



**Dissertation**

**By**

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**UNIVERSITY OF IBADAN**

**IBADAN, NIGERIA**

**A Geographic Analysis of Gender issues in Housing  
delivery in Ibadan, Nigeria**

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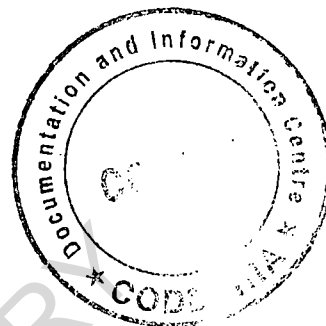
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**A GEOGRAPHIC ANALYSIS OF GENDER ISSUES IN HOUSING DELIVERY  
IN IBADAN, NIGERIA**

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**A THESIS IN THE DEPARTMENT OF GEOGRAPHY  
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**ABSTRACT**

Though women are the major consumers of housing services, their spatial involvement in housing delivery, satisfaction with the houses delivered and impacts of housing on them have been invisible in existing studies. Therefore the study sets out to investigate variations in the involvement of women and men in housing development, and the determinants of women's involvement in housing development decisions. The study also examines variations in the level of women's satisfaction with the houses delivered, and gender differences in the impact of housing on the activities of women and men. Furthermore, the study examines the impact of housing stressors, housing attributes that could be stress-inducing on the physical well-being of women and men.

The study used primary and secondary data. The primary data was obtained through a systematic random sample survey of seven hundred and twenty-one (721) households, which represent 0.20 percent of the estimated households in Ibadan municipal area as of 1999. Information was collected on women's (and their spouses if any) involvement in housing development, satisfaction with housing, their daily activities, and housing attributes. Data was also collected on women's physical well-being which comprises psychological distress information and health problems that are particularly related to poor housing condition. The secondary data included information on women's and men's involvement in housing development as indicated by building

plans registration (1991-1999), and applications for certificates of occupancy (1989-1999). Both descriptive and multivariate statistical techniques were used to analyze the data.

The study revealed that, generally, there is low involvement of women in housing development. The general perception of women is that housing provisions are the responsibilities of male heads of households and is significant at  $p < .05$ . Significant intra-urban variation does not exist in the involvement of women in each of the critical aspects of housing development which are: land acquisition and preparation, housing design and planning, housing finance, actual construction of the building, production/procurement of the building materials, and housing maintenance. However, more than in any other aspect of housing development, women are found to be involved in housing maintenance activities and is significant at  $p < .05$ . Significant gender difference at  $p < .01$  is found in the application for building plan registration, certificate of occupancy, ownership of land, ownership of houses, and housing plots, that is, residential building project in progress. Men are found to have applied for building plan registration and certificates of occupancy more than women. Also men are found to own more plots of land, more number of houses and housing plots than women.

The determinants of women's involvement in housing development in order of importance are their aspiration and awareness, socio-economic characteristics, social

support/network and physical support, responsibility in the household and the house cost which together account for 60% of the variations in involvement of women in housing delivery. The most important socio-economic characteristics are age, educational level and income. Women's involvement in housing development is found to be directly related to age, educational level, and income. It is also found to be directly related to their aspiration and awareness, social support/network and physical support. Furthermore, women's involvement is found to be inversely related to their perception of housing development, responsibility in the household and housing cost.

Significant intra-urban variations are found in women ownership of houses ( $p < .05$ ) and in the satisfaction of women with houses delivered ( $p < .01$ ) in the following order: high density (both traditional core and non-traditional core high density) < medium density < low density residential zones. Significant gender differences at  $p < .01$  is found in the following aspects of housing structural units in which women and men are specially interested: living room, bedroom and kitchen. Men appear to be more interested in the living room than women while women appear to be more interested in the bedroom and kitchen than men. Also significant gender differences at  $p < .01$  are found in the adverse effects of housing on women's and men's daily activities. Women's daily activities are more adversely affected than those of men.

Significant intra-urban variations at  $p < .01$  are found in the impact of housing stressors on the physical well being of both women and men. However, gender differences occur in the impacts of each of the housing stressors used in the analysis of their physical well-being. The impacts are found to be greater for women than for men in terms of housing stressors variables that is, lack of space, housing discomfort, physical housing condition and dissatisfaction with housing. The only exception is the high rent/cost where the impact is greater for men than for women. In addition, each of the housing stressors has more impact on the female-headed households than on married women living in the male-headed households. Furthermore, significant relationship at  $p < .01$  is found between women and men housing experience (as measured by the impacts of housing stressors on their physical well-being) and their socio-economic characteristics. However, for women's housing experience, the effect of each of the socio-economic characteristics that is, economic characteristics, family characteristics and social characteristics which is defined as responsibility for the overall housework and childcare is significant at  $p < .01$ , while for men's housing experience, only the effects of economic characteristics and family characteristics are significant at  $p < .01$  and  $p < .05$  respectively.

Policy implication of the study suggests that strengthening the participation of women as professionals and developers will enhance women empowerment in housing delivery. This can be achieved through improved access to adequate education and

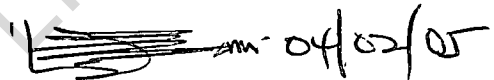
training, employment, provision of social support/network and physical support as well as a reorientation of women's mindset about the responsibility for housing provision. In addition, and in order to ensure improved housing for women, there is the need for spatial engineering otherwise known as spatial manipulation with a view to organizing and re-organizing space within the dwelling unit and the dwelling environments in such a way that is gender sensitive.

**Key words:** *Housing, Gender, Spatial engineering, Physical well-being, Ibadan,*

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**CERTIFICATION**

I certify that this thesis was carried out by Mr. R. A. ASIYANBOLA of the Department of Geography, Faculty of the Social Sciences, University of Ibadan, Ibadan, Nigeria.



Handwritten signature of Prof. M. O. Filani, dated 04/02/05.

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viii

**DEDICATION**

Dedicated to the  
**ALMIGHTY GOD**

With whom all things are possible

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**TABLE OF CONTENTS**

TITLE PAGE	i
ABSTRACT	ii
CERTIFICATION	vii
DEDICATION	viii
ACKNOWLEDGEMENT	ix
TABLE OF CONTENTS	xii
LIST OF TABLES	xvi
LIST OF FIGURES	xx
<b>CHAPTER ONE: INTRODUCTION</b>	<b>1</b>
1.1 Background	1
1.2 Research Problem	3
1.3 Aim and Objectives	10
1.4 Hypotheses	11
1.5 Justification of the Study	12
1.6 The Plan of the Study	15
<b>CHAPTER TWO: THEORETICAL FRAMEWORK</b>	<b>17</b>
2.1 Introduction	17
2.2 Theoretical Framework	17
2.2.1 Ecological Approach	17
2.2.2 Behavioural Approach	20
2.3 Literature Review	22
2.3.1 Gender and Gender Issue	22
2.3.2 Space, Gender and Housing	28

2.4 Summary	37
<b>CHAPTER THREE: METHODOLOGY AND THE STUDY AREA</b>	<b>39</b>
3.1 Introduction	39
3.2 Methodology	39
3.2.1 Primary Data	39
3.2.2 Sampling Method	43
3.2.3 Secondary Data	45
3.2.4 Method of Data Analysis	46
3.3 The Study Area	50
3.3.1 Location	50
3.3.2 Residential Districts in Ibadan	54
3.4 Summary	66
<b>CHAPTER FOUR: GENDER AND INVOLVEMENT IN THE HOUSING DEVELOPMENT IN IBADAN</b>	<b>67</b>
4.1 Introduction	67
4.2 Perception of Women's Participation in the Critical Aspects of Housing Development	70
4.3 Women's View of the responsibility of housing provision for the household	78
4.4 Women's Perception of the Building Activities Job	82
4.5 Involvement of Women in Housing Development Decisions in Ibadan	83
4.5.1 Level of Women Awareness	84
4.5.2 Women's Actual Involvement in housing development decisions in the household	89
5.6 Summary	95

<b>CHAPTER FIVE: GENDER AND HOUSE OWNERSHIP IN IBADAN</b>	96
5.1 Introduction	96
5.2 Gender and Building Plan Registration (1991-1999) and Certificate of Occupancy (C of O) Applications in Ibadan (1989-1999)	97
5.3 Gender and Land ownership and House ownership in Ibadan	101
5.4 Summary	112
 <b>CHAPTER SIX: DETERMINANTS OF WOMEN'S INVOLVEMENT IN HOUSING DELIVERY IN IBADAN</b>	 113
6.1 Introduction	113
6.2 Choice of Independent Variables	116
6.3 Test of Multi-collinearity	121
6.4 Result and Discussion	124
6.5 Summary	133
 <b>CHAPTER SEVEN: GENDER AND HOUSING UNITS DELIVERED IN IBADAN</b>	 135
7.1 Introduction	135
7.2 Women's Satisfaction with Different Aspects of Housing in Ibadan	136
7.3 Gender and Housing Structural units	141
7.4 Gender differences in the felt adverse effect of some aspects of housing on women's and men's activities in Ibadan	148
7.5 Gender Attributes and the Housing Attributes	154
7.6 Summary	163

<b>CHAPTER EIGHT: HOUSING ATTRIBUTES, STRESS AND THE PHYSICAL WELL-BEING OF WOMEN AND MEN IN IBADAN</b>	<b>165</b>
8.1 Introduction	165
8.2 Stress and Housing	165
8.3 Choice of Variables	170
8.3.1 Dependent Variable – Physical well-being	170
8.3.2 Independent Variables	172
8.3.3 Test of multi-collinearity among the independent variables	175
8.4 Result and Discussion	177
8.4.1 Impact of the housing stressors on the Physical Well-Being of Women and Men in Ibadan	177
8.4.2 Intra-urban Variation in the Housing Experience of Women and Men in Ibadan	184
8.5 Housing Experience and the Socio-Economic Characteristics of Women and Men	186
8.6 Summary	194
<b>CHAPTER NINE: SUMMARY AND CONCLUSION</b>	<b>197</b>
9.1 Summary of Findings	197
9.2 Implications of the Findings	201
9.2.1 Theory and Methodology	201
9.2.2 Urban Spatial Planning and Policy	203
9.2.3 Women Empowerment in housing delivery	208
9.3 Areas for Further Research	209
Bibliography	211
Appendices	232



**LIST OF TABLES**

3.1 Residential areas, number of questionnaire forms administered and percentage of household sampled	45
4.1 Perception of women participation in housing development decision (%)	71
4.2 ANOVA test of intra-urban variations in the perception of women's participation in housing development	75
4.3 ANOVA Post Hoc Tests (Multiple Comparison) of perception of the involvement of women in the six critical aspects of housing development	77
4.4 Perception of women of the responsibility of housing provision	78
4.5 ANOVA test of women's perception of housing provision responsibility for the household	79
4.6 ANOVA Post Hoc tests (Multiple Comparison) of the view of women on the responsibility of housing provision for the household	81
4.7 General perception of women of building activities jobs	82
4.8 ANOVA test of women's perception of the building activities jobs	83
4.9 Level of Women Awareness (%)	84
4.10 ANOVA test of women's awareness of each critical aspects of housing development	86
4.11 ANOVA Post Hoc Tests (Multiple Comparison) of women's awareness among each of the six critical aspects of housing development	88

4.12 Women's involvement in housing development decisions in the household (%)	90
4.13 ANOVA test of women's actual involvement in each critical aspects of housing development	92
4.14 ANOVA Post Hoc Tests (Multiple Comparisons) of the actual involvement of women among each of the six critical aspects of housing development	94
5.1 Gender differences in application for plan registration (1991-1999) and certificate of occupancy (C of O) (1989-1999)	101
5.2 Paired samples 't' test between women and men land ownership in Ibadan	107
5.3 Paired samples 't' test between women and men house ownership in Ibadan	107
5.4 Paired samples 't' test between women and men that have housing plot in Ibadan	108
5.5 ANOVA test of women land ownership along residential zones in Ibadan	109
5.6 ANOVA test of women house ownership along residential zones in Ibadan	109
6.1 Definition of variables used in the multiple linear regression analysis of the determinants of women involvement in housing development	120
6.2 Correlation coefficients among the independent variables of the determinants of women involvement in housing development	123
6.3 ANOVA test of multiple linear regression model of the determinants of involvement in housing delivery	125

6.4 Order of importance of the explanatory variables of women's Involvement in housing delivery	126
6.5 Effects of independent or Explanatory variables on women's Involvement in housing delivery: standardized regression coefficients	129
7.1 Mean and Standard Deviations of women's satisfaction with housing in Ibadan	136
7.2 ANOVA test of intra-urban variation in women's satisfaction with housing in Ibadan	138
7.3 Paired samples 't' test of some aspects of housing that women and men take special interest in in Ibadan.	148
7.4 Paired samples 't' test of the felt adverse effects of some aspects of housing on Women and Men in Ibadan	154
7.5 Definition of variables used in the analysis of impact of housing attributes on women's and men's daily activities	157
7.6 Correlation coefficients among the independent variables used in the analysis of impact of housing attributes on women's daily activities	158
7.7 Correlation coefficients among the independent variables used in the analysis of impacts of housing attributes on men's daily activities	158
7.8 Impact of housing attributes on women's daily activities	159
7.9 Impact of housing attributes on men's daily activities	160
8.1 Definition of physical well-being variables	172
8.2 Definition of housing stressors variables	174
8.3 Correlation coefficients among housing stressors variables (women)	176

8.4	Correlation coefficients among housing stressors variables (men)	176
8.5	Impact of housing stressors on physical well-being of women	177
8.6	Impact of housing stressors on physical well-being of men	178
8.7	Impact of housing stressors on physical well-being of married women	181
8.8	Impact of housing stressors on physical well-being of female headed household	182
8.9	ANOVA test of women's housing experience	185
8.10	ANOVA test of men's housing experience	185
8.11	Definition of Socio-economic variables	188
8.12	Correlation coefficients among the socio-economic variables of women	189
8.13	Correlation coefficients among the socio-economic variables of men	189
8.14	Effects of the socio-economic characteristics on women's housing experience	191
8.15	Effects of the socio-economic characteristics on men's housing experience	191

## LIST OF FIGURES

3.1 Map of Nigeria showing Oyo State and Ibadan	52
3.2 Residential classification of Ibadan (After Mabogunje 1962)	55
3.3 Residential classification of Ibadan (After Ayeni 1982)	59
3.4 Residential classification of Ibadan (After NISER 1988)	61
3.5 Ibadan showing Residential Density Areas	65
4.1 Perception of women participation in housing development decision-making	72
4.2 Women's awareness of each aspects of housing development	85
4.3 Women's actual involvement in housing development decisions in the household	91
5.1 Plan Registration Application by gender in each residential area in Ibadan (1991-1999)	98
5.2 Certificate of Occupancy Application by gender in each residential area in Ibadan (1989-1999)	98
5.3 Trend in Application for Plan Registration by gender in Ibadan (1991-1999)	99
5.4 Trend in Application for Certificate of Occupancy (C of O) by gender in Ibadan (1989-1999)	100
5.5 Landownership by gender in Ibadan	102
5.6 House ownership by gender in Ibadan	103
5.7 Housing plot owners by gender in Ibadan	104

5.8 Landownership, housing plot ownership and house ownership in Ibadan	105
5.9 Number of Plots of Land owned, in percentage by gender in Ibadan	106
5.10 Number of House owned in percentage by gender in Ibadan	106
5.11 Spatial variation in women house ownership	111
6.1 The magnitude of importance (as indicated by the R-Square values) of determinants of women's involvement in housing delivery	128
7.1 Spatial variations in level of women's housing satisfaction in Ibadan	140
7.2 Percentage of Women and Men with special interest in the living room	142
7.3 Percentage of Women and Men with special interest in the bedroom	143
7.4 Percentage of Women and Men with special interest in the kitchen	144
7.5 Percentage of Women and Men with special interest in the bathroom	144
7.6 Percentage of Women and Men with special interest in the toilet	145
7.7 Percentage of Women and Men with special interest in the parking/garage	146
7.8 Gender differences in aspects of housing of interest	147
7.9 Gender differences in the felt adverse effects of house location condition	149

7.10	Gender differences in the felt adverse effects of the kitchen condition	150
7.11	Gender differences in the felt adverse effects of the power supply situation	150
7.12	Gender differences in the felt adverse effects of the water supply situation	151
7.13	Gender differences in the felt adverse effects of the neighbourhood road condition	151
7.14	Gender differences in the felt adverse effects of the condition of space for income generation	152
7.15	Gender differences in the felt adverse effects of the condition of living space	152
7.16	Gender differences in the adverse effects of housing condition in Ibadan	153
7.17	Impact of housing attributes on women and men daily activities	162
8.1	Effects of housing stressors on physical well being gender-wise	179
8.2	Effects of housing stressors on physical well being: Women Living with their husband as against Female Headed Household	183
8.3	Socio-economic impact on the housing experience gender-wise	193

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background

Housing is universally acknowledged as one of the most basic human needs with a profound impact on general well-being. According to the definition given by the World Health Organization (WHO), housing is a residential environment that includes the physical structure that man uses for shelter, all necessary services, facilities, equipment, and devices needed or desired for the physical and mental health and social well-being of the family and individual. It is therefore critical for the achievement of health for all, employment, social stability and economic development. As a prerequisite for survival, housing only ranks second to food (Onibokun, 1985; Adeniyi, 1985). It is also one of the indicators of a person's standard of living and of his place in society. Housing reflects the cultural, social and economic values of a society as it is the best physical and historical evidence of civilization in a country (Onibokun, 1985).

Housing encompasses far more than living space and shelter (Knox, 1992). Its nature and value are determined by its varied services, which include neighbourhood amenities, access to education, health facilities and security, in addition to shelter. The worth of housing depends upon quality consideration, such as design, density, building materials and floor spaces and on access to employment and other income earning opportunities, public facilities, community services and market. Housing is a durable



good unlike most consumer goods. It is a fixed location asset and it constitutes the largest space user in the city and has played a major role in shaping urban regions (Harthorn, 1992: 242).

The importance and significance of housing, coupled with its multifaceted nature, explains why different disciplines study housing. Such disciplines include: Geography, Urban and Regional Planning, Economics, Sociology etc. Like other aspects of human geography, urban geographers are concerned with the spatial and behavioural aspects of housing, the neighbourhoods that these units encompass, and the residents themselves.

According to Knox (1996), the geographers' concern is with an understanding of both the distinctiveness and the regularities that exist within towns and cities in terms of the spatial relationships between people and their environment. Thus for urban geographers, some of the most important questions include: what (housing) attributes make cities and neighbourhoods distinctive? How did these distinctive identities evolve? Are there significant regularities in the (housing) spatial arrangement? Are there significant regularities in the patterning of neighbourhood populations by social status, household type or race? How do people choose where to live within cities, and what are the constraints on their choices? How does a person's area of residence affect his or her behaviour? (Knox, 1996: 889).

In pursuing these issues, urban geographers have adopted a variety of approaches to knowledge and understanding. Knox (1995), for example, notes that four main approaches have been identifiable in the literature of urban geography. These four

approaches are scientific approach, behavioural approach, radical approach and poststructuralist approach.

Out of these four main approaches, Johnston (1996:50) notes that scientific approach, of quantification, theorizing and spatial science, has dominated researches. Remarkably, the scientific approach to gathering knowledge incorporates a stance of anonymity, neutrality, objectivity and universality (Seager, 1992). By shaping geographic housing research in the mode of scientific neutrality, the assumption of collectivity takes precedence over the possibility of gender differences in housing concerns and experiences. In addition, the stance of "neutral" in the studies of consumption patterns and production of housing tends to mask the potential conflict between the interests of men and women, and of particular groups of both men and women. Furthermore, the literature is silent on the influence of gender and its social construction on women's housing experience.

## **1.2 Research Problem**

In the housing market, women have long been made invisible. If women are discussed, authors often assume stereotyped and fixed roles. In some other studies, brief recognition may be given to gender differences, but their significance is dismissed in mere generalizations (Monk and Hanson, 1982; Hanson, 1990; Seager, 1992; UNCHS, 1996). In fact, until recently women remained invisible in many analyses of social space and from discussions of development theory and practice (Braidotti et al, 1994; Short,

1996; etc.). Yet women are the major consumers and users of shelter and infrastructure (Agbola, 1990). Furthermore, analyses across disciplines reveal that little is known about women (Kramarae and Spender, 1992). Women's societal inferiority, their invisible, unappreciated and uncosted contributions have not only been taken for granted, their quest for self-actualization has been thwarted by societal prejudices, age-long traditional beliefs and contemporary society's imposed barriers (Agbola, 1990). According to UN statistics, women perform two-thirds of the world's work, earn one-tenth of the world's income and are two-thirds of the world's illiterates. Women constitute half of the world's population but own only one per cent of its property (Williams, 1994; UNCHS 1996).

One of the most significant developments in housing during the 1980s and early 1990s was the increasing understanding of the discrimination faced by women in most, if not all, aspects of housing and basic services (UNCHS, 1996). This can be seen in discriminatory practices (more often incipient) that prevent or inhibit women owning or purchasing land for housing or obtaining a credit to purchase or build a house or getting access to public programmes or to private rental accommodation (UNCHS, 1996:347). The discrimination not only affects single women, women-headed households are affected, particularly in their search for an adequate shelter and basic services for their households (UNCHS, 1996).

However, recent feminist literature asserts that men's conception, experience and use of space is different (McDowell, 1983; Seager, 1992; Weisman, 1992; etc.). Other feminist arguments in the literature have focused on the "environmental fit" among the

activities that characterize women's daily lives and the design of dwellings, neighbourhoods, and cities (Weisman, 1992; Seager, 1992; Moser, 1993; Peterson et al, 1978; Short, 1996 etc.). In the literature, it is asserted that there are locational, environmental and architectural forms - high-rise flats, peripheral estates, and under serviced suburbs - which are especially hostile to women's needs and which often extract unnecessary costs from them (Cater and Trevor, 1989; UNCHS, 1996; Pascall, 1997). The existing spatial arrangement is seen as tending to work for men but against women. This is argued as no accident, but as logical outcome of male power and female powerlessness. Cater and Trevor (1969) for example, noted that all the crucial decisions about the built structures of cities and regions were and are still being taken by males and they have constructed man-oriented geographic space. Even where women have been included in the calculations, this has been women as seen through men's eyes, women's needs as defined by men and not by women themselves (Cater and Trevor, 1989).

Pascall (1997:138) also notes that the consequences of male domination bring very practical criticisms about safety, lack of space for children to play, remoteness from shopping and social facilities, and isolation in high-rise flats. Weisman (1992:314) asserts that proscriptive residential zoning prevents the establishment of neighbourhood-based commercial services essential to women and prohibits home occupations, which would make the combination of work and family roles easier. It is asserted in the literature that worldwide, women assess urban environments differently from men, in terms of perceived opportunity, safety and access (Wekerle et al, 1980; Ardener, 1981;

McDowell, 1983; Holcomb, 1984). Also, women and men are not equal or equivalent urban users and actors. Women's urban experience is argued to be inadequately represented by conventional urban theories and models that describe the development and consequences of different urban forms. Feminist researches reveal that the differences between men and women run through all aspects of urban housing in terms of patterns of housing and homelessness, in commuting patterns and in the use of urban social space, among many others (Seager, 1992:218).

Beall and Levy (1994), furthermore, assert that women are generally far more severely affected by poor and over-crowded housing conditions, inadequate provision of water, sanitation, health-care, schools and nurseries than men because they take more responsibility for looking after infants and children, caring for sick family members and managing the household (UNCHS, 1996:349). Thus, UNCHS (1996) stress the need to assess women's demands for shelter, goods and services and to encourage the design and implementation of innovative programmes that will increase women's participation in shelter management. Also Agbola (1990a:184) asserts that planning and execution of housing development, either at the individual and or at national level, cannot or may not succeed unless the needs and contributions of women, who will be affected by them are clearly understood and addressed at every stage of housing planning and implementation.

Even though existing housing studies in Nigeria indicate a rather diffused research interest, the approach has always been gender neutral, with an implicit assumption of male heads of households. For example, Onibokun's (1983) review of the

existing literature on housing quality and urban form in Nigeria indicates that the central theme of researches has been identification, description and analysis of the quality and character of housing in Nigeria. In addition, most of the housing publications are researches on different communities in Nigeria, focusing on such areas as: poor housing quality; slum clearance and slum upgrading schemes; housing preference, demand, finance and environmental perception vis-à-vis residential desirability and values; evolution process of residential morphology in some selected urban centers (Onibokun, 1983).

Apart from these scholars' works on housing, the government has at different times embarked on various housing programmes and policies which are often the targets of critical evaluation and study. The housing schemes have been faced with several bottlenecks that prevented the full realization of the ultimate objectives for which such schemes were originally designed (Onibokun, 1985; Agbola, 1985; 1986; 1990c; 1998). Of significance to the present discourse, however, is the fact that public housing policy is evaluated relative to its impact on the poor and not necessarily on women.

In short, empirical evidence on women's actual experience of housing is rare in Nigeria. As Agbola (1990a) notes, there has been little contribution of researches on women's housing situation. Most of the available literatures on this issue are works carried out in developed countries. As observed by Wood (1994), most of such studies while addressing a wide range of issues with regard to women and housing, have focused on women and the meaning of house, economic constraints, weakness in the law relating

to family breakdown and inadequacies in homeless persons legislation, general problems of allocation systems, housing concerns of specific groups of women, education, training and employment issues, gender roles and the form of the built environment. Of importance here are planning policies, architecture and design. These are argued to be gender blind.

An exception to the research orientation common in the developing countries is Agbola's work (1990b) in which he examined the role of women in housing development in Ibadan, Oyo State, Nigeria. His study is mainly concerned with the role of women in the owner occupier housing development process but he fails to take into consideration the fact that a variety of women identities are intimately related to other sources of differentiation for example spatio - socio-economic, cultural and physical variables. In other words, his work is aspatial without reference to variations in intra-urban characteristics. This flaw in Agbola's work has been pointed out by Johnston (1998:287) who asserts that for geographers, the emphasis on spatial differences raises important issues regarding the role of place, as knowledge is both local and gendered and also linked to other socially constructed categories.

Therefore, the empirical work pursued in this study attempts to raise and at least tentatively address the following important and related questions:

- Do differences exist in the involvement of women and men in housing development?

- Do significant intra-urban variations exist in women's perceived and actual involvement in housing development?
- Do socio-economic characteristics affect women and men's involvement in housing development?
- Does any relationship exist between the involvement of women in housing development and their responsibility in the household?
- Is there intra-urban variation in women's satisfaction with the houses delivered?
- Is there any relationship between housing attributes and gender attributes?
- Does any significant relationship exist between housing attributes and the physical well-being of women and men?
- Do variations exist in the women and men housing experience? and
- Do socio-economic and cultural characteristics affect women and men's housing experience?

These are important research questions, among many other questions, which the study addresses.



### 1.3 Aim and Objectives

The aims of the study are therefore three-fold. The first is to provide an analysis of the involvement of women and men in housing development with a view to identifying and explaining variations in and determinants of women's involvement in housing development. The second aim is to examine intra-urban variation in women's satisfaction with houses delivered as well as gender differences in the impacts of housing on the activities of women and men. The third major aim is to investigate the impact of housing stressors, housing attributes that could be stress-inducing on physical well being of women and men so as to identify and account for variations in housing experience gender-wise.

In order to achieve these broad aims, the specific objectives are, to:

- (i) investigate the variations in the involvement of women and men in housing development;
- (ii) examine the determinants of women's involvement in the housing development decisions;
- (iii) investigate gender differences in the impact of housing attributes on their activities;
- (iv) identify and account for the variations in the housing experience of women and men. Housing experience is measured as impact of housing stressors, that is, housing attributes that could be stress-inducing on the physical well being of women and men; and

- (v) examine the theoretical and methodological, urban spatial planning, and, women empowerment in housing delivery implications of the findings.

#### 1.4 Hypotheses

The null hypotheses tested in the study are that:

- i. there is no significant variation in the women's and men's involvement in housing delivery. Here we expect that (i) there is no significant intra-urban variation in women's perceived awareness and actual involvement in housing development; (ii) there is no significant gender differences in house ownership of women and men; and (iii) there is no significant intra-urban variation in women house ownership.
- ii. there is no significant relationship between women's involvement in housing delivery and (i) their socio-economic characteristics; (ii) condition/availability of the social support/ network and physical support; (iii) awareness and aspirations; (iv) responsibility in the household and (v) the house cost/value.
- iii. there is no intra-urban variation in women's satisfaction with housing units. No significant gender differences are expected in the aspects of housing units that women and men take special interest in.
- iv. there is no significant variation in the impact of housing on women's and men's daily activities. Here we expect that (i) there is no gender difference in the felt adverse effect of aspects of housing on daily activities; and (ii) there is

no significant relationship between housing attributes and gender attributes - no gender difference exists in the impacts of the housing attributes on the daily activities of women and men.

- v. there is no significant impact of the housing stressors on the physical well-being of women and men. Here we expect that (i) there is no gender difference in the impacts of housing stressors on physical well-being of women and men; (ii) there is no significant intra-urban variation in the housing experience as measured by the impact of housing stressors, that is, housing attributes that could be stress-inducing on the physical well-being of women and men; and
- vi. there is no significant relationship between housing experience of women and men and their socio-economic characteristics - no gender difference exists in the effects of the socio-economic characteristics on their respective housing experience.

### **1.5 Justification of the Study**

One of the significance of this study is that it will improve the understanding of some inconclusive or fuzzy aspects of the housing market analysis. Knox (1992:171) for example, observes that there are unknown parameters relating to household preferences and market behaviour. The methodological approach to the study of housing has been mostly centered on males; that is, sampled heads of households are invariably males thus,

making women's housing concerns and experience invisible. This approach implies that any decision taken by the head of household, who in most cases is a man, takes care of the other members of the households, including women.

However, researches have shown that men are rarely knowledgeable about women's aspirations, either because of separate interests and spheres or because of cultural norms (Young, 1995:117). There is a large body of evidence from a number of disciplinary areas that show that men's and women's conception, experience, and the use of space are different (McDowell, 1983). According to McDowell, (1983) child psychologists have documented differences in the spatial abilities of infant boys and girls which apparently are reflected later on in choice and scholastic ability. Research syntheses of the 1980s and 1990s, particularly psychology, have provided increasing evidence of gender differences, especially in social behaviour, personality and spatial abilities (Eagly, 1995). There seems to be a more general awareness that women's reactions to spatial structures are different from those of men.

Spatial variations have also been identified, not only in terms of gender roles and relations, but in the gendered experience and use of space and of nature (Townsend, 1991; Seager, 1992; Moser, 1993; Braidotti et al, 1994; Young, 1995; etc.). Assertion in the literature is that gender, as represented by the 'he' or 'she', will produce different reactions to city space and that the female view of the city will be very different (Seager, 1992; Carter, 1995, Short, 1996). According to Carter (1995) for female view of the city space to be different two factors should be at work. The first is role, especially where the

role as housewife and mother, is tangibly different from that of the male. The second is directly biological and is the difference in physical strength so that for women city violence assumes a quite distinctive aspect. Hence, women's urban experience has been noted to be inadequately represented by conventional urban theories and models that describe the development and consequences of different urban forms (McDowell, 1983; Cater and Trevor, 1989; Weisman, 1992; Seager, 1992; Short, 1996 etc.).

Furthermore, the argument in the literature is that cities are environments built by men, with the implication that there is a very different urban geography which still needs to be written (Holcomb, 1984; Carter, 1995; Short, 1996; Staeheli and Martin, 2000). The assertion tends to hold, judging from the fact that women had been conspicuously absent in the formulation of theories and models that guide policies and strategies. Thus, ignoring gender divisions in urban studies is neglecting an important structuring element of urban space and urban process (McDowell, 1983; Seager, 1992; Short, 1996; UNCHS, 1996).

Another significance of this study is that it will provide a better understanding of human occupancy of the earth's surface through the inclusion of gender in spatial analysis. This is because gender divisions are an important structuring element of urban space and urban processes and have come to occupy an increasingly prominent place in discourses on development in the late twentieth century (McDowell, 1983; Awe, 1989; Seager, 1992; Moser, 1993; Carter, 1995; Mattringly and Falconer-Al-Hindi, 1995; Short, 1996; Chant, 1998, Staeheli and Martin, 2000; among many others).

