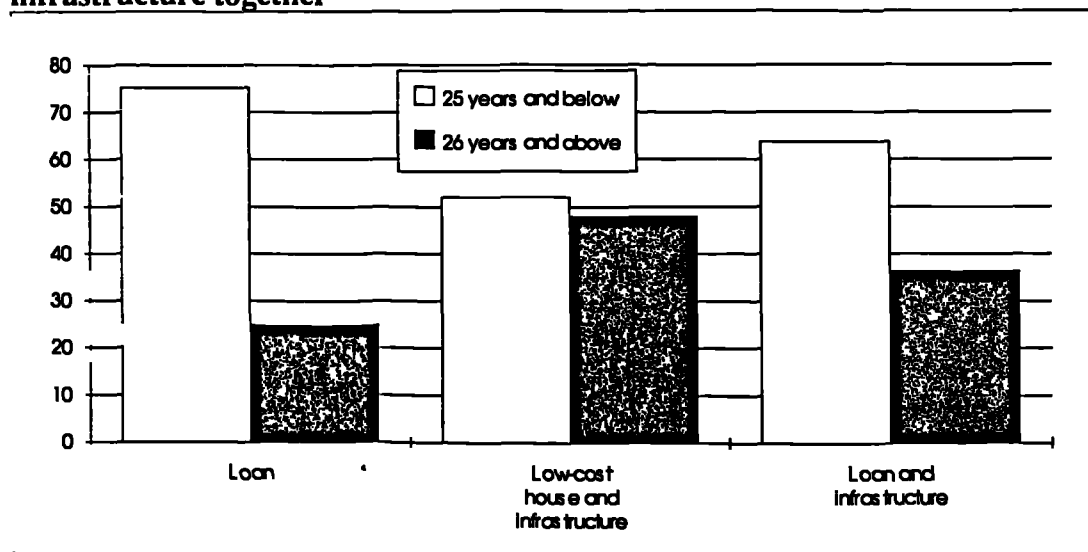
The average cost per square metre is Dh 700 (\$190) if popular construction is used but Dh 1000 (\$270) for reinforced concrete construction. However, such cost is an approximation and it could vary according to the decoration on the facade and the quality of building materials used, mainly in the finishing.

7.8 AFFORDABILITY

Affordability, as defined by Lee (1985:131), is "the extent to which households can afford to pay for specified goods and services". This section studies the applicants' affordability for housing. Those who are willing to pay for an interest-free housing loan were asked to work out the monthly payment they would intend to make for a housing loan. Moreover, emphasis is placed on the affordability of the applicant for the current low-cost house and the provision of infrastructure costs including electricity and water services. The aim is to study whether applicants could pay for the cost of housing on the assumption that the government may not continue with free housing provision in the future. The affordability calculation based on the amount of monthly payment applicants (see Table 7.26) willing to repay for the housing loan for 25 years with zero interest. The assumption being that the government will subsidize the interest rate.

1. THE PREFERRED HOUSING LOAN

Figure 7.3. Percentage of the applicants and their affordability to repay the housing loan alone, low-cost house and infrastructure, and the housing loan and infrastructure together



Source: Fieldwork, Dec 1994-April 1995

More than three quarters of the applicants can afford to pay for their preferred housing loan within 25 years as Figure 7.3 shows. 82 per cent of the low-income group can afford their preferred housing loan over 25 years compared to 72 per cent of the middle income group applicants. The mean number of years for the low-income group to pay for the preferred housing loan is 21 years and for the middle income group, 20 years.

2. THE COST OF CURRENT LOW-COST HOUSE INCLUDING INFRASTRUCTURE (ELECTRICITY AND WATER)

The cost of the current low-cost house as illustrated in Table 3.3 (see Chapter 3) is Dh 450,922 (\$121,870). 52 per cent of the applicants can afford to pay for this provision, however, only 9 per cent and 50 per cent from low-income and middle income groups respectively can afford to pay for such provision.

3. THE COST OF THE HOUSING LOAN AND INFRASTRUCTURE (ELECTRICITY AND WATER)

Figure 7.3 shows that two thirds of the applicants can afford to pay for both the preferred housing loan and the infrastructure within 25 years, but only one third of the low-income applicants are in this group.

Table 7.30. Summary of applicants affordability

Pct who can afford	Low-income	Middle-income	All applicants
1.The preferred housing loan	82	72	75
2.The preferred housing loan and infrastructure	36	63	64
4.The current low-cost house and infrastructure	9	50	52

Source: Fieldwork, Dec 1994-April 1995

Table 7.30 summarizes the findings regarding the affordability of the suggested schemes for the applicants. The majority of applicants mainly from the low-income group can afford to pay the cost of the preferred loan which only includes the construction cost. This proportion falls to one third for the affordability of the preferred loan and infrastructure.

The cost of the current housing provision is far beyond the affordability of the majority of the applicants, particularly those who are from the low-income group. However, the vast majority of the applicants can afford to pay for the construction cost of their preferred house if the government provides free land and the infrastructure services (electricity and water).

The above showed that there was a great gap between what the government provides and what people can afford. It also showed the difference between what they preferred and what they can actually afford taking into consideration that the above cost does not include the land, infrastructure and interest rate. The government actually subsidised housing massively and without such subsidies it would be difficult for people in the UAE, mainly those from low-income group, to afford to build their

own housing or live in such high standard housing. Such enormous intervention from the government in the provision of low-cost housing in particular and the provision of land and infrastructure in general raises a question over the future of housing affordability in the country in the case of government withdrawal of funds, whether sudden or gradual, particularly with the fluctuation of oil prices. As stated by Al-Zaher (1990), without government help, a large number of the Kuwait population would not be able to buy or own their own houses. The above findings show that the same statement could be applied to the UAE.

The above findings also raise the following issues for discussion and clarification:

1. What size of subsidy should the government provide to run the current low-cost housing provision?
2. Should the government provide housing which is beyond the peoples' affordability without a government subsidy?
3. If the government is intending to withdraw from subsidizing the current low-cost housing provision, what standard of provision should be adopted in order to be affordable and satisfactory to the greatest number of people?

The above findings of housing preferences showed the applicants' willingness to pay for housing and their desire to be involved in the housing processes. In order to convert such preferences to practice, the government should shift from building low-cost housing to providing access to funds, land and infrastructure services. The above findings also coincides with the finding in Chapter 5 of the self-provided housing where people are involving in all housing processes. The enabling approach, as the discussion in Chapter 2 showed, calls for a shift from building a limited number of housing units to facilitating greater access to funds, land, infrastructure, building materials and technical assistance. Such a shift, as the earlier discussion illustrated, raises a challenge regarding redistribution of responsibilities among actors involved in the housing process. Findings in Chapters 3 and 5 also showed that the government has to some extent already facilitated access to land, infrastructure services, labour and building materials.

If the principles of applicants' housing preferences were applied in practice, how would the current processes of housing provision in the Northern Emirates be changed? Would a system of housing provision, based on applicants' preferences, run smoothly? The next section discusses the implications of applying the applicants housing preferences and expected obstacles which may confront the implementation of such housing preferences.

7.9 THE IMPLICATIONS OF IMPLEMENTING APPLICANTS' HOUSING PREFERENCES ON THE CURRENT HOUSING PROVISION

Figure 3.5 in Chapter 3 showed the different housing processes of the current free low-cost housing and the role of different actors in such processes. The high decision makers are the cornerstone in the provision, as they are directly involved in determining the number of low-cost houses in certain areas and allocating funds for construction either from the Federal budget or from their own budget. Discussion in Chapter 3 also showed the role of the Ministry staff in determining the standard of low-cost housing according to certain directions from the top decision makers, and the involvement of the large construction firms and building material suppliers in low-cost housing construction.

In order to apply the applicants' housing preferences in practice many changes should take place to the current low-cost housing provision. Such changes require 1) rechanneling funds from building low-cost housing to establishing housing loan institutions, 2) increasing the supply of land and infrastructure and 3) increasing the involvement of the private consulting engineering offices and small construction firms.

Figure 7.4. The housing processes of the proposed housing provision based on applicants housing preferences