Feminist geographers have argued that the studies of women's lives and activities are of importance to studies of men's lives; therefore, the distinctiveness and significance of women's experiences and activities should be recognized (Zelinsky et al, 1982; Monk and Hanson, 1982; Bowlby et al, 1989; Seager, 1992; Carter, 1995; Short, 1996; Stacheli and Martin, 2000; etc.). Abumere (1995:23) also states that social needs have been changing over the years and geographic agenda has also, accordingly, tried to adapt to these changes. Harvey (1996:102) also has argued that "the geography we make must be a people's geography ... a more mundane enterprise that reflects earthly interests, and claims, that confronts ideologies and prejudice as they really are, that faithfully mirrors the complex wave of competition, struggle and cooperation within the shifting social and physical landscapes of the (21<sup>st</sup>) century". The issues specified by Areola (1994:26) which are equity, social justice and spatial imbalance in development, are of major concern in gender studies. As Filani (1999:62) puts it, "in the final analysis, there would be the need to organize or reorganize space".

### **1.5 The Plan of the Study**

The thesis is divided into nine chapters. Following the introductory chapter is the theoretical/conceptual framework and literature review. Chapter three contains the research methodology for the study and a description of the study area. Chapter four examines gender and involvement in the housing development while in chapter five, the issue of gender and house ownership is examined. The determinants of women

involvement in the housing development are examined in chapter six. In chapter seven, gender and housing units in terms of women's satisfaction with the houses delivered and gender differences in the felt adverse effect of housing and in the impact of housing attributes are examined. In chapter eight, impacts of housing stressors on the physical well-being of women and men are examined. The final chapter summarizes the major findings and discusses the implications of the research findings.

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## CHAPTER TWO

### THEORETICAL FRAMEWORK AND LITERATURE REVIEW

#### 2.1 Introduction

In this chapter, the theoretical framework and the relevant literature are discussed. There are four sections in the chapter. Following the introduction is the theoretical approaches to geography that guided the study. This is followed by the review of literature on important concepts and theories that are relevant to the study. These include gender and gender issues, space, gender and housing. Section four contains the summary.

#### 2.2 Theoretical Framework

This study adopts an ecological and behavioural point of view to account for the patterns of women's housing development involvement and experiences in Nigeria.

##### 2.2.1 *Ecological Approach*

An ecological approach to geography inter-relates human and environmental variables and interprets their links within a single, bounded, geographical area (Johnston, 1998). Ecology – a physical science term – is the study of the adaptation of plants and animal organisms to their environment. Ecological analysis or the study of man-environment relationship was an important facet of geographical research in the early 1900s. The approach became more fashionable with the arrival of the environmental crisis in the latter part of the 1960s (Mitchell, 1989). Barrow (1923:8) suggests that



geography should be defined as human ecology, whose aim is to determine “the relationships existing between the natural environments and the distribution and activities of man”.

Ecological thought manifests in the concentric theory of Burgess (1925), the sector theory of Hoyt (1939) and the multiple nuclei theory of Harris and Ullman (1945). Burgess model is a neutral statement about spatial arrangements; it derives from a set of highly controversial postulates about the nature of human society, originally formulated by Robert Park (Cater and Jones, 1989:46). Residential segregation and housing inequality are explained by reference to biotic processes, to the indisputable fact that humanity is part of the natural world and, as such, subject to instinctive drives, including the drive to acquire living space. Just as in the natural world where plants compete with one another for soil and light, animals for territory, so in the city human species (in the guise of classes, races, ethnic groups and other interest groups) compete for space (Park, 1952). Consistent with Darwinian principles, the best locations are commandeered by the fittest species – the most accessible central locations by big business, the spacious new residential land on the perimeter by the owners and top functionaries of big business. ‘Lesser’ species – the poor, the unskilled, blacks, immigrants – must adapt to the less favourable environments (Cater and Jones, 1989). Park and Burgess both appear to regard the city as a sort of man-made ecological complex within which the process of social adaptation, specialization of function and of life style, competition for living space and so on acted to produce a coherent spatial structure, the whole being held together by

some culturally defined form of social solidarity which Park (1926) calls 'moral order' (Harvey, 1973:131). According to Giddens (1989:555), the Chicago school believes that the siting of major urban settlements and the distribution of different types of neighbourhoods within them can be understood in terms of the same principle. Consequently, cities become ordered into natural areas through processes of competition, invasion and succession all of which recur in biological ecology (Giddens, 1989:556). Thus Park, Burgess, Hoyt, Harris and Ullman conceptualized the form of a city in ecological terms. These authors observed that cities exhibited a certain regularity of spatial form.

Ball and Kiwan (1977) noted that a casual observation of housing within a city would show that households from similar socio-economic groups tend to cluster in well defined areas. This trend has been documented over the years (Burgess, 1924; Hoyt, 1936; Mabogunje, 1962; Berry and Rees, 1969: etc.). Ecological approach enables us to search for the possible influence of variations in intra-urban characteristics on women's and men's housing experiences.

### **2.2.2 Behavioural Approach**

Behavioural approach allows the use of both the external factors, which are operative in the environment, and the personal or internal factors that determine human responses to such operations. It makes for the consideration of the way people perceive happenings in their environment, which undoubtedly affects their reactions to such happenings (Afolayan, 1976:45). Behavioural approach is process-oriented (Golledge, 1981; Johnston, 1998). The processes emphasized in the approach are human behavioural processes, such as learning, perception, cognition, attitude formation, and so on and the geographer both searches for spatial aspects of these processes and attempts to use the processes to increase understanding of the location and distribution of spatial phenomena and interactions amongst them (Golledge, 1981:1327-1328). Golledge stated that the approach fundamentally emphasizes human actors in the complex interacting system of human and physical system. Golledge stated further that: a behavioural approach would examine behavioural acts in terms of the processes responsible for such acts. It is, therefore, more concerned with the reasons for behaving rather than with describing the spatial manifestations of behaviour or the overt act itself. He said that the overt act might still be defined as the critical dependent variable, but the set of explanatory variables should be increased to include one or more process variables for such a study to be accurately classified as behavioural. A behavioural approach (although it does not neglect the overt act of behaviour), does seek explanations of such acts in terms of cognitive processes as well as in terms of the mechanics and constraints of the

various external structures in which behaviour takes place (Golledge, 1981: 1328). Gold (1980) relates this approach to four main features: the environment in which individuals act is that which they perceive; individuals interact with their environment responding to them and reshaping them; the focus of study is the individual, not the group; and behavioural geography is multidisciplinary (Johnston, 1998:169). According to Johnston (1998:157), the fundamental arguments of behavioural geography are that: people have environmental images; those images can be identified accurately by researchers and that there is a strong relationship between environmental images and actual behaviour.

Behavioural approach has been found useful for establishing generalizations about people-environment interrelationships and for using these as a basis for change through environmental planning activities that modify the stimuli which affect the spatial behaviour of ourselves and others (Johnston, 1998). According to Johnston, the approach has advanced our understanding of spatial behaviour by studying individual preferences, opinions, attitudes, cognitions, perceptions etc. These variables are termed process variables by some scholars (Johnston, 1998). These process variables have contributed immensely to the existing urban residential patterns, housing forms and neighbourhoods conditions.

With respect to housing development involvement and experience of women and men, behavioural approach advances our understanding of their spatial behaviour by studying individual persons' preferences, opinions, attitudes, and perceptions. The

approach enables us to search for gender differences in spatial behaviour in the urban housing market as it relates to individual housing preferences, opinions and perceptions.

## **2.3 Literature Review**

### **2.3.1 Gender and Gender Issues**

Gender has been defined in a variety of ways, both in research and among the general public. Gender as a concept is not straightforward and is difficult to visualize, given its abstract nature: it does not have a concrete, visible and countable 'body' as women do; but gender is a phenomenon that is related to other social values. In other words, gender does not refer only to women or men, but also to the system of relations between them (Villareal, 2001, Gbadegesin, 2001). As argued in the literature, the relational concept's meaning is generated through opposition. Put in another way, it is a concept of social difference founded on comparison and contrast, and the meaning of one component, whether male or female, cannot be fully comprehended without reference, explicit or implicit, to the other (Busfield, 1996:35).

An early definition of gender was meant to distinguish between the social and biological aspects of the differences between women and men. Whereas "sex" refers to the biological aspects of women and men (chromosomes, hormones, secondary sex characteristics), "gender" refers to those that are shaped by social forces or to the meaning that a society gives to biological differences. In recent years, social scientists

have gravitated to a broader definition of gender. Gender has come to be described as the way that societies are organized rather than just as attributes of individuals (Imam et al, 1997; Amali, 2001; Pereira, 1999, 2001). Here, whether the differences between women and men are biologically or socially driven is less important than the ways societies are organized around those differences. In most societies, for example, women and men perform very different roles in the economy. From a broader perspective, whether the segregation by sex came about because of biological differences (of being men physically stronger or bigger than women) or social differences (beliefs that women are more suited for some jobs than for others) is less significant than the fact that the economy is built on assumptions of these differences between men and women who act to reinforce them.

Gender is, thus, viewed as a socio-cultural aspect of the male-female dichotomy: the qualities, types of behaviour and roles ascribed by different societies to women and men. It is seen as a social construct through which all human beings organize their work, rights, responsibilities, and relationships. Its meaning derives from specific historical and material conditions (Townsend, 1991; Williams, 1994; Young, 1995; Thomas-Slayer and Rochelean, 1995; Gbadegesin, 2001; etc.). The social construct of gender is ubiquitous, that is, it permeates the macro and micro spheres of society, operating through the labour market, educational system, the media, religion, the political system, recreation, family, interpersonal relations, health and individuals themselves, and it is hierarchical in that differential. The social construct involves value judgment that attributes importance and worth to the characteristics and activities associated with them. The social construction

process translates into an unequal and institutionally constructed access to resources which gives rise to a situation of privilege and domination of men and one of the subordination of women. Gender roles describe who does what, when and how. Gender relations are the socially determined relations that differentiate male and female situations. People are born biologically female and male, but have to acquire a gender identity. Gender relations refer to the gender dimension of the social relations structuring the lives of individual men and women (Elson, 1995). Pereira (2001) notes that gender relations are not primarily biological or sexual relations although they may include elements of either. They are social as well as ideological and cultural relations, suffused with power differentials that map the range of processes, behaviour, activities, forms of organization considered appropriate for women and for men for a given collectivity over a particular period of time (Pereira, 2001:1). Thus, gender relations are the power relations between the sexes as examined by geographers such as Whatmore (1990) in England and Radcliffe (1986) in Peru (Townsend, 1991:22). Gender relations are embedded in the social structure and are the outcome of a system in which all of its elements relate to one another in specific ways (Villarreal, 2001). These relations are affected by (and affect) economic, social, cultural, political, historical etc.

Gender analysis is particularly used to study male-female differences (William, 1994; Young, 1995; Zwahlem, 1997; Amali, 1999 etc). It refers to a systematic way of looking at the different impacts of development on women and men. It requires separating data by sex and understanding how labour is divided and valued.

A gender issue arises when a sense of grievance is felt, for example, that it is the male needs which are mostly met, at the expense of the female needs or where an instance of gender inequality is recognized as undesirable, or unjust. The inequalities between women and men, evident in their positions vis-à-vis the social activities are explained in the literature in terms of differences in power between men and women (Pereira, 2001). The greater access of men to social, economic, political power are argued to underlie men's dominance as a social group (Moser, 1993; Williams, 1994).

Since the issue of the invisibility of women both as the subjects of geographical study and as practitioners of the discipline began to be raised, there has been some geographical studies that document the extent to which women were systematically disadvantaged in many areas of life by the sets of assumptions made about women's place and by the resulting material constraints on their activities (Bowlby et al, 1989). Such works according to Bowlby et al (1989:160) sought to demonstrate that women's access to opportunities was not equal to that of men.

In challenging the gender-blindness of much geography, feminist geography emerged in the early 1970s and it involves recognizing women's common experience of and resistance to, oppression by men, and a commitment to end it (Johnston, 1998). The goal of feminist geography is to produce better understanding of human occupancy of the earth's surface through the inclusion of gender in geographical work and to produce knowledge useful for gender equity (Mattingly and Falcorner-AlHindi, 1995). It emphasizes questions of gender inequality and the oppression of women in virtually all



spheres of life, and aims to identify such irregularity and discrimination within the geographical profession (Zelinsky, 1973; Zelinsky, Monk and Hanson, 1982; McDowell, 1986 etc.). It seeks to demonstrate that women do matter in geography, that gender is one of the interpretative lenses influencing our relationship to environment and argues that failure to take gender differences into account impoverishes both geographical scholarship and teaching (McDowell, 1980; Seager, 1992). Bowlby et al (1989) note that a great deal of feminist geographical work has been concerned with analyses of women's lives and of gender relations outside the workplace, in the home, and in the community. This work has thus fallen within the ambit of urban and social geography (Bowlby et al, 1989:159). They asserted that unlike most work in urban and social geography, one of the principal themes running through these feminist studies has been the importance of the interconnections between workplace – and non-workplace-based activities and social relations.

A variety of theoretical approaches has been employed to analyze gender (Scott, 1996). Two of such approaches are patriarchy and Marxism. .

Theorists of patriarchy have directed their attention to the subordination of women and found their explanation for it in the male 'need' to dominate the female. Although the word "patriarchy" was around before the current resurgence of the women's movement and women's studies courses, the concept of patriarchy has been recreated in the past two decades to analyse the origins and conditions of men's oppression of women. Originally used to describe the power of the father as head of household, the

term 'patriarchy' has been used within post 1960s feminism to refer to the systematic organization of male supremacy and female subordination (Kamarae, 1992; Stacey, 1993; Aina, 1998; etc.). The term has been defined as a system of male authority which oppresses women through its social, political and economic institutions. Feminists have argued that in any of the historical forms that patriarchal society takes, whether it is feudal, capitalist or socialist, a sex gender system and a system of economic discrimination operate simultaneously. Patriarchy derives power from men's greater access to, and mediation of, the resources and rewards of authority structures inside and outside the home.

Marxist theory of class oppression is used to explain the oppression of women. It has been argued that women are a reserve labour force for capitalism, that women's generally lower wages provide extra surplus to a capitalist employer, that women serve the end of capitalist consumerism in their roles as administrators of family consumption etc. Thus, a number of articles locate the oppression of women in the heart of the capitalist dynamics by pointing to the relationship between housework and the reproduction of labour (Benston, 1969; Rowntree, 1970; Largaia and Dumoulin, 1972; Gerstein, 1973; Vogel, 1973; Secombe, 1974; Gardiner, 1974). Women are placed squarely in the definition of capitalism, the process in which capital is produced by the extraction of surplus value from labour by capitalists.

The geographical research on women that has used a Marxist approach has been concerned with analyzing the relationship between the type and socio-economic

significance of the work that women carry out within the home and the organization of a capitalist economy (Bowlby et al, 1989). According to Bowlby et al (1989:161) the geographical research explores this theme through examining those historical changes in the relationship between home and work and their expression in the physical form of the city that took place with the development of capitalism. Work by Mackenzie (1989) and McDowell (1980, 1983) explain the development of separate residential, industrial and commercial areas and the exclusion of women from formal paid work in the 19<sup>th</sup> century British and American cities. This work and those of others also explored the ways in which, in the 20<sup>th</sup> century, ideologies which saw women's place to be in the home informed the development of planning practices which reinforced the separation of home and work, reproduction and production, private and public, in the urban form (McDowell, 1983; Bowlby, 1984; Bowlby et al, 1989).

### **2.3.2 *Space, Gender and Housing***

Since antiquity, geographers have explored and analysed the earth's surface from two related perspectives: that of spatial differentiation and association of phenomena with an emphasis on the meaning of space, spatial relations and place; and that of the relationship between man and his physical environment (Sach, 1980; Harvey, 1996; Johnston, 1996; 1998 etc.). The two are closely related because the meanings of space and place depend on the interrelationships among physical and human activities located in space, and man's relationships to the environment occur in the context of space

and place. The concern of geography with the spatial organization of phenomena, the processes that organize the world spatially, and the implications of the spatial organization for particular issues and people are the distinctive marks of geography as a discipline.

Schatzki (1991) in his article on "Spatial Ontology and Explanation" provided a description of objective space and social space. According to him, there are two sorts of objective space: absolute and relational. Space in its absolute version is a self-subsistent, homogeneous, isotropic medium in which objects exist. In its relational version, it is a system of relations among objects and thus not independent of the latter. Social space automatically occurs along interrelated lives (Schatzki, 1991:651). Harvey (1990) asserts that the concepts of space and time are socially constructed; they operate with the full force of objective facts and play a key role in processes of social reproduction. Conceptions of space and time are therefore contested as part and parcel of processes of social change (Harvey, 1990:418).

Gender and its social construction are argued to vary not only over time and through history but between space and place (Short, 1996). The character of gender construction is therefore both a reflector and an influence of the spatial structure and temporal nature of our environment. Gender relations – the complex interplay of sex caste roles that each of us is assigned to at any one time – therefore mirror our surroundings while at the same time influencing the structure of them (England, 1991:135). The interplay of gender and space is at the center of geography of gender.

According to Massey (1994:177) geography in its various guises influences the cultural formation of particular genders and gender relations, while gender has been deeply influenced in the production of the “geographical”. Spatial variability, therefore, not only implies a difference in the construction of gendered identities but also proposes location as an integral part of their formation. Research and publications on gender and feminism reflect a growing interest in the way that experiences of (and access to) public and private spaces are shaped by gender (Thrift and Waling, 2001:108). Investigation into the interplay of gender and space has thus been a central focus of feminist enquiry within geography (Short, 1996; Johnston, 1998; Knox, 1995; Staeheli and Martin, 2000).

Johnston (1998:285) notes that during the 1980s and early 1990s, feminist geography, while addressing the discipline’s three main concepts of space, place and nature, shifted from analyses of gender differences to concerns over the social creation of gendered beings in particular places, which brings feminist geography closer to the wider feminist project – the study of the lives, experiences and behaviour of women (McDowell, 1993:161). Johnston asserts that three main themes are identified in the early work and are as follows (Johnston, 1998:285): (i) spatial differences in women status – demonstrating ‘man’s inhumanity to women’ – a largely empirical task which emphasized western experience and was increasingly criticized for its ethnocentrism; (ii) gender and place: women and the urban environment which stressed that most women were excluded from analyses of urban areas; and (iii) patriarchal power, which illustrated the ‘blindness’ of (urban and other) geographers to the ‘embodiment of conventional

gender divisions' in the built environment on both large (the structuring of urban land-use patterns) and small (the design and layout of buildings) scales.

Thus gender inequalities were added to the others identified by those involved in portraying 'unfairly structured cities' (e.g. Badcock, 1984) as major elements in the reproduction processes of 'patriarchal capitalism'. Thus, women's varied experiences according to location and subsequent reactions to patriarchy provide inputs into a host of recent studies (Bowlby et al, 1986; Fincher, 1989; Ducan, 1991; England, 1991; etc.). Within this concept, geographical space is conceived as an embodiment of the patriarchal relationship thereby making sense of those locational, environmental and architectural forms – high-rise flats, peripheral estates, under-serviced suburbs – which are especially hostile to women's needs and which often extract extra and unnecessary costs from them (Cater and Trevor, 1989). Cater and Trevor (1989) argue that this is no accident but the logical outcome of male power and female powerlessness – all the crucial decisions about the built structure of cities and regions were and still are taken by males and they have constructed man-oriented geographic space. They assert that where women have been included in their calculations, this has been women as defined by men not by women themselves. Thus, feminist geography is argued to be ultimately concerned with women as oppressed by man-made space (Cater and Trevor, 1989).

A number of ways in which the city in advanced capitalist countries embodies the operation of patriarchal power are highlighted by Short (1996:230-231) as follows:

- (i) Gender-based, work-home place separations both reflect and reinforce the linkage of femininity to domesticity. Women's responsibilities for domestic labour restrict their mobility and affect their access to employment opportunities, services and facilities. The work of Hanson and Pratt (1988; 1991) for example shows some of the links between domestic ties, locational restriction, and the occupational segregation of women.
- (ii) The design and organization of urban space reinforce the sexual division of labour. The term "man-made city" is indicative of the design and planning professions, and in the very designs that reinforce gender bias. In a broad historical sweep, Wilson (1991) argues that what is wrong in the design of cities is the masculine desire to control the "place" of women.
- (iii) There are significant differences in the way women and men experience the city. Women's use of urban space, for example is more constrained than men's because of the fear of sexual violence, and this structures their behaviour in many cities. Strategies of individual safety include avoiding certain places at certain times, going to certain places only when accompanied, or not participating in an entire repertoire of activity, especially at night. Valentine (1989:386) for example, contends that "women are pressurized into a restricted use and occupation of public space".

Peterson et al (1978) have taken environmental scale or setting as a starting point and examined the degree of control exerted by women and men over environmental settings at different points on the scale. They consider environments ranging from the "home" to the "world" and relate this to the spheres in which women and men are concentrated. It becomes clear that men are dominant (in a control sense) at the scale of the "world", city, and region by virtue of their political, economic, and employment roles. Women, on the other hand, tend to occupy spaces at the home and neighbourhood levels, and exercise some degree of personal control over them. However, despite women's numerical concentration at the home and neighbourhood scales, key decisions about these spheres tend to be made by institutions operating at the citywide, regional, or national

scales. Few women penetrate into these spheres, particularly in positions of power, and they often experience problems when they move away from the “protected” environment of the home and local neighbourhood and venture into unfamiliar work settings, public spaces, and recreation settings that have not been designed with women in mind.

Institutions which design environments also tend to operate at the macro level to affect environments at the local level. Environmental design rarely takes into account a view of environment that moves outward from the home. However, Peterson et al, (1978) note that women, because they have tended to dominate environments at the scale of the home and the neighbourhood, are in a position to contribute a “micro perspective” on the quality of life in an analysis of environmental systems.

Hitherto, women’s place has been delimited as home and community; this has been the guiding principle of designers and urban planners (Mackenzie, 1989; Agbola, 1990). Mackenzie (1989) argues that the resources available in this space were planned and arranged to facilitate the reproduction and leisure of current and future wage-workers. Thus women work from a material base which is defined as private and is geographically separated from the public workplaces of men. Mackenzie et al note that recent feminist work in geography reflects that this gender-specific spatial separation is disintegrating (Mackenzie, 1989:110). According to them, changes in the social and economic situations have contributed greatly to the disintegration of this gender-specific spatial separation. They have argued that increasing economic losses, for instance, has made the single-earner family which had dominated the ideology of most people and the lives of



some in past to become a rarity. These have brought changes and increasing pressure to contemporary women's lives. For many women, these changes are experienced as living a double life attempting to fulfil their responsibilities for maintaining a home and community while at the same time performing public economic roles. They assert that these difficulties of dual roles are exacerbated by the form of the urban environment. The design of homes and communities assumes someone is working full time to maintain and organize domestic life (Mackenzie, 1989:111). According to Mackenzie et al: this creates pressures on the growing number of women.

In a review of the effect of design on women, Hayden and Wright (1976) have noted that:

“Women have been most closely associated with domestic environments, but almost always as passive clients. They have had to accept spatial and social traditions that confine to certain kinds of structures, and they have had to transform their homes and lives according to the changing standards of advertising, zoning legislation, welfare policy, or neighbourhood pressure for conformity”

Despite the widespread interest in user needs studies of housing environments (Lang et al, 1974), remarkably little attention has been directed to the study of women as users of housing, even though for women housing is a workplace as well as shelter. At the micro scale, women can be distinguished as a separate group of users of the home environment. The range of behaviour open to them is influenced both by their access to home environments and by the form of those environments. Because of the time spent in the home, their responsibility for management, and the creation and shaping of material and

social style, women make a particular set of demands on the home environment, requiring that they maximize rather than limit their opportunities.

Since women are rarely consulted about the design of houses and very few women are employed in the design professions (Hayden and Wright, 1976), the spaces in which women spend a large part of their time are often woefully inadequate to their needs. Several studies (Wright, 1975; Hayden and Wright, 1976) have demonstrated that developments in American domestic architecture and the introduction of household appliances and other "time-saving" devices served not so much to liberate women from domestic drudgery as to institutionalize the woman's role as a "professional housekeeper" and even to increase the amount of time spent in housework. A study of women's use of kitchens (Jetha, 1976) discovered widespread dissatisfaction with the size and design of kitchens. The isolation of the kitchen from the rest of the dwelling unit often makes child surveillance difficult and cuts women off from the rest of the family; the cramped space of the kitchen can make it impossible for husbands and wives to share household tasks even when they are willing to do so.

Decreasing space in houses and apartments in response to rising housing costs also creates "tight spaces", which result in less storage space and fewer opportunities for household members to leave hobbies and ongoing work without cleaning up each time. This adds to women's household chores and time spent in maintenance of the home.

Thus, dwellings, neighbourhoods and urban centers designed physically for homebound women (often by men) tend to constrain them physically, socially and

economically. This is also visible with respect to accessibility (to basic facilities) (Agbola, 1990a; Mackenzie, 1989).

The issue of access has been observed (Agbola, 1990a) (by most female architects, planners/designers and women generally) to be one of the greatest flaws in the urban planning and designing of our urban centers. This problem has been further emphasized since the separation of the home from services and especially since the onset of sub-urban living (suburbanization). Although there have been studies of unequal access to public and private facilities, the family gender and role of facility users have not yet been taken into account (Agbola, 1990a). Also, women's specific problems of access and use of resources have not been included and in fact have not been fully explored (Agbola, 1990a). Furthermore, women with young children have problems of mobility which necessitates their having local facilities within walking distance. However, the tendency has been for services to be centralized, thus, requiring access to private transport. It has been theorized that in two-member-all-working families, women choose work location only after their residences have been selected. This is probably so because their husbands often tend to take priority in residential locations which in most cases are often within accessible limits to their work places. The study of occupational segregation of women in Worcester, Massachusetts in USA, by Hanson and Pratt (1995:248-249) considered the ordering of work place and residential location decisions. They observe that given the importance that women accord proximity to home, it is of considerable

significance that households appear to place a higher priority on convenience to the male's job in choosing their residential location.

In the developing countries, particularly in Nigeria, there are no indepth empirical studies into the impact of housing on women and men as well as the level of involvement of women in housing delivery. This study, therefore, intends to fill this gap along other issues addressed.

## **2.4 Summary**

In the foregoing paragraphs we have attempted to discuss the theories that guided the study. We have also reviewed literature on the important concepts which include gender issues, space, gender and housing. As observed in the literature, gender issues address all forms of gender inequalities. Gender issues arise when a sense of grievance is felt, for example, that it is the male needs which are mostly met, at the expense of the female needs or where an instance of gender inequality is recognized as undesirable, or unjust. In the literature, the argument is that geographical space is an embodiment of the patriarchal relationship - the term 'patriarchy' as used in the gender study literature refers to the systematic organization of male supremacy and female subordination. The argument is that all the crucial decisions about the built structure of cities and regions were and still are taken by males and they have constructed man-oriented geographic space. The main argument in the literature is that, even though women participate in

housing delivery, their involvement has been invisible in most studies. Also that hitherto, houses delivered have been gender blind and women are most disadvantaged.

Observation from the literature shows that planning and execution of housing development, either at the individual and or national level, cannot or may not succeed unless the needs and contributions of women who will be affected by them are clearly understood and addressed at every stage of the planning and implementation. Even though existing housing studies in Nigeria indicate a rather diffused research interest, the approach has always been gender neutral with an implicit assumption of male head of households. As evident from an overview of literature, there has been little contribution in terms of researches into women's housing situation. And hitherto there is no study that has examined gender issues in housing delivery from a spatial perspective.

In the next chapter, we shall discuss the methodology of the study and also provide a description of residential districts in Ibadan.

## CHAPTER THREE

### METHODOLOGY AND THE STUDY AREA

#### 3.1 Introduction

This chapter discusses the methodology of the study and the study area. There are three sections in the chapter. Following the introduction is the methodology of the study while section three is the study area.

#### 3.2 Methodology

The data base for the study is obtained from primary and secondary sources.

##### 3.2.1 *Primary Data*

The primary data was obtained through questionnaire survey undertaken between November 1999 and March 2001 with the aid of field assistants who were trained on how best to administer the questionnaire. The field assistants were recruited majorly from the students of the Department of Town and Country Planning in the Faculty of Environmental Studies in The Polytechnic Ibadan, Ibadan. The field assistants were given a short training on the aim of the survey, the meaning of different key terms as well as the strategies for effectively collecting the required data.

The questionnaire as shown in Appendix 3.1 was divided into eight sections and it was designed to provide information on women (and their spouses in the case of married women) with respect to involvement in housing development and housing experience. The first section dealt with the household composition and its socio-economic

characteristics which include the age, educational attainment, marital status, occupation, monthly income, etc.

In the second section of the questionnaire, information was sought on the relative involvement of the respondents (and their spouses if any) in housing development. Respondents were asked to state whether or/not they own any land, or any house. If they own land and/or house they were asked to state the number of plot(s) and house(s) respectively. Respondents who own land were further asked if they had started developing the land and what they intended to do with the land. Those respondents who do not own land were asked if they wanted to own a land/house. Respondents were asked to state which aspect of the house they took special interest in. Where the respondents are house owners or are in the process of building one, they were asked to state their knowledge and involvement with respect to land purchase, land preparation, production of building materials, finance of building, design of building etc. Respondents were asked to state their perception about the involvement of women and men in the various aspects that relate to housing development such as land purchase and ownership, site clearance, design of building, production/procurement of building materials etc.

In the third section of the questionnaire, information was collected on the activity patterns of the respondents. These include the daily activities of the respondents; effects of the general condition and location of their houses on their daily activities as well as the aspects of housing that affect them most. Others include responsibility for various tasks

such as housework, caring work, household subsistence activities etc in the household. The fourth section dealt specifically with the locational attributes of the houses. Interest here focused on the location of the houses in relation to place of work, service centers, children's schools etc. Respondent's perceptions of the location distances of the house to the various activities were sought.

The fifth section of the questionnaire was concerned with information on the neighbourhood environmental attributes. These characteristics include the state of refuse collection, cleanliness of the neighbourhood, condition of adjoining roads, noise levels, air pollution levels, quality of public transport, absence or presence of neighbourhood shops, level of interpersonal relations/neighbourhood friendliness, quality of schools etc.

The sixth section of the questionnaire was to identify the structural attributes of the houses. These include the type of house, occupancy status, age of the unit, number of rooms per unit, etc. Information was also sought on the state of certain structural attributes such as walls, floors, and roof by noting whether or not they required replacement or repairs. Respondents were asked to describe the prevalence of pest in their house by stating whether it is prevalent or not prevalent. They were also asked to indicate whether they were strongly satisfied, satisfied, dissatisfied or were strongly dissatisfied with some stated aspects of housing such as kitchen, bathroom, toilet, balcony/corridor/veranda etc.

The seventh and the eighth sections of the questionnaire were concerned with the physical well-being information. In the seventh section, indicators of physical well-being



stated included more specific measures of health problems particularly those related to poor housing condition. Such health problems considered were cough, wheeze, blocked nose, skin infections, tiredness or body weakness, feverish, malaria, headache and diarrhea (Martin et al, 1987; Stracher, 1988; Platt et al, 1989; Hyndman, 1990). The respondent was asked to state whether within the past months he or she had experienced any of the above diseases.

The eighth section of the questionnaire was concerned with the information on the psychological distress of the respondents. Psychological distress has two major forms (Mirowsky and Ross, 1989; Theodore et al, 1993; 1996): depression (feeling sad, demoralized, lonely, hopeless, worthless, wishing you were dead, having trouble sleeping, crying, feeling everything is an effort and being unable to get going); and anxiety (being tense, restless, worried, irritable and afraid). Argument in the literature is that depression and anxiety are not distinct forms of psychological distress. They are instead closely intertwined (Dohrenwend et al, 1980; Mirowsky and Ross, 1989). Theodore et al (1993) examine housing, stress and physical well-being in Thailand. In this study, we have adopted Theodore et al (1993) scale of psychological distress, which comprises ten items that reflect various symptoms, including aspects of both anxiety and depression. Thus, in the first nine items, the respondent was asked to indicate how often he or she experienced certain feelings during the previous few weeks. The response categories were “often”, “sometimes”, “rarely”, or “never”. The feelings were: (1) “anxious about something or someone” (2) “that people are trying to pick quarrels or start

arguments with you” (3) “so depressed that it interferes with your daily activities” (4) “that personal worries are getting you down physically, that is, making you physically ill” (5) “moody” (6) “felt you were confused, frustrated and under a lot of pressure” (7) “Are you ever bothered by a nervousness i.e. by being irritable, fidgety, or tense?” (8) “Do you ever feel that nothing ever turns out for you the way you want it to?” and (9) “Do you have trouble concentrating or keeping your mind on what you are doing?” The last item was: (10) “Are you the worrying type – you know a worrier?” (Yes/No) (Theodore et al, 1993:1421-1422).

### **3.2.2 Sampling Method**

The sampling frame utilized was the total number of estimated households in Ibadan municipal area as of 1999. The average household size declared for Nigeria in the result of the National Population Commission (NPC) 1995/96 household survey is 4.48; this was used to divide the projected 1999 population of each locality as defined by the National Population Commission (NPC) in the Ibadan municipal area to get an estimate of household number. Due to cost consideration, a total of seven hundred and twenty-one households were selected as the sample size. This sample represents 0.20 percent of the estimated households in Ibadan as of 1999. To make for effective and objective coverage, due to non availability of the list of all households in each locality in Ibadan, the number of questionnaire forms administered in each locality was proportional to the total number of estimated households in each locality. Appendix 3.1 shows the list of the locality, 1999

projected household number, and the number of questionnaire forms administered. For the purpose of intra-urban analysis, each of the locality in Ibadan municipal area as defined by the National Population Commission (NPC) was accordingly sorted into four residential areas – high density residential area (comprising traditional core high density residential area of Ibadan and non-traditional core high density residential area), medium density residential area and low density residential area - according to where it was located. This was done following existing studies and in addition to reconnaissance survey and consultation with town planners. The classification of high density into two – traditional core and non-traditional core – was based on the observation that these two residential areas which are usually classified together in Ibadan are distinct in social and physical patterns. This was observed from the literature, reconnaissance survey and consultation with town planners. In terms of socio-economic status and housing condition non-traditional core high density residential areas are better off. Also, in terms of ethnic status, traditional core areas are relatively homogeneous in the sense that majority of the residents are indigenes of Ibadan. In the non-traditional core high density residential areas, residents are of different ethnic background. These factors that guided our division of high residential density areas into two are critical factors of residential differentiation which have been identified in the literature. Table 3.1 shows the summary of the four residential areas, projected 1999 household number and percentage of household sampled.

Table 3.1: Residential Areas, Number of Questionnaire forms administered and Percentage of Household Sampled in Ibadan Municipal Area

S/N	Residential Area	1999 Population Projection	Number of Households	Number of Questionnaire Forms administered	% of Household Sampled (app.)
1.	Traditional core high density	829,203	185,090	384	0.20
2.	Non-traditional core high density	329,719	73,598	150	0.20
3.	Medium Density	295,917	66,053	136	0.20
4.	Low Density	94,716	21,142	51	0.20
TOTAL		1,549,556	345,883	721	0.20

The sampling procedure adopted was aimed at sampling along the major streets in each locality. Systematic random sampling was used in the selection of houses along the streets. The first house was selected by the use of random numbers and all subsequent units in the sample were chosen at uniform intervals of fifth houses. From each selected houses, a household, particularly a woman and her spouse (if any) were interviewed.

### 3.2.3 Secondary Data

The secondary sources of data include publications, reports and files from government and quasi-government agencies such as: the National Population Commission, the Property Development Corporation of Oyo State (P.D.C.O.S), Local Town Planning Department and the Ministry of Lands and Survey. Population figures

were obtained from the National Population Commission (NPC). Information on women and men involvement in housing development as indicated by registration of building plans (1991-1999), and applications for certificates of occupancy (C of O) (1989-1999) were obtained from the Town Planning Departments, Property Development Corporation of Oyo State (P.D.C.O.S) and the Oyo State Ministry of Lands and Survey.

### **3.2.4 Method of Data Analysis**

Various descriptive statistical methods and diagrams were used in the initial and display of the data. The descriptive statistics include percentages and mean, while the cartographic methods include bar graphs and line graphs.

The discussion of the statistical technique used is organized on the basis of the hypotheses as follows.

Hypothesis 1: The data analysis in hypothesis 1 is by analysis of variance (ANOVA) technique. By this technique, analysis of intra-urban variability in women's involvement in housing delivery in terms of perceived involvement, awareness, actual involvement, and house ownership is possible.

Hypothesis 2: The main technique of analysis used to test this hypothesis is the multiple (stepwise) regression model. The model examines the degree of relationship between women's involvement in the housing delivery and all the identified predetermined independent variables which are socio-economic characteristics, social support/network

and physical support, awareness and aspirations, responsibility in the household and the house cost/value. The model is of the form:

$$Y_i = a_i + b_1X_1 + b_2X_2 \dots + b_nX_n + e$$

Where

Y = dependent variable – Women’s involvement in the Housing delivery

$a_i$  = base or multiple regression constant referred to as Y intercept

$b$ 's = regression coefficients or unknown parameters which indicate the change in Y per unit change in the explanatory variables

X's = independent variables

– Explanatory variables of women’s involvement in housing delivery include: socio-economic variables (e.g. marital status, household size, stage in the life cycle, educational level, age, and income); responsibility in the household; social support/network and physical support (e.g. availability of househelp, membership of association that assists in housing related matters and quality of neighbourhood facilities); housing development involvement aspiration, perception, and awareness; and housing cost/value.

e = error terms or residuals

Hypothesis 3: The data analysis of variations in women’s satisfaction with housing units is by analysis of variance (ANOVA) technique. By this technique, analysis of the intra-urban variability in women’s satisfaction with housing units is possible. Paired samples

“t” test statistics is used to test if there is a significant gender difference in the aspect of housing unit that women and men take special interest in.

Hypothesis 4: Paired samples “t” test statistics is used to test if there is a significant gender difference in the felt adverse effect of aspects of housing on daily activities. The regression model is used to examine if there is gender difference in the impacts of the housing attributes on the daily activities. The model is of the form:

$$Y_1 = a_i + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Where

Y = dependent variable – Experience of difficulties in carrying out daily activities e.g going to work place, taking the children to childcare/school, fetching water, cooking, etc.

$a_i$  = base or multiple regression constant referred to as Y

intercept

b's = regression coefficients or unknown parameters which indicate the change in Y per unit change in the explanatory variables

X's = independent variabics – housing attributes (housing unit condition; neighbourhood facilities/services; and housing location distances

e = error terms or residuals

Hypothesis 5: The main technique of analysis used to test this hypothesis is the multiple regression model. The regression model is used to examine if there is gender difference

in the impacts of the housing stressors on the physical well-being. The model is of the form:

$$Y_1 = a_i + b_1X_1 + b_2X_2 \dots + b_nX_n + e$$

Where

Y = dependent variable – Physical well being

$a_i$  = base or multiple regression constant referred to as Y intercept

b's = regression coefficients or unknown parameters which indicate the change in Y per unit change in the explanatory variables

X's= independent variables (housing stressors variables - high rent/cost; lack of space; housing discomfort; physical condition of housing; and dissatisfaction with housing)

e = error terms or residuals

The analysis of variance (ANOVA) is used to examine whether there is intra-urban variation in the housing experience of women and men. Housing experience is measured as impact of housing stressors, that is, housing attributes that could be stress-inducing on the physical well being of women and men.

Hypothesis 6: The technique of analysis used to test this hypothesis is the multiple regression model. Regression model is used to examine the effects of the socio-economic characteristics of women and men on their respective housing experience. The model is of the form:



$$Y_1 = a_i + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Where

- Y = dependent variable – Housing Experience as indicated by the standardized regression scores value for each of the cases in the sample.
- $a_i$  = base or multiple regression constant referred to as Y intercept
- b's = regression coefficients or unknown parameters which indicate the change in Y per unit change in the explanatory variables
- X's = independent variables – Socio- economic variables which are: economic characteristics (household income, educational level, and occupation); family characteristics (age, household size, number of children, number of children schooling); and social characteristics (responsibility in the household)
- e = error terms or residuals

### 3.3 The Study Area

#### 3.3.1 Location

The city of Ibadan is located on longitude  $7^{\circ}20'$  and  $7^{\circ}40'$  east of the Greenwich Meridian and latitude  $3^{\circ}35'$  and  $4^{\circ}10'$  north of the equator. The city is situated near the forest-grassland boundary of south western Nigeria, in a geopolitical entity known as Oyo State. According to oral-tradition, the word “Ibadan” is derived from “Eba-Odan” which literally means “near the grassland” (Mabogunje, 1968). The location of Ibadan has aided its growth over the decades. The forest provided the much needed protection

for the yearly population of settlers. The nearby grassland territory provided farmland that could be easily prepared for cultivation as compared with the more difficult forest environment (Mabogunje, 1968). The location of Ibadan near the forest grassland boundary contributed to its early importance as a marketing centre for traders and goods from both the forest and the grassland areas of the western half of Nigeria. Ibadan is situated at the heart of Yoruba land and it is adequately linked with other parts of the Federation by air, road and railway. Ibadan grew from its core at Oja'Iba market at the foot of Mapo Hill to become the largest indigenous African town south of the Sahara (Fig. 3. 1).

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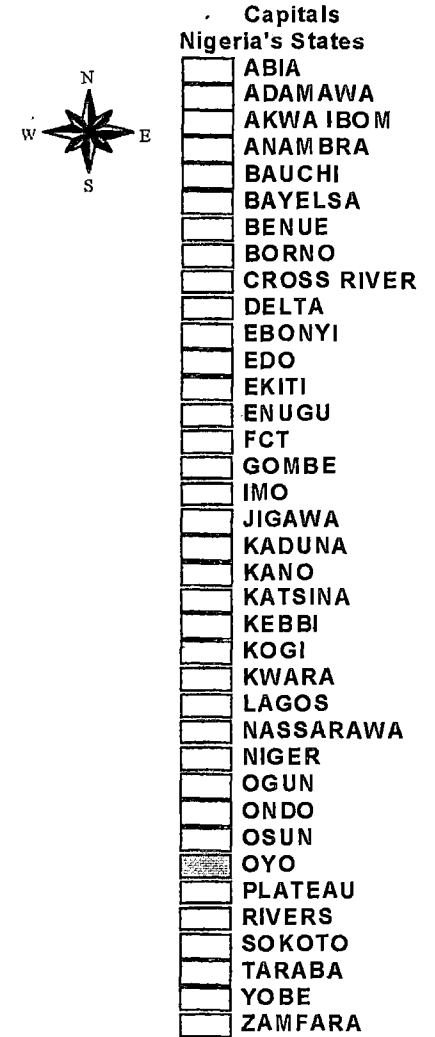
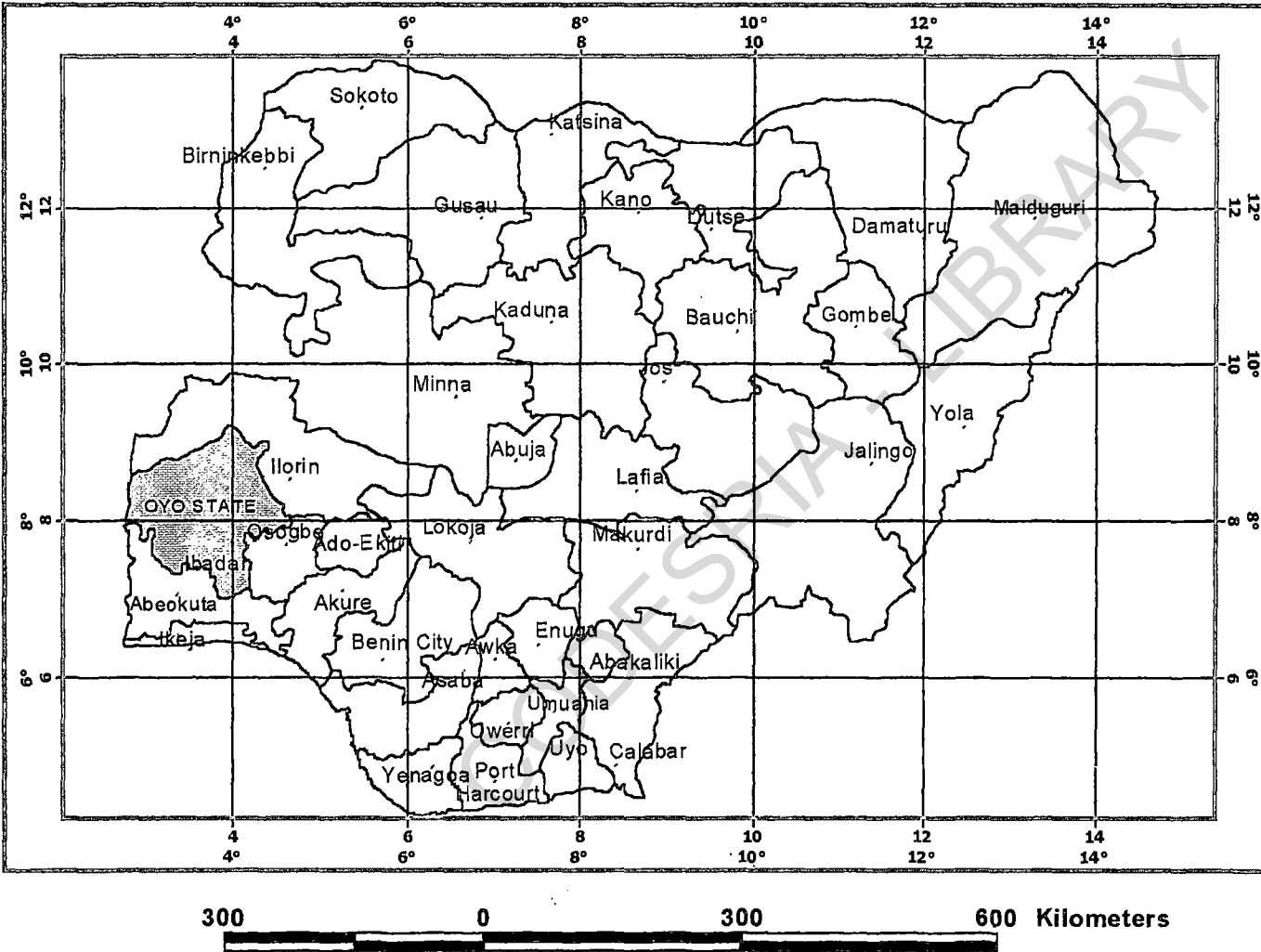


Fig. 3.1: Map of Nigeria showing Oyo State and Ibadan

The Ibadan Municipal area is defined by a circle 12 km<sup>2</sup> in radius with Mapo as the centre (Ayeni, 1982). This encompasses places like Molete, Oluyole Estate, Lagos road, Ojoo, Apata Ganga, Ringroad and a host of other localities (see Appendix 3.2). This area comprises the following Local Government Areas: Ibadan North Local Government, Ibadan South West Local Government, Ibadan South East Local Government, Ibadan North East Local Government, and Ibadan North West Local Government.

The physical setting of Ibadan is dominated by ranges of hills which constitute less than 5% of the total land area (Faniran, 1994). The two types of hills are the laterized quartzite ridges and gneissic inselbergs. The former are most distinct in the approximately north-eastern and south-eastern parts of the city thereby dividing the city into two parts. Here they are manifested in such peaks as the Mapo Hill, Mokola and Aremo hills which have elevations ranging from 160 metres to 275 metres above sea level. On the other hand, the occurrences of inselbergs are limited to the north eastern fringes, along the Ibadan – Oyo Road.

Because of its latitudinal location (Lat. 07°23'N) Ibadan enjoys the characteristic of West African monsoonal climate marked by distinct seasonal shift in the wind pattern. Between March and October the city is under the influence of the moist maritime southwest monsoon winds which blow inland from the Atlantic Ocean. This is the rainy season. The dry season occurs from November to February when the dry laden winds blow from Sahara Desert (Oguntoyinbo, 1994).

With respect to vegetation, the city is located in a forest area but close to grassland environment. The city is drained by two important rivers viz: the Ogunpa and Ona Rivers. The former drains the eastern part of the city and has the Kudeti stream as its major tributary; the latter drains the western part of the city with its main tributaries comprising the Alalubosa, Osun and Yemoja streams.

### **3.3.2 Residential Districts in Ibadan**

Various attempts have been made in the literature to classify the residential districts in Ibadan City. One of the earliest attempts was made by Mabogunje (1962, 1968). Mabogunje identified seven major residential districts in Ibadan. These are the core, the older suburb, the New Eastern and Western suburbs, post 1952 development, Reservation and Bodija Estate (Fig. 3.2).

Characteristically, the core is the oldest and harbours mainly the indigenes. The inhabitants are poor and this is reflected in their mode of life and housing patterns. The dominant land use is residential though with some commercial activities around Mapo, Ojo Iba and Oritamerin. The environment is in squalor with conspicuous lack of access roads, good facilities and modern services. Ethnic homogeneity prevails because inhabitants are mainly Yoruba, though they have heterogeneous origin. This region is characterized by old compounds and dilapidated 'palaces' and bungalows with brown roofing sheets which reflect their old age. Examples of old compounds are Irefin, Alli Iwo, Oke Aremo, Foko compounds.

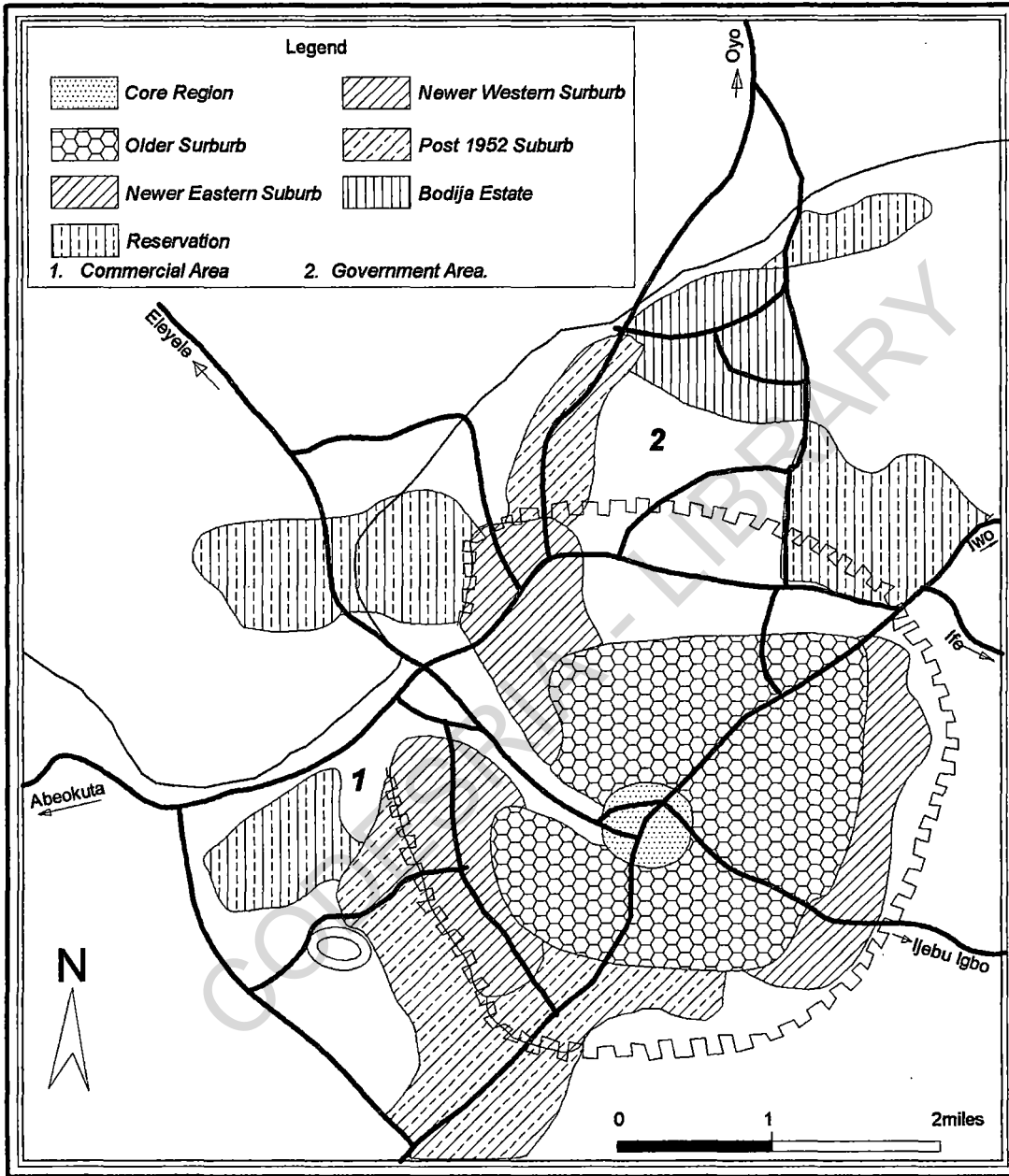


Fig. 3.2: Residential classification of Ibadan (After Mabogunje, 1962)

The compact nature of the core area was created by the desire of the refugees or escapees to build near the houses of their protectors who were the “war boys”. Thus, complex compounds started to emerge and due to increase in family size, there was the breaking up of compound to units to accommodate the newly arrived. This type of growth was termed ‘growth by fission’ by Mabogunje (1968). When the internecine wars were stopped by the British, the people felt the need to expand and escape from the family control; social, economic and political change began to take root. Consequently, the erstwhile compounds started to break up into more complex multiple housing units with infusion of more buildings into the already congested areas (NISER, 1988).

The older suburb has the same characteristics as the above, but with more Yoruba migrants, these people constitute the newly arrived who could not be accommodated in the core. These are Aremo, Oke Are and so on. Newer Eastern and Western suburbs as well as the post-1952 developments were created by in-migration. Those who escaped from the core as a result of their ability to buy land and build houses (due to their wealth or because there was no space in the core) had a hand in creating these settlements too. Occupants of these areas are in the middle class reflected in the type of buildings which are homogeneous but more decent than those in the preceding zones. The dominant landuse, of course is residential but of medium density. A typical area in this zone is Oke Ado. The reservations – Bodija and Oluyole - are of low density consisting of beautiful houses in some cases with

gardens. The occupants are mainly top civil servants, doctors, and top executive businessmen who took over the reservation after the departure of the colonial master.

Abumere (1994:88) observes that Mabogunje's classification of residences in Ibadan into seven major districts is now somewhat outdated. According to him, several residential districts have since sprung up at Agbowo (opposite the University of Ibadan) occupied by low-to-medium income groups working mainly in the University, at Ojoo along Oyo road and along Ife, Abeokuta and Ijebu-Ode roads. He notes that all these are at the fringe of the city and occupy areas normally referred to in the literature as suburbs. Nevertheless, their essential characteristics are that they are occupied by low to medium income earners. He observes that the high income suburbia of middle class people celebrated in the literature and created through this class of people running away from the noise and unacceptable neighbours in the city to the more fashionable noise-free haven of the suburbia is nowhere to be found in Ibadan. According to Abumere, the Ibadan suburbia is characterized by lack of layout, indiscriminate and unauthorized buildings, poor provision of facilities (amenities and infrastructure); congestion and ugliness. He asserts that these aberrations mean that the word "suburbia" should be expunged from any classification of residences in Ibadan since it conjures up misleading connotations (Abumere, 1994:91).



Other classifications of Ibadan residential districts abound. For instance, Ayeni (1982) classified it as containing high, medium and low residential densities (Fig. 3.3). These correspond roughly to Mabogunje's (1962) classification as follows: the core is of high density, the Eastern Western suburbs and post 1952 developments of medium density while the Reservations and Estates are of low density. The defect of this classification lies in its lack of insight into socio-economic characteristics of the residents (NISER, 1988; Abumere, 1994). However, Abumere (1994:91) agrees that the classification is a very useful generalization.

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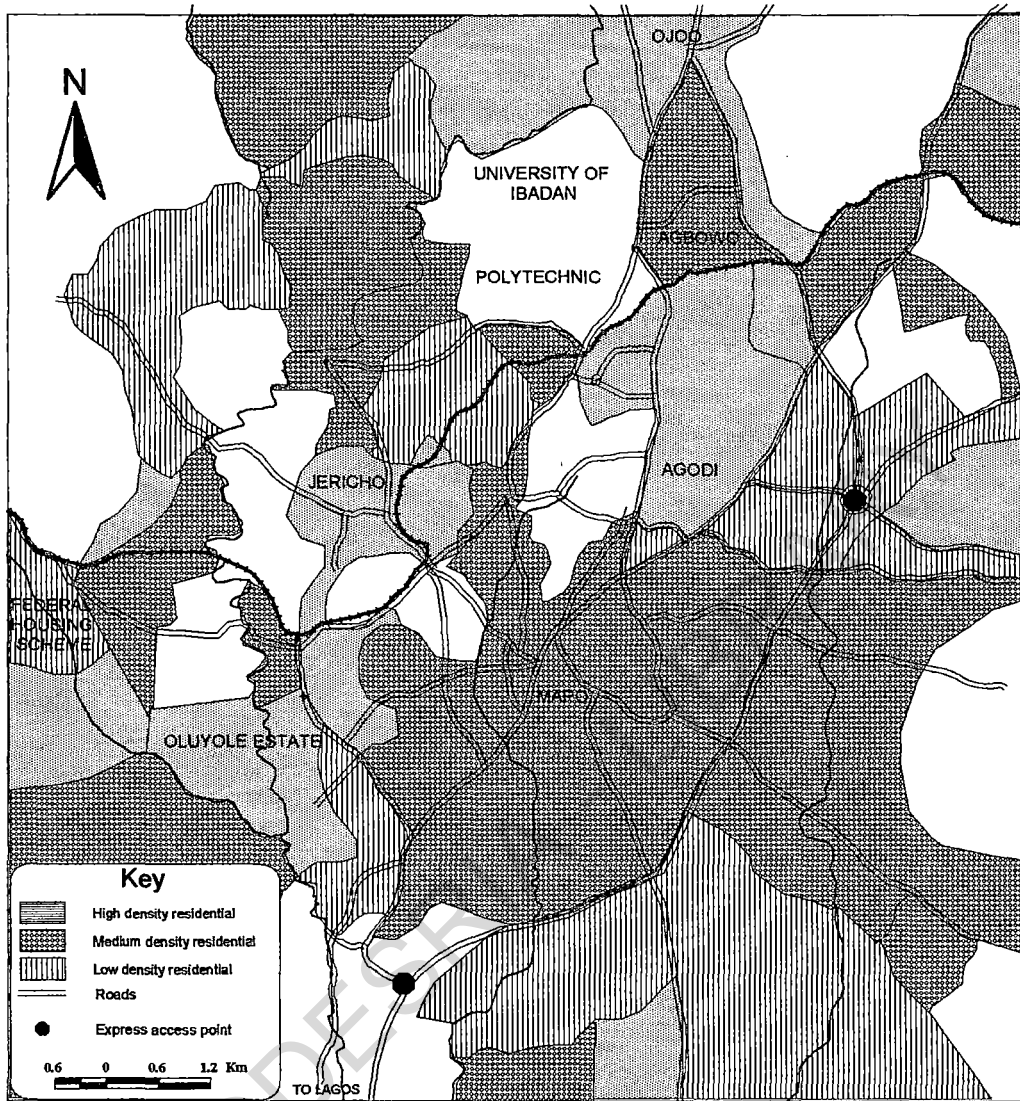


Fig. 3.3: Residential classification of Ibadan after Ayeni (1982)

In 1988, the Nigerian Institute for Social and Economic Research (NISER) carried out a socio-economic survey of Ibadan city. In this report, Ibadan morphology was classified into five zones. These are the core area, the older suburb, the intermediate and the new unplanned fringe and post 1973 developments and the planned settlements (Fig. 3.4). The core area remains what it was in Mabogunje's classification. It is the oldest area accommodating the oldest structures. It exhibits compactness and lack of access roads. It is mainly occupied by the indigenes that are poor and largely illiterate. The next zone is the older suburb which is as described by Mabogunje. It has the same characteristics as the core area but with more Yoruba migrants. Inhabitants constitute the newly arrived who could not be accommodated in the core. Examples are Aremo, Oke Are etc. The intermediate zone represents area which Mabogunje described as Newer Eastern suburbs, Western suburbs as well as post 1952 developments. The zone is occupied by those who due to their financial ability were able to escape from the core. Occupants consist of many migrants. They are in the middle class and intensity of development is of medium density. Areas in this category are: Oke-Ado, Oke Bola, Ososami, Felele, Challenge, Apata, Mokola, Monatan, Iwo road etc. The new unplanned fringe and post 1973 developments mainly consist of the sprawl areas which developed after the commissioning of the Lagos-Ibadan Expressway. They are occupied by both middle and low income earners. Structures are newly built but compactly developed with low quality building materials. They lack many facilities and services that make environments

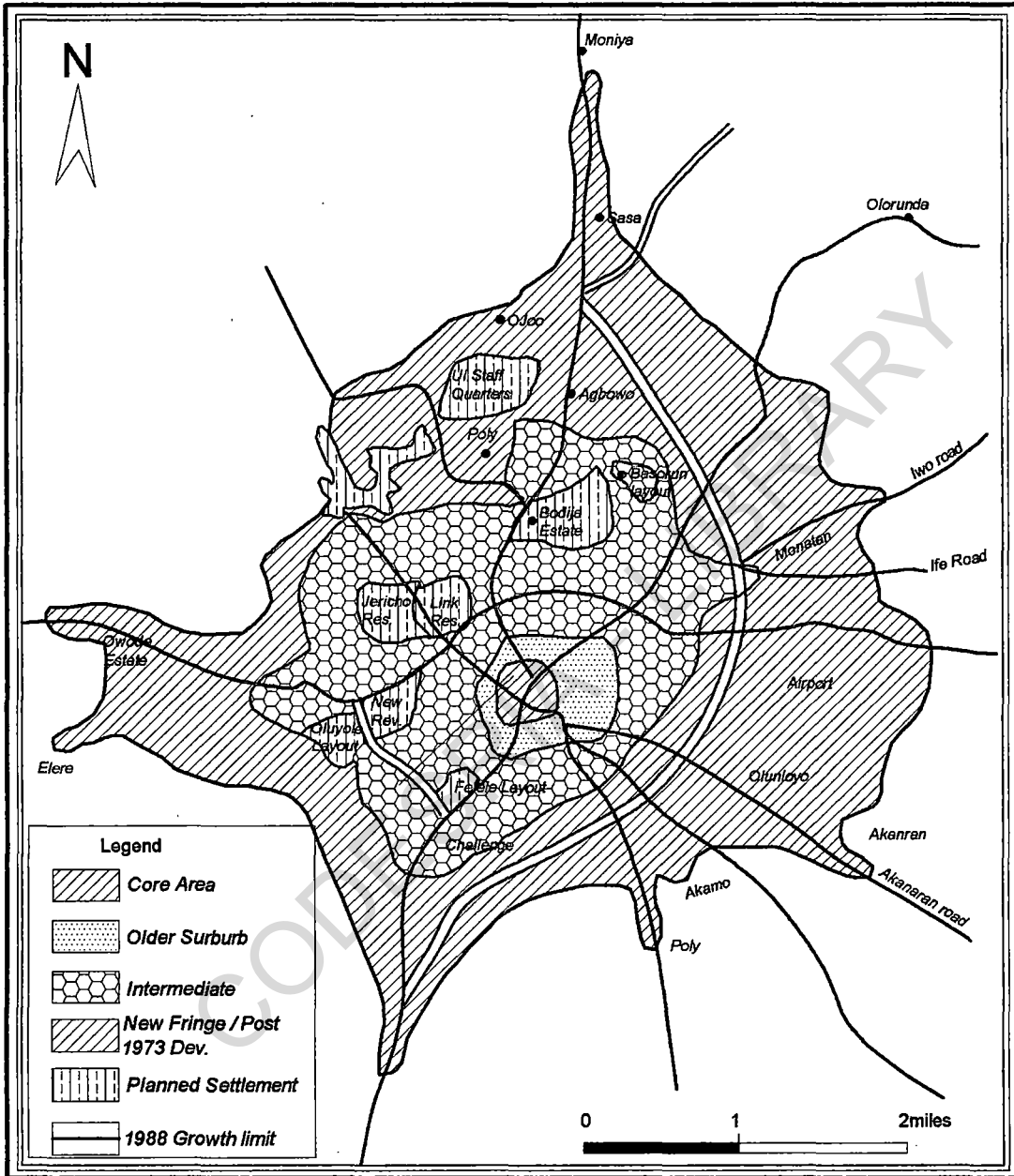


Fig. 3.4: Residential classification of Ibadan after NISER (1988)

liveable. Examples of these areas are Agugu, Oremeji, Ogbere, Olomi, Sasa, Iyana Church, Adogba, etc. The fifth and the last zone consist of planned settlements such as GRAs and government and private layouts. Areas of this nature are: Agodi GRA, Jericho Reservation, Links Reservation, Oluyole Estate, Bodija Estate, Owode Estate etc.