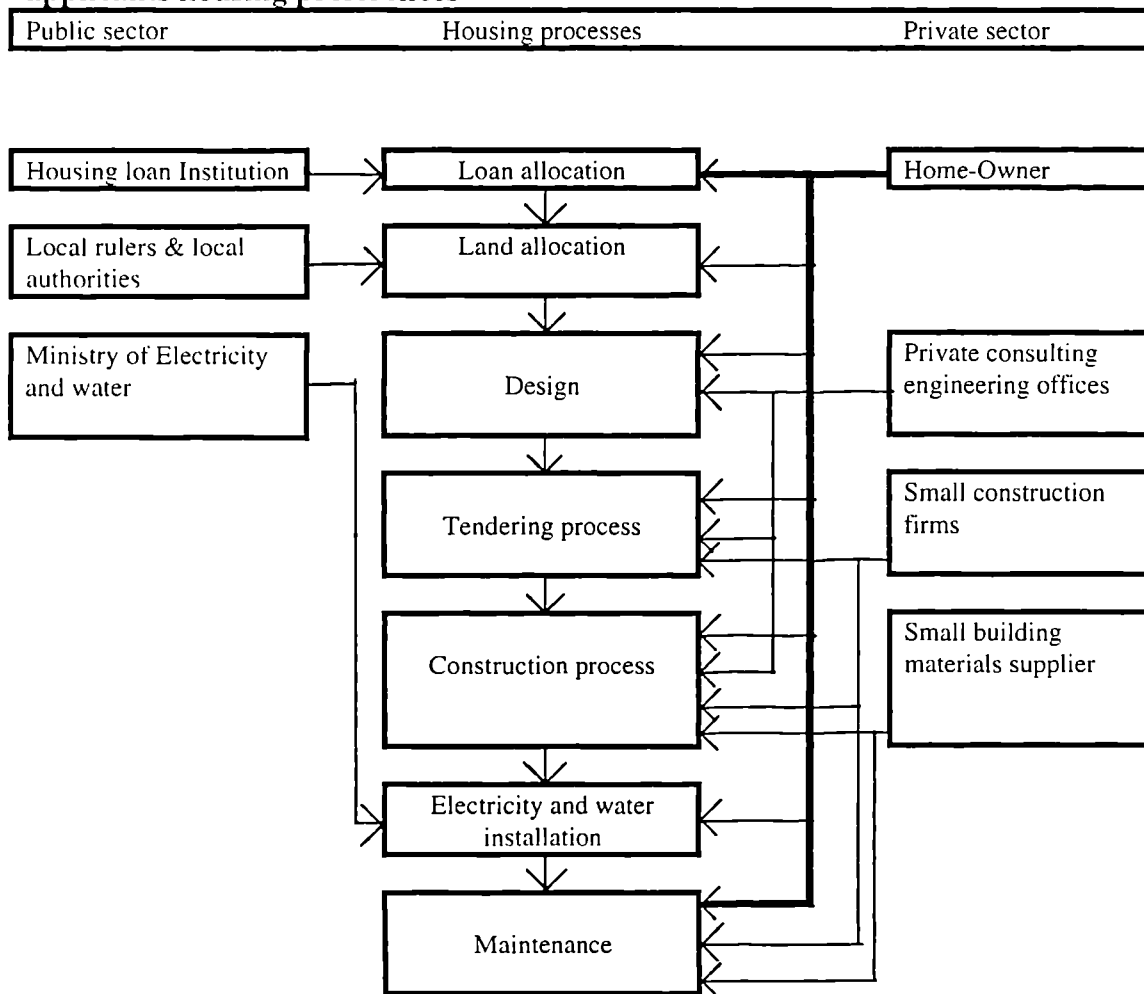


Figure 7.4 shows the housing processes and the actors who would be involved in the suggested housing provision based on applicants housing preferences. Under such housing provision, individuals would get housing loans from the housing loan institution and land from the local authorities. The design and construction could be done, as for self-provided housing, through private consultants and private construction firms. Maintenance would be the owner-occupier's responsibility.

The above scheme, therefore, will both introduce new actors to the processes of housing provision and exclude some of the current actors. As the process is based on full repayment net of interest, there would be no need for top decision makers to be involved in fund allocation as it would be self-sufficient. The proposed housing scheme, therefore, would greatly diminish the role of the top decision makers in housing provision. It would also shrink the role of Ministry of PW&H professionals in determining the cost and standard of housing. The role of the large construction

firms would also lessen. On the other hand, more involvement would be needed from local authorities to supply land. The involvement of the private sector would be also increased, particularly the involvement of private consulting engineering offices, small construction firms and the local suppliers of building materials, to enable people to be involved in the design, construction and maintenance of their own houses. The local construction market would be more active. These changes, we can argue, are in line with the tenets of the Global Shelter Strategy.

The shift from building low-cost houses to the above suggested scheme would also contribute to cost recovery, rationalize the subsidy policy, give more attention to improving the existing housing stock, provide more opportunity for people to be involved in building their own houses at a cost they can afford and increase the proportion of owner-occupiers. In addition, it will help to reduce the financial burden of the government and divert the allocated funds to other areas of housing development. It will also introduce a new concept for housing; a shift from considering housing as a part of welfare, to housing as part of development, and from total dependency on the government to a mutual relationship between the government and the people. These shifts in concept, along with the diminution of involvement of previously powerful actors may generate opposition to the proposals from both political and technical sources.

7.9.1 ISSUE OF OPINIONS: FREE PROVISION VERSUS COST RECOVERY

The Federal government policy discussed in Chapter 3 illustrated that free housing provision is the corner stone of housing policy in the Northern Emirates. Having said this, two attempts by the Ministry of PW&H and the Ministry of Labour & Social Affairs have been made in the past to set up interest-free housing loan establishments to be involved in housing provision.

In 1979 the Cabinet Ministers issued a Federal resolution to establish a Federal institution to provide interest-free housing loans for 25 years with a minimum amount of Dh 150,000 and maximum of Dh 400,000 (Cabinet Minister Law No.8 for 1979). This institution was never implemented and was abolished by the Federal Law No. 1 for 1981. The Director of the Housing Department later stated that the political atmosphere at the time prevented the implementation of such a programme (Al-Khaleej, 6.1.1986). Another attempt to set up an interest-free housing body was initiated by the Ministry of Labour and Social Affairs at the end of the 1980s (Al-Khaleej, 22.10.1989). This proposal has also not been approved.

The Minister of PW&H in the FNC meeting stated that lack of funds was the main cause for not implementing the housing loan body (Al-Khaleej, 15.6.1994). The figures in Chapter 3 regarding housing fund allocation contradict with this statement. The figures show that the fund allocation for low-cost housing construction was Dh 500 million for the budgetary years 1992 and 1993 which is the highest budget allocation for low-cost housing since the establishment of the UAE Federation. However, it is believed that some of the top decision makers are in favour of the principle of providing free housing rather than other housing programmes such as interest-free housing loans.

The political and economic situation in the seventies and mid-eighties did not support the proposal of setting up housing programmes other than the provision of free low-cost houses. It is only recently that the local authorities of Abu Dhabi and Dubai Emirates have established other such housing programmes running parallel to the current active free housing programmes (Government of Abu Dhabi, 1990; Government of Dubai, 1993). The interest-free housing loan is intended to serve the high income UAE nationals in these two emirates while the free low-cost housing will still serve those from the low-income group. The Dubai Government, for example, allocated Dh 150 million of the 1996 Dubai Municipality budget to the Housing Aid Programme to provide free grants of about Dh 200,000 for citizens unable to build their own houses or build extensions in their own houses (Al-Khaleej, 29.1.1996). The Department of Public Works in Abu Dhabi Emirate is building now 2,655 low-cost houses and plans to build another 1,400 in the coming year (Al-Ittihad, 28.1.1996).

Moreover, the new plans of the Ministry of PW&H concerning housing provision still consider the free low-cost housing as the main programme to serve the low-income group in the future. In 1991 the Ministry of PW&H submitted a study to the Cabinet of Ministers on organizing a new plan of housing provision for UAE citizens. The study recommended that for those from the low-income group, the government will provide a free grant of Dh 200,000 while for those from the middle income group the government will provide an interest-free housing loan of Dh 400,000 to be paid within 25 years (Ministry of PW&H, 1991). The study, however, did not define the level of income of the low and middle income groups. This proposal has not yet been approved by the Cabinet of Ministers.

Although this was the first time a proposal had not referred to free low-cost housing as a main part of the Ministry plan to provide housing, the emphasis was placed on the free grant. However, in the latest proposal of the Ministry the stress is again placed on the provision of the free low-cost housing. According to the Minister of PW&H the new directions of the Ministry housing provision plan are:

1. to provide free low-cost houses for the low-income group;
2. to provide free grants of Dh 150,000 to the low-income government employees and those who receive social support;
3. to provide interest-free housing loans for government employees and university graduates (Al-Ittihad, 15.6.1994). Those whose income is at least Dh 12,000 per month are the only applicants who would be eligible for a housing loan (Al-Khaleej, 20.12.1995) but no definition is given for the income levels either low- or middle-income groups. Hitherto this proposal has not been approved.

In addition, the FNC continues to stress the provision of free-low cost housing, in all its recommendations concerning housing policy. In its recent address to the UAE president, the FNC emphasized the provision of low-cost housing for the low-income group (Al-Khaleej, 16.2.1996).

There is clearly a preference among the top decision makers, high housing officials and FNC towards providing free housing for UAE nationals who cannot afford to build their own houses particularly those from, what is called by official documents, the low-income group. This tendency has prevented even the setting up of an interest-free housing loan system in the Northern Emirates. The current direction of housing provision is still based on such free provision, particularly for those from the low-income group.

What is the rationale behind this choice rather than a housing provision scheme based on cost recovery? In order to answer this question more emphasis should be placed on investigating the opinions of the top decision makers and housing officials who formulate the housing provision policy in the country.

The lack of available officials documents concerning the above has forced the researcher to discuss the findings of the housing preferences directly with housing officials in order to explore their responses towards such issues. The starting point for this discussion was the statement made by the UAE President in an interview with a local TV station:

" the government will keep providing free housing as most of UAE nationals are not able to afford to build their own houses to an adequate standard and thus the government should help them to acquire such an adequate house" .

This notion was criticized by some former housing officials who held the opinion that such ideas:

" came from limited thinking and were due to political reasons and are basically incorrect".

Another housing official sees the free housing policy as:

"a policy of charity to continually place citizens in a position of having to ask the top decision makers to provide them with such free houses... it is a policy of humiliation".

Another housing official sees the policy as being supportive to UAE nationals:

" nationals should not be given a loan or be loaded with such a burden. Perhaps the citizen will be unable to repay such a loan...therefore the policy of free low-cost housing will still be active in the future" .

Other housing officials believe that because the UAE is a wealthy country it should not provide housing loans but free finished houses:

" and how it is acceptable for a wealthy country to ask its citizens to repay the loan especially if such a group are ordinary citizen".

Other housing official⁹ argued that:

" low-cost housing is a form of wealth distribution and thus it should be provided free".

The area that top decision makers and the housing officials focus on is that of housing as a tool of wealth distribution and a tool for political stability in certain areas of the country. Free provision is also part of an outstanding tribal tradition and can be used

⁵

The UAE President talking with members of the Marriage Fund on 22.5.1993, (Interview in Abu Dhabi TV on 22.5.1993).

⁷Interview with Dr. Saed Salman the first Minister of Housing on 16.11.1993.

⁸Interview with Deputy Housing Minister and the Director of Housing Department, 12.3.1996.

⁹Interview with former Deputy Minister of PW&H on 31.3.1994

Interview with a former member of Housing Loan committee (1979) on 12.1.1996

to generate wealth for certain groups or certain tribes by controlling both the fund allocation for new low-cost housing construction and housing allocation. Regardless of the flaws in the free housing system, the fact remains that the voices of the top decision makers are loud and powerful.

7.9.2 FREEDOM TO BUILD: ISSUE OF STANDARD

This section examines the perceptions of the top housing officials regarding popular construction and whether the government would consider building low-cost houses using popular construction. Also on the assumption that the government would provide finance for people, would it allow them to build their houses by the method of construction they prefer? These two questions have been discussed with top housing officials¹⁰.

The starting point for examining the official perceptions regarding type of construction was how the Ministry of PW&H intended to avoid reinforced concrete deterioration in the future. For some housing officials:

"the standard of construction should be raised by assuring the quality of building materials used and the employment of both qualified construction firms and supervisory staff".

Another suggested that:

"the use of precast concrete would improve the quality of construction and, for example, the current deteriorated reinforced concrete roof of the low-cost houses should be replaced with precast concrete panels".