Other classification according to Abumere is that of East and Western with Lagos-Molete-Mapo and Ife road as dividing line. Here, the East is said to contain mainly indigenous core with its inhabitants of about 90% Yoruba. The West on the other hand is of lower housing density with heterogeneous population. This classification is found to be too generalized (Abumere, 1994).

Another classification advanced by Abumere is that based on the process creating the zones. He identifies three zones: the indigenous district, zone of market forces and the government zone or institutional zone. According to him, the indigenous district comprises Mabogunje's core and older suburbs. According to him, income, occupation, family status, taste etc. have got nothing to do with determining who stays in this zone. The most important factor is ethnicity. Zone of market forces comprises Mabogunje's newer eastern, newer western and post 1952 suburbs. The zone of market forces according to Abumere (1994) is characterized by competition. People with money and the high sense of individuality which money in part create come to this zone from the indigenous zone and from outside Ibadan. The

determining factor here is ability to pay and so who stays there is determined by the invisible hand of the market (Abumere, 1994:91). The government zone or institutional zone comprises Mabogunje's Reservations and Estates. Nevertheless, Abumere (1994) notes that even this classification of residences in Ibadan into three residential districts of indigenous, market forces and government zones, as all classifications are, represents generalizations to aid exposition and explanation. Such classification no doubt almost always hides important intra-residential districts' variations (p. 92).

Following our review of the past studies, reconnaissance and preliminary surveys and discussion with town planning officials, the present study is based on four classifications of Ibadan residential districts. These are traditional core high density or indigenous areas of Ibadan; non-traditional core high density residential areas; medium density and low density residential areas. The classification of high density into two – traditional core and non-traditional core – was based on the observation that these two residential areas which are usually classified together in Ibadan are distinct in social and physical patterns. This is observed from the literature, reconnaissance survey and consultation with town planners. In terms of socio-economic status and housing condition non-traditional core high density residential areas are better off. Also, in terms of ethnic status, traditional core areas are relatively homogeneous in the sense that majority of the residents are indigenes of Ibadan. In the non-traditional core high density residential areas, residents are of different ethnic

background. These factors that guided our division of high residential density areas into two are critical factors of residential differentiation which have been identified in the literature.

The traditional core high density or indigenous areas of Ibadan corresponds roughly with Mabogunje's (1962) core and older suburbs and Ayeni's (1982) high density residential areas. Also the non-traditional core high density residential areas roughly correspond with NISER's (1988) new unplanned fringe and part of Ayeni's high density. The medium density roughly corresponds with Ayeni's (1982) classification of medium density residential areas and Mabogunje's (1962) newer eastern and western suburbs as well as post 1952 developments and NISER's (1988) intermediate zone. Both non-traditional core high density and medium density residential areas correspond with Abumere's (1994) zone of market forces. The low density residential areas corresponds with Ayeni's (1982) classification of low density residential areas, Mabogunje's (1962) Bodija/Reservation and Estates, NISER's 1988 zone of planned settlement and Abumere's (1994) government zone or institutional zone (Fig. 3.5).





### 3.4 Summary

In this chapter we have discussed the various types of data for the study and their sources. Also we have reviewed studies on residential districts in Ibadan.

In subsequent sections of the study, an attempt will be made to examine the involvement of women in housing delivery and to identify the determinants of women's involvement in housing delivery. Also, we will investigate women's satisfaction with the houses delivered as well as gender differences in the impacts of housing on women and men activities and physical well-being.

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## CHAPTER FOUR

### GENDER AND INVOLVEMENT IN HOUSING DEVELOPMENT IN IBADAN

#### 4.1 Introduction

In the last few years, various countries of the world and different international bodies have recognized the significance of the involvement of women in development and have devoted considerable attention to women's contribution to economic progress. These countries and organizations have emphasized the need to actively involve women in the design and implementation of various development programmes so as to make them more active and effective participants in the socio-economic cum cultural activities of their countries and/or associations (Agbola, 1990; Moser, 1992, 1993; Young, 1995; UNCHS, 1996; etc). As observed in the literature, the reasons for these recent actions are relatively clear.

Women constitute half of the world's population and perform two-thirds of the world's work, yet they receive only one tenth of the world's income and own less than one percent of the world's property (UNCHS, 1996). Although there has been increased focus on the actual and potential involvement of women in development generally and with special emphasis on agriculture and the industry, only in recent times has there been an interest in their housing situation (Agbola, 1990:178). Various scholars have asserted that women, as the major consumers and users of shelter and infrastructure, must not only be consulted at every turn of the housing development process, they should actively participate (Agbola, 1990; Moser, 1992; Woods, 1994; Gilroy and Woods, 1994; etc).

The main argument in the literature is that, even though women participate in the housing delivery, their involvement has been invisible in most studies. The chapter investigates women involvement in housing development in Ibadan.

Six critical aspects of housing development have been identified in the literature (Agbola, 1990); these are land acquisition and preparation, housing design and planning, housing development finance, building material production/procurement, housing construction, and housing maintenance. The first stage in the erection of any type of building is the acquisition of land. Land is acquired in Nigeria either through the government or private land vendors. Thereafter begins the process of surveying and clearing. Housing design and planning entail the decision making about the type of house to build, the structure of the building etc. and the production of the building plan by either an architect or a draughtsman.

Finance is crucial to any and all stages of the building process. House buildings are generally self-financed by owners (Agbola 1990). As confirmed in Nigeria, 73.7%, 79.4% and 84.0% of owners of large, medium, and small houses respectively said their houses were self-financed (Onibokun et al, 1958 cited by Agbola, 1990). Even where the housing projects are undertaken by the government, the end result is that the beneficiaries have to pay for it since most governments are now effecting the cost recovery option of financing housing projects (Agbola, 1990). Production/procurement of building materials entails series of decisions on type of building materials to use, whether to produce blocks on the site or to buy already made blocks. During the actual construction

of the building, decisions are made on the monitoring of the artisans to make sure that what they said they will do is what they are actually doing each day they work on the site. After the completion of the building and is occupied, there is the need for the maintenance of the building. This also requires some decision-making especially on the repairs of both structural and non-structural defects as well as housing preventive maintenance activities. There can also be decisions on whether to improve and modernize the house.

In this chapter, intra-urban variations in the general perceptions and actual involvement of women in housing development decision-making are examined with particular emphasis on those six critical aspects of housing development which are, land acquisition and preparation, housing design and planning, housing development finance, building material production/procurement, housing construction and housing maintenance. Also examined are the intra-urban variations in the view of women on the responsibility of housing provision, jobs of building activities generally and women's awareness of the development of each of those critical stages of housing development.

The chapter is divided into five sections. After this introduction, the second, third, and fourth sections examine perception of women's participation in housing development, women's view of housing provision and women's perception of building activities job respectively in Ibadan. Awareness and actual involvement of women in housing development are examined and discussed in the fifth section. The null hypothesis tested here is that there is no significant intra-urban variation in women's perceived

awareness and actual involvement in housing development. The Analysis of Variance (ANOVA) is used to test the hypothesis.

#### **4.2 Perception of Women's Participation in the Critical Aspects of Housing Development**

The critical aspects of housing development considered are land acquisition and preparation, housing design and planning, housing finance, actual construction of the building, production/procurement of the building materials and housing maintenance. Table 4.1 and Figure 4.1 show the perceived participation of women in each of those critical aspects of housing development decision-making in Ibadan.

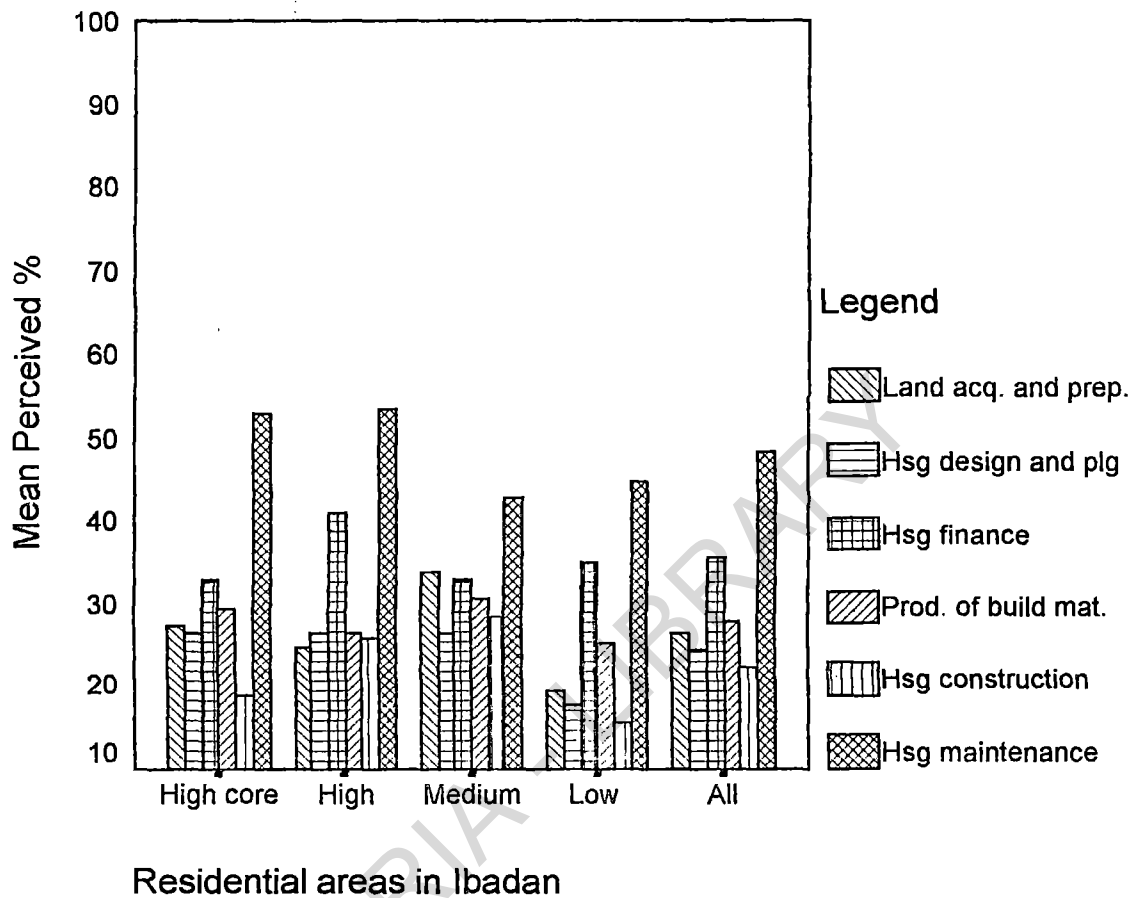


Figure 4.1: Perception of Women's Participation in the Housing Development Decision

Table 4.1 shows the overriding view that women's participation in these activities is low. Figures in the table are based on the average values of the perceived involvement of women in each of those critical aspects of housing development in Ibadan as shown in the Appendices 4.1 to 4.5.

On land acquisition and preparation, only 28.0 percent of women perceived their participation in decision-making and other associated activities in the traditional core

high density residential area, while 25.0 percent did the same in the non-traditional core high density area, 34.0 percent did in the medium density residential area and 20.0 percent in the low density residential area. In all parts of Ibadan only 27.0 percent perceived women's participation in the land acquisition and preparation decisions.

In housing design and planning, 27.0 percent perceived women's participation in decision making in the traditional core high density residential area, non-traditional high density residential area, and medium density residential area respectively while only 18.0 percent did in the low density residential area. The overall average for the whole city is 25.0 percent.

On the finance of building, 33.0 percent perceived women's participation in decision-making in the traditional core high density residential area, 41.0 percent in the non-traditional high density residential area, 33.0 percent in the medium density residential area and 35.0 percent in the low density residential area. In the entire city 36.0 percent perceived women's participation in decision-making for financing buildings.

In the production/procurement of building materials, perception of women's participation is generally low. In the traditional core high density residential area, 30.0 percent perceived women's participation in the production/procurement of the building material while 27.0 percent, 31.0 per cent and 26.0 percent do the same in the non-traditional high density, medium and low density residential areas respectively. The overall perception of women's participation in all the four residential area is only 28.0 percent.

On housing construction, similar observations are noted in that there is low percentage of women's participation in decision-making and other related activities. In the traditional core high density residential area, the perceived average percentage of women's participation is 19.0 per cent while it is 26.0 per cent, 29.0 per cent, and 16.0 per cent respectively in the non-traditional high density, medium density and low density residential areas. In all the residential areas, perception of women's participation is only 22.0 per cent.

In the housing maintenance, in the traditional core high density residential area the perceived average percentage of women's participation in decision-making is 53.0 percent while it is 54.0 percent in the non-traditional core high density residential area, 43.0 percent in the medium density residential area and 45.0 percent in the low density residential area. In all the residential areas combined, it is 49.0 percent. The result of the analysis of variance (ANOVA) on the data is shown in Table 4.2. The variables are recoded as binary (1 if women only or men and women equally or women partially involved otherwise 0).



Table 4.2: ANOVA test of intra-urban variations in the Perception of Women's Participation in Housing Development

		Sum of Squares	df	Mean Square	F	Sig.
Land Acq. And Planning	Between Group	3.415	3	1.138	2.221	.084
	Within Group	367.437	717	.512		
	Total	370.852	720			
Housing Design And Planning	Between Group	1.393	3	.464	.723	.538
	Within Group	460.274	717	.643		
	Total	461.667	720			
Housing Dev. Finance	Between Group	.788	3	.263	1.152	.327
	Within Group	163.434	717	.228		
	Total	164.222	720			
Prod./Proc. Of Building materials	Between Group	.170	3	5.656E-02	.273	.845
	Within Group	148.665	717	.207		
	Total	148.835	720			
Housing Construction	Between Group	1.155	3	.385	2.238	.083
	Within Group	123.339	717	.172		
	Total	124.494	720			
Housing Maintenance	Between Group	34.211	3	11.404	2.540	.055
	Within Group	3219.398	717	4.490		
	Total	3253.609	720			

Source: Field survey, 2001

The result of the analysis of variance (ANOVA) shows that none of the F-value of each of the aspects of housing development is significant at  $p < .05$  (Table 4.2). This implies that there is no significant intra-urban variation in the general perception of the participation of women in each aspect of housing development in Ibadan.

Also, Post Hoc (LSD) multiple comparisons test of the analysis of variance (ANOVA) is used to examine whether there are significant variations in the general

perceptions of the involvement of women among each of the six critical aspects of housing development. The result as shown in Table 4.3 shows that the perceived participation in housing maintenance and housing finance is significantly different at  $p < .05$  from the perceived participation in each of the other aspects of housing development.

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Table 4.3: ANOVA Post Hoc Tests (Multiple Comparisons) of Perception of the Involvement of Women in the six critical Aspects of Housing Development

(I) Class	(J) Class	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	2.3750	3.4833	.540	-4.9432	9.6932
	3.00	-8.9250*	3.4833	.020	-16.2432	-1.6068
	4.00	-1.3750	3.4833	.698	-8.6932	5.9432
	5.00	4.4750	3.4833	.215	-2.8432	11.7932
	6.00	-22.0000*	3.4833	.000	-29.3182	-14.6818
2.00	1.00	- 2.3750	3.4833	.504	-9.6932	4.9432
	3.00	-11.3000*	3.4833	.005	-18.6182	-3.9818
	4.00	- 3.7500	3.4833	.296	-11.0682	3.5682
	5.00	2.1000	3.4833	.554	-5.2182	9.4182
	6.00	-24.3750*	3.4833	.000	-31.6932	-17.0568
3.00	1.00	8.9250*	3.4833	.020	1.6068	16.2432
	2.00	11.3000*	3.4833	.005	3.9818	18.6182
	4.00	7.5500*	3.4833	.044	.2318	14.8682
	5.00	13.4000*	3.4833	.001	6.0818	20.7182
	6.00	-13.0750*	3.4833	.001	-20.3932	-5.7568
4.00	1.00	-1.3750	3.4833	.698	-5.9432	8.6932
	2.00	3.7500	3.4833	.296	-3.5682	11.0682
	3.00	-7.5500*	3.4833	.044	-14.8682	-2.318
	5.00	5.8500	3.4833	.110	-1.4682	13.1682
	6.00	-20.6250*	3.4833	.000	-27.9432	-13.3068
5.00	1.00	-4.4750	3.4833	.215	-11.7932	2.8432
	2.00	-2.1000	3.4833	.554	-9.4182	5.2182
	3.00	-13.4000*	3.4833	.001	-20.7182	-6.0818
	4.00	-5.8500	3.4833	.110	-13.1682	1.4682
	6.00	-26.4750*	3.4833	.000	-33.7932	-19.1568
6.00	1.00	22.0000*	3.4833	.000	14.6818	29.3182
	2.00	24.3750*	3.4833	.000	17.0568	31.6932
	3.00	13.0750*	3.4833	.001	5.7568	20.3932
	4.00	20.6250*	3.4833	.000	13.3068	27.9432
	5.00	26.4750*	3.4833	.000	19.1568	33.7932

\* The mean difference is significant at  $p < .05$

- Class - Aspects of Housing  
 Class 1 - Land acquisition and preparation  
 Class 2 - Housing design and planning  
 Class 3 - Housing development finance  
 Class 4 - Production/Procurement of building materials  
 Class 5 - Housing construction  
 Class 6 - Housing maintenance

Source: Field survey, 2001

### 4.3 Women's View of the Responsibility of Housing Provision for the household

Table 4.4 shows the view of women on the provision of housing for the household in Ibadan and in each of the residential areas respectively. Provision of housing for the household is perceived more as men's responsibility.

Table 4.4: Perception of women of the responsibility of housing provision

Response	Residential Areas									
	Traditional core high density		Non-traditional core high density		Medium density residential area		Low density residential area		All the residential areas	
	No	%	No	%	No	%	No	%	No	%
Man only	228	59.4	90	60.0	95	69.9	35	68.6	448	62.2
Woman only	28	7.3	4	2.7	2	1.5	1	2.0	35	4.9
Man and woman equally	76	19.8	27	18.0	27	19.9	11	21.6	141	19.6
Woman partially	51	13.3	27	18.0	10	7.4	4	7.8	92	12.8
Women rarely	1	0.3	2	1.3	1	0.7	-	0.0	4	0.6
Women never	-	0.0	-	0.0	1	0.7	-	0.0	1	0.1
Total	384	100.0	150	100.0	136	100.0	51	100.0	721	100.0

Source: Field survey, 2001

The last column in Table 4.4 shows that in Ibadan generally, 62.2 per cent of women view housing provision for the household as solely the responsibility of the man while 4.9 per cent view it as wholly the woman's responsibility while 12.8 per cent view it as partially the woman's responsibility. Only 12.8 percent view it as of equal responsibility of man and woman. Less than one percent view it as rarely (0.6%) and never (0.1%) women responsibility.

The analysis of variance (ANOVA) is used to examine whether there is intra-urban variations in the perception of housing provision responsibility for the household in Ibadan. The variables are re-coded as binary (1 if man only is responsible otherwise 0). The result shows that the F value is 1.320 while the significance value is 0.267. This result is not significant (Table 4.5). This implies that there is no significant intra-urban variation in the perception of housing provision responsibility in Ibadan.

Table 4.5: ANOVA test of women's perception of housing provision responsibility for the household

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.980	3	.327	1.320	.267
Within Groups	177.423	717	.247		
Total	178.402	720			

Source: Field survey, 2001

Also, Post Hoc (LSD) multiple comparisons test of the Analysis of Variance (ANOVA) is used to examine whether there are significant differences among these various views of women on the responsibility of housing provision for the household. The result is as shown in Table 4.6. The result shows that the perception of housing provision for the household as mainly man's responsibility is significantly different at  $p < .05$  from each of the other views.

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Table 4.6: ANOVA Post Hoc Tests (Multiple Comparisons) of the View of Women on the Responsibility of Housing Provision for the household

(I) Class (J) Class		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	103.2500*	26.0204	.001	48.5831	157.9169
	3.00	76.7500*	26.0204	.009	22.0831	131.4169
	4.00	89.0000*	26.0204	.003	34.3331	143.6669
	5.00	111.0000*	26.0204	.000	56.3331	165.6669
	6.00	111.7500*	26.0204	.000	57.0831	166.4169
2.00	1.00	-103.2500*	26.0204	.001	-157.9169	-48.5831
	3.00	-26.5000	26.0204	.322	-81.1669	28.1669
	4.00	-14.2500	26.0204	.591	-68.9169	40.4169
	5.00	7.7500	26.0204	.769	-46.9169	62.4169
	6.00	8.5000	26.0204	.748	-46.1669	63.1669
3.00	1.00	-76.7500*	26.0204	.009	-131.4169	-22.0831
	2.00	26.5000	26.0204	.322	-28.1669	81.1669
	4.00	12.2500	26.0204	.643	-42.4169	66.9169
	5.00	34.2500	26.0204	.205	-20.4169	88.9169
	6.00	35.0000	26.0204	.195	-19.6669	89.6669
4.00	1.00	-89.0000*	26.0204	.003	-143.6669	-34.3331
	2.00	14.2500	26.0204	.591	-40.4169	68.9169
	3.00	-12.2500	26.0204	.643	-66.9169	42.4169
	5.00	22.0000	26.0204	.409	-32.6669	76.6669
	6.00	22.7500	26.0204	.393	-31.9169	77.4169
5.00	1.00	-111.0000*	26.0204	.000	-165.6669	-56.3331
	2.00	-7.7500	26.0204	.769	-62.4169	46.9169
	3.00	-34.2500	26.0204	.205	-88.9169	20.4169
	4.00	-22.0000	26.0204	.409	-76.6669	32.6669
	6.00	.7500	26.0204	.977	-53.9169	55.4169
6.00	1.00	-111.7500*	26.0204	.000	-166.4169	-57.0831
	2.00	-8.5000	26.0204	.748	-63.1669	46.1669
	3.00	-35.0000	26.0204	.195	-89.6669	19.6669
	4.00	-22.7500	26.0204	.393	-77.4169	31.9169
	5.00	-.7500	26.0204	.977	-55.4169	53.9169

\* The mean difference is significant at  $p < .05$

Class - View of women on the responsibility of the household housing provision.

Class 1 - Man only

Class 2 - Woman only

Class 3 - Man and Woman equally

Class 4 - Woman partially

Class 5 - Woman rarely

Class 6 - Woman never

Source: Field survey, 2001

#### 4.4 Women's Perception of Building Activities Job

The general perceptions of women of the job of building activities are shown in Table 4.7. From the Table it is obvious that building activities are viewed more as men's job.

Table 4.7: General perception of women of building activities jobs

Response	Residential Areas									
	Traditional core high density		Non-traditional core high density		Medium density residential area		Low density residential area		All the residential areas	
	No	%	No	%	No	%	No	%	No	%
Wholly men's job	228	59.4	93	62.0	95	69.9	27	52.9	443	61.4
Wholly women's job	50	13.0	8	5.3	5	3.7	14	27.5	77	10.7
Partially women's job	106	27.6	49	32.7	36	26.5	10	19.6	201	27.9
Total	384	100.0	150	100.0	136	100.0	51	100.0	721	100.0

Source: Field survey, 2001

In all the four residential areas combined, majority of the women (61.4%) are of the view that building activities are wholly men's job; less than 30.0 percent consider them as being both men's and women's job while about 11.0 percent are of the view that they are wholly the women's job (Table 4.7).

The analysis of variance (ANOVA) is used to examine whether there are intra-urban variations in the general perception of women of the building activities jobs in Ibadan. The variables are re-coded as binary (1 if wholly men's jobs otherwise 0). The



result shows that the F value is 2.117 while the significance value is .097. This result is not significant (Table 4.8). This implies that there is no significant intra-urban variation in the general perception of women of the building activities jobs in Ibadan.

Table 4.8: ANOVA test of women's perception of the building activities jobs

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	169.311	3	.500	2.117	.097
Within Groups	170.810	717	.236		
Total	170.810	720			

Source: Field survey, 2001

#### 4.5 Involvement of Women in Housing Development Decisions in Ibadan

The purpose here is to provide an analysis of the intra-urban variations in the level of awareness and actual involvement of women in the critical aspects of housing development in Ibadan. The analysis is limited to the total of two hundred and sixty-one (261) household home owners in the sample survey. Out of this total, 51.0 per cent are in the traditional core high density residential area, 20.3 per cent, 19.5 per cent and 8.8 per cent are in the non-traditional core high density, medium density and low density residential areas respectively.

#### 4.5.1 Level of Women Awareness

The interest here is to examine the level of awareness or knowledge of women of the development of the house owned by their household with emphasis on the six critical aspects of housing development which are land acquisition and preparation, housing design and planning, housing development finance, building material production/procurement, housing construction and housing maintenance. Table 4.9 and Figure 4.2 show the percentage of the level of women's awareness of each of the critical aspects of housing development of the house owned by their household.

Table 4.9: Level of Women Awareness (%)

Variables	Residential Areas in Ibadan				
	Traditional core high density	Non-traditional core high density	Medium density	Low density	Overall
Land acquisition and preparation	39.9	29.3	29.4	52.2	36.8
Housing design and planning	35.5	29.3	32.4	47.8	34.1
Housing development finance	47.8	34.0	41.2	47.8	44.1
Production/Procurement of building materials	39.6	24.5	29.4	39.1	34.5
Housing construction	41.0	28.3	37.3	47.8	38.3
Housing maintenance	50.3	52.1	48.2	58.3	51.0

Source: Field Survey, 2001

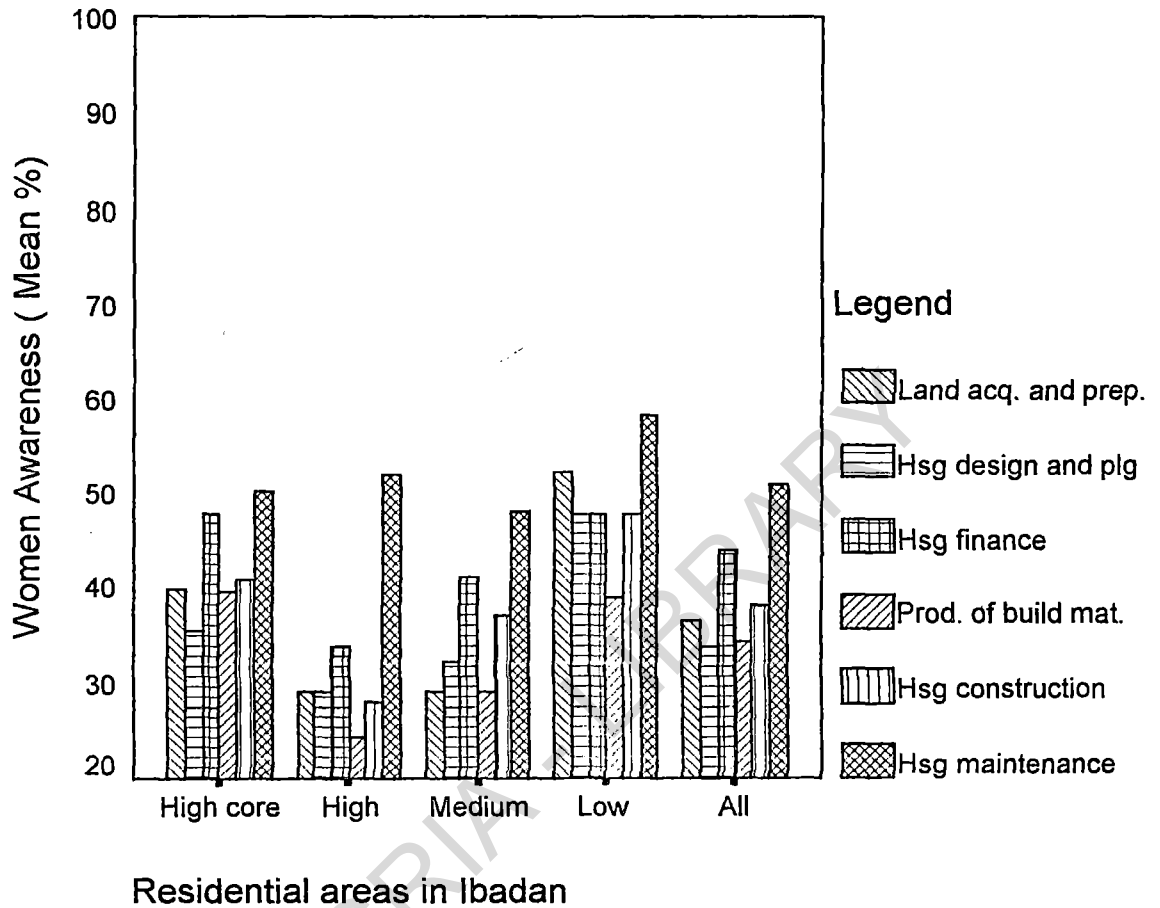


Figure 4.2: Women's Awareness of each aspect of housing development

Table 4.9 shows that women's awareness of the development of the house owned by their household is generally low. Figures in the Table are based on the average values of awareness of women of those critical aspects of housing development as shown in Appendix 4.6. The overall women's awareness of the land acquisition and preparation is 37.0 percent, housing design and planning is 34.0 percent, housing development finance is 44.0 percent, production/procurement of building materials is 35.0 percent, housing

construction is 38.0 percent and housing maintenance is 51.0 percent. The result of the analysis of variance (ANOVA) on the data is shown in Table 4.10.

Table 4.10: ANOVA test of women's awareness of each critical aspects of housing development

		Sum of Squares	df	Mean Square	F	Sig.
Land Acquisition And Planning	Between Group	5.022	3	1.674	1.976	.118
	Within Group	217.737	257	.847		
	Total	222.759	260			
Housing Design And Planning	Between Group	1.137	3	.379	.456	.713
	Within Group	213.469	257	.831		
	Total	214.605	260			
Housing Dev. Finance	Between Group	.918	3	.306	1.240	.296
	Within Group	63.412	257	.247		
	Total	64.330	260			
Prod./Procurement Of Building materials	Between Group	1.050	3	.350	1.554	.201
	Within Group	57.915	257	.225		
	Total	58.966	260			
Housing Construction	Between Group	.845	3	.282	1.190	.314
	Within Group	60.841	257	.237		
	Total	61.686	260			
Housing Maintenance	Between Group	4.323	3	1.441	.293	.831
	Within Group	1264.328	257	4.920		
	Total	1268.651	260			

Source: Field survey, 2001

The result of the analysis of variance (ANOVA) shows that none of the F-value of each of the critical aspects of housing development is significant at the .05 level (Table 4.10). This implies that there is no significant intra-urban variation in women's awareness in

each of critical aspects of the development of the house owned by their household in Ibadan.

Also, Post Hoc (LSD) multiple comparisons test of the analysis of variance (ANOVA) is used to examine whether there are variations in the awareness of women among each of the six critical aspects of housing development. The result is shown in Table 4.11. The result shows that there is significant difference at  $p < .05$  between housing maintenance and each of the other critical aspects of housing development with the exception of housing development finance (see Table 4.11). This result implies that women are more aware of housing maintenance aspect than the other critical aspects of housing development with the exception of housing development finance.

Table 4.11: ANOVA Post Hoc Tests (Multiple Comparisons) of Women's Awareness among each of the six critical aspects of housing development

(I) Class	(J) Class	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	1.4500	5.5340	.796	-10.1764	13.0764
	3.00	-5.0000	5.5340	.378	-16.6264	6.6264
	4.00	4.5500	5.5340	.422	-7.0764	16.1764
	5.00	-.9000	5.5340	.873	-12.5264	10.7264
	6.00	-14.5250*	5.5340	.017	-26.1514	-2.8986
2.00	1.00	-1.4500	5.5340	.796	-13.0764	10.1764
	3.00	-6.4500	5.5340	.259	-18.0764	5.1764
	4.00	3.1000	5.5340	.582	-8.5264	14.7264
	5.00	-2.3500	5.5340	.676	-13.9764	9.2764
	6.00	-15.9750*	5.5340	.010	-27.6014	-4.3486
3.00	1.00	5.0000	5.5340	.378	-6.6264	16.6264
	2.00	6.4500	5.5340	.259	-5.1764	18.0764
	4.00	9.5500	5.5340	.102	-2.0764	21.1764
	5.00	4.1000	5.5340	.468	-7.5264	15.7264
	6.00	-9.5250	5.5340	.102	-21.1514	2.1014
4.00	1.00	-4.5500	5.5340	.422	-16.1764	7.0764
	2.00	-3.1000	5.5340	.582	-14.7264	8.5264
	3.00	-9.5500	5.5340	.102	-21.1764	2.0764
	5.00	-5.4500	5.5340	.338	-17.0764	6.1764
	6.00	-19.0750*	5.5340	.003	-30.7014	-7.4486
5.00	1.00	.9000	5.5340	.873	-10.7264	12.5264
	2.00	2.3500	5.5340	.676	-9.2764	13.9764
	3.00	-4.1000	5.5340	.468	-15.7264	7.5264
	4.00	5.4500	5.5340	.338	-6.1764	17.0764
	6.00	-13.6250*	5.5340	.024	-25.2514	-1.9986
6.00	1.00	14.5250*	5.5340	.017	2.8986	26.1514
	2.00	15.9750*	5.5340	.010	4.3486	27.6014
	3.00	9.5250	5.5340	.102	-2.1014	21.1514
	4.00	19.0750*	5.5340	.003	7.4486	30.7014
	5.00	13.6250*	5.5340	.024	1.9986	25.2514

\* The mean difference is significant at  $p < .05$

- Class - Aspects of Housing  
 Class 1 - Land acquisition and preparation  
 Class 2 - Housing design and planning  
 Class 3 - Housing development finance  
 Class 4 - Production/Procurement of building materials  
 Class 5 - Housing construction  
 Class 6 - Housing maintenance  
 Source: Field survey, 2001

#### ***4.5.2 Women's Actual Involvement in Housing Development Decisions in the household.***

The interest here is to provide an analysis of the actual involvement of women in housing development decisions of the house owned by their household with emphasis on the six critical aspects of housing development which are land acquisition and preparation, housing design and planning, housing development finance, building material production/procurement, housing construction and housing maintenance. Table 4.12 and Figure 4.3 show the percentage of women that are involved in the housing development decisions in the household in Ibadan.

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Table 4.12: Women's Actual Involvement in Housing Development Decisions in the household (%)

Variables	Residential Areas				
	Traditional core high density	Non-traditional core high density	Medium density	Low density	Overall
Land acquisition and preparation	36.2	31.2	21.6	43.5	33.0
Housing design and planning	32.4	27.4	32.4	34.8	31.7
Housing development finance	41.8	28.3	29.4	39.1	36.4
Production/Procurement of building materials	35.0	26.4	25.5	43.5	32.2
Housing construction	37.3	28.3	29.4	43.5	34.5
Housing maintenance	50.4	58.5	47.8	62.6	47.4

Source: Field Survey, 2001



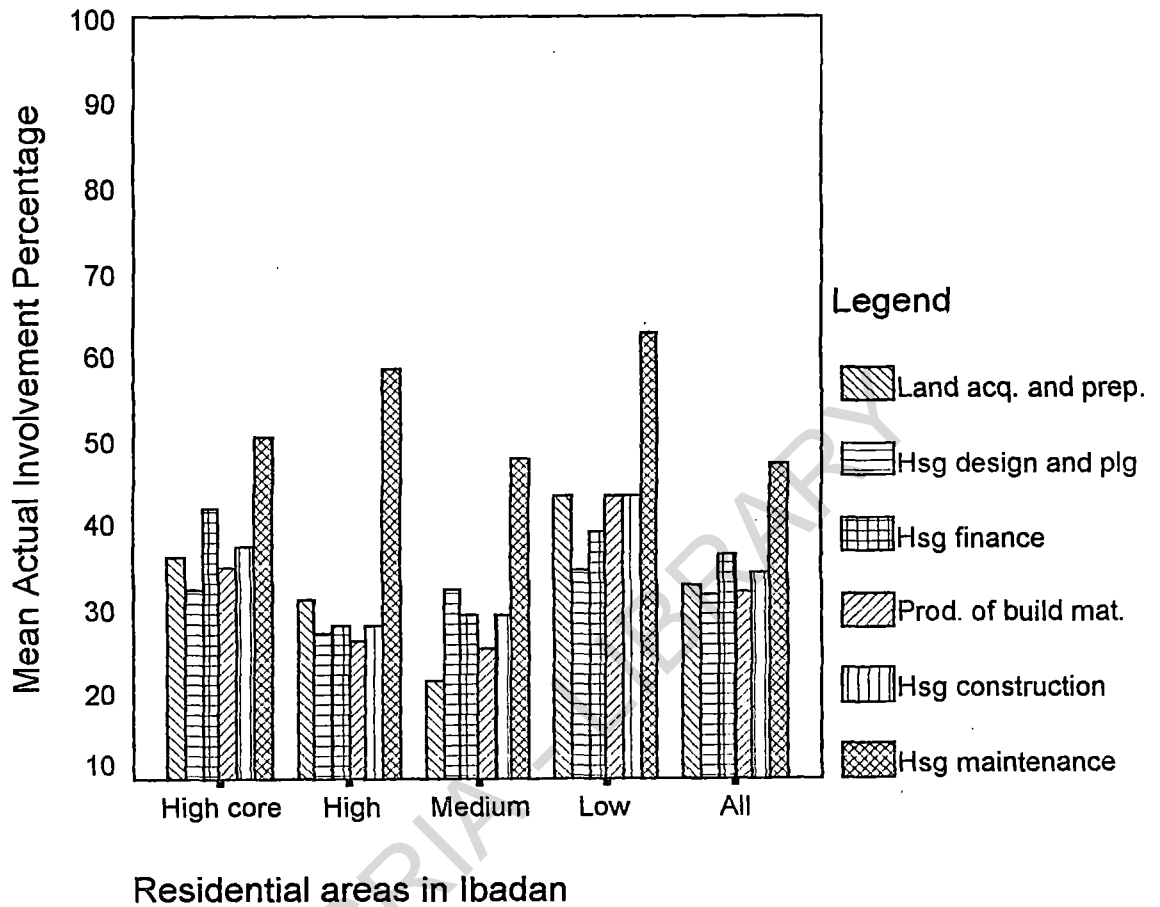


Figure 4.3: Women's actual Involvement in Housing Development Decisions in the household

Figures in the Table are based on the average values of the involvement of women in housing development decisions in each aspect of housing development of the house owned by their household as shown in the Appendices 4.7 to 4.11.

As revealed in Table 4.12 the percentage of women that are involved in housing development decision-making in the households in Ibadan is generally low. The overall percentage of women that are involved in land acquisition and preparation decisions as

shown in Table 4.12 is 33.0 percent, housing design and planning is 32.0 percent, housing development finance is 36.0 percent, production/procurement of building materials is 32.0 percent, actual housing construction is 35.0 percent and housing maintenance is 47.0 percent. The result of the analysis of variance (ANOVA) on the data is shown in Table 4.13.

Table 4.13: ANOVA test of women's involvement in each critical aspect of housing development

		Sum of Squares	df	Mean Square	F	Sig.
Land Acquisition And Planning	Between Group	1.096	3	.365	1.911	.128
	Within Group	49.145	257	.191		
	Total	50.241	260			
Housing Design And Planning	Between Group	.124	3	4.129E-02	.216	.885
	Within Group	49.114	257	.191		
	Total	49.238	260			
Housing Dev. Finance	Between Group	.643	3	.214	.898	.443
	Within Group	61.273	257	.238		
	Total	61.916	260			
Prod. /Proc. Of Building materials	Between Group	.928	3	.309	1.885	.248
	Within Group	57.401	257	.223		
	Total	58.330	260			
Housing Construction	Between Group	.494	3	.165	.703	.551
	Within Group	60.196	257	.234		
	Total	60.690	260			
Housing Maintenance	Between Group	.954	3	.318	1.679	.172
	Within Group	48.689	257	.189		
	Total	49.644	260			

Source: Field survey, 2001

The result of the analysis of variance (ANOVA) shows that none of the F-value of each of the critical aspects of housing development is significant at  $p < .05$  (Table 4.13). This implies that there is no significant intra-urban variation in the involvement of women in each critical aspect of housing development decision-making.

Also, Post Hoc (LSD) multiple comparisons test of the analysis of variance (ANOVA) is used to examine whether there are variations in the involvement of women in each of the six critical aspects of housing development. The result as shown in Table 4.14 shows that there is significant difference at  $p < .05$  between the involvement of women in housing maintenance and their involvement in each of the other aspects of the housing development. This result implies that women are more involved in the housing maintenance activities than in each of the other critical aspects of housing development.

Table 4.14: ANOVA Post Hoc Tests (Multiple Comparisons) of the Actual Involvement of Women among each of the six critical aspects of Housing Development

(I) Class	(J) Class	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	1.3750	5.0855	.790	-9.3092	12.0592
	3.00	-1.5250	5.0855	.768	-12.2092	9.1592
	4.00	-.5250	5.0855	.919	-10.1592	11.2092
	5.00	-1.5000	5.0855	.771	-12.1842	9.1842
	6.00	-21.7000*	5.0855	.000	-32.3842	-11.0158
2.00	1.00	-1.3750	5.0855	.790	-12.0592	9.3092
	3.00	-2.9000	5.0855	.576	-13.5842	7.7842
	4.00	-.8500	5.0855	.869	-11.5342	9.8342
	5.00	-2.8750	5.0855	.579	-13.5592	7.8092
	6.00	-23.0750*	5.0855	.000	-33.7592	-12.3908
3.00	1.00	1.5250	5.0855	.768	-9.1592	12.2092
	2.00	2.9000	5.0855	.576	-7.7842	13.5842
	4.00	2.0500	5.0855	.692	-8.6342	12.7342
	5.00	2.500E-02	5.0855	.996	-10.6592	10.7092
	6.00	-20.1750*	5.0855	.001	-30.8592	-9.4908
4.00	1.00	-.5250	5.0855	.919	-11.2092	10.1592
	2.00	.8500	5.0855	.869	-9.8342	11.5342
	3.00	-2.0500	5.0855	.692	-12.7342	8.6342
	5.00	-2.0250	5.0855	.695	-12.7092	8.6592
	6.00	-22.2250*	5.0855	.000	-32.9092	-11.5408
5.00	1.00	1.5000	5.0855	.771	-9.1842	12.1842
	2.00	2.87250	5.0855	.579	-7.8092	13.5592
	3.00	-2.5000E-02	5.0855	.996	-10.7092	10.6592
	4.00	2.0250	5.0855	.695	-8.6592	12.7092
	6.00	-20.2000*	5.0855	.001	-30.8842	-9.5158
6.00	1.00	21.7000*	5.0855	.000	11.0158	32.3842
	2.00	23.0750*	5.0855	.000	12.3908	33.7592
	3.00	20.1750*	5.0855	.001	9.4908	30.8592
	4.00	22.2250*	5.0855	.000	11.5408	32.9092
	5.00	20.2000*	5.0855	.001	9.5158	30.8842

\* The mean difference is significant at  $p < .05$

Class - Aspects of Housing

Class 1 - Land acquisition and preparation

Class 2 - Housing design and planning

Class 3 - Housing development finance

Class 4 - Production/Procurement of building materials

Class 5 - Housing construction

Class 6 - Housing maintenance

Source: Field survey, 2001

## 4.6 Summary

In this chapter, women's involvement in housing development was examined with emphasis on six critical aspects of housing development which are: land acquisition and preparation, housing design and planning, housing finance, actual construction of the building, production/procurement of the building materials, and housing maintenance. The result of the analysis shows that there is, generally, low involvement of women in housing development.

The general perception of women is that housing provisions are the responsibilities of male heads of households and is significant at  $p < .05$ . Significant intra-urban variation does not exist in the perception, awareness and in the actual involvement of women in each of the critical aspects of housing development. However, among each of the critical aspects of the housing development women are found to be more involved in housing maintenance activities and is significant at  $p < .05$ . In the next chapter, the extent of women house ownership attempt is examined.

## CHAPTER FIVE

### GENDER AND HOUSEOWNERSHIP IN IBADAN

#### 5.1 Introduction

Houses like any other durable goods have investment value. Indeed, residential properties are a type of real estate investment. Kuye (2000) notes that despite the traditional urge to hold property for holding sake as against investment, that is, the placing of money at risk with a view to future income flows and/or capital appreciation, property acquisition is increasingly being embarked upon as an investment. Private developers are steadily investing in property particularly residential property purely because of its income generation capacity. Megbolugbe and Linneman (1994) note that savings could be accumulated in residential buildings which when completed are potential sources of income from rentals and boarding. According to them, this income may be indispensable, especially for widows and widowers.

This chapter examines the extent of attempts made by women for house ownership as reflected in the applications for building plan registration and certificates of occupancy and landownership. The issue of land is included because it is one of the most crucial factors in house ownership. The null hypothesis tested here is that in Ibadan, there is no significant gender difference in ownership of houses by women and men. No intra-urban variation exists in women house ownership.

## **5.2 Gender and Building Plan Registration (1991-1999) and Certificate Of Occupancy Applications in Ibadan (1989-1999)**

Figure 5.1 shows the bar chart of the mean plan registration of women and men in Ibadan between 1991 and 1999 while Figure 5.2 shows the bar chart of the mean Certificate of Occupancy Applications of women and men in Ibadan between 1989 and 1999. These figures are derived from Appendices 5.1 and 5.2 which show building plan registration (1991-1999) and Certificate of Occupancy application (1989-1999) of women and men by residential areas in Ibadan respectively. Generally, the percentage of women's participation is low compared to men's participation. During the period, men had higher mean percentages than women. While those of the men ranged between 52.0 percent and 87.0 percent, those of the women were far below, ranging between only 13.0 percent and 48.0 percent during the period.



Fig. 5.1: Plan Registration Application by gender in each Residential area in Ibadan (1991-1999)

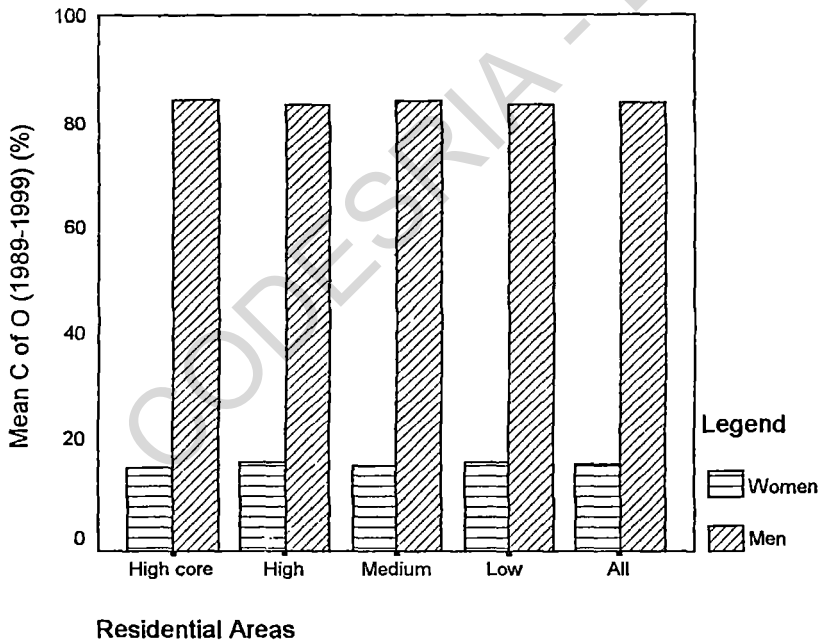


Fig.5.2: Certificate of Occupancy Application by gender in each Residential area in Ibadan (1989-1999).



Figures 5.3 and 5.4 show the trend in the applications for building plan registration (1991-1999) and certificates of occupancy (C of O) (1989-1999) of women and men in Ibadan. These figures are derived from Appendices 5.3 and 5.4 which show the trend in the building plan registration (1991-1999) and application for certificate of occupancy (1989-1999) by gender in Ibadan. As these Figures show, over the years, the percentage of women's participation is generally low compared to men's participation. The highest number of women building plan registration occurred in 1995 (973) followed by 1999 (700) and 1997 (695). The lowest number occurred in 1993 (424). In the case of men, the highest number occurred in 1992 (3,911) followed by 1995 (3,642) and 1998 (3,453). The lowest number of men's building plan registration occurred in 1991 (2,028).

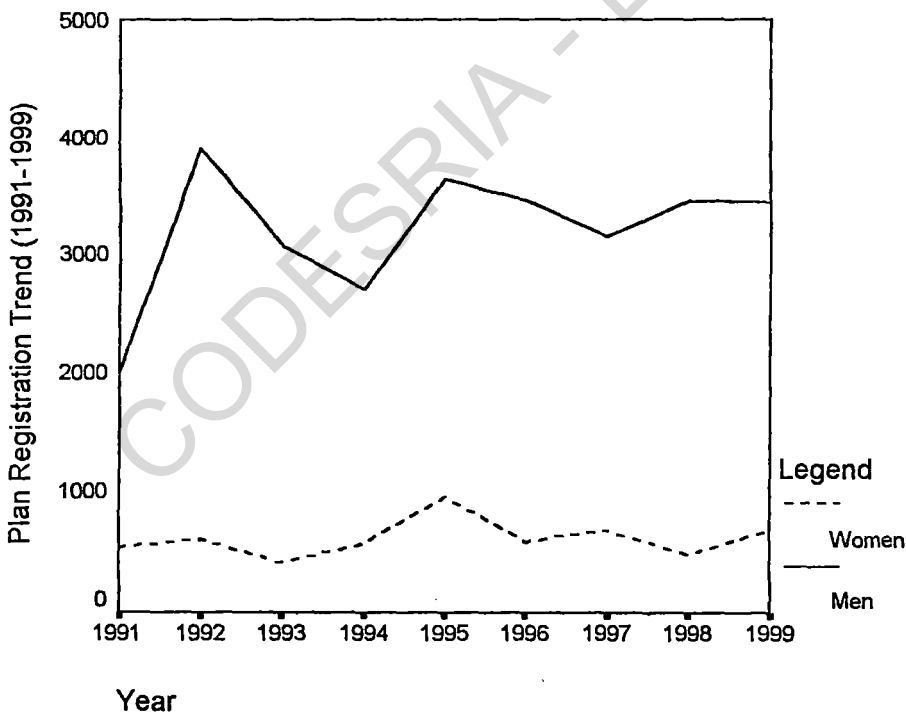


Fig. 5.3: Trend in Application for Plan Registration by gender in Ibadan (1991-1999).

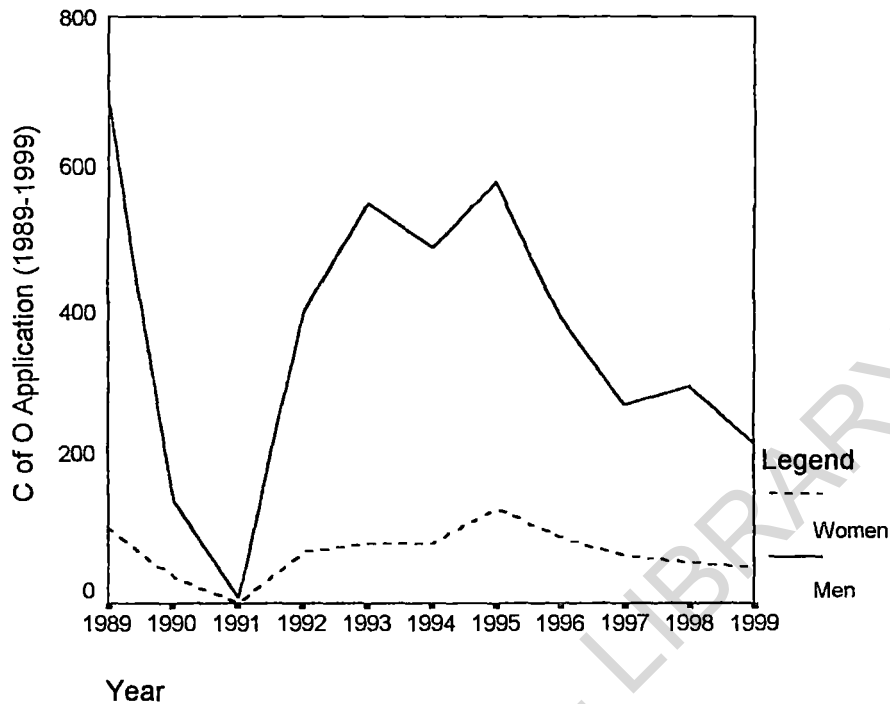


Fig. 5.4: Trend in Application for Certificate of Occupancy (C of O) by gender in Ibadan (1989-1999).

Table 5.1 below shows the result of the paired samples test between women's and men's application for plan registration and certificate of occupancy. The "t" value of pair 1 which is the application for plan registration is 14.777, while that of pair 2 which is application for certificate of occupancy is 5.709. The significant value of each of the pair is .000. This result is significant at  $p < .01$ . This implies that there is significant gender difference in application for plan registration and certificates of occupancy.

Table 5.1: Gender differences in application for plan registration and certificate of occupancy (C of O)

Variable	"t"	df	Sig.
Pair 1: Plan Registration	14.777**	8	.000
Pair 2: C of O	5.709**	10	.000

\*\*Sig. at  $p < .01$

Source: Field survey, 2001

### 5.3 Gender and Land ownership and House ownership in Ibadan

Figure 5.5 shows the bar chart of the percentage of women and men landownership in each residential density area in Ibadan. This figure is derived from Appendices 5.5 to 5.9 which show land ownerships in Ibadan. As revealed in the figure, the percentage of men landowners is more than that of women landowners. In all the residential areas in Ibadan, the percentage of women landowners is 32.0 percent, while that of the men is 56.0 percent.

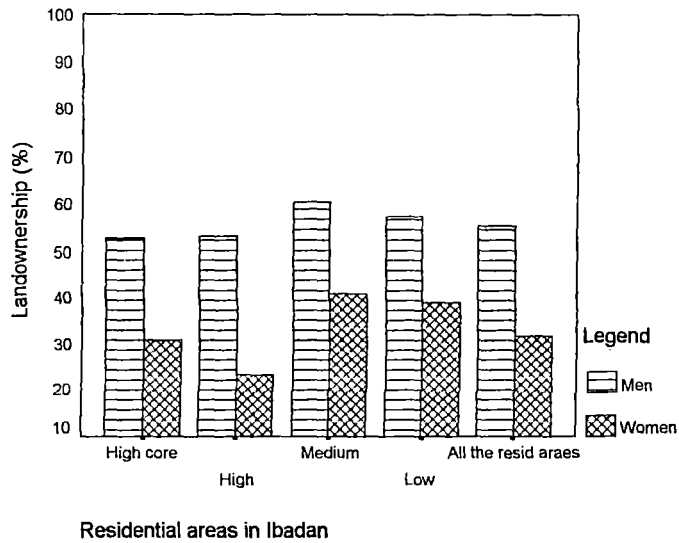
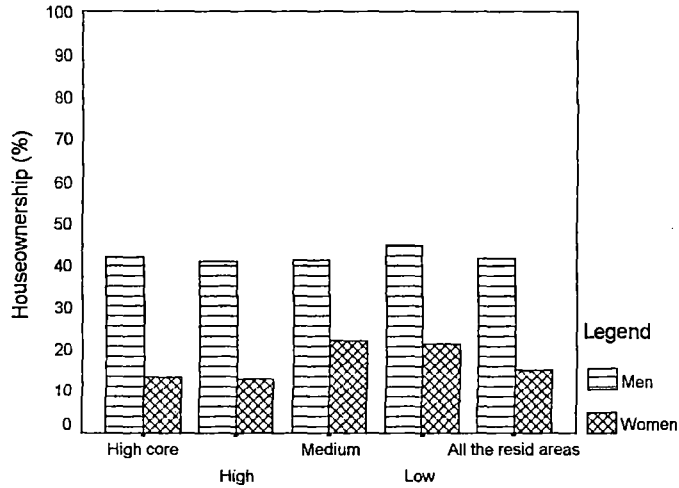


Figure 5.5: Landownership by gender in Ibadan

Figure 5.6 shows the bar chart of the percentage of women and men house ownership in each residential density area in Ibadan. This figure is derived from Appendices 5.10 to 5.14 which show house ownerships in Ibadan. As revealed in the figure, the percentage of men house owners is more than that of women house owners. In all the residential areas in Ibadan, the percentage of women house owners is 15.0 percent, while that of the men is 42.0 percent.



Residential areas in Ibadan

Figure 5.6: House ownership by gender in Ibadan

Figure 5.7 shows the bar chart of the percentage of women and men housing plot owners in each residential density area in Ibadan. This figure is derived from Appendices 5.15 to 5.19 which show housing plots ownership in Ibadan. As revealed in the figure, the percentage of men housing plot owners is more than that of women housing plot owners. In all the residential areas in Ibadan, the percentage of women housing plot owners is 10.0 percent, while that of the men is 32.0 percent.

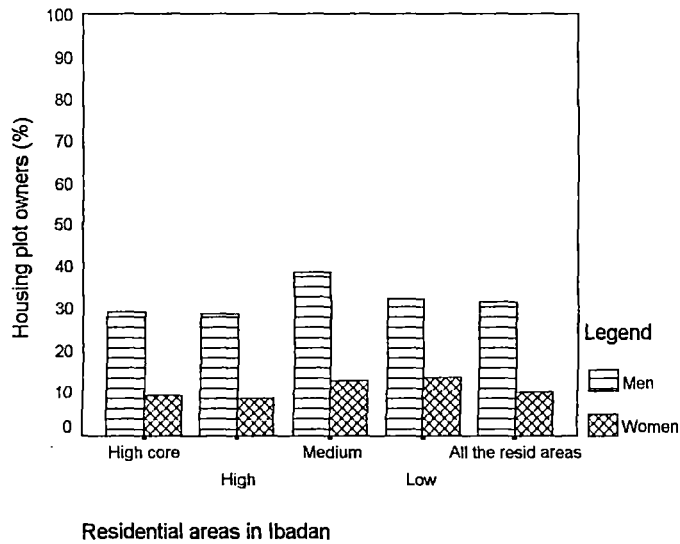


Figure 5.7: Housing plot owners by gender in Ibadan

Figure 5.8 shows the bar chart of the percentage of men, married women and female-headed household landownership, house ownership and housing plot ownership in Ibadan. As revealed in the figure, the percentage of men landowners, house owners and housing plot owners is more than that of women (both women in male-headed and female-headed households). Also, the percentage of married women in male-headed household that are landowners and house owners are more than that of the female-headed household.

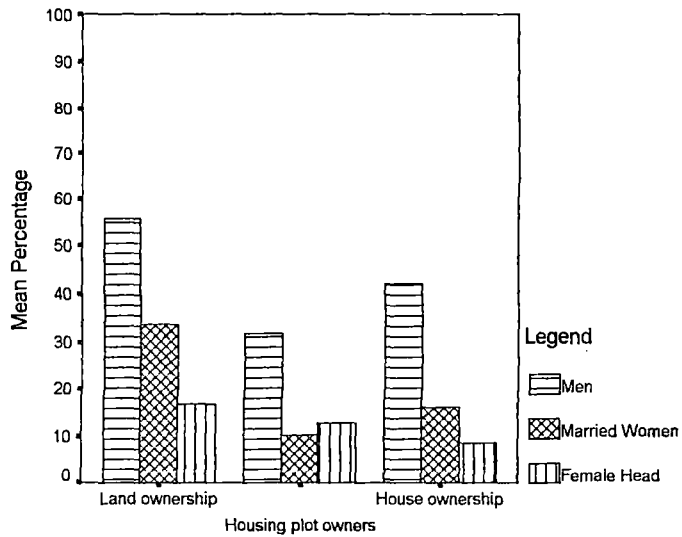


Figure 5.8: Landownership, housing plot ownership and house ownership in Ibadan.

Figure 5.9 and Figure 5.10 show the percentage number of plots of land and percentage number of houses owned by the men and women respectively in Ibadan. These figures show that men own more number of plots of land and houses than women. These figures are derived from Appendices 5.20 to 5.24 and Appendices 5.25 to 5.29 which show the number of plots of land owned and number of houses owned by men and women respectively.

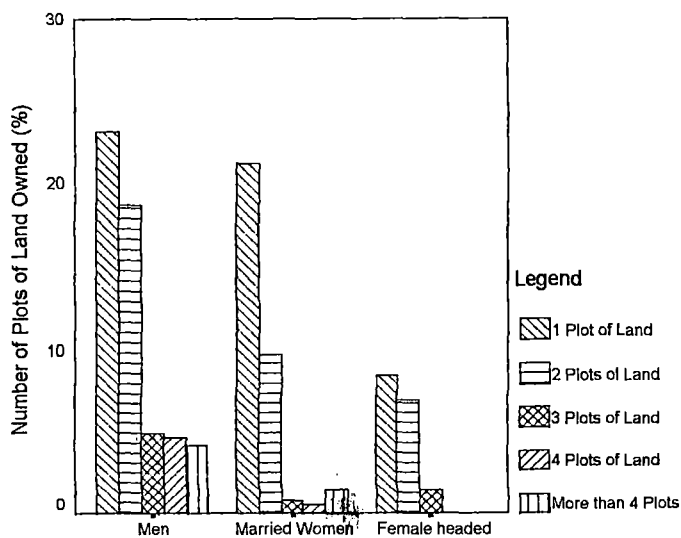


Fig. 5.9: Number of Plots of Land Owned in percentage by gender in Ibadan

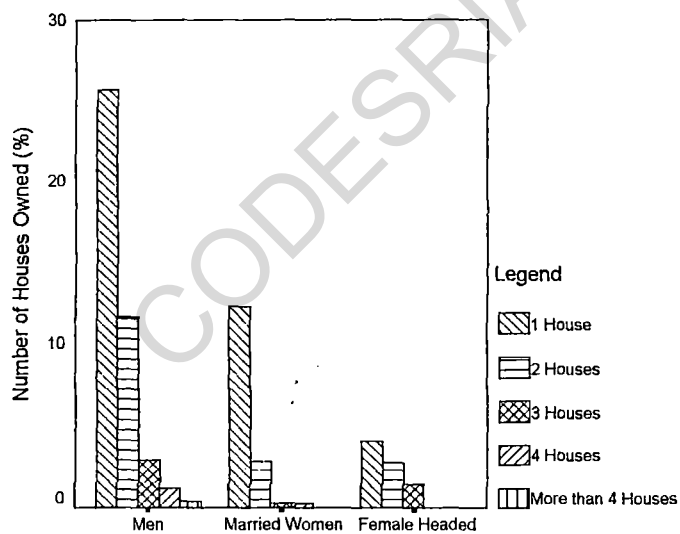


Fig. 5.10: Number of House Owned in percentage by gender in Ibadan



The results of the paired 't' test statistics of the difference between men and women land ownership, house ownership and housing plot ownership are shown in Tables 5.2 to 5.4 respectively.