Such responses from the high housing officials suggest that the only solutions they consider to be feasible involve the increased use of technology: a higher construction standard. This requires more capital. It may also require more qualified staff. However, without improving the standard of supervision and quality control in construction, precast panels would not solve the problem.

The suggestion of reverting to the use of popular construction in building the low-cost houses is not acceptable for some housing officials:

¹⁰

Interview with Deputy Minister of PW&H and Directors of Housing Department and Design Department on 12.3.1996.

"the popular construction is not of high quality, not durable and does not meet the requirements of fire safety"

Other housing officials said:

"The government should build houses of high quality for people. It is not acceptable for the Ministry to build with popular construction, a method people never build with nowadays".

However, building with popular construction might become acceptable for some engineers and architects in the Ministry if it could be improved to meet certain standards of fire safety, as one architect said:

" if the Ministry would use the popular construction it should set certain building standards in order to assure the construction quality of popular construction, such as timber protection and water proof protection "

Other housing officials were even convinced that using popular construction would not only be opposed for technical reasons but also for what he called:

" an issue of prestige "

This link between type of construction and modernity actually led to the cancellation of a programme for building extensions to popular housing in the 1970s. The Ministry of PW&H established a housing programme of building extensions, such as additional bedrooms , kitchen and bath/toilet rooms for existing houses in 1975 (Ministry of PW&H, 1975a). These extensions were to be built using popular construction. The programme was active at all emirates in that time. The local municipalities of Abu Dhabi and Dubai did not allow building extensions using popular construction and, therefore, extensions in these two emirates were built using reinforced concrete. This exception for these two emirates has raised questions regarding why popular construction was only used in the Northern Emirates when reinforced concrete was used in two emirates. According to some housing officials:

"some of the top decision makers in the Northern Emirates have criticized the Ministry of PW&H for building extensions of popular construction in their emirates...they considered it to be a kind of discrimination between UAE nationals".

11

Interview with the head of building Unit at the Northern Zone, Ministry of PW&H on 8.3.1996.

To avoid such problems a decision was made by the Ministry of PW&H to cancel building extensions using popular construction and to build only using reinforced concrete. Therefore, the association of the type of construction with modernity and prestige could not support the suggestion of building government houses using popular construction as long as the popular construction is linked with the pre-oil era and the status of being poor and underprivileged.

The perception of linking building in popular construction with poverty and backwardness is also found among some professionals who believe that building houses using popular construction is part of the past, as one member of private consulting engineering office said:

" the popular construction is old fashion and if one of my clients intends to build by such a method I try to change his¹² mind and build by reinforced construction" .

Therefore, the suggestion of building government houses using popular construction may be opposed. This opposition may come from a belief that the government should provide houses of as high a standard as it can afford. However, such a belief may change if people were to build their houses according to their affordability.

7.9.3 THE PROVISION OF LAND AND INFRASTRUCTURE

The provision of interest-free housing loans would increase the demand for land and infrastructure. Although the land is provided free and only nominal fees are charged for infrastructure, the question remains whether the government can continue with such a policy taking into consideration the growing demand for both. The lack of official data on supply and demand for residential land may make it difficult to gain a clear understanding of the situation. However, the findings generated from the field work could help to reveal some clues regarding the supply and demand for land.

The applicants for low-cost housing were asked whether they own residential land or not. Two thirds of the applicants said that do not own land. Those who do not have land were asked the reason for not owning land. 57 per cent stated that they have already applied for land but they are still on the waiting list. 30 per cent stated other reasons such as that if they apply they would not get land. 3 per cent stated that they had land but it was far away from services and therefore they sold it. Others stated

¹² Interview with consulting engineering office owner on 18.3.1996.

that they can not build their own houses within 6 months according to the law and others stated that there are no services of electricity and water in their areas for new development.

The above findings show that there are many difficulties blocking the access to land. These would increase with the availability of an interest-free housing loan since such a scheme would increase demand for land. Another problem which may also face the government in the provision of land and infrastructure is the large size of residential land granted to the citizens. Local governments usually grant plots ranging from 1,089 square metre (30mx30m) to 1500 (30mx50m). The cost of providing only the electricity and water is Dh 43,949 (\$11,800) according to 1990 prices. Beneficiaries only pay nominal fees for electricity and water ranging from Dh 5000 (\$ 1,350) to Dh 15,000 (\$ 4,000) according to the electricity load. With such a large plot size and infrastructure subsidies it would also be difficult for the government to continue such policy taking into consideration the growing demand for both land and infrastructure services. In conclusion, the supply of land and infrastructure would become a problem if the current policy of free distribution and subsidies is not changed.

7.10 SUMMARY

This chapter examined the housing preferences of applicants and users of low-cost housing. Findings in this chapter showed the diversity of what applicants need to improve their housing conditions. Applicants are not in need of standard finished housing units but rather of additional space and the maintenance of their existing housing units. Findings illustrated a mismatch between what people need and what is provided. Discussion in Chapter 3 showed that the assumption by the government that people are in need of a finished housing units of 340 square metres and cost of Dh 400,000 is incorrect. We have shown that applicants' preferences range from housing units and additional rooms to maintenance. Such preferences vary widely in cost.

It was found that, with access to permanent income, land, infrastructure, building material and labour, people can do a lot to improve their housing conditions. However, the prevailing environment of dependency and free housing provision blocks any such improvement. In addition, the absence of any alternative housing programmes contributes to the static state of applicants' housing conditions.

Table 7.31. Summary of the applicants housing preferences

If there were other housing provision programmes available, such as interest-free housing loans, would you still apply for low-cost housing?	yes 38% no 60%
Would you like to pay part of your monthly income to have an interest-free loan from the government to build your own house and repay the instalments within 15 to 20 years?	Yes 69 No 31
Preferred type of construction	Reinforced concrete 44% Popular construction 56%
Cost of the house	100,000 6% 100,001 to 200,000 27% 200,001 to 300,000 35% 300,001 to 400,000 16% More than 400,001 14%
Affordability of the preferred housing loan	75%
Affordability of the preferred housing loan and infrastructure	64%
Affordability of the current low cost house without land cost	52%

Source: Fieldwork, Dec 1994-April 1995

Table 7.31 summarizes the applicants housing preferences. The housing preferences of the majority of applicants are not compatible with what is delivered by the current free low-cost housing provision. The principles of applicants' housing preferences are based on the willingness to pay for housing, which means that applicants would have a high chance of access to housing provision as long as they pay for such housing and that there is a sustainable supply of funds generated from loan repayments. In addition, the involvement of the applicants in the housing process such as land location, design, construction and maintenance processes, would ensure that the houses built actually satisfied the applicants' preference.

Having a variety of preferred housing costs is a result of different housing needs. A large household, for example, would ask for more space. This variety may not only relate to the cost of the house that applicants would like to build but may also reflect the fact that the funding required may only be a supplement to the existing resources (including cash savings or existing houses) of applicants and, therefore, these funds would be integrated with existing resources rather being excluded as the case with the free low-cost house. Findings in Chapter 5 have shown that the majority of users, mainly the users of new low-cost houses, have the financial capability to spend on housing. Such spending has transformed the low-cost houses to a higher standard and quality. Such users were only in need of a little support from the government to be added to their existing resources of saving. Little government support, therefore, and users existing resources could be integrated. Owner-occupier applicants (see Chapter 5) are in need only of additional rooms. Such a need may cost one third or less than the cost of the current low-cost house and, therefore, applicants existing resources

could be integrated with government support and produce lower cost housing provision.

This chapter has also found a great gap between government provision and what people can really afford. It also showed the difference between what is preferred and what they can actually afford.

CHAPTER EIGHT
CONCLUSION AND RECOMMENDATIONS

CHAPTER EIGHT

CONCLUSION AND RECOMMENDATIONS

8.0 INTRODUCTION

This chapter brings together the main findings of this research by identifying the implications of the free low-cost housing provision on the target group's housing conditions and then summarizing their housing preferences. This chapter also outlines recommendations for future housing provision arising from the findings and identifies future areas of research.

The recommendations will be presented in two ways. The first set of recommendations are based on the assumption that the present low-cost housing programme will remain in place in providing housing in the manner presented in Chapter 3. These recommendations are based on the findings of Chapters 3, 5, and 6. The second set of recommendations are based on the assumption that there will be a shift in housing provision based on the findings about the target group's housing preferences in Chapter 7. The rationale for presenting the two scenarios is the assumption that there is a need for reforming existing low-cost housing in the short run and a shift in policy in the long run. The modification in policy, which will be presented in the first scenario, is required as a transitional phase in government housing provision. On the other hand a shift in policy is required in the long run to ensure the sustainability of housing provision.

8.1 SUMMARY OF THE FINDINGS AND POLICY IMPLICATIONS

The adoption of free low-cost housing provision was basically influenced by the availability of large oil revenues and the intention of improving the living conditions of UAE nationals. The programme was also intended to serve other purposes: maintaining social and economic stability, assisting wealth distribution, preventing demands for political participation and thus maintaining political stability. The free housing policy is also affected by the prevailing conviction of decision makers that a wealthy country, like the UAE, should provide free and adequate housing for those in need.

Since the early 1970s, with the availability of huge oil revenue, the new state has committed itself to providing "adequate housing" for all nationals. However, no clear definition has ever been given for the term. An adequate house is regarded as a right for every UAE national, particularly those who do not own their own adequate house already, those who cannot afford to build their own house, and those who do not already occupy an adequate house.

The current approach to improving housing conditions has been determined by the decision makers. The hasty development and rapid improvement of living standards resulted in new buildings of a higher standard than had previously prevailed in the country. With the availability of funds came the ability to employ experts from all over the world and to import any required building materials and equipment. The standard of the low-cost house, however, was decided by foreign professionals who simply transferred building standards from their own countries to the UAE. Foreign experts were the first to design and build low-cost houses in the UAE using imported building construction techniques and building materials.

During the last 25 years, the standard of low-cost house has been improved. There have been many changes in built-up area, numbers of rooms, size of rooms, building materials, facade physical appearance and cost per unit. These changes were intended to provide more adequate housing to meet the requirements of the target group and to overcome the drawbacks of early types of low-cost housing. However, there is still no clear definition of the term "adequate house".

The improvements have, however, overlooked their impact on the supply, cost per unit and its relationship to available funds and growing demand. The fact that the Ministry of PW&H partly based their decisions regarding such improvement on the feedback from the low-cost users. Such feedback may be highly misleading since users of low-cost housing, as findings showed, are from different income groups and many of them may not be the people for whom such houses were intended. Improvements are made to the low-cost houses, on the principle that users have only to bring areas of inconvenience to the attention of the Ministry, and it is the Ministry responsibility to improve such inconvenience and subsequently pay for such improvement.

In conclusion, we can argue, that the problems of the low-cost housing, from the perspective of the Ministry of PW&H include architectural design, the number of bedrooms, rooms size, space configuration and exotic physical appearance of the low-

cost house. The solution to such problems is to increase the built-up area and then calculate the cost per unit. According to this calculation, the Ministry then projects the required funds every year or every five years based on the number of applicants who, as findings showed, may not actually need finished low-cost houses. With the availability of funds, which depends on oil prices, the Ministry can build certain numbers of low-cost houses and allocate them to a small number of the applicants, while the remaining part have to wait until more funds are allocated or until one of the decision makers intervenes and allocates funds from their own finance.

8.1.1 IMPLICATION ON SUPPLY AND DEMAND

The low-cost housing programme is based on free allocation which does not allow for funds revolving and therefore prevents any kind of self-sufficiency. The supply of low-cost housing, therefore, requires regular fund allocation which is based on the availability of oil revenue and the price of oil on the international market. The fluctuation of oil prices (which is considered an unsustainable source of income) has negatively affected the supply of low-cost housing. Therefore, the supply of low-cost housing was small when oil revenue was low.

The scale of the supply is also related to the standard of the low-cost house and therefore the cost of each unit. The use of reinforced concrete construction and the increase of the built-up area affected the cost of the low-cost house and subsequently affected the scale of the supply. The provision of the low-cost house as a finished unit (land + high standard of built up-area + infrastructure) has resulted in high cost (Dh450,922 (\$121,870)). This cost will increase in the future since there is an intention to further increase the built-up area.

The higher the cost of housing unit the lower is the scale of the supply. Thus increase in the standard of low-cost housing has decreased the supply. In the 1970s the supply was higher than in the 1990s although the allocated funds in the latter were 20 per cent higher. However, the supply in the latter was 30 per cent lower than in the former. The improvements provided better housing conditions for a few households but resulted in poorer housing conditions for a large proportion of households who missed out in the allocation.

On the other hand, the supply of free high standard low-cost housing has increased demand. This demand was also partly created as a result of the feelings of dependency on the government produced by welfare and subsidy programmes. The

link between citizenship and the right to housing also affects demand, as people simply apply because they are citizens. Free allocation with no repayment combined with undefined income and housing conditions criteria, as well as the potential bias in the housing allocation process, contribute to the increase in demand.

This situation has resulted in a dramatically increasing gap between supply and demand. The demand for low-cost housing combined with the high cost of housing units has resulted in an over-estimation of the funds required to meet such demand. The Ministry of PW&H (1991), for example, estimated the required funds for building low-cost houses until year the 2000 to be Dh 6.8 billion (\$1,8 billion). This is based on the current number of applicants and the cost of one housing unit as Dh 400,000 (\$108,100). Such an amount is 6.5 times the allocated funds for all federal low-cost houses built between 1973 and 1995. So, the funds which would be used to build low-cost houses over an 8 year period (1992-2000) are 6.5 times greater than those used to build them over a 22 year period.

In conclusion, the free housing policy has affected both supply and demand. The improvements to the low-cost housing has also affected both supply and demand. The increasing gap between supply and demand shows that the low-cost housing programme has been unsuccessful in relieving the housing shortage and meeting the growing demand created. It is, however, important to remember that the gap between supply and demand does not necessarily indicate poor housing conditions but rather the desire for free high standard low-cost housing.

8.1.2 IMPLICATION ON ACCESSIBILITY

Although the low-cost house is 100 per cent subsidized, there is no clearly defined eligibility criteria. The allocation regulations do not define the eligible applicant's income, nor does it define clearly what is meant by "adequate house". There is also a lack of clarity about what is meant by "the applicant's income does not enable him to build his own house". In addition, the current housing allocation process and the role of many actors in such a process allows a great deal of room for bias and inefficiency in allocation. Within such an environment, all people are encouraged to apply and the door is open for those who are not in need of housing to challenge those who are.

Households from different income groups have different housing conditions but all apply for a free house; those who are in need of some support from the government, those who are in need of full support, those who are in need of additional rooms and

those whose houses need maintenance, those who have the ability to build their own houses and those who don't all apply. The competition, therefore, is very high between the applicants to win the low-cost house "lottery". The door is open for applicants who have influence to use all the means they have to acquire a free low-cost house. All applicants try to prove that they deserve government support. This high demand and high competition decreases the chances of those who are in real need of housing. As findings showed, some owner-occupiers and land-owners achieve access to low-cost housing while those who are staying in sub-standard housing, those of low-income and those with large households are left on the waiting list. Despite the fact that the standard of low-cost housing has changed dramatically over the last 25 years, the law regulating the allocation of the low-cost housing of Dh 40,000(\$10,000) is still used to regulate the allocation of low-cost housing of Dh 400,000(\$108,000).

The eligibility criteria also place emphasis on giving priority to those who are not owner-occupiers and those who are currently living in poor housing conditions: low-physical quality, high occupancy and small room size. Therefore, the worse are the current housing conditions, the greater is the applicants chance of getting access to low-cost housing. Findings showed that some applicants who were living in poor housing conditions but were not keen to improve them, started to spend on changing the new houses, building extensions and purchasing expensive furniture after they acquired their free house. Applicants who were refused free housing started, on the other hand, to repair their own houses, build addition rooms and some even built their own houses. The eligibility criteria, therefore, do not encourage applicants to improve their existing housing conditions and even contribute to the deterioration of part of the existing housing stock. The free low-cost housing, therefore, improves the housing conditions of those who acquire them but worsens the housing conditions of those who do not by discouraging them from improving their existing housing conditions as a strategy to succeed in the allocation process.

8.1.3 IMPLICATIONS FOR HOUSING RESOURCES

The findings show that the great majority of both users and applicants have already established their housing resources. The great majority of users and some of the applicants have built their own houses. Others have land. The findings also showed that the great majority of users and applicants have permanent incomes from government occupations and some have other sources of income. People build their

own houses through the self-provided housing when they have access to finance, land, building materials, labour and infrastructure.

Providing people with finished housing units has resulted in encouraging them to abandon their previous houses. The low-cost housing transforms owner-occupiers to user-occupiers, a type of tenure which has previously been uncommon in the country. This change in tenure has contributed to further deterioration of the housing stock. On the one hand, it has led to the deterioration of the free low-cost houses since there are no clear regulations regarding who has maintenance responsibility; while, on the other hand, user-occupiers have been encouraged to move out of their previous houses, renting, selling out or abandoning them. Such a situation discourages them from improving their previous housing conditions.

As owner-occupiers who move out of their own houses into the low-cost houses become user-occupiers, they feel less enthusiastic about improving their housing conditions and become more dependent on the government. This new type of tenure increases government responsibility and requires more government funds. The government, therefore, has to allocate funds for building new construction and also for repairing them after a certain time. The more people become user-occupiers, the more funds are required for repair purposes.

The findings also show that the availability of free high standard low-cost housing discourages some applicants who have the financial ability to build their own houses from doing so. Therefore, free low-cost housing contributes to encouraging households to become user-occupiers rather than owner-occupiers. Such a policy in the short run may be considered beneficial for some users who acquire low-cost housing but in the long run it will result in deterioration of their housing conditions.

Some user-occupiers, however, after a certain time try to re-establish their previous type of tenure as they abandon the low-cost housing and build their own houses. The user-occupiers, who become temporary tenants, begin to re-establish their previous tenure of owner-occupier. Thus, some owner-occupiers lose their previous tenure by this programme and then have to re-establish the previous tenure.

So, instead of being a policy which contributes to integration between people's resources and government support, the low-cost housing programme does the opposite. It simply ignores people's previous resources and the potential of people to build their own houses, and provides them with new housing units of high cost. This

is a waste of housing resources and potential. The programme ignores the potential of people and their financial ability to improve their housing conditions. It also ignores the potential of existing self-provided housing to increase the housing supply. Instead of taking advantage of the people's potential to improve their own housing conditions with less cost and for a larger number, the low-cost housing programme ignores these advantages and provides housing of high cost for a few people. Ignoring the existing resources of the target group has increased the cost of the housing provision. The government spent more to build new houses than if it had given more consideration to existing resources, as building finished new houses of a high standard costs more than building additional rooms or maintaining existing houses. Building two rooms of 20 square metres area each using the popular construction, for example, may cost Dh30,000¹ (\$8,100), which represent only 8 per cent of the construction cost (Dh400,000) of a new low-cost house provided by the Ministry.

The initial provision of low-cost housing transferred some of the users from mud and palm leaves houses to those built of concrete and cement-sand block, finished with high quality building materials. Although many users were better housed before moving to the low-cost houses in terms of occupancy rate, the programme provides the base of land, infrastructure, two bedrooms and services for many to improve their housing conditions. Over time many users have built additional rooms and improved their occupancy rate. The mean average of bedrooms, for example, in the old low-cost houses increased from 2 to 4.6, more than the number of bedrooms in the new low-cost houses.

The improvement of the low-cost housing, however, has again ignored the potential of the target group to improve their own housing conditions. The users of the old low-cost houses, which cost only 10 per cent of the new ones, have added more rooms to their houses and improved their housing conditions with a low level of government support. Increasing the number of bedrooms and improving the low-cost house, however, has cost the government 10 times the initial provision, although such improvement could have been achieved using people's own resources if the government had provided them with a small amount of support: land, infrastructure and a low standard house.

The improved low-cost housing has also resulted in an unbalanced distribution of government resources among the users. Building standard low-cost houses of 4 bedrooms, 5 bath/toilets and 340 square metres built-up area and allocating it for

¹See Chapter 7-Built-up area of the preferred housing.

different household sizes has resulted in great disparity of housing conditions. The occupancy rate of some users is 0.5 persons per bedroom while for others it is three. So government resources, through the low-cost housing programme, are not equally distributed among users.

In addition, some of the improved low-cost houses, with the finance of their users, have been further transformed to an even higher standard with regard to space and luxury building material, fittings and furniture. Some users with a large number of rooms and built-up area have diverted their own resources to achieve an even higher standard. Some who are in need of little support from the government to improve their housing conditions receive more support than they need and thus spend their savings on achieving higher quality houses. Some through the improved low-cost houses get more than they actually need while those who are in need only of a small portion of government support to improve their housing conditions do not receive any. Those who were owner-occupiers and land owners were granted extra housing resources by having access to the improved low-cost housing while others who had no existing housing resources, such as tenants or those who have only land, did not receive any government support. The improvements to the low-cost housing have resulted in having only small numbers getting access to large government resources while the old-low-cost housing resulted in large numbers getting access to smaller government resources.