Table 5.2: Paired samples 't' test between women and men land ownership in Ibadan

Residential areas	Land ownership			Number of Land owned		
	't'	DF	Sig. (2-tailed)	't'	DF	Sig. (2-tailed)
Traditional core high density residential area	-6.308**	291	.000	-7.200**	291	.000
Non-traditional core high density residential area	-5.720**	113	.000	-5.190**	113	.000
Medium density residential area	-3.503**	124	.001	-3.801**	124	.000
Low density residential area	-1.302	39	.200	-2.602*	39	.013
All the residential areas	-8.951**	570	.000	-9.895**	570	.000

\*\* Significant at  $p < 0.01$

\* Significant at  $p < 0.05$

Source: Field survey, 2001

Table 5.3: Paired samples 't' test between women and men house ownership in Ibadan

Residential areas	House ownership			Number of houses owned		
	't'	DF	Sig. (2-tailed)	't'	DF	Sig. (2-tailed)
Traditional core high density residential area	-8.815**	291	.000	-9.219**	291	.000
Non-traditional core high density residential area	-5.720**	113	.000	-5.014**	113	.000
Medium density residential area	-4.546**	124	.000	-4.779**	124	.000
Low density residential area	-2.243*	39	.031	-2.644*	39	.012
All the residential areas	-11.592**	570	.000	-11.684**	570	.000

\*\* Significant at  $p < 0.01$

\* Significant at  $p < 0.05$

Source: Field survey, 2001

Table 5.4: Paired samples 't' test between women and men that have housing plot in Ibadan

Residential areas	Housing plot ownership		
	't	DF	Sig. (2-tailed)
Traditional core high density residential area	-6.796**	291	.000
Non-traditional core high density residential area	-4.696**	113	.000
Medium density residential area	-5.586**	124	.000
Low density residential area	-1.964	39	.057
All the residential areas	-10.090**	570	.000

\*\* Significant at  $p < 0.01$

\* Significant at  $p < 0.05$

Source: Field survey, 2001

These tables show that there are significant differences in the ownership of land, houses and housing plots between men and women in Ibadan. The only exception is the result between men and women in the low density residential area on land ownership and housing plot ownership which are found not to be significant (Tables 5.2 to 5.4). However, there is significant difference at  $p < .05$  in the number of plots owned by men and women in the low density residential area (Table 5.2). Nevertheless, in all the residential areas together, there are significant gender differences at  $p < .01$  in the ownership of land, houses and housing plots in Ibadan.

Tables 5.5 and 5.6 show the result of the analysis of variance (ANOVA) of the women land ownership and house ownership in Ibadan. The F- values of women land ownership and house ownership are 3.996 and 2.781 while the significance values are

.008 and .040 respectively. These results are significant at  $p < .01$  and  $p < .05$  respectively. This result implies that there are significant intra-urban variations in women land ownership ( $p < .01$ ) and house ownership ( $p < .05$ ) in Ibadan.

Table 5.5: ANOVA test of women land ownership along residential zones

		Sum of squares	df	Mean square	F	Sig.
LAND OWNER- SHIP BY WOMEN	Between Groups	2.576	3	.859	3.996**	.008
	Within Groups	154.054	717	.215		
	Total	156.630	720			

\*\* Significant at  $p < .01$

Source: Field survey, 2001

Table 5.6: ANOVA test of women house ownership along residential zones

		Sum of squares	df	Mean square	F	Sig.
HOUSE OWNER- SHIP BY WOMEN	Between Groups	1.103	3	.368	2.781*	.040
	Within Groups	94.808	717	.132		
	Total	95.911	720			

\* Significant at  $p < .05$

Source: Field survey, 2001

Average percentage of women that are house owners is calculated based on the total number of house owners. The result shows that the highest percentage (37.9%) of

the women house owners is found in the low density residential area, followed by the women in the medium density residential area (36.6%); while the percentages of women in the traditional core high density and non-traditional core high density residential areas that are house owners are 29.3 per cent and 27.7 per cent respectively. Women in the low density residential area are more of the working and income earning group than those in the non-traditional high density or traditional core high density residential area, hence their ability to own more plots of land and more number houses than their counterparts in the non-traditional high density and traditional core high density residential areas. These percentage values are used to draw the map in Figure 5.11 showing the spatial pattern of the percentage of women house ownerships in Ibadan.

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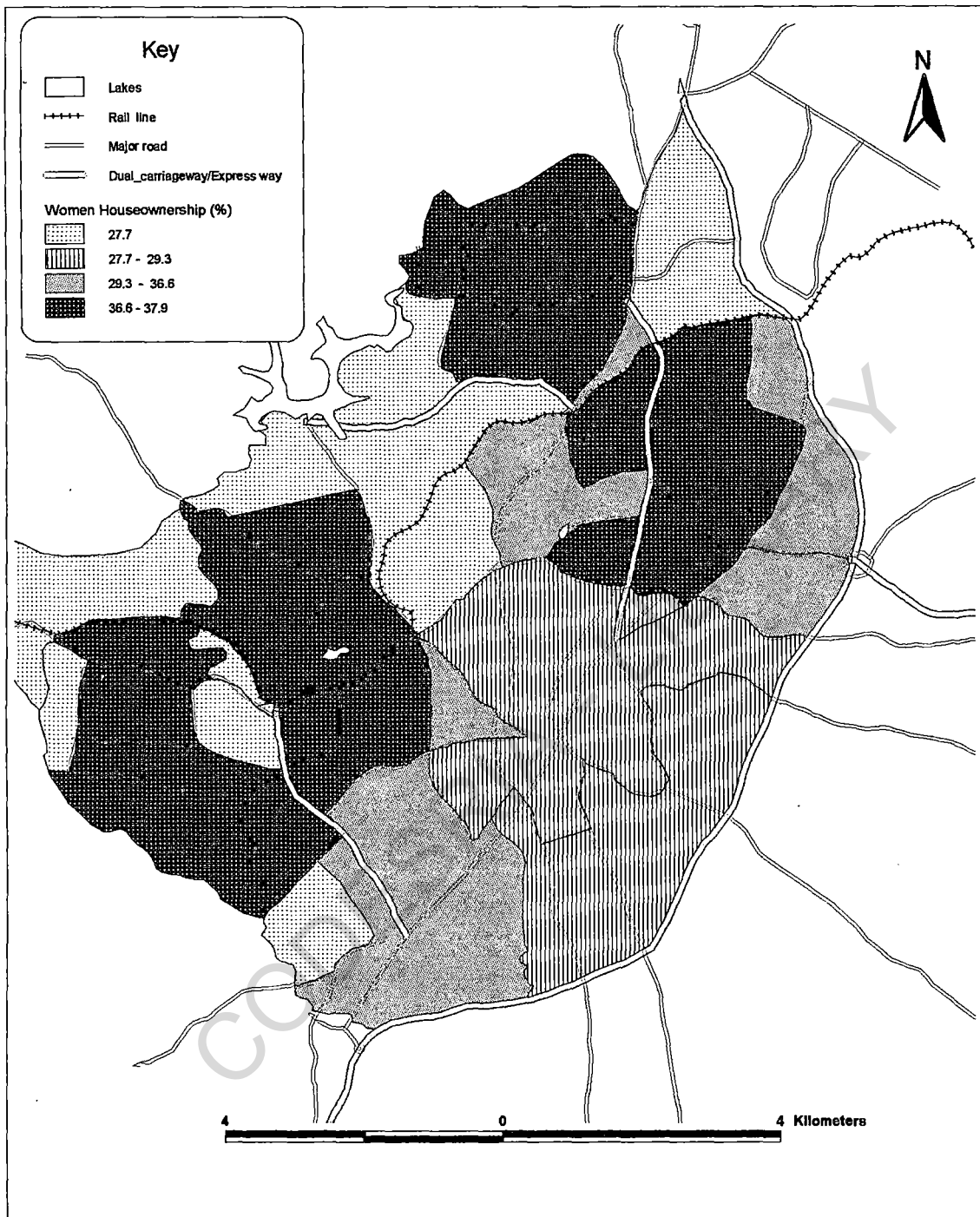


Fig. 5.11: Spatial variation in women house ownership (%)  
 Source: Field survey, 2001.

## 5.4 Summary

This chapter has examined the extent of women's house ownership attempts as reflected in the applications for building plan registration (1991-1999) and certificates of occupancy (1989-1999) and gender differentials in landownership, house ownerships and housing plots ownerships. Significant gender difference at  $p < .01$  is found in the applications for building plan registration and certificates of occupancy as well as in the ownership of land, ownership of houses and housing plots. Men are found to have applied more for building plan registration and certificates of occupancy than women. Also men are found to own more plots of land, more number of houses and housing plots than women.

Significant intra-urban variation at  $p < .05$  is found in women ownership of houses in Ibadan. The highest percentage of women house owners is found in the low density residential area, followed by the medium density residential area. Women in the low density residential area are more of the working and income earning group than those in the non-traditional core high density or traditional core areas, hence their ability to own more number of houses than their counterparts in the non-traditional core high density and traditional core areas.

## CHAPTER SIX

### DETERMINANTS OF WOMEN'S INVOLVEMENT IN HOUSING DELIVERY IN IBADAN

#### 6.1 Introduction

The importance of examining the determinants of women's involvement in housing delivery decisions lies in the fact that women spend most time in and around the home and carry out most of their income-generating activities there. Tasks such as collecting drinking water and fuel, cooking and washing, keeping homes and land tidy, getting rid of waste, keeping up allotments, bringing up children and caring for the sick and invalids in the home usually fall on their shoulders. Women are the major housing consumers and users. Knowing the variables of determinants of women's involvement in the housing delivery will help indicate the direction of action and policy focus towards improving women's participation in the housing delivery.

The multiple linear regression (stepwise) model is used to explain the variables that determine the involvement of women in the housing delivery in Ibadan. The general multiple regression equation used is:

$$Y_1 = a_i + b_1X_1 + b_2X_2 \dots + b_nX_n + e$$

Where

- Y = dependent variable – Women's involvement in the Housing delivery
- $a_i$  = base or multiple regression constant referred to as Y intercept
- $b$ 's = regression coefficients or unknown parameters which

indicate the change in Y per unit change in the explanatory variables

X's= independent variables

– Explanatory variables of women's involvement in housing delivery include: socio-economic variables (e.g. marital status, household size, stage in the life cycle, educational level, age, and income); responsibility in the household; social support/network and physical support (e.g. availability of househelp, membership of association that assists in housing related matters and quality of neighbourhood facilities); housing development involvement aspiration, perception, and level of awareness of women; and housing cost/value.

e = error terms or residuals

The multiple regression model (stepwise) may be used for prediction or explanation (Ayeni, 1994; De Vaus, 1996; Robinson, 1998; Babble, 1998; etc.) and the type of procedure used usually reflects this difference. When it is used for prediction, the objective is to derive an estimating equation with the emphasis accordingly on maximizing the amount of variation in the dependent variable accounted for by the independent set that is, maximizing R-Square. When the stepwise multiple regression is used for explanation, the emphasis is on individual regression coefficients and on establishing significant relationships, and the objective is to maximize R-Square subject to significant  $b_i$ 's. While the ability to make predictions is of some interest to social scientists, the strength of multiple regression lies primarily in its use as a means of establishing the relative importance of independent variables to the dependent variable (Bryman and Cramer, 1997). In fact, Robinson (1998) observes that predictive uses of the



regression analysis have been relatively few in human geography but several geographers have demonstrated the value of closer investigations of the residuals, that is, relative impacts or relative significance and importance of each of the variables in regression analysis.

The  $b_i$ 's are the partial regression coefficients. For purposes of explanation, it is usual to transform the partial regression coefficients into standard forms by dividing each coefficient by its standard error to yield beta coefficients. The beta coefficients have the advantage that they represent the weights of the contribution of each variable to the predictive or explanatory model (Ayeni, 1979:96). Beta coefficients show how much change in the independent variable is produced by a standardized change in one of the independent variables, with the influence of the other independent variables controlled. Therefore beta coefficients enable assessment of the effects of the individual independent variables in the regression equation: the higher the beta coefficient, the greater the rate at which the dependent variable increases with an increase in the particular independent variable (Robinson 1998). Also, the stepwise regression method version of the multiple regression model has the distinguishing ability to perform the regression analysis by identifying the relative importance (R-Square change) of the predictor variables which are entered accordingly (Ayeni, 1979; De Vaus, 1996; Robinson, 1998; etc.).

## 6.2 Choice of independent Variables

There have been no studies that explicitly statistically analyzed the determinants of women's involvement in housing delivery decisions and associated activities. Studies that are available have been mainly concerned with the household homeownership determinants. Such previous studies on house ownership have usually focused on the estimation of the effect of household socio-economic characteristics such as income, age, marital status of household head, household size, etc on the tenure decisions and house ownership propensity (Lee, 1963; Maisel, 1966; Kain and Quigley, 1962; Carliner, 1974; Struyk, 1974; Lin et al, 1980; Megbolugbe and Linneman, 1994, etc.) Similar focus as it relates to women's involvement in housing delivery is adopted here. Socio-economic variables used in the analysis are income, age, educational level, stage in the life cycle, marital status of women as well as the household size.

Apart from the socio-economic variables, housing delivery involvement aspiration, perception and awareness or knowledge variables are used in the analysis. These variables are indicative of the housing involvement belief, feelings and intention of women. These are reflected by the general perception of women about household housing provision responsibility, view about the job of building activities generally, the general perception of women about women involvement in the different aspects of housing development decisions and associated activities as well as the intention to build and own houses and the level of awareness of women of the different critical aspects of the

household housing development. The importance of these variables lies in the fact that in sociological and psychological tradition, there has been a widespread acceptance of the assumption that there is a close correspondence between the ways in which a person behaves towards some object and his/her (sic) beliefs, feelings and intentions with respect to that object (Fishbein and Ajzen, 1975:336). Indeed, Allport (1968) attributes to Plato the idea that the mind is constituted of, and human action determined by, the three faculties of affection (feeling), conation (striving) and cognition (thought). Although the relationship between some attitudes and expected behaviour has proved to be less than ideal, "the best single predictor of an individual's behaviour will be a measure of his (sic) beliefs, feelings and intention to perform that behaviour ( Fishbein and Ajzen, 1975; Merlo and McDonald, 2002). It is in these traditions that the study seeks to find out the effect of women's beliefs, feelings and intentions variables on women's involvement in housing delivery in Ibadan.

Also included in the analysis is a measure of the social support/network and physical support. Social support has been defined as any type of helping behaviour, including emotional support, advice, elevating another's mood using humor, etc. (Larocco et al, 1980; Thoits, 1982; Finney et al, 1984; etc.). According to Rowe and Wolch (1990) any individual's social interactions involve a finite set of people, defined as their social network. Simply stated, social networks are composed of those individuals, whom one knows, and from whom one obtains materials, emotional and/or logical

support (Rowe and Wolch, 1990). We expect that good and reliable social support and networking will increase women participation in the housing delivery decisions.

Most of the previous research on social support/network has found that it can have a major effect on psychological and physical health. The variable is included because there is no study that has examined the effect of social support/network in the involvement of women in the housing delivery decisions. The indicators of social support/network included are the presence of househelp in the household and membership of associations that assist in housing related matters. A measure of physical support includes neighbourhood facility quality, particularly those facilities/utilities and services that are not just necessary but essential for domestic activities e.g. water supply and power supply. This measure is included because we expect that where the supplies of these facilities are good they will facilitate the ease with which domestic task will be performed. This will save the women's energy, strength and time which could be used to participate in other activities including involvement in housing delivery decisions.

An indicator of availability to actively participate in the housing delivery decisions and associated activities is also included. This is measured by the variable of the responsibility in the household. The argument in the literature has been that because of women's heavy housework, they hardly have any time to participate in the housing delivery decisions and associated activities.

Finally, an indicator of house cost/value, which is house rent, is included. Cost of acquiring or building houses has been identified in the literature as one of the critical factors of housing supply. The null hypotheses tested here are: that there is no significant relationship between women's involvement in the housing delivery and (i) their socio-economic characteristics; (ii) condition/availability of the social support/network and physical support; (iii) their awareness and aspirations to be involved in the housing development decisions; (iv) responsibility in the household and (v) house cost/value. Here we expect that the most important determinant of women's involvement in housing development decisions is not their responsibilities in the household. Table 6.1 shows the definition of the variables (both independent and dependent variables) used in the analysis.

Table 6.1: Definition of the variables used in the Multiple Linear Regression Analysis of the determinants of women's involvement in housing delivery

S/N	Variables	How Measured
<b>A</b>	<b>Dependent Variable (Y)</b>	
Y	Housing development involvement of women	<ul style="list-style-type: none"> <li>- Number of plots of land owned. Total number.</li> <li>- Number of houses owned. Total number.</li> <li>- 1 each if woman is actually involved in:               <ul style="list-style-type: none"> <li>(i) Land acquisition and preparation.</li> <li>(ii) Housing planning and design.</li> <li>(iii) Finance of building.</li> <li>(iv) Procurement/production of building materials.</li> <li>(v) Actual construction of building.</li> <li>(vi) Housing maintenance.</li> </ul> </li> </ul>
<b>B</b>	<b>Independent Variables (Xi)</b>	
<b>1</b>	<b>Socio-economic</b>	
X1	Marital status	1 if married
X2	Income	Amount in Naira
X3	Stage in the life cycle	Age of the youngest child (Total in years)
X4	Household size	Total in number
X5	Highest Educational level	1 if post secondary
X6	Age	Total in years
<b>2</b>	<b>Socio-cultural</b>	
X7	Responsibility in the household	1 if woman only is responsible for overall housework and childcare
<b>3</b>	<b>Social support/ network &amp; physical support</b>	
X8	Membership of association that assist in the housing development matters	1 if membership of association that assists in housing related matters
X9	Neighbourhood facilities condition	1 if water supply is satisfactory 1 if power supply is satisfactory
X10	Availability of househelp	1 if having housemaid

<b>4</b>	<b>Aspiration and Awareness</b>	
X11	Women's housing ownership intention	1 if want to own a house; 1 if willing to build a house alone
X12	Women's level of awareness about the critical aspect of household housing development	1 each if aware of the following critical aspects of household housing development: (i) Land acquisition and preparation. (ii) Housing planning and design (iii) Finance of the building. (iv) Procurement/production of building materials (v) Actual construction of building. (vi) Housing maintenance
X13	Women's beliefs and feelings about housing development	- 1 each if perceived that men majorly are involved in: (vii) Land acquisition and preparation. (viii) Housing planning and design (ix) Finance of the building. (x) Procurement/production of building materials (xi) Actual construction of building. (xii) Housing maintenance -1 if household housing provision is the sole responsibility of men. -1 if building activities are wholly men's jobs
<b>5</b>	<b>House cost/value</b>	
X14	House rent	Monthly rent amount in Naira

### 6.3 Tests for Multi-collinearity

The multiple regression model, like any other statistical technique, makes some basic assumptions. These assumptions are that there should be no multi-collinearity, homoscedasticity, and that the samples are randomly selected from the total population.

Other assumptions are that the data set are normally randomly distributed, and that the independent variables are measured error free.

In general terms, some of these assumptions are assumed to be met when the model is being used (Gould, 1970). However, the problem of multi-collinearity, if present in the data, must be corrected. This is necessary because multi-collinearity impairs the efficiency of the regression model when it is used for explanatory purposes (Farrar and Glauber, 1967; Haitovsky, 1969; Poole and Farrel, 1971; and Hauser, 1974). The rule of thumb is that multi-collinearity exists among the independent variables where the pairwise correlation is more than 0.8 (Hauser, 1974; Ayeni, 1994).

Two ways of resolving the problem of multi-collinearity are:

- (i) Ideally, new data on the relevant variable should be obtained, or *a priori* estimates of some of the parameters should be incorporated into the analysis (Gouldberger, 1964), but commonly neither of these solutions is possible (Hauser, 1974).
- (ii) One of a pair of variables which are collinear is excluded from consideration; this is the so-called "zero-restriction".

Clearly, such a procedure can be based only on pairwise correlations. The main problem concerns which variable to exclude and the consequent possibility of specification bias (Hamburg, 1977). Table 6.2 which is the correlation matrix amongst the independent variables shows that there is no problem of multi-collinearity amongst



Table: 6.2: Correlation Coefficients amongst the independent variables of the determinants of women's involvement in housing delivery.

Variables	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14
X1 Marital Status	1.000													
X2 Income	.037	1.000												
X3 Stage in the life cycle	.111	.049	1.000											
X4 Household size	.205	-.112	.082	1.000										
X5 Highest educational level	-.052	.343	-.043	-.224	1.000									
X6 Age	.271	.020	.628	.298	-.088	1.000								
X7 Responsibility in the household	-.107	.008	.055	.011	-.038	.041	1.000							
X8 Membership of association that assist in the housing development	-.021	.086	-.038	.019	.023	-.015	-.048	1.000						
X9 Neighbourhood facilities condition	-.035	-.100	-.124	.068	-.088	-.090	-.089	.003	1.000					
X10 Availability of house help	.031	.206	.039	-.053	.195	.004	-.017	.095	-.077	1.000				
X11 Women's housing ownership intention	.061	.039	.142	.055	.024	.187	.013	.013	-.090	.073	1.000			
X12 Women's awareness about the critical aspect of household housing development	.112	.072	.121	.052	.073	.182	-.084	.119	.093	.106	.120	1.000		
X13 Women's beliefs and feelings about housing development involvement	-.062	.008	.043	-.003	-.039	.006	.266	-.108	-.287	-.057	.050	-.184	1.000	
X14 House rent	-.005	.221	-.070	-.113	.199	-.078	-.007	-.064	-.046	.013	.004	-.061	-.015	1.000

Source: Field survey, 2001

the independent variables. The highest is 0.628 between women age and stage in the life cycle. By a rule of thumb, there is no serious multi-collinearity occurring between the independent variables (Hauser, 1974; Ayeni, 1994; Oyesiku, 1995; DeVaus, 1996; etc). The implication of this is that all the independent variables can be included in the regression model. This is because the efficiency of the regression model in providing the required explanation will not be impaired

#### **6.4 Result and Discussion**

The result of the stepwise multiple regression analysis is shown in tables 6.3 and 6.4. The analysis of variance (ANOVA) of the multiple stepwise linear regression models shown in Table 6.3 shows that the F- value of each of the stepwise multiple linear regression models is significant at  $p < .01$ . This implies that the overall regression model is significant. In essence, this means that all the independent or explanatory variables taken together can be used to explain the level of involvement of women in housing delivery decisions.

Table 6.3: ANOVA result of Multiple Linear Regression Model of the determinants of Women's involvement in housing delivery.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1475.341	6	245.890	13.290**	.000
	Residual	13210.656	714	18.502		
	Total	14685.997	720			
2	Regression	1772.390	7	253.199	13.980**	.000
	Residual	12913.607	713	18.112		
	Total	14685.997	720			
3	Regression	2332.277	10	233.228	13.404**	.000
	Residual	12353.720	710	17.400		
	Total	14685.997	720			
4	Regression	8717.882	13	670.606	79.442**	.000
	Residual	5968.115	707	8.441		
	Total	14685.997	720			
5	Regression	8811.724	14	629.409	75.646**	.000
	Residual	5874.273	706	8.321		
	Total	14685.997	720			

\*\* Significant at  $p < .01$

Source: Field survey, 2001

Table 6.4 shows the summary of the result and the order of importance of the explanatory variables and their relative contribution to the variance of the dependent variable. The contribution of each variable is determined by the change in the value of the coefficient of determination (R-Square). R-Square value indicates the proportion of variance explained. From table 6.4, the most important and the most significant variables as indicated by the R-Square Change value are the aspiration and awareness of women, followed by their socio-economic characteristics, social support/network and physical support, responsibility in the household, and the house cost/value.

The F- change of each of these variables is found to be significant at  $p < .01$ . This implies that each of the explanatory variables is significantly related to the dependent variable. The overall coefficient of determination (R-Square) is 0.60 indicating that all the variables taken together explain 60% of the variance in the involvement of women in housing delivery decisions.

Table 6.4: Order of importance of the Explanatory variables of Women's involvement in housing delivery

*Step	Variable Name	R-Square Change	R-Square	Std. Error	F-Change	Sig. F Change
1	Aspiration and Awareness	.435	.594	2.9054	252.152**	.000
2	Socio-economic	.100	.100	4.3014	13.290**	.000
3	Social Support/ Network and Physical support	.038	.159	4.1713	10.726**	.000
4	Responsibilities in the Household	.020	.121	4.2558	16.401**	.000
5	House Value	.006	.600	2.8845	11.278**	.001

R-Square = 60%      \*Step is the order of importance in the model

\*\* Significant at  $p < .01$

Source: Field survey, 2001

Figure 6.1 shows the magnitude of importance as indicated by the R-Square value (%) of each of the considered determinants of women's involvement in housing delivery in each residential area in Ibadan. This figure is derived from Appendices 6.1 to 6.4 which show the summary of the result of the multiple linear regression analysis of the explanatory variables of involvement in the housing delivery decision making of women in the traditional core high density, non-traditional high density, medium density and low density residential areas respectively. This figure shows that the most important and the most significant determinants of women's involvement in the housing delivery are aspiration and awareness of women and their socio-economic characteristics. Therefore, we accept the null hypothesis which states that the most important determinant of women's involvement in the housing delivery decisions is not their responsibilities in the household.

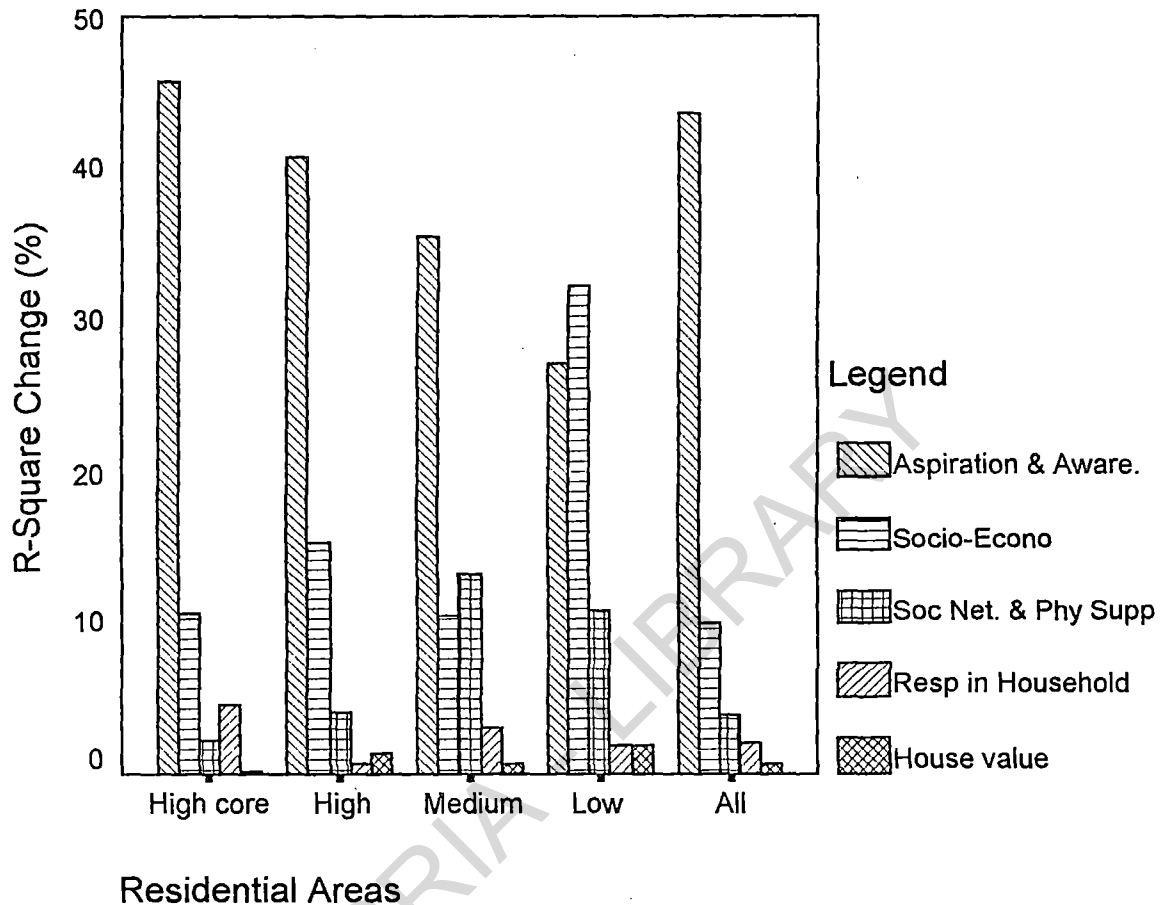


Fig. 6.1: The magnitude of importance (as indicated by the R-Square values) of determinants of women's involvement in housing delivery

According to Ayeni (1979), for purposes of explanation, it is usual to transform the partial regression coefficients into standard forms by dividing each coefficient by its standard error to yield beta coefficients. The beta coefficients have the advantage that they represent the weights of the contribution of each variable into the predictive or explanatory model (Ayeni 1979:96). That is, the beta coefficients show how much impact

an independent variable has on the dependent variable with the influence of the other independent variables controlled (Robinson, 1998). They also show which of the variable has the greatest impact (De Vaus, 1998). The beta coefficients of all the explanatory variables used in the analysis are shown in Table 6.5.

Table 6.5: Effects of independent or Explanatory variables on women's involvement in housing delivery: standardized regression coefficients.

Model	Independent Variables		Involvement of Women in the housing development (Dependent variable)				
	Group	Variable	Beta 1	Beta 2	Beta 3	Beta 4	Beta 5
1	Socio-economic variables	Age	.285*	.291**	.298**	.173**	.171**
		Educational Level	.093**	.086*	.078*	.022	.033
		Income	.069*	.073	.053	.038	.054*
		Household Size	.057	.060	.047	.049	.044
		Stage in the life cycle	-.029	-.024	-.013	-.034	-.039
		Marital status	.028	.009	.014	-.034	-.033
2	Socio-cultural variable	Responsibilities in the household	-	-.144**	-.126**	-.054*	-.054*
3	Social support/ network and physical support	Physical support	-	-	.126**	.014	.011
		Availability of househelp	-	-	.121**	.056*	.052*
		Membership of association that assists in housing matters	-	-	.094**	.011	.004

4	Aspiration and awareness of women with respect to be involved in the housing development	Women housing development involvement perception	-	-	-	-.131**	-.134**
		Women intention to be involved in the housing development	-	-	-	.073**	.075**
		Level of knowledge of women of their household housing development	-	-	-	.653**	.647**
5	House price/cost (proxy)	House rent value	-	-	-	-	-.084**

\*\* Significant at  $p < .01$

\* Significant at  $p < .05$

Source: Field survey, 2001

Model 1 in Table 6.5 involved only the involvement of women in the housing development decisions and their socio-economic characteristics. The beta value shows that the weight of the contributions of age (.285), educational level (.095) and income (.069) to the explanatory model are the highest in that order. These results also indicate that the involvement of women in housing delivery decisions varies directly with age, educational level, income, household size, and marital status. But it varies inversely with the stage in the life cycle. The result of the stage in the life cycle beta value which is negative is a surprise. It is not expected. This result may be due to the correlation between the stage in the life cycle and women age which is as high as .628 (Table 6.2). However, the correlation analysis results between women involvement in housing



delivery decisions and each of the explanatory variables shown in Appendix 6.5 show that there is a positive correlation (.157) between the stage in the life cycle and the involvement of women in housing delivery decisions and is significant at  $p < .01$ . This result implies that there is a low involvement of nursing mothers in the housing delivery and vice versa.

In Model 2, we add the block of the variable designed to measure responsibility in the household. The result shows the beta value to be -.144 indicating that the involvement of women in housing delivery decisions and associated activities varies inversely with the level of women responsibilities in the household. This implies that where women shoulder all the domestic and childcare responsibilities solely without any assistant, their involvement in housing delivery decisions and associated activities will be low.

In Model 3, we add the block of the variables designed to measure social support/networking and physical support. These variables are: availability of househelp, membership of association that assists in the housing related matters, and the neighbourhood facilities conditions (water supply condition, and power supply condition). The beta coefficient and the order of their weight of contribution are as follows: the presence of househelp in the household (.121), membership of association that assists in the housing related matters (.094); and the neighborhood facility condition (.126). This result shows that the involvement of women in housing delivery varies

directly with the presence of househelp in the household, membership of association that assists in the housing related matters and the neighborhood facility condition.

In Model 4, we add the block of the variables designed to measure housing development involvement aspiration and awareness which are: women perception variables, women aspiration variables and women level of awareness variables. The beta coefficients and the order of the weight of their contribution are as follows: women's housing development involvement perception (-.131), women's awareness or knowledge of housing development (.653), and women intention to be involved in the housing development (.073). This result shows that the involvement of women in housing delivery decisions varies inversely with the perception of women's involvement in housing development and it varies directly with the women's awareness or knowledge of housing development activities and women's intention to be involved in housing development activities. Women's perception which is inversely related to their involvement in housing development is not a surprise. It is possible that women's negative view of their role as housing developers and the predominant view that such activity is the sole responsibility of men could deter them from being involved in actual housing development.

In Model 5, we add the block of the proxy variable of house cost/value which is house rent. The result as shown in Table 6.5 shows the beta value to be -.084. This result implies that the level of involvement of women in housing development decisions varies

inversely with the house cost/value. This result indicates that the higher the cost of housing development, the lower the involvement of women in housing delivery.

## 6.5 Summary

This chapter has examined the determinants of women's involvement in housing delivery decisions. The result of the multiple linear regression analysis on the determinants of women's involvement in the housing delivery shows that the most significant and most important variables are the aspiration and awareness of women, followed by their socio-economic characteristics, social support/network and physical support, responsibility in the household and the house cost/value. Each of these variables is found to be significant at  $p < .01$ . This implies that each of these explanatory variables is significantly related to the dependent variable which is the involvement of women in housing delivery.

The most important socio-economic characteristics variables are age, educational level and income. Women's involvement in housing delivery is found to be inversely related to their responsibility in the household. It is found to vary directly with the presence of househelp in the household, membership of association that assists in the housing related matters and neighbourhood facility condition. On the other hand, it varies inversely with the perception of women's involvement in the housing development. Also, women's involvement in the housing delivery varies directly with the women's

aspirations to be involved in housing development, their awareness or knowledge of housing development and varies inversely with the house cost/value.

These results indicate that women empowerment in the housing delivery would be greatly enhanced through a reorientation of women's mindset about responsibility for housing provision, improved access to adequate education and training and employment, encouragement, strengthening and provision of social support/network and physical support, as well as deliberate attempt to reduce cost of acquiring houses.

In the next chapter, we examine variations in the satisfaction of women with the houses delivered and gender differences in the impacts of housing on women's and men's activities.

## CHAPTER SEVEN

### GENDER AND HOUSING UNITS DELIVERED IN IBADAN

#### 7.1 Introduction

Women and men have different socio-cultural roles and responsibilities and because of this, we expect that their housing needs and interest would be different. Gender awareness in housing entails recognizing, understanding, and identifying the different and particular housing needs of women, and of men on the basis of gender (Moser, 1992). Knowledge of gender differences in the needs and interest of women and men would serve to inform the housing practice. It will also make the policy-makers, planners, architects and designers to be gender sensitive. In this chapter, we examine variations in the satisfaction of women with the houses delivered, gender differences in some aspects of housing unit that women and men take special interest in, gender differences in the felt adverse effect of some aspects of housing on women's and men's activities; and the relationship between gender attributes and the housing attributes. The null hypotheses tested are that:

1. there is no intra-urban variation in women's satisfaction with housing units. No significant gender differences are expected in the aspects of housing units that women and men take special interest in, and
2. there is no significant variation in the impact of housing on women's and men's daily activities. Here we expect that (i) there is no gender difference in the felt adverse effect of aspects of housing on daily activities; and (ii) there is no

significant relationship between housing attributes and gender attributes - no gender difference exists in the impacts of the housing attributes on the daily activities of women and men.

Analysis of variance (ANOVA), paired samples 't' test, and multiple linear regression statistical techniques are used to test the hypotheses.

## 7.2 Women's Satisfaction with Different Aspects of Housing in Ibadan

Table 7.1 shows the mean and the standard deviation of women's satisfaction with housing in Ibadan.

Table 7.1: Mean and Standard Deviation of Women's satisfaction with housing in Ibadan

Residential Areas	Mean	Std. Dev.
Traditional core high density	2.55	.707
Non-traditional core high density	2.72	.692
Medium density residential area	2.81	.751
Low density residential area	3.10	.690

Source: Field survey, 2001

The table is derived from Appendix 7.1 which shows the mean, standard deviation and the analysis of variance (ANOVA) of women's satisfaction with different aspects of housing in Ibadan. The aspects of housing considered include the following: kitchen, balcony/corridor/verandah, backyard, bathroom, toilet, ventilation, water supply, noise, pollution, safety, power supply and courtyard. These variables are measured on a four point likert scale (strongly dissatisfied = 1; dissatisfied = 2; satisfied = 3; strongly satisfied = 4). In order to use the analysis of variance (ANOVA) the variables are recoded in binary (1 if strongly satisfied or satisfied otherwise 0).

Table 7.1 shows that the average score of the women satisfaction with housing is highest in the low density residential area (3.10), followed by the average score in the medium density residential area (2.81), non-traditional high density residential area (2.72) and the traditional core high density residential area of Ibadan (2.55). This result implies that women are more satisfied with housing in the low density residential area and least satisfied with housing in the core area of Ibadan. The reason may be due to the fact that overcrowding of houses and people as well as poor condition of housing are more in the traditional core area of Ibadan compared to all other areas. Also, the conditions of housing and associated basic infrastructures are better in the low density residential areas compared to other areas of Ibadan. The result of the analysis of variance (ANOVA) shows that the F value is 16.485, the significant value is .000 (Table 7.2). This result is significant at  $p < .01$ . This result implies that intra-urban variation observed in the satisfaction of women with housing in Ibadan is significant.

The result of the Post Hoc Tests (Multiple Comparisons) of the analysis of variance shows that women's satisfaction with housing in the traditional core high density and low density residential areas are significantly different at  $p < .05$  from satisfaction of women with housing in each of the other residential areas.

Table 7.2: ANOVA test of intra-urban variation in women's satisfaction with housing in Ibadan.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	661.655	3	220.550	15.652	.000
Within Groups	10103.466	717			
Total	10765.121	720			

\*\*Significant at  $p < .01$

#### Post Hoc Tests

		Multiple Comparisons			95% Confidence Interval	
(I) RESD	(J) RESD	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
1.00	2.00	-1.5109*	.3614	.000	-2.2205	-.8013
	3.00	-.9291*	.3746	.013	-1.6645	-.1937
	4.00	-3.3874*	.5595	.000	-4.4858	-2.2890
2.00	1.00	1.51109*	.3614	.000	.8013	2.2205
	3.00	.5819	.4445	.191	-.2908	1.4545
	4.00	-1.8765*	.6085	.002	-3.0711	-.6819
3.00	1.00	.9291*	.3746	.013	.1937	1.6645
	2.00	-.5819	.4445	.191	-1.4545	.2908
	4.00	-2.4583*	.61164	.000	-3.6684	-1.2482
4.00	1.00	3.3874*	.5595	.000	2.2890	4.4858
	2.00	1.8765*	.6085	.002	.6819	3.0711
	3.00	2.4583*	.6164	.000	1.2482	3.6684

\* The mean difference is significant at  $p < .05$ .

- RESD = Residential areas  
 RESD 1 = Traditional core high density residential area  
 RESD 2 = Non-traditional core high density residential area  
 RESD 3 = Medium density residential area  
 RESD 4 = Low density residential area

Source: Field survey, 2001

The mean values in table 7.1 are used to draw the map showing the intra-urban variations in the level of housing satisfaction of women in Ibadan. This is shown in



Figure 7.1. Areas of very low satisfaction are found in the traditional core areas of Ibadan and it includes such neighbourhoods as Beere, Oje, Gege, Foko, Agbeni, Isale-Osi, Oja'ba etc. Areas of low satisfaction cover neighbourhoods in the non-traditional core high density residential areas and they include Agbowo, Orogun, Molete, Odo-Ona, Apata, etc. Areas of medium and high satisfaction are found in the sections of the city collectively described as medium and high income residential zones. Neighbourhoods in these areas include Idi-Ape, Ring-Road, Challenge, Felele, Orita-Bashorun, Ikolaba, Agodi, Bodija, Iyaganku, etc.

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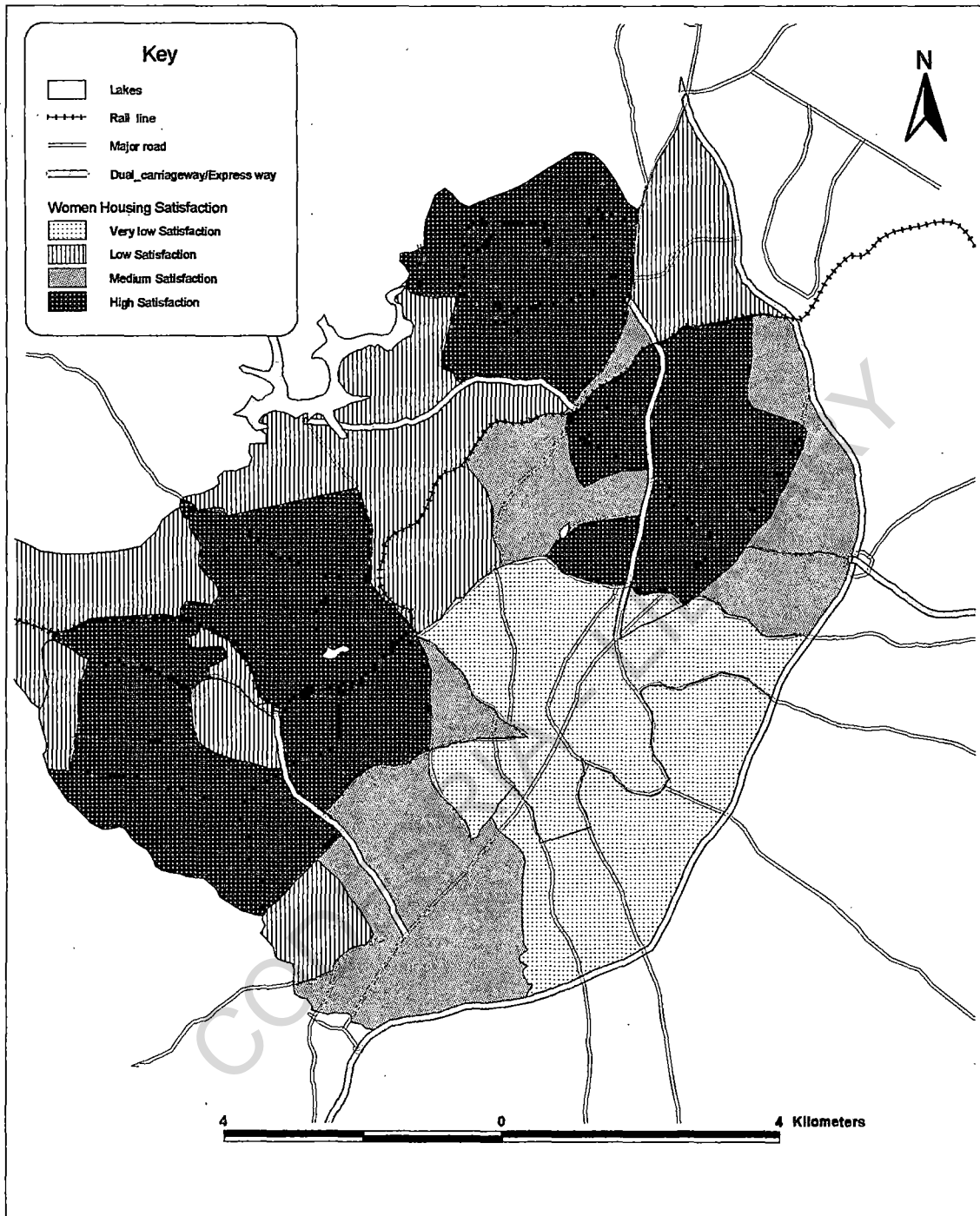


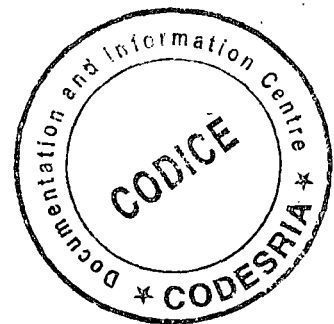
Fig. 7.1: Spatial variation in women housing satisfaction in Ibadan

Source: Field survey, 2001.

### 7.3 Gender and Housing Structural Units

Housing unit occupied by households in most cases comprise basically of a living room, bedroom(s), a kitchen, a bathroom, a toilet and the parking space/garage. Due to gender differences in the socio-cultural roles/responsibilities in the household, we expect gender differences in the aspects of housing structural units in which women and men would be interested in Ibadan. Figures 7.2 to 7.8 show the percentage of women and men that are specially interested in each of these aspects of housing structural units in each of the residential areas in Ibadan. These figures are derived from Appendix 7.2 which shows the percentage figures of women and men that are specially interested in each of these aspects of housing in Ibadan.

Figure 7.2 shows the percentage of women and men that are specially interested in the living room in their house in Ibadan. From this figure men appear to be more specially interested in the living room than women. In all the residential areas taken together, 46.0 percent of women and 67.0 percent of men are specially interested in the living room.



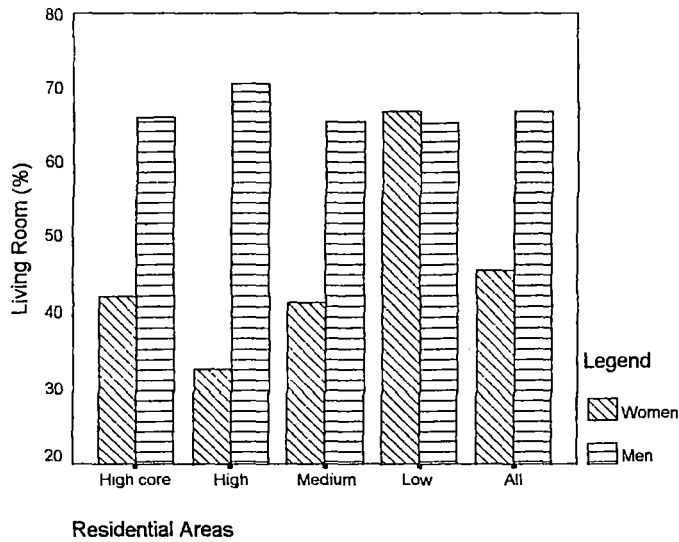


Fig. 7.2: Percentage of Women and Men with special interest in the Living room

Figure 7.3 shows the percentage of women and men that are specially interested in the bedroom in their houses in Ibadan. From this figure, women appear to be more interested in the bedroom than men. In all the residential areas together, 52.0 percent of women and 40.0 percent of men are specially interested in the bedroom.

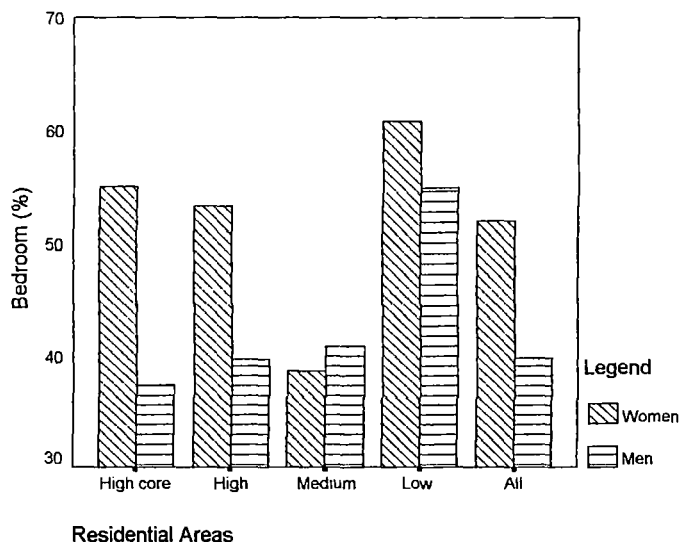


Fig. 7.3: Percentage of Women and Men with special interest in the Bedroom

Figure 7.4 and 7.5 shows the percentage of women and men that are specially interested in the kitchen and bathroom in their house in Ibadan respectively. From this figure women appear to more specially interested in the kitchen and bathroom in their house than men. In each of the residential areas in Ibadan, higher percentages of women are specially interested in the kitchen and bathroom in their house.

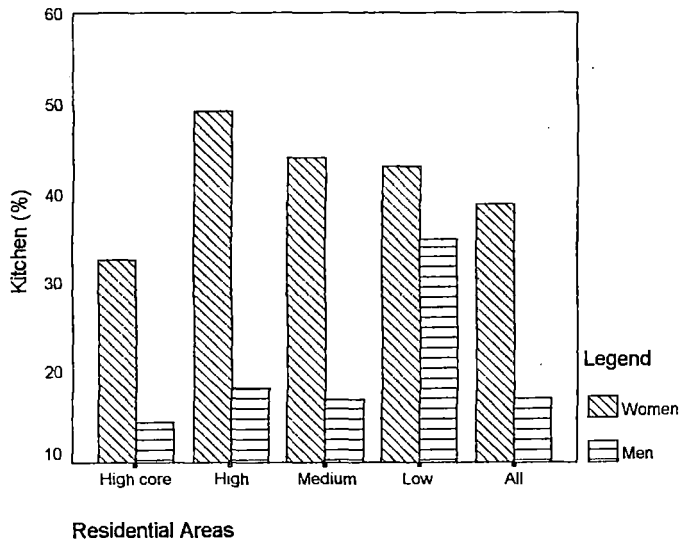


Fig. 7.4: Percentage of Women and Men with special interest in the Kitchen

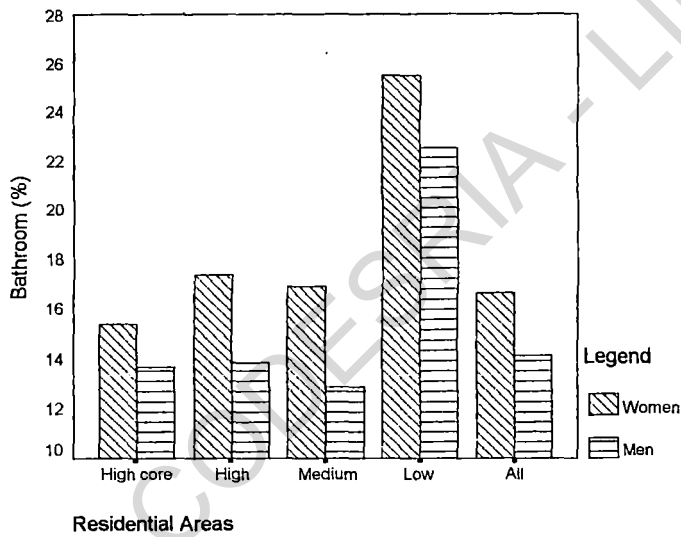


Fig. 7.5: Percentage of Women and Men with special interest in the Bathroom

Figure 7.6 and 7.7 shows the percentage of women and men that take special interest in the toilet and parking/garage in their house in Ibadan respectively. In all the

residential areas together, 28.0 percent of women and 26.0 percent of men take special interest in the toilet. This also shows that compared to men, women appear to be more interested in the toilet in their house. In the case of the parking/garage, men appear to be more interested. In all the residential areas together, 8.0 percent of women and 11.0 percent of men take special interest in the parking/garage.

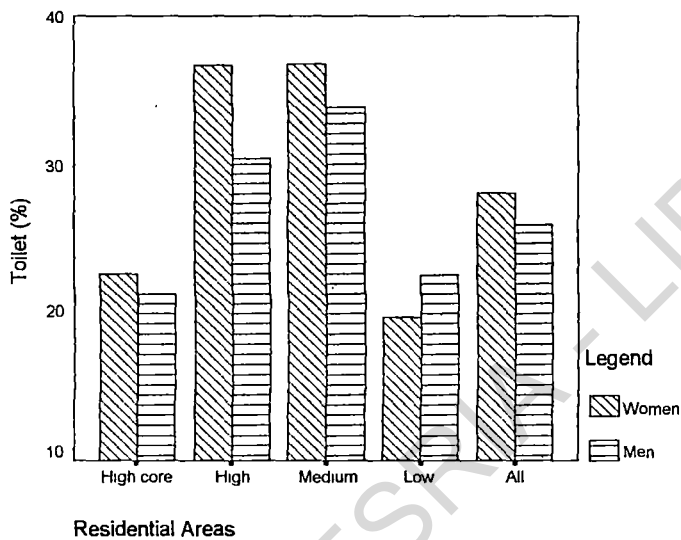


Fig. 7.6: Percentage of Women and Men with special interest in the Toilet

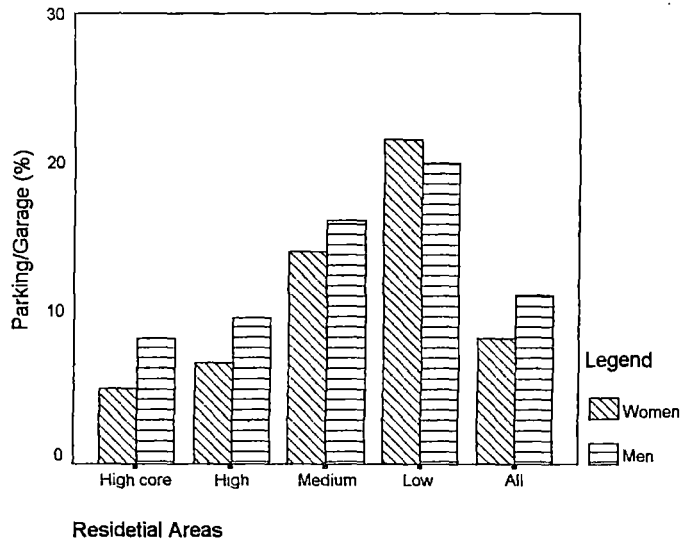


Fig. 7.7: Percentage of Women and Men with special interest in the Parking/Garages

Figure 7.8 shows the average percentage of women and men that take special interest in the overall aspects of housing considered in Ibadan. In all the residential areas together the average percentage of women (32.0) is higher than that of the men (29.0). These results suggest that there are differences in the value and meaning of housing to women and to men.



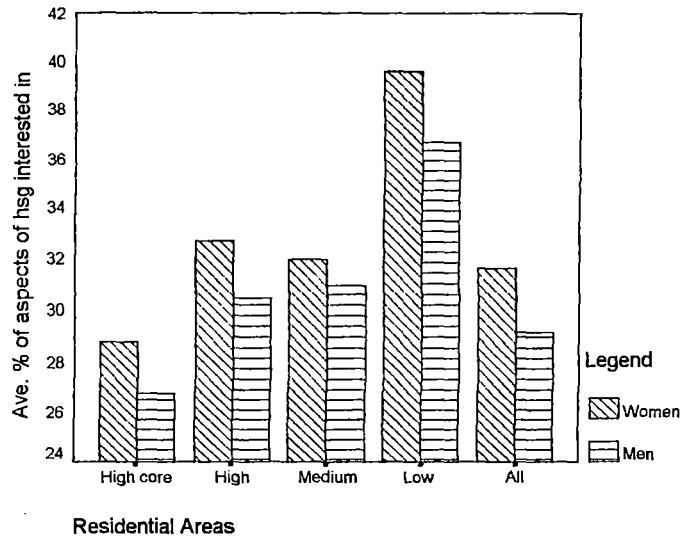


Fig. 7.8: Gender differences in aspects of housing of interest

Table 7.3 shows the result of the paired “t” test statistics of each aspects of housing structural unit considered (Appendix 7.3 shows the result for each residential area). The result of the paired “t” test shows significant differences at  $p < .01$  in the interest of women and men in such structural aspects of housing as living room, bedroom and the kitchen.

Table 7.3: Paired Samples “t” Test of some aspects of housing that Women and Men take special interest in in Ibadan.

Some aspects of housing	“t”-value	d.f.	Sig.
Living Room	-9.087**	570	.000
Bedroom	3.190**	570	.001
Kitchen	10.501**	570	.000
Bathroom	1.192	570	.234
Toilet	1.205	570	.229
Parking space/garage	-.762	570	.446

\*\*Significant at  $p < .01$

Source: Field survey, 2001

#### 7.4 Gender Differences in the felt adverse effect of some aspects of housing on Women’s and Men’s daily activities in Ibadan

Because women are the prime users of housing and settlement-level infrastructure, they are asserted to be more affected than any other group particularly men by the condition and the way the dwelling is planned. This assertion is examined here. Aspects of the dwelling units considered are: house location, kitchen space, power supply, water supply, neighbourhood road, space for income generating activities and the living space. These variables are carefully selected to cut across the three attributes of housing which are locational, neighbourhood and structural attributes. Respondents were

asked to tick any of those aspects of housing that adversely affect their daily activities. Figures 7.9 to 7.15 show the percentage figures of women and men whose daily activities are adversely affected by each of those aspects of housing, while figure 7.16 shows the average overall percentage of all the women and men whose daily activities are adversely affected by those aspects of housing considered. These figures are derived from Appendix 7.4 which shows the percentage figures of women and men whose daily activities are adversely affected by each of those aspects of housing. From these figures, it appears that women are more adversely affected than men by the house location (Fig.7.9), kitchen space (Fig.7.10), power supply (Fig.7.11), water supply (Fig.7.12), neighbourhood road (Fig.7.13), space for income generating activities (Fig.7.14) and the living space (Fig.7.15).

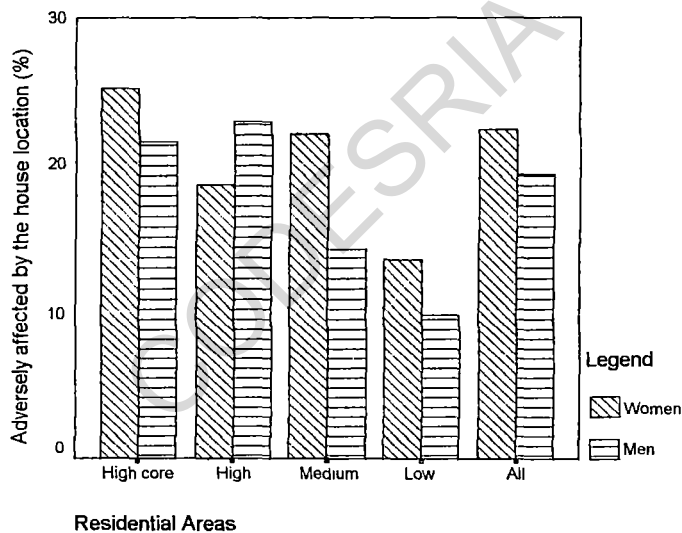


Fig. 7.9: Gender differences in the felt adverse effects of house location condition

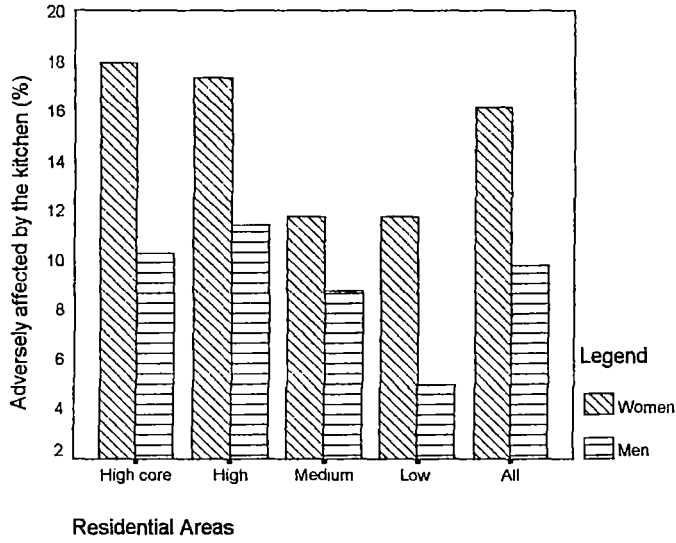


Fig. 7.10: Gender differences in the felt adverse effects of kitchen condition

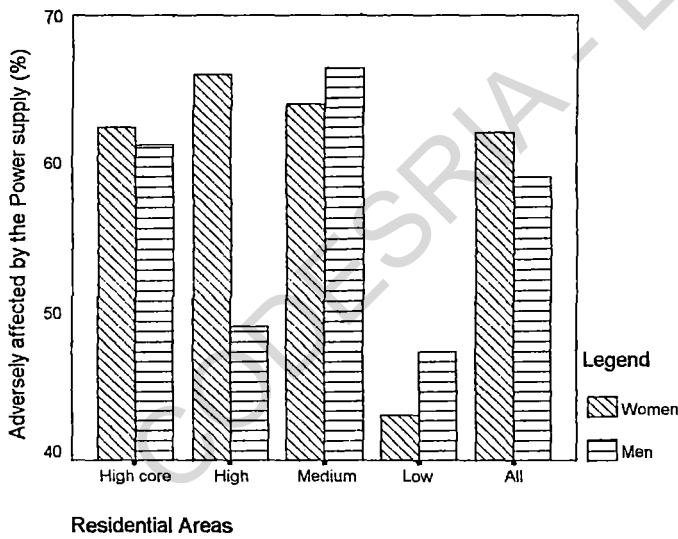


Fig. 7.11: Gender differences in the felt adverse effects of the power supply situation

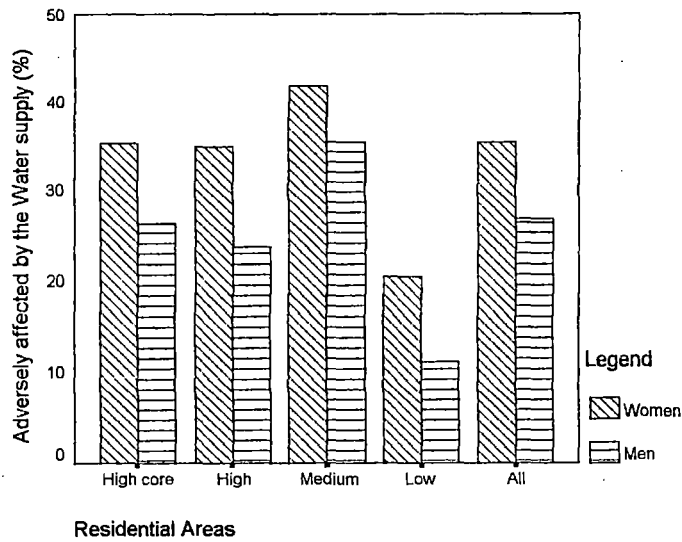


Fig. 7.12: Gender differences in the felt adverse effects of the water supply situation

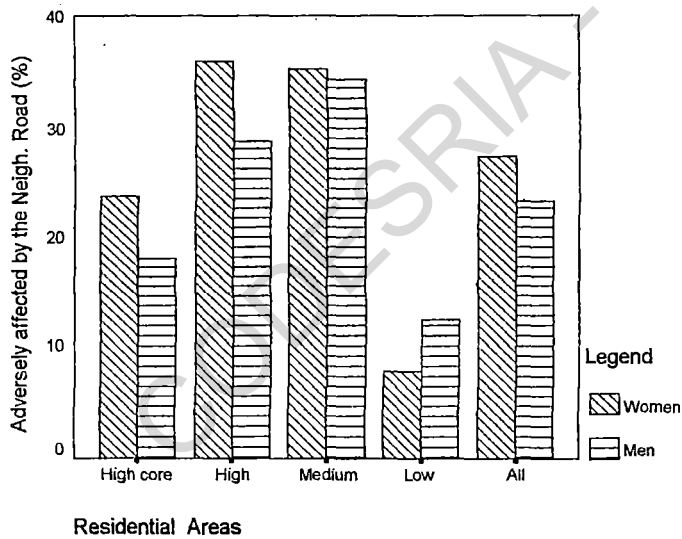


Fig. 7.13: Gender differences in the felt adverse effects of the neighbourhood road condition

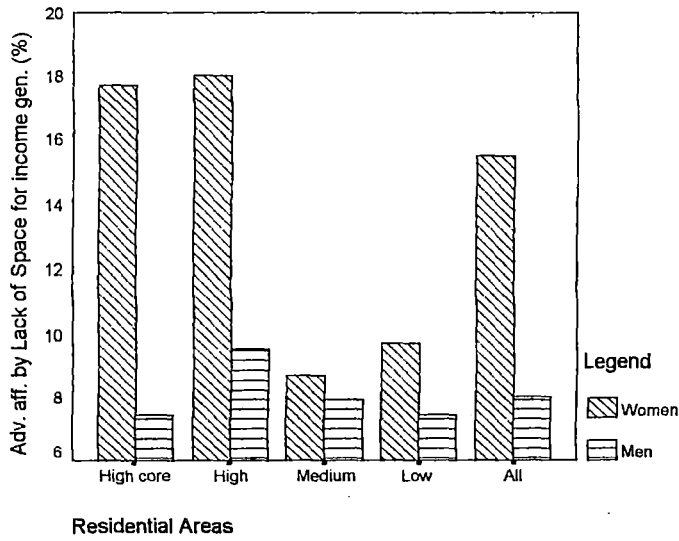


Fig. 7.14: Gender differences in the felt adverse effects of the condition of space for income generation

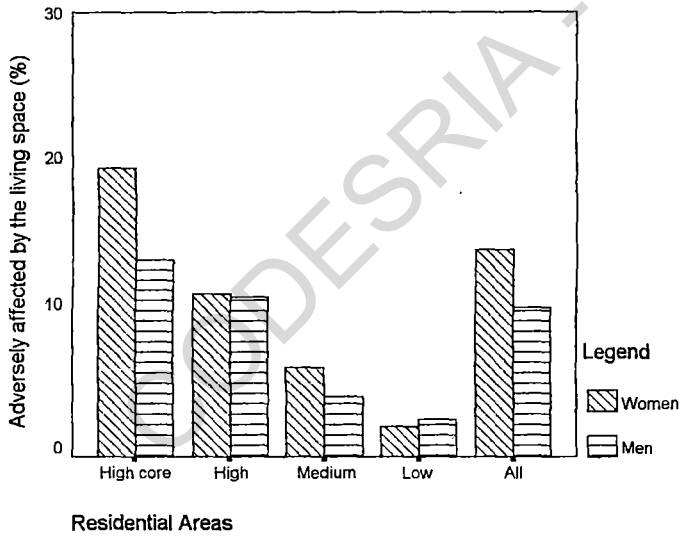


Fig. 7.15: Gender differences in the felt adverse effects of the condition of living space

Figure 7.16 shows the average percentage of women and men that are adversely affected by the overall aspects of housing considered. In all the residential areas together, the average percentage of women that are adversely affected by the overall aspects of housing considered is 28.0 percent while that of men is 22.0 percent. These results suggest that women's daily activities are more adversely affected than men's daily activities.