8.1.4 IMPLICATIONS FOR PHYSICAL QUALITY

Our findings also showed that a large proportion of the old low-cost houses have deteriorated. Such deterioration is associated with lack of clear definition as to who should be responsible for maintenance, the tenure conditions of user-occupiers, and the use of reinforced concrete construction. The deterioration of low-cost housing, which house half of the total national households, has resulted in the need for more funds for rehabilitation. The required funds for such rehabilitation are three times the allocated funds used to build low-cost houses until 1995. Such deterioration has forced some users to abandon their low-cost houses. Findings in Chapter 4 showed that more than one thirds of the users in the areas of study have abandoned their low-cost houses. Findings in Chapter 6 also showed that two thirds of the users sample intend to move out of their low-cost houses if they can afford to build their own houses in the future. Although the great majority of users built extensions, they also have the intention to move out. Such a situation again shows that the low-cost

housing programme has resulted in a waste of resources for both users and the government.

Moreover, the improvements to the low-cost housing have not solved the problem of deterioration. The improvements have only focused on increasing the built-up area while using the same standard of construction even though the deterioration has been clearly associated with lack of clear definition of maintenance responsibility and tenure conditions. Therefore, such improvement to the low-cost housing may lead in the future to further deterioration and more waste of resources for both new users and the government.

8.1.5 IMPLICATIONS FOR INCOME GROUPS

Table 8.1. Implications of low-cost housing on income groups (old low-cost houses)

Percent	Low-income	Middle-income	High-income
Owner-occupier	71	60	33
Do not maintain	42	24	9
Intention to stay	42	22	0

Source: Fieldwork, Dec 1994-April 1995

The low-cost housing programme has different implications for different income groups. About half of the low-income group, of whom two thirds were owner-occupiers before moving to low-cost housing, did not do any kind of repairs to their low-cost houses. About half of them have no other option than to stay in low physical quality houses until the government intervenes and provides them with another alternative. On the other hand, the majority of those from middle- and high-income groups did repairs to their houses and only a small number intended to stay in the low-cost houses.

We can argue that low-cost housing is transitional accommodation for some of those from the middle- and high-income groups. They move to such housing and enjoy staying there free of rent for as long as the house remains in good condition. During their stay they save and once the house begins to deteriorate they move out. So the low-cost house provides free temporary accommodation for this group until such a time as they can afford to build their own houses.

On the other hand, the low-cost housing is a terrible end for those from the low-income group. At first they enjoy the free, high standard accommodation compared with their previous residence, but some of them ignore the maintenance while others

can not afford to pay for it. Eventually the house becomes so deteriorated as to be life-threatening. They, however, have no other option than to stay in such poor conditions since they can not afford to build their own houses and can not improve their previous housing resources since they abandoned them so long ago.

In both cases the low-cost housing serves part of the target group only for a short time and at a high cost. However, the programme has most harmed the low-income group. Some users from the low-income group have first abandoned their own previous houses then lost their savings which they spent on building extensions and in the end they are forced to stay in poor housing conditions, which are even worse than their previous ones. So, the programme harms most those very people which it was set up to help.

8.1.6 HOUSING PREFERENCES

Findings showed that the free standard low-cost house is not the ultimate aim of the target group, but that they are forced to apply due to lack of alternatives. The prevailing climate of dependency also encourages applications. Some applicants are not actually in need of standard finished housing units but rather require additional rooms or maintenance of their current houses. Responses from the target group indicate that some applicants are more willing to improve their existing housing resources than move to a free low-cost house of high standard if policies and programmes enable them to do so.

Chapter 7 also revealed that two thirds of the applicants would not apply for the low-cost housing if there were other programmes of housing provision, suggesting that the majority of applicants are not in favour of the policy of providing free finished low-cost housing. Findings also showed that more than two thirds of the applicants are willing in principle to pay for an interest-free housing loan. A housing loan is acceptable among the great majority of the middle and higher income groups. However, only about half of the low-income group are willing to pay. The construction cost of the preferred type of house for the great majority of the applicants (85%) is less than Dh 400,000, which is the cost of the housing provided by the Ministry. The majority of applicants, mainly from the low-income group, could afford their preferred type of house within 25 years. Applicants, therefore, can afford to build their own houses in the long run if there are policies and programmes in place to enable them to do so.

Table 8.2. Housing preferences of the low-income applicants

Percent	Low-income group
Willing to pay Dh 500 and less	57
Not willing to pay at all	43
Preferred popular construction	73
Preferred housing loan of Dh 150, 000 and below	54
Afford to pay the housing loan	82

Source: fieldwork, Dec 1994-April 1995

Table 8.2 showed that more than half the low-income applicants are willing to pay and can afford to build their own houses if they have policies and programmes to enable them to do so. They can also build their own house at a lower cost than the current free housing if they are given the chance to build what they prefer and not what is decided by professionals and officials.

The housing preferences of the majority of applicants are not compatible with what is delivered by the current free low-cost housing provision. Findings generally illustrated a mismatch between what people prefer and what is provided. Implementing the housing preferences would lead to a shift from total dependency on the government to a mutual relationship between the government and the people. However, the possibility of implementing housing provision based on the applicants' housing preferences would diminish the role of certain actors in the current free low-cost housing programme and increase the role of other new actors. Such a shift, therefore, may not be easily tolerated by some decision makers and housing officials.

8.2 PROLOGUE FOR RECOMMENDATIONS

Findings in this research showed that the free low-cost housing prescribed by the government has many drawbacks. The free housing provision, particularly the improved low-cost housing, results in low supply and high demand, enabling only the few to access housing services, providing large improvements for some who are actually in no need of government support and some who only require partial support, contributing in wasting the resources of both the allocatees and government, causing deterioration of the low-cost housing stock and part of the existing housing stock and providing no sustainable source of funds. Those who are from the low-income group are the most disadvantaged beneficiaries of such a policy. In addition, the above policy does not match the housing preference of the target group. The great part of the target group want to be involved in the housing process and are willing to pay for such involvement to ensure more chance of access to housing services. Housing provision based on the target group's housing preferences would result in providing more

support for a greater number of citizens, changing their role from being passive recipients to active participants and the government's role from being one of control over all housing processes to that of being one actor among many, providing a sustainable source of funds and encouraging people to improve their own housing resources.

These two policy directions are at odds with one another. On the one hand, there is an existing free low-cost policy supported by the government which, the findings show, has not contributed in large medium term improvements in housing conditions. On the other hand, a policy following the target group's housing preferences has been suggested to make large improvements in housing conditions but, as the discussion showed in Chapter 7, it may not gain official support. How then can a satisfactory balance be achieved between the principle of free housing provision and the findings of this research? And how can satisfactory housing provision be designed taking into account the drawbacks of the current low-cost housing programme, the applicants' housing preferences and the directions from the country's top decision makers and housing officials?

In an attempt to provide some solutions to the above questions, the following discussion will argue the need for two scenarios within housing provision. The first involves the government's continuing to build housing units while applying reforms in various areas of the programme. Such a policy would be considered transitional. The second scenario is based on the assumption that there should be a gradual shift in policy. Such a scenario is based directly on the applicants' housing preferences, with government support in the areas of finance, land and infrastructure. Households on the other hand have to pay for such services and decide with the participation of the private sector (consulting private offices and construction firms) to build their own houses according to their own affordability.

8.3 THE NEED FOR REFORM

In the short run we can argue that low-cost housing should continue but with some reforms to the programme. The argument supporting the continuity of current policy is based on the following;

Firstly, altering housing policies generally has not been an easy task in many developing countries. The discussion in Chapter 2 showed that the governments of some developing countries were reluctant to shift from building public housing to

slum up-grading. Shifting from support to enablement approaches was also not easy in many developing countries without the support of international aid agencies. The experience of Kuwait, for example, shows that, despite the change in economic circumstances after the Gulf War, the momentum of the role of the state in housing subsidy has been maintained and there is little enthusiasm for reduction of the state involvement in housing (Sadik, 1996).

Secondly the low-cost housing programme was part of the welfare package provided by the newly established state and it still serves many purposes as other welfare programmes do. The discussion in Chapters 3 and 7 showed that low-cost housing is still considered the corner stone of housing policy and receives the support of the decision makers. People have become used to such government generosity and still wait for the free low-cost house "lottery". Low-cost housing projects are the tangible physical features reflecting the concern of the newly established federal state to provide adequate housing for its subjects. A shift in policy, therefore, may cause conflict with the existing political structure. It is also common that calling for change in any long-established system is unpopular with some of its beneficiaries.

A third obstacle to a policy shift may arise from the fact that the free low-cost housing is still current policy in Abu Dhabi Emirate. As there is separation between the federal and local government finance, the local government of Abu Dhabi has the financial means to finance the construction of new low-cost houses. The plan of the Abu Dhabi government is to build 1000 low-cost houses annually from 1997 (Al-Ittihad, 9.11.1996). A shift in policy in one part of the country and forcing people, particularly those from the low-income group, to pay for housing while in other emirates they still enjoy free low-cost housing may not gain either official or public support.

Just as abolishing slum clearing has taken time in many developing countries, a shift from free housing in the UAE to a programme based on cost recovery may also take time. However, continuing the current free low-cost housing programme will not contribute to improving the housing conditions of the target group and will also not serve the purposes of welfare for which it was established. Therefore, reforms are necessary in many areas of the programme.

8.3.1 REDEFINITION OF THE LOW-COST HOUSE

During the 25 years in which the low-cost housing programme has been running, there has been no clear definition of what is meant by the low-cost house. There are also no definite criteria regarding space unit per person, occupancy rate, and the level of subsidy the government should provide for each household. Taking into consideration the fluctuation of the allocated funds for building new low-cost housing, the continuity of the free grant system and the high demand, we recommend that such criteria be established, along with a new clear definition of the low-cost house.

This latter should be based on its purpose. Is the purpose of the low-cost house the provision of the basic housing environment of protection, safety and access to land and other essential services of electricity and water, as in the 1970s? Or is it the provision of the above together with more space and rooms that serve the current and future needs of the users and their children? If the low-cost housing programme is meant to provide an ideal house of high standard for all those in need, then the government should provide sufficient funds to meet both the high housing standard and high demand. However, taking into account the increasing demand and the fluctuation of allocated funds, the question is whether the current housing standard can continue to satisfy such high demand and also serve people's welfare? If, on the other hand, the low-cost house aims to provide the minimum basic housing services of land, infrastructure and core house of one or 2 bedrooms, kitchen and bath/toilet for a large number according to the available resources, then the current low-cost housing standard should be revised.

8.3.2 REDUCE THE STANDARD OF THE LOW-COST HOUSE

Taking into account the government's intention to provide free housing to all applicants and the fluctuation in allocated funds, we recommend reducing the standard of the current low-cost house. The built-up area and number of rooms should be reduced. The 1970s housing provision gave access to land, infrastructure and a building with two bedrooms for a large number of households at a lower cost than current provision. With such a small built-up area the majority of the users built extensions and improved their housing conditions. Households in the low-cost two bedroomed house eventually acquired a larger number of bedrooms than in new improved low-cost houses. The decision of the Ministry to increase the number of bedrooms in the new low-cost house, therefore, is not justifiable as users can increase the number of rooms at their own expense. The government must utilize fully the

people's initiatives in improving their own housing conditions and provide them with the basic housing services of land, infrastructure and core housing only.

A reduction in standard will first result in a decrease of the cost per unit, thus enabling an increase in the supply of low-cost housing and providing more opportunity for improvement for a large number of households. Such a reduction will also help to more equally distribute government housing resources of land and built-up area and overcome the currently biased distribution created by the high standard of housing. The current construction cost of Dh 400,000, for example, could be utilized to build 4 housing units of a smaller built-up area. Also, a smaller built-up area of 2 bedrooms will also help to divert people's resources toward building extensions instead of on luxury furniture. Provision of the basic housing services of land, infrastructure and core house only will encourage people to use their own resources to improve their housing conditions.

The above recommendation, however, may cause conflict because different household sizes would be receiving the same government support. We can argue, however, that the reduction in housing standard is intended to provide a large number of households with basic housing resources as there is a high demand. Each household under the new system would get free minimum government support, whereas increasing the number of bedrooms results in improving the housing conditions of some households (large household size) at the expense of others (small household size).

We could recommend, however, that low-cost housing should not be standardized but rather built in different types of built-up area and number of bedrooms. Nevertheless, such a recommendation does not sit comfortably with the principle of achieving equal distribution of free government resources. The principle of reducing the housing standard, therefore, is intended to achieve a fairer distribution of scarce government resources. By providing equal but smaller free government resources for all those in need, households then would start to improve their housing conditions according to their needs. In conclusion, we have to admit that, within the current free housing, there must be a trade off between improving the housing conditions of the few at the expense of others or providing equal government resources for a larger number.

8.3.3 THE INTRODUCTION OF OWNERSHIP RIGHTS

In order to overcome the issue of low-cost housing deterioration we recommend the introduction of ownership rights. Those allocated low-cost housing should, after a

fixed period of time, be granted rights of ownership which entitle them to sell or rent. The shorter this period of time is, the greater is the chance of ensuring maintenance of physical quality. This shift from usage rights to ownership rights will contribute to increasing the property market value and, therefore, will encourage improvements and repairs to the low-cost housing. Such a shift will also increase the proportion of owner-occupiers and clearly establish maintenance as their responsibility, thus helping to reduce dependence on the government.

Some would argue, however, that introducing ownership rights would encourage some to misuse their allocation by selling on or renting out. Such an argument has some foundation since some users have already sold or rented their low-cost houses although at present they do not have such right. However, we can argue that there should be a trade off between preventing such abuse and avoiding the deterioration of the low-cost housing stock which provides housing for half of the national households. If users were to get the right of ownership after a period of time, 5 years for example, they will first enjoy free accommodation, during which time they will have an incentive to improve and repair the property. Occupants who intend to stay in the house will probably invest and improve it both during this time and later. They then become part of the owner-occupiers.

If, on the other hand, the user intends to sell or rent the low-cost house, then they would presumably use their newly acquired funds to build their own houses. The low-cost house, therefore, will provide them with free accommodation for a period of time after which they would acquire funding enabling them to build their own houses. Ownership rights, therefore, make every one a winner: those who intend to stay in the low-cost house and those who intend to move out as well as the government who will no longer be responsible for maintenance and whose low-cost housing stock will be better cared for.

The continuity of the right of use which is based on the argument of preventing people from misusing free government support will only result, as is the case now, in more deterioration of housing stock. If the government decides to continue its present policy, we recommend that both the government and the user should take part in the maintenance responsibility. Since the low-cost house is government property built on government land and the users do not have the right to sell or rent it out, then the government should bear part of the maintenance responsibility. The user, on the other hand, should also uphold part of such duty since he is using the property free of charge. The government should provide the required maintenance for areas which

required professional expertise and skilled labour such as the reinforced concrete structure. Ensuring the physical quality of the main structure will decrease the probability of low-cost housing deterioration. The user, on the other hand, should bear the maintenance duty in other areas such as sanitary works, electrical works, carpentry, etc. The government staff should regularly inspect the low-cost houses to ensure that users are doing their duties regarding the maintenance.

The Department of Maintenance in the Ministry of PW&H, for example, can undertake such a task. The Department hires private construction firms to undertake the required maintenance works for the Federal government public buildings under the supervision of its staff. The department staff regularly inspect the public building and recommend the required maintenance. The maintenance works cover the repairs of reinforced concrete structures, cement-sand block work, water proofing, sanitary works, electrical works, and air-conditioning (Sultan, 1992; Al-Khaleej, 19.1.1993). In the case of the low-cost housing, this department should provide the required repair work for the reinforced concrete structure. If, however, the users have been granted the ownership rights, government will be no longer be responsible for the above.

8.3.4 MOVE TOWARDS OTHER CONSTRUCTION STANDARDS

The introduction of ownership rights will contribute only partly to solving the problem of low-cost housing deterioration. Those from middle and high income groups may be able to afford to repair their own low-cost houses but those from the low-income group may not. It could be that some of the latter group may opt to sell their low-cost house built of reinforced concrete as they cannot afford its maintenance. They may move to other houses built of popular construction which are more cheaply maintainable. However, there may be some from this category who choose to stay in their own low-cost houses but who may not afford its maintenance and, therefore, such housing may start to deteriorate. It is also possible that some from the higher income groups may be able to afford the maintenance of reinforced concrete but they may not have enough technical knowledge to be sure about the quality of work done by private firms.

Therefore, we recommend that, if the Ministry of PW&H still intends to build housing using reinforced concrete construction, then the Ministry should move towards establishing a specialized reinforced concrete maintenance unit or appointing some of the specialized private sector firms to take on such tasks. The purpose of such a unit would be to provide technical assistance for those from middle and high income

groups as well as providing maintenance services for those whose income is under Dh4,000.

The above recommendation states that government should bear the maintenance responsibility of the low-cost house only for reinforced concrete construction for those whose their income is less than Dh 4,000. Ignoring the repairs of this income group, even though users would have ownership rights, may lead to deterioration as it would be difficult for them to afford reinforced concrete repairs or even any others kind of repairs. Building low-cost housing using reinforced concrete construction and then expecting low-income users to take maintenance responsibility seems to contradict the government welfare aims and the call for improving housing conditions. The government should intervene to help this income group to avoid such a contradiction.

The above recommendations are not intended to suggest that the Ministry of PW&H should confine itself solely to one method of construction; rather that the lack of funds of the low-income group to repair the reinforced concrete construction and the scarcity of specialized maintenance firms should be taken into account when construction decisions are made. The fact that it is difficult to obtain high quality reinforced concrete in the UAE environment, and its high cost compared with popular construction, should also be considered.

There is a need to produce low-cost housing units which inhabitants can afford to repair according to their incomes and to the potentialities of the local building industry. The Ministry should take into consideration the need for long life buildings that serve those at the bottom of the income category. We recommend that alternative construction standards such as the popular construction should be investigated. Popular construction has the potential to provide people with both lower cost buildings and easier maintenance. If low-cost housing was built using the popular construction, then users would build extensions using the same method and the potential for deterioration would diminish. On the other hand, use of the reinforced concrete creates the potential for deterioration even if users were to be given right of ownership.

8.3.4 ESTABLISH OTHER HOUSING PROGRAMMES

In the absence of other housing programmes serving other income groups, it would be difficult to introduce any recommendations regarding the accessibility and the eligibility conditions of the current low-cost housing. It is necessary to clearly define

the target group served by the low-cost housing in order to establish clear eligibility criteria and ensure that the programme serves the target group for which it was established. If, for example, the low-cost housing programme were only to serve those whose monthly incomes are Dh 4,000 and below, then applicants from other income groups would not compete and there would be more housing available for the low-income group.

On the other hand, if the low-cost housing programme were to serve a particular group, then applicants from other income groups should have an alternative government housing programme which would also enable them to improve their housing conditions. Therefore, we recommend establishing other housing programmes run in parallel with the current low-cost housing that provides other free housing services in order to reduce the demand for such housing and provide alternatives for other income groups. We recommend, for example, the establishment of a housing unit that builds additional rooms and provides maintenance services for the established owner-occupiers in order to encourage them to improve their existing housing conditions.

8.4 THE NEED FOR A SHIFT IN POLICY

With the above recommendations, the free low-cost housing programme, like other provider approaches, is still likely to be successful in meeting the growing demand for housing and there will be fluctuation in its supply since such a programme depends on allocated funds from oil revenue. So if the programme had a deficiency in improving the housing conditions of the target group, obviously after a 40 or 50 years period, with the natural population growth and uncertainty regarding future oil revenue, the deficiency is likely to be greater. It may not result only in the deterioration of housing conditions but also in the long run in more social and political instability even though its original purpose was to avoid such unrest. Deficiency in such a welfare programme may also affect the political future of the decision makers.

The issue in the UAE is not one of poverty, lack of funds or large population like in most developing countries, but rather of not adopting policies and programmes which can cope with current economic circumstances. Policies and programmes are formulated without consulting their beneficiaries which results in wasted resources for both the government and the users. Over the last 25 years the Federal government has allocated one billion Dirhams for building low-cost housing. This figure does not include funds allocated by local governments. However, some of the users abandon

their low-cost houses while the remainder occupy deteriorated houses which need rehabilitation costing 1.6 times the construction cost. So the experiences of the UAE show that funds are not always the answer for development, but rather effective policies and programme which ensure effective utilization of such funds.

Taking into consideration the potential of people to build their own houses, and their willingness to participate in paying for housing and to be involved in the housing processes, and the uncertain economic future, the government's role in housing provision should be redefined. Findings show that the great majority of the applicants and users have a permanent government occupation and permanent income. The majority of the housing stock in the country has been built by the people through the self-provided housing. So there is great potentiality for improving housing conditions combining willingness to pay and involvement in housing processes with self-provided housing. Moreover, since the majority of houses in the country are built through self-provided housing, the government should promote and improve it by providing access to housing loans, technical assistance, land and infrastructure, and allowing the people to make decisions about their own housing according to their affordability. We can find the spirit of the enabling strategy in the existing self-provided housing and applicants' housing preferences but not in government low-cost housing programme.

The need for a shift in policy is required for the sake of both the ruling families and those in need of housing. Peattie (1987) questions whether social stability is best served by enlarging the responsibility of the state or that of other sectors. The same question could also be asked regarding the current free low-cost housing and other programmes which could provide a sustainable supply of housing services. Is social stability and the improvement of people's housing conditions best served by the government taking a dominant role or through recognizing the potential of the people and the existing housing supply? Will social stability and ensuring sustainable housing services be best served by forcing a few households to occupy free high standard housing or by enabling large numbers to build their own housing according to their own affordability? Will improving housing condition be best served by free grants or by cost recovery? If the answer to all these questions involves the implementation of new alternative housing policies, then, clearly there should be a shift.

It is necessary for policies and programmes to take into consideration the existing economic conditions and what people need and not what officials want. There is a

need for a shift from imposing housing on people and implementing programmes without consultation, even when what is being imposed seems to be good for people e.g. free, high standard housing. There is a need for a shift from housing that forces people to abandon it, to housing that the majority of people can improve and repair according to their affordability.

AREAS OF POLICY SHIFT

The second set of recommendations aims to achieve sustainable provision of housing services by redirecting public funds and programmes towards establishing finance institutions, providing land, infrastructure and technical assistance, and then allowing individual households to decide how to house themselves according to their affordability. The new housing finance institution should be self-financing, depending on cost recovery and fund revolving and not totally on fluctuating oil revenue. They should also provide alternative housing services for different income groups. The government, however, should define its level of subsidy for different income groups. It should also reduce its role in financing and controlling all housing processes and should give more room for individual households to participate. The potential of individual households and the existing housing supply for improving housing conditions should be recognized by the government.

8.4.1 RESOURCE MOBILIZATION

In order to achieve a sustainable supply of funds, provide households with some government support to improve their housing conditions, spread the available resources as widely as possible and reduce the level of government subsidy, we recommend the redirection of allocated funds towards establishing an interest-free housing loan scheme. Such a change is a step towards the shift from the current free policy to partial cost recovery. Oil revenue could be used to establish such an institution and subsidize the interest-free rate but in the long run such an institution should be self-financed. In the short run the interest-free housing loan may be considered a gradual step towards reducing the level of subsidy, as it is difficult to remove subsidies. In the short term the government has to subsidize the interest-rate but in the long run this institution should adopt other alternatives that can replace the government subsidy. This is to ensure funds can be regenerating in the long run as experiences from other Arab Gulf countries which adopted the interest-free housing loan showed the accumulation of numbers of applicants over the years. In Kuwait the number of applicants has exceeded 40,000 (Ashurq Al-Awsat, 20.2.1997) while in

Saudi Arabia the number was 139,521 in 1992 (Real Estate Development Fund, 1992).

This institution should provide different options for applicants with different income and housing conditions. For new housing construction we recommend the provision of interest-free housing loans as proposed by the Ministry of PW&H. However, such housing loans should not only provide for those with a Dh 12,000 monthly income and above, as proposed by the Ministry, but should also serve those whose monthly incomes are Dh 4,000 and above since findings showed that the great majority of those with middle-and high-income can afford to repay their housing loan.

On the other hand, those with a monthly income of Dh 4,000 and below need more government support in addition to the option of an interest-free housing loan. Such additional supports are justified because half of the low-income users did not repair their low-cost houses, half of this income group intend to stay in their deteriorated low-cost houses and also half of them are not willing to pay for an interest-free housing loan. With such findings it is unwise to ask applicants from this income group to use the same options that serve higher income groups. Some applicants from the low-income group may not be able to afford to pay off an interest-free housing loan if one is offered and, therefore, they may be excluded from receiving a government subsidy which would otherwise help them in housing themselves. Such an additional subsidy may, for example, be a cash grant or exemption from repaying a certain percentage of the housing loan. The level of additional government support, however, should be decided according to the applicant's monthly income per capita. Applicants with a low income per capita should receive higher government support than others with higher income per capita. The size of applicant's household used for this calculation should exclude sons or daughters who have jobs. Applicant's relatives who are staying in the same house maybe considered part of the household if they do not have jobs.

The above recommendation may seem to contradict the previous discussion in Chapter 5 which stated that occupational income does not represent real income since some applicants have income from other sources and, therefore, some applicants in the low-income group would receive government support undeservedly. It can be argued, however, that the difficulty of obtaining figures regarding all sources of income for UAE citizens is not a good reason to be lax about establishing clear boundaries between applicants. At least it is an attempt to direct government subsidies towards those who are in the bottom income group whereas the current

unclear eligibility criteria used in the low-cost housing programme opens the door to applicants from all income brackets to benefit from government support. Moreover, the additional government support recommended for those of the low-income group is not in the size and cost of the current low-cost housing but provision of minimum support to build basic housing services. Thus, while it is the case that some applicants from the low-income group who have other sources of incomes may get access to additional government support, the proportion would be low and they would only get access to small amounts.

Moreover, the above recommendation of providing applicants of Dh 4,000 monthly income and below with additional government support would exclude other applicants whose monthly income hovers just beyond Dh 4,000 from receiving such support. Applicants of Dh 3,900 monthly income, for example, would receive additional support while other of Dh 4,100 would not. Therefore, we recommend that applicants whose monthly income hovers just beyond Dh 4,000, for example between Dh 4,000-4,500, may get additional government support. The decision of whether those applicants get such support may be taken by a committee designated for such purposes and based on the applicant's number of children and their current housing conditions.

8.4.2 INCREASE THE LAND AND INFRASTRUCTURE SUPPLY

The provision of an interest-free housing loan, as discussed in Chapter 7, would increase the demand for land and infrastructure. It may also result in land speculation and, therefore, an increase in land prices. Such a situation may make it difficult for some households to access land, particularly those whose monthly income is less than Dh 4,000. Land owners from middle and high income groups may become beneficiaries of interest-free housing loans while non land owners will consequently be excluded from having access to interest-free housing loans.

Therefore, we recommend the establishment of a land and infrastructure institution whose aim is to provide households with residential land with infrastructure in place. Such an institution could be financed in the short term from the funds allocated for building low-cost housing and from funds allocated to the Ministry of Electricity and Water but in the long term a cost recovery principle could be adopted with beneficiaries charged for services. In the short term the institution could provide its services while only charging part of the cost which should vary according to plot size and applicant's income. However, in the long run we recommend gradual increasing of the service cost with the aim of achieving only a low government subsidy.

8.4.3 FREEDOM TO CHOOSE CONSTRUCTION STANDARD

The provision of an interest-free housing loan should in no way confine beneficiaries to build with construction standards prescribed by the government. If the government, for example, were to insist on building with reinforced concrete, then the construction cost would increase and then the loan value would increase. The government should also intervene after construction to assist beneficiaries to repair their own houses again, particularly those from the low-income group. Therefore, we recommend that beneficiaries should have the freedom to build their own housing using the standard of construction they prefer as long as it does not break local authority building regulations and as long as it complies with safety regulations. The government should also encourage beneficiaries to use low cost construction standards with affordable long term maintenance costs. We also recommend that government should provide technical assistance regarding design and supervision for those from the low-income group.

Although the above recommendations give people the freedom to build their own houses, the potential of the popular construction in providing lower construction cost at an affordable long-term maintenance cost is stressed. Government professionals should seriously consider the advantages of popular construction and study the possibility of using it on a wider scale. There should be no question, however, of imposing popular construction or any other type of construction on people, but it is important to make clear the advantages and disadvantages of each construction standard in terms of construction cost, long term maintenance cost and the capability of the local building industry regarding maintenance. Households from different income groups, particularly low-income households, should consider all the above factors before building their own houses. They should also be encouraged to use low cost construction and low long term maintenance costs. The importance of maintenance should be stressed and government institutions should establish regulations and legislation that achieve this aim.

8.4.4 INCENTIVES FOR ESTABLISHED OWNERS-OCCUPIERS

Established owner-occupiers should be encouraged by the government to stay and improve their existing housing by establishing incentives to achieve the above aims. Programmes set up to serve only new housing construction may force established owner-occupiers to neglect maintenance and improvements to their own housing. They may deliberately not, for example, repair their own houses or build additional

rooms to prove that their existing housing is inadequate and that they should therefore qualify for an interest-free housing loan. Thus the policy of concentrating on new housing construction could contribute to the deterioration of part of the existing housing stock and increase the proportion of those who receive government subsidies (the interest-free housing loan).

Therefore, we recommend the provision of the above interest-free housing loan for the purposes of the maintenance and building additional rooms. In addition, we also recommend the provision of free cash grants for the above purpose for those of middle and low-income group. The cash grant should have a maximum limit which is determined according to the applicants' income, existing housing conditions and household size. Owner-occupiers whose monthly income is less than Dh 4,000 should receive a higher cash grant than those of middle income. We also recommend that owner-occupiers from the low-income group should be entitled to such a cash grant more than once in order to enable them to improve their housing conditions. The cash grant recommendation is justified by the fact that the government subsidizes the interest-rate for new construction in the long term. In order to reduce the number of applicants for such a subsidy the government should provide incentives for established owner-occupiers to stay and improve their housing conditions by providing them with cash grants which may well be less costly than subsidizing the interest-rate for 20 years for example.

Providing established owner-occupiers with the above interest-free loan for maintenance purposes should be done alongside establishing regulations that ensure the effectiveness use of such capital in the repairs works. Owner-occupiers, for example, may not start the maintenance works until the property deteriorates and is in poor low physical repairs. The repair for such property may require large capital. Therefore, incentives should be instituted to encourage established owner-occupiers not to ignore regular or preventive maintenance when required. Such aims could be achieved through regular inspections done by the interest-free loan institution staff to the properties of the owner-occupiers in order to assess the housing condition of such properties and whether they require maintenance. Such regular inspection would ensure that the property will not be left to deteriorate and regular maintenance will take place if necessary. Moreover, another way of ensuring the good physical quality of the established owner-occupiers properties could be attained by allocating annual capital for each owner-occupier. The amount of such capital may be based on the house market value, type of construction used in the house, built-up area of the house

and owner's income. The owner-occupier can borrow this amount annually if the property needs maintenance.

We also recommend that the government should provide technical assistance regarding maintenance for grant beneficiaries in order to ensure its quality. Such a step is essential as the building industry lacks qualified construction firms for maintenance purposes. The government should also provide financial assistance for construction firms to encourage them to be involved in maintenance works. The Ministry of PW&H, for example, provides 25 per cent of the total construction cost as an advance payment for construction firms involved in buildings Federal building. Such a step could also be used to involve construction firms in maintenance works.

In conclusion it can be said that, although the UAE enjoys huge oil revenue and nationals have access to permanent income, there is a lack of housing policies and programmes which take advantage of this potential and utilize it effectively to improve the housing conditions of the target groups. The recommendations in the second scenario, therefore, are an attempt to redefine the role of the government in housing provision, from being the provider of free finished housing units to becoming a supporter in the areas of finance, land, infrastructure and technical assistance. The recommendations also place more emphasis on the role of the households to become involved in the housing processes.

8.5 FURTHER AREAS OF RESEARCH

This research is an attempt to understand the housing processes of the government's current low-cost housing programme and its implications for the target group's housing conditions. However, the dearth of housing data and studies in the UAE necessitates more research since it is difficult for policy makers to set up effective housing policies and programmes that contribute to improving the housing conditions of the target group without up-to-date, relevant information.

It is essential to conduct further surveys and research that cover a large proportion of the low-cost housing users and applicants in all areas of the Northern Emirates in order to gain a comprehensive understanding of the target group's socio-economic characteristics and housing conditions. Moreover, more studies should be conducted on self-provided housing and its components in order to gain a more profound understanding of how it works and to come up with means that can help make it more *effective in increasing the housing supply*. The building of extensions to low-cost

houses require also more examination in order to understand its housing processes and how users achieve a high number of rooms at a lower cost than those built by the Ministry of PW&H. More research is also needed to study the small construction firms and their role in producing low cost construction to the majority of households.

In addition, further research should be conducted to find out to what extent the current design of the low-cost housing in terms of space configuration and space size satisfies the socio-cultural values of the users and how such design is acceptable to the local culture. More research is also needed to examine the influence of the socio-cultural values on the dwelling design and size and how such values are affecting dwelling design in general and the low-cost houses in particular.

Further research should be conducted around the provision of a sustainable and affordable supply of land and infrastructure for all households, particularly those with a low income. Moreover, methods of household participation in the different housing processes within the context of the UAE and how to establish alternative housing finance to replace the current heavy government subsidies should also be explored.

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APPENDICES

APPENDIX 1

The applicant questionnaire

1. The area
2. Are you
 1. married
 2. married with more than one wife
 3. divorced
 4. widowed
- 3.No of children living with you in the house
1.....
4. Age
1.....
5. Education level
 - 1.-illiterate
 2. read and write
 - 3.-intermediate school
 - 3.-secondary
 - 4.-university and above
- 6.Occupation
 1. civil servant
 2. working with army
 - 3 business man
 4. working with ministry of Interior
 5. unemployed
 6. retired
 7. Others (specify).....
7. Where do you live now
 - 1-in my own house
 - 2-with my parents
 - 3-with my relative
 - 4-live in rental house
 - 5-other-----
8. Type of current house
 - 1.-Arabic house
 - 2.-villa
 - 3.-flat
 4. villa with extension of services(kitchen, men's reception)
 - 5.-other

9. No of person in the current house
 1.....

10. No of households living with you in the house
 1.

11. If you are living in your own house, please answer the following questions.

11/A. Give your level of satisfaction for the following.

	low satisfaction				high satisfaction				
	1	2	3	4	5	6	7	8	9
No of bedrooms									
Size of bedrooms									
Location of majles									
Size of majles									
Size of hall									
Location of kitchen									
No of toilets									
Size of toilets									
Plot size									

11/B. How long have you been lived in the current house
 1..... years

11/C. No of rooms

1. bed rooms	
2. men reception	
3. kitchen	
4. toilet	
5. hall	

12. What is more suitable for your housing preferences and would improve your housing conditions?

1. maintenance for your house
2. demolishing and building new
3. adding additional rooms
4. others.....

13. Why did you apply for the low-cost housing programme?

1. need a decent house
2. the poor quality of previous house
3. need more space for the family
4. no alternative
5. other-----

14. If you do not get a low-cost house, what are you going to do

- 1.-are you going to stay in your previous house

- 2.-are going to build new house from your saving
- 3.-are going to apply for a loan from any commercial bank to build your house

15. Do you own a plot

- 1. yes
- 2. no (go to 16)

16. If you don't have a plot, why don't you apply for a plot

1.....

17. If there are other housing provision programmes like providing housing loan or housing bank would you still apply to low-cost housing programme?

- 1. yes
- 2. no

why do say that.....

18. If no, what type of housing provision do you think the government should adopt

- 1. building low-cost housing and providing it to national people by charging them the cost of it within 15 to 20 years.
- 2. building low-cost housing and renting it to national people
- 3. providing interest-free housing loan
- 4. Other.....

19. If yes, why do think that the government should continue with the current free housing provision of low-cost housing.

.....

20. What type of construction do you prefer in building your house

- 1. concrete construction
- 2. popular construction
- 3. other.....

21. If the government were to give you an amount which is equal to the cost of the low-cost house, could you build a better house which is more convenient to your needs.

- 1. yes
- 2. no
- 3. I do not know

why do say that.....

22. Would you like to pay a part of your monthly income to have interest-free housing loan from the government to build your house in a location you choose

- 1. yes (go to 23)
- 2. no (go to 24)

23. If yes, please answer the following;

23/A. How much would be the amount of loan you would be willing to obtain from the government.

1.....Dh

23/B. How much would you be willing to pay monthly for the loan.

1.....Dh

24. If no , would you pay 500 Dh per month to obtain a loan from the government to built your house on plot you choose.

1. yes
2. no (go to 25)

25. What is the minimum amount you can pay to obtain housing loan from the government

1.....Dh

26. Would you mind telling me your monthly income

1.....Dh

27. Do you have other source of income?

1.....

APPENDIX 2

The users questioner

1. The area.....
2. are you
 1. married
 2. married with more than one wife
 3. divorced
 4. widowed
3. No of children living with you in the house.....
4. Age.....
5. No of person in the house now.....
6. No of person in the house when you got the house.....
7. No of households in the house.....
8. Education level
 - 1.-illiterate
 2. read and write
 - 3.-intermediate school
 - 3.-secondary
 - 4.-university and above
9. Occupation
 1. civil servant
 2. working with army
 - 3 business man
 4. working with ministry of Interior
 5. unemployed
 6. retired
 7. Others (specify).....
10. Type of previous housing
 1. Arabic house
 - 2.-villa
 3. villa with extension of services (kitchen, men's reception)
 - 4.-flat
11. Type of construction of the previous house.....
 1. popular construction

- 2. concrete construction
- 3. others.....

12. No of rooms in the pervious house

Majles	
Bedrooms	
Toilet	
Kitchen	
Hall	

13. Previous tenure

- 1.-owned house
- 2.-rental house
- 3. live with relative

14. Did you sell your previous house

- 1. yes
- 2. no

15. Did you rent your previous house

- 1. yes
- 2 no

16. How long have you been living in this house

No of years.....

17 .why did you apply for low-cost housing programme?

- 1. need a decent house
- 2. the poor quality of previous house
- 3. need more space for the family
- 4. no other alternative
- 5. because it is a free grant
- 6. other-----

18. How would you assess the physical quality of the main structure of your low-cost house (based on the presence of cracks and steel corrosion in the columns, beams, roof slab and block work and the presence of water leaks from the roof.

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

19. for how long do you plan to stay in this house?

- 1.No of years.....
- 2. until I can build anther house
- 3. for ever
- 4. others.....

20. did you add additional room to your house

1. yes (go to 21)
2. no

21. If yes answer the following:

21/A. What type of rooms?

1. men reception
2. bedrooms
3. kitchen
4. toilet

21/B. What type of construction did you use in additional room?

- 1.-concrete construction
- 2.-popular construction
3. asbestos
- 4.-others

21/C. How long had you lived in the house before you built the additional rooms

1. No of years.....

21/D. How much did you spend on building the additional rooms .

- 1.....Dh

22. What are the changes and alterations have you applied to your house

.....

22/A. Cost of these changes.....Dh

23. Have you repaired your house (reinforced concrete structure, blockwork and plaster, water proof and sanitary)?

- 1.yes (if yes go to 24)
- 2.no (if no go to 25)

24/A. No of repairs.....

24/B. How much have spent on repairs (reinforced concrete structure, blockwork and plaster, water proof and sanitary)

- 1.....Dh

25. If you did not maintain your house so far, do you have any plan to maintain your house

1. yes
2. no

26. Do you think that you could maintain your house as reinforcement concrete is the main building material

1. yes
- 2.No
3. I do not know

27. Do you think that if the popular construction is used in your house , you could maintain your house

- 1. yes
- 2. No
- 3 I do not know

28. Who should be responsible for maintaining the house

- 1.- the owner
- 2.-the Ministry
- 3.-the local authorities
- 4.I do not know

29. what type of construction do you prefer in building your house

- 1-concrete construction
- 2-popular construction
- 3-other-----

why do you say that.....

30. (For old low-cost house users) Would you like to pay a part of your monthly income to have a interest-free housing loan from the government to build your house in a location you choose

- 1.yes (go to 31)
- 2.no (go to 32)

31. If yes, please answer the following;

31/A. How much would be the amount of loan you would be willing to obtain from the government.

1.....Dh

31/B. How much would you be willing to pay monthly for the loan.

1.....Dh

32. If no , would you pay 500 Dh per month to obtain a loan from the government to built your house on plot you choose.

- 1. yes
- 2. no (go to 33)

33. What is the minimum amount you can pay to obtain housing loan from the government

1.....Dh

34. Would you mind telling me your monthly income

1.....

35. Do you have other source of income?

1.....