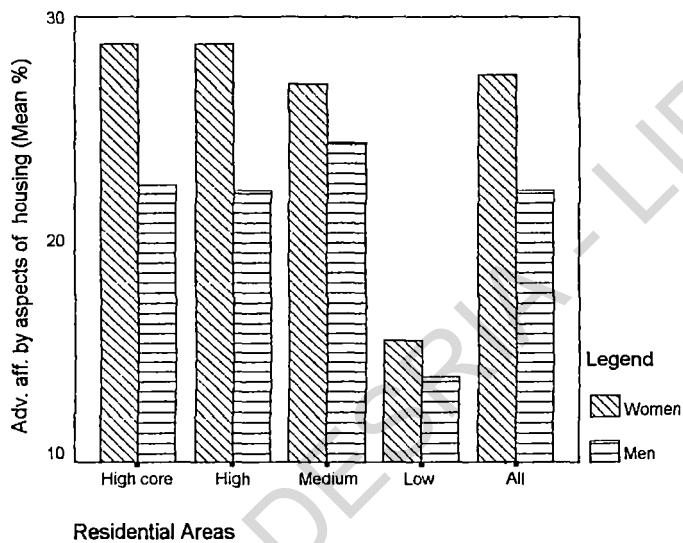


Fig. 7.16: Gender differences in the felt adverse effects of housing condition in Ibadan

Table 7.4 shows the result of the paired samples "t" test statistics of women and men that felt that their daily activities are adversely affected by each aspect of housing considered in Ibadan. The result of the overall paired "t" tests shows that there are

significant gender differences at  $p < .01$  in the felt adverse effects of housing with women feeling more adversely affected by housing than men.

Table 7.4: Result of the Paired Samples 't' Test of the felt adverse effects of some aspects of housing on women and men in Ibadan

Variables	't' value	d.f.	Sig.
Location of the house	2.477*	570	.014
Kitchen	3.292**	570	.001
Power supply	2.154*	570	.032
Water supply	4.988**	570	.000
Neighbourhood road condition	2.471*	570	.014
Space for income generation	4.218**	570	.000
Living space	1.985*	570	.048
Overall	6.182**	570	.000

\*\* Significant at  $p < .01$

\* Significant at  $p < .05$

Source: Field survey, 2001

## 7.5 Gender Attributes and the Housing Attributes

The purpose here is to examine gender differences in the impacts of housing attributes on the daily activities of women and men using multiple linear regression statistical techniques. Due to the difficulties in measuring the qualities of femaleness and



maleness, the sexual division of labour as reflected by the daily activities of women and men is used as a manifestation of women and men gender attributes. As Bernard argues:

“The division of labour by sex means that the work group becomes also a sex group. The very nature of maleness and femaleness becomes embedded in the sexual division of labour. One’s sex and one’s work are part of one another. One’s work defines one’s gender” (Bernard, 1981: 3).

Housing attributes comprise the locational attributes, neighbourhood attributes and the structural attributes (Arimah, 1990). The location of the house determines the distance to various services including the distance to the work place. The neighbourhood attributes refer to the facilities/utilities and services available in the neighbourhood. The conditions of the facilities/utilities and services available in the neighbourhood in which the house is located are important as these determine the condition of the housing infrastructural services. The structural attributes of the housing unit refer to the condition of the building unit including the design of the building. This is important as this determines the state of the housing maintenance, availability of space for various activities in the house including income generating activities. The hypothesis tested here is that there is no significant relationship between the housing attributes and the gender attributes. We expect that there is no gender difference in the impact of the housing attributes on the daily activities of women and men. Multiple linear regression technique is used to test the hypothesis. The general multiple regression equation used is:

$$Y_1 = a_i + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Where

Y = dependent variable – Experience of difficulties in carrying out daily activities e.g going to work place, taking the

children to childcare/school, fetching water, cooking, etc.

$a_i$  = base or multiple regression constant referred to as Y

intercept

$b$ 's = regression coefficients or unknown parameters which indicate the change in Y per unit change in the explanatory variables

$X$ 's = independent variables – housing attributes (housing unit condition; neighbourhood facilities/services; and housing location distances)

$e$  = error terms or residuals

Table 7.5 shows the definition of the dependent (Y) and the independent ( $X_i$ ) variables used in the analysis. Correlation coefficients among the independent variables used in the analysis are shown in Tables 7.6 (women) and 7.7 (men) respectively.

Table 7.5: Definition of the Dependent (Y) and Independent Variables used in the analysis of impact of housing attributes on women's and men's daily activities

Code	Variable	How measured
Y	Daily Activities	- 1 each if experiencing difficulties in doing the following daily activities: going to workplace, taking the children to childcare/school, getting rid of household waste, fetching water, cooking, cleaning the house and the surrounding, childcare, and, domestic activities generally
X <sub>1</sub>	Housing Unit condition	- 1 if there are any cracks in the wall of the house - 1 if there are any cracks in the floors of the house - 1 if the house roof is leaking and needs repairs - 1 if the house needs general repair - 1 if pests are prevalent in the house - 1 each if dissatisfied with each of the following aspects of housing: kitchen, balcony/ corridor/verandah, backyard, bathroom, toilet, ventilation and courtyard
X <sub>2</sub>	Neighbourhood facilities/services	- 1 each if the following neighbourhood facilities/services are bad: neighbourhood road, garbage collection, public transport, street light, neighbourhood water supply, power supply, school quality, shops, and the general condition of the neighbourhood
X <sub>3</sub>	House location distance	- 1 each if the house distance to each of the following activity areas is far: workplace, shopping centre, children school and childcare centre, where they fetch water and dispose of solid waste

Table 7.6: Correlation Coefficients among the independent variables used in the analysis of impact of housing attributes on women's daily activities

Variable		X1	X2	X3
X1	Housing Unit condition	1.000		
X2	Neighbourhood facilities/services	.266	1.000	
X3	House location distance	.253	.298	1.000

Source: Field survey, 2001

Table 7.7: Correlation Coefficients among the independent variables used in the analysis of impact of housing attributes on men's daily activities

Variable		X1	X2	X3
X1	Housing Unit condition	1.000		
X2	Neighbourhood facilities/services	.266	1.000	
X3	House location distance	.223	.295	1.000

Source: Field survey, 2001

These tables show that the correlation coefficients among the independent variables ( $X_i$ ) are relatively low, the highest being 0.298 (Table 7.6) and 0.295 (Table 7.7) between the perception of the house location distance variable and the neighbourhood facilities/services condition. There is no serious multi-collinearity occurring among the independent variables.

The impact of the housing attributes as indicated by the proportion of variance explained by each of housing attribute variables on women and men daily activities is shown in Table 7.8 (women) and Table 7.9 (men).

Table 7.8: Impact of housing attributes on Women's daily activities

Model	Variable Name	Level of Explanation (R-Square Change)	R-Square	Std. Error	F-Change	Sig. F Change	Multiple Stepwise Regression ANOVA Result	
							F-value	Sig.
1	House location distance	.078	.078	2.0436	8.675**	.000	8.675**	.000
2	Neighbourhood facilities & services condition	.032	.110	2.0208	2.796**	.003	5.454**	.000
3	Housing Unit condition	.043	.153	1.9870	3.195**	.000	4.645**	.000

\*\* Significant at  $p < .01$

\* Significant at  $p < .05$

Source: Field survey, 2001

Table 7.9: Impact of housing attributes on Men's daily activities

Model	Variable Name	Level of Explanation (R-Square Change) (%)	R-Square	Std. Error	F-Change	Sig. F Change	Multiple Stepwise Regression ANOVA Result	
							F-value	Sig.
1	House location distance	.279	.279	1.8533	219.959**	.000	219.959**	.000
2	Neighbourhood facilities & services condition	.001	.280	1.8539	.610	.435	110.209**	.000
3	Housing Unit condition	.003	.283	1.8514	2.564	.110	74.530**	.000

\*\* Significant at  $p < .01$

\* Significant at  $p < .05$

Source: Field survey, 2001

The analysis of variance (ANOVA) of the multiple stepwise linear regression models shows that the F-value of each of the stepwise multiple linear regression models is significant at  $p < .01$  (Tables 7.8 and 7.9). This implies that the overall regression model is significant. In essence, this means that all the independent or explanatory variables taken together can be used to explain the difficulties women and men experience in carrying out their daily activities. In essence, this implies that there is a relationship between gender attributes and housing attributes. The low value of R-Square may be an indication that there are other variables apart from housing attributes that have effect on experience of difficulties in carrying out daily activities. This could be explored in further studies.

Nevertheless, in the present study, the main interest is the relative impacts of each of the housing attributes variables on women's and men's daily activities. This is clearly seen in Tables 7.8 (women) and 7.9 (men).

From Table 7.8 the most significant variables for women are: house location distance, housing unit condition and neighbourhood facilities/services condition, while for men, the most significant variable is the house location distance to the various activity areas (Table 7.9). This result could be due to gender roles/responsibilities in the households. Men as the major breadwinners in the household are greatly affected by the distance of the house particularly to the workplace. Women, also due to their triple roles in the household - household responsibilities, reproductive role and involvement in productive activities - are affected by the housing unit condition, neighbourhood facilities/services condition and the house location distances to the various activity areas.

The order of relative importance of the independent variables shows that house location distance to the various activities has the greatest impacts on both women (.078) and men (.279). This is followed by housing unit condition (.043 for women and .003 for men) and neighbourhood facilities/services condition (.032 for women and .001 for men) (see Table 7.8 and 7.9).

A closer examination of the proportion of variance (R-Square Change) of each of the housing attributes variables shows that only the R-Square Change value of the house location variable of men (.279) is higher than that of the women (.078) while in each of

the other housing attributes the R-Square Change value of women is higher than that of the men (see Fig. 7.17). This result suggests that the impact of the house location distance is more on the men than women, while the impact of the neighbourhood facilities/services and housing unit condition is more on women than men.

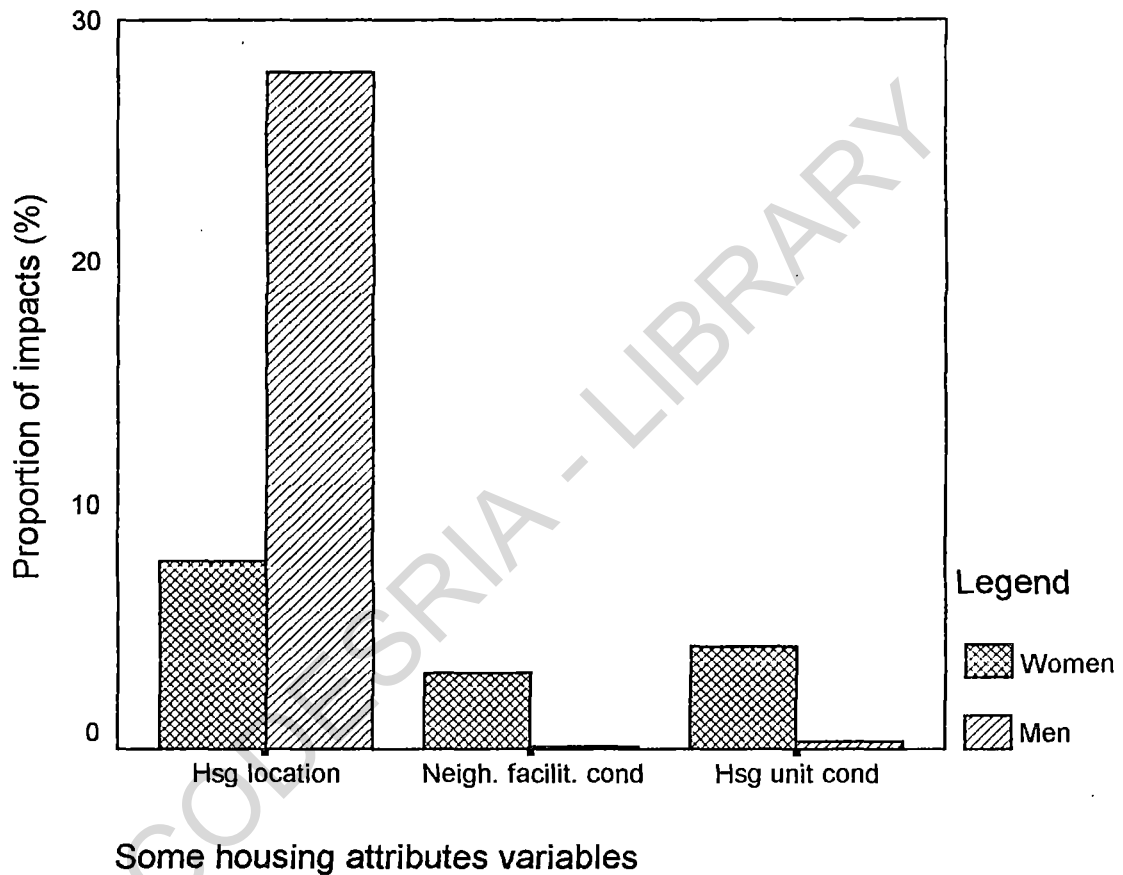


Fig. 7.17: Impacts of the housing attributes on Women's and Men's daily activities.

These result may be due to the fact that women are the primary consumers and users of house and facilities/services and so they are more affected by any neighbourhood



facilities/services and structural inadequacy than men. This is so because they are more responsible for housework and child caring activities than men. Besides they spend more time at home than men.

## 7.6 Summary

This chapter has examined gender and the housing unit delivered. The findings show that there is a significant intra-urban variation at  $p < .01$  in the satisfaction of women with houses delivered. Significant gender differences at  $p < .01$  are also found in the following aspects of housing structural units in which women and men are specially interested: living room, bedroom, and kitchen. Men appear to be more interested in the living room than women while women appear to be more interested in the bedroom and kitchen than men. Also significant gender differences at  $p < .01$  are found in the overall felt adverse effects of aspects of housing on women's and men's daily activities. Women felt more that their daily activities are adversely affected than men.

Significant gender relationship is found between gender attributes and housing attributes at  $p < .01$ . The order of relative importance of the independent variables shows that house location distance to the various activities has the greatest impacts on both women and men. This is followed by housing unit condition and neighbourhood facilities/services condition. Gender differences are observed in the magnitude of the impact of housing attributes on women and men. While the impact of the house location

distance is more on men than women the impact of the neighbourhood facilities/services and housing unit condition are more on women than men.

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## CHAPTER EIGHT

### HOUSING ATTRIBUTES, STRESS AND THE PHYSICAL WELL-BEING OF WOMEN AND MEN IN IBADAN

#### 8.1 Introduction

Housing is delivered in Ibadan city by both the public and private sectors. The private sector housing could be categorized into two distinct components; namely formal housing delivery sub sector and the informal housing delivery sub-sector (Arimah 1990). The formal housing sub-sector produces what Drakakis-Smith (1979) refers to as conventional houses, and is produced via the medium of formal institutions such as town planning and development control agencies, construction firms, real estate developers and mortgage institutions. The informal housing delivery sub-sector produces houses, which are usually constructed outside the medium of formal institutions. Houses within this sub-sector are ubiquitously distributed within the cities in the developing countries.

The public sector housing is delivered by conventional “top-down” public housing projects. These are projects which governmental authorities plan, finance, and implement without the participation of the beneficiaries (Agbola, 1990; Moser, 1992). As this direct construction approach has failed to satisfy the housing demand, there has been a shift in government housing delivery policy to a diversity of assisted alternative “self-help” solutions such as “sites-and-services” and upgrading schemes (Koenigsberger, 1986; Agbola, 1990; Moser, 1992). Such self-help solutions which involve the participation of beneficiaries in all aspects of the project are recognized by

international agencies and national governments as offering cheap alternative housing to a large proportion of the urban population without major increases in the proportion of investment allocated to housing. Argument in the literature is that hitherto, housing delivery has been gender blind and women are most disadvantaged (Agbola, 1990; Moser, 1992; Makinwa-Adebusoye, 1992; etc). This issue is empirically explored in this chapter.

This chapter examines stress and housing from the perspective of the impact of housing stressors (i.e. housing attributes variables that could be stress-inducing) on the physical well being of women and men. The intention is to discover the gender differences between women and men as well as intra-urban variations in the housing experience (as measured by the impact of the housing stressors on the physical well-being) of women and men. Also examined are the gender differences in the socio-economic determinants of the housing experience (as measured by the impact of the housing stressors on the physical well-being) of women and men. The null hypotheses tested are that:

1. there is no significant impact of the housing stressors on the physical well-being of women and men. Here we expect that (i) there is no gender difference in the impacts of the housing stressors on the physical well-being; (ii) there is no significant intra-urban variation in the housing experience as measured by the impact of housing stressors, that is, housing attributes that could be stress-inducing on the physical well-being of women and men; and

2. there is no significant relationship between housing experience of women and men and their socio-economic characteristics - no gender difference exists in the impacts of the socio-economic characteristics on their respective housing experience.

## 8.2 Stress and Housing

The term 'stressor' as generally applied in the vernacular of the social sciences is understood to mean a condition that produces some degree of social dysfunction or stress-inducing effects (Vila, 1994; Harries, 1997; etc.). In the field of stress theory, relationships between stress and dysfunction have been more fully developed. Stress theory is an outgrowth of the relationship between stress and detrimental performance. First applied to machines, it was later used to provide a framework for understanding links between stressful life events and ill-health (Harries, 1997:1254). The father of stress theory, Hans Selye, defines stress as "the non-specific response of the body to any demand" (Selye, 1983); stress may be good "stress", or bad "distress" (Selye, 1980). Evans (1982) suggests a "negative" definition; "any situation in which the environmental demands on individuals exceed their abilities to respond".

Stressful situations in some contexts may have positive outcomes because they help to produce successful coping strategies. In many other situations, however, the individual experiences fatigue and distress. This reduces the likelihood that he or she will be able to respond effectively to the next set of stressors. As a review of the literature

reveals, a wide range of circumstances has been characterized as potentially stress-inducing. The common feature is either a situation that requires continual adjustment to a high stress environment, for example in the workplace (La Rocco et al, 1980) or in an inner city residential neighborhood (Cohen et al, 1982); or a sudden and marked change to which the individual has to respond. Some of the earliest work was focused on the issue of job loss (Gore, 1978; Kasl and Cobb, 1982) and other economic hardships (Liem and Liem, 1978; Thoits, 1982; Voydanoff, 1990). Stress in relation to both these situations is exacerbated by lack of control or perceived lack of control over stressful circumstances. In later studies, the focus moved to a variety of potentially stressful life events such as pregnancy (Nuckolls et al, 1972; Barvera, 1981); divorce (Kessler and Eses, 1982; Weinraub and Wolf, 1983); bereavements (Walker et al, 1997); chronic diseases (Workman, 1984) and physical disabilities (Schulz and Decker, 1985). In such circumstances, it is assumed that there is a disruption of everyday activities and a marked change in behaviour patterns in response to the stressors (Smith et al, 1993).

Stress-inducing effects of poor housing are part of a research tradition that has developed markedly during the last three decades (Smith et al, 1993:603). Although few studies have focused on housing, Smith et al note that it is plausible to suggest a scenario of stress that is consistent with these earlier studies. An environment that is continually and uncontrollably noisy, noxious, depressing or dangerous could be hypothesized as seriously impairing on individual's ability to respond appropriately (Pacione, 1990). If existing sources of stress are not removed, or if new stressors are introduced, the coping

resources of the individual in question will be severely strained. In addition to the events and situations generally perceived to be stressful, Lazarus (1984) points out that, in some circumstances, the details of everyday life in stressful environments might amount to another source of stress, particularly for households that are already facing difficult times.

Investigations on the impact of housing on human well-being have attempted to isolate the relative contributions of different housing stressor, including both objective circumstances of housing (in physical, social and economic terms) and subjective or perceived evaluations of the housing situation (Kasl and Harburg, 1975; Martin, 1987; Smith, 1990; Neil, 1991). Researches have reported that inadequate housing can be linked directly and indirectly to a range of outcome measures, including physical illness (Duvall and Booth 1978; Fuller et al 1993); strained interruptions in adolescent development (Simmons et al, 1987; Hendershott, 1989); strained patterns of family interaction (Edwards et al, 1982) and psychological distress (Capon, 1971; Mitchel, 1971; Kasl, 1974).

Edwards et al (1982:242) also note that mental stress, physical disorders and psychological illness in particular have been observed with remarkable consistency to be related to housing (Schmitt, 1966; Fanning, 1967; Capon, 1971). They also assert that females may be more adversely affected by housing, since in enacting traditional sex roles they are more likely to be confined to the dwelling than men (p. 244) Empirical investigation of this kind is rare in Nigeria. The null hypothesis tested here is that there is no significant impact of the housing stressors on the physical well-being of women and

men. Here we expect that there is no gender difference in the impacts of the housing stressors on the physical well-being.

The main technique of analysis used to test this hypothesis is the multiple regression model. The regression model is used to examine if there is gender difference in the impacts of the housing stressors. The model is of the form:

$$Y_i = a_i + b_1X_1 + b_2X_2 \dots + b_nX_n + e$$

Where

Y = dependent variable – Physical well being

$a_i$  = base or multiple regression constant referred to as Y intercept

$b$ 's = regression coefficients or unknown parameters which indicate the change in Y per unit change in the explanatory variables

$X$ 's = independent variables (housing stressors variables - high rent/cost; lack of space; housing discomfort; physical condition of housing; and dissatisfaction with housing)

e = error terms or residuals

## 8.3 Choice of Variables

### 8.3.1 Dependent Variable – Physical Well-being

Physical well-being variables are specific measures of health problems and psychological distress. Health problems included are those that are particularly related to poor housing condition. Such health problems include cough, wheeze, blocked nose,



skin infections, tiredness/body weakness, malaria, headache, diarrhea etc (Martin, et al., 1987; Platt et al, 1989; Strachan, 1988; Hyndman, 1990 etc). Psychological distress has two major forms (Mirowsky and Ross, 1989; Theodore et al, 1993) depression and anxiety. Argument in the literature is that depression and anxiety are no distinct forms of psychological distress. They are instead closely intertwined (Dohrenwend et al, 1980; Mirowsky and Ross, 1989). In this study, Theodore et al (1993) scale of psychological distress which comprises ten items that reflect various symptoms, including aspects of both anxiety and depression is adopted. Table 8.1 shows the definition of physical well-being variables.

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Table 8.1: Definition of Physical Well-Being Variable

Code	Variable	How measured
Y	Physical well-being	<p>(i) <u>Specific physical health problem</u>  - 1 each if experiencing any of the following specific health problems: persistent cough, wheeze, blocked nose, breathlessness, skin infections/diseases (e.g. eczema, rashes), tiredness or body weakness, feverish or feeling hot internally, malaria, headache, cholera and diarrhea.</p> <p>(ii) <u>Psychological distress</u>  - 1 each if often or sometimes experiencing any of the following: (i) anxious about something or someone; (ii) that people are trying to pick quarrels or start argument with you; (iii) so depressed that it interferes with your daily activities; (iv) that personal worries are getting you down physically ill; (v) moody; (vi) felt you were confused; (vii) are you ever bothered by nervousness? i.e. by being irritable, fidgety or tense; (viii) do you feel that nothing ever turns out for you the way you want it to? (ix) do you have trouble concentrating or keeping your mind on what you are doing?  - 1 if the respondent is the worrying type.</p>

### 8.3.2 Independent Variables

The literature indicates that housing stressors have both tangible and intangible elements and that the relationship between these may be a result of individual tastes and preferences, previous housing experiences, variations in aspiration levels and cultural factors such as ethnic background (Stokols and Shumaker, 1982; Smith et al, 1993; etc).

Indicators of housing stress identified in the literature are: physical conditions of housing, lack of space per person, high rent/cost, dissatisfaction with housing and housing discomfort (Smith et al, 1993; Theodore et al, 1993; 1996 etc). The physical condition of housing has two component items which are: state of neighbourhood utilities/services and the state of repair of the housing unit. Space per person has both objective and subjective indicator. Objective indicator of space per person is the number of persons per room. Subjective indicator used is the felt lack of space as measured by the perceived/felt lack of space/privacy. Indicator of housing discomfort used is the prevalence of pest in the house. Dissatisfaction with aspects of housing is a subjective measure of the housing quality. High rent is measured as the proportion of the household's income spent on accommodation. Table 8.2 shows how each of these housing stressors variables used as independent variables is measured.

Table 8.2: Definition of Housing Stressors Variables

Code	Variables	How measured
1	<b>House rent/cost</b>	
X <sub>1</sub>	High rent	Proportion of the household's income spent on accommodation.
2	<b>Lack of space</b>	
X <sub>2</sub>	Objective measure of lack of space	- Number of persons per room
X <sub>3</sub>	Felt lack of space	- 1 if felt lack of privacy in the house - 1 if at home there are too many people around - 1 if in the house, the respondent has almost no time alone - 1 if in the house people get in each others' way - 1 if at home respondents don't have enough room to do things conveniently.
3	<b>Housing discomfort</b>	
X <sub>4</sub>	Prevalence of pest in the house	- 1 if pest is prevalent in the house
4	<b>Physical housing condition</b>	
X <sub>5</sub>	State of deterioration of the housing unit	- 1 if there are any cracks in the walls of the house - 1 if there are any cracks in the floors of the building - 1 if the roof of the house is leaking and needs repairs - 1 if the house needs general repairs

X <sub>6</sub>	Neighbourhood condition	- 1 if each of the following neighbourhood facilities is in bad condition: neighbourhood road quality, garbage collection, public transport, street light, water supply, school quality, shops, power supply and general condition of the neighbourhood.
5	<b>Housing dissatisfaction</b>	
X <sub>7</sub>	Dissatisfaction with housing	-1 if dissatisfied with any of the following aspects of housing: kitchen, balcony/corridor/verandah, backyard, bathroom, toilet, ventilation, water supply in the house, power supply in the house, noise, smell, safety and courtyard.

### **8.3.2 Test of multi-collinearity among the Independent variables**

The correlation coefficients among the independent variables used in the analysis are shown in Tables 8.3 (women) and 8.4 (men). These tables show that the correlation coefficients among the independent variables are relatively low, the highest being 0.338 (Table 8.3) and 0.334 (Table 8.4) between the felt lack of space and dissatisfaction with housing. There is no multi-collinearity occurring between the independent variables.

Table 8.3: Correlation Coefficients among housing stressors variables (Women)

Variable		X1	X2	X3	X4	X5	X6	X7
X <sub>1</sub>	High rent/cost	1.000						
X <sub>2</sub>	Objective measure of lack of space	-.087	1.000					
X <sub>3</sub>	Felt lack of space	-.067	.209	1.000				
X <sub>4</sub>	Prevalence of pest in the house	-.042	.126	.220	1.000			
X <sub>5</sub>	State of deterioration of the housing unit	.068	-.136	-.280	-.311	1.000		
X <sub>6</sub>	Neighbourhood condition	-.030	.123	.202	.211	-.318	1.000	
X <sub>7</sub>	Dissatisfaction with housing	-.065	.129	.338	.263	-.461	.481	1.000

Source: Field survey, 2001

Table 8.4: Correlation Coefficients among housing stressors variables (Men)

Variable		X1	X2	X3	X4	X5	X6	X7
X <sub>1</sub>	High rent/cost	1.000						
X <sub>2</sub>	Objective measure of lack of space	-.087	1.000					
X <sub>3</sub>	Felt lack of space	-.026	.178	1.000				
X <sub>4</sub>	Prevalence of pest in the house	-.042	.126	.261	1.000			
X <sub>5</sub>	State of deterioration of the housing unit	.068	-.136	-.317	-.311	1.000		
X <sub>6</sub>	Neighbourhood condition	-.030	.123	.284	.211	-.318	1.000	
X <sub>7</sub>	Dissatisfaction with housing	-.065	.129	.334	.263	-.461	.481	1.000

Source: Field survey, 2001

## 8.4 Result and Discussion

### 8.4.1 Impact of housing stressors on physical well-being of women and men in Ibadan.

The impact of housing stressors as indicated by the proportion of variance explained by housing stressors variables on the physical well-being of women is shown in Tables 8.5, while that of the men is shown in Table 8.6.

Table 8.5: Impact of housing stressors on physical well-being of women

Housing Stressors Variable	Physical well-being of Women					
	Proportion of Variance (R-Square Change) (%)	R	R-Square	Std. Error of the Estimate	F- Change	Sig. F-Change
High rent/cost	0.1	.030	.001	3.9588	.657	.418
Lack of space	4.2	.206	.043	3.8808	15.533**	.000
Housing discomfort	0.6	.221	.049	3.8710	4.610*	.032
Physical condition of housing	1.5	.252	.063	3.8463	5.602**	.004
Dissatisfaction with Housing	3.6	.316	.100	3.7735	28.702**	.000

\* Significant at  $p < .05$

\*\* Significant at  $p < .01$

Source: Field survey, 2001

Table 8.6: Impact of housing stressors on physical well-being of men

Housing Stressors Variable	Physical well-being of Men					
	Proportion of Variance (R-Square Change) (%)	R	R-Square	Std. Error of the Estimate	F-Change	Sig. F-Change
High rent/cost	0.6	.078	.006	3.4035	3.509	.062
Lack of space	2.6	.181	.033	3.3638	7.737**	.000
Housing discomfort	0.1	.183	.034	3.3653	.502	.479
Physical condition of housing	0.9	.207	.043	3.3553	2.688	.069
Dissatisfaction with Housing	1.5	.240	.058	3.3316	9.001**	.003

\* Significant at  $p < .05$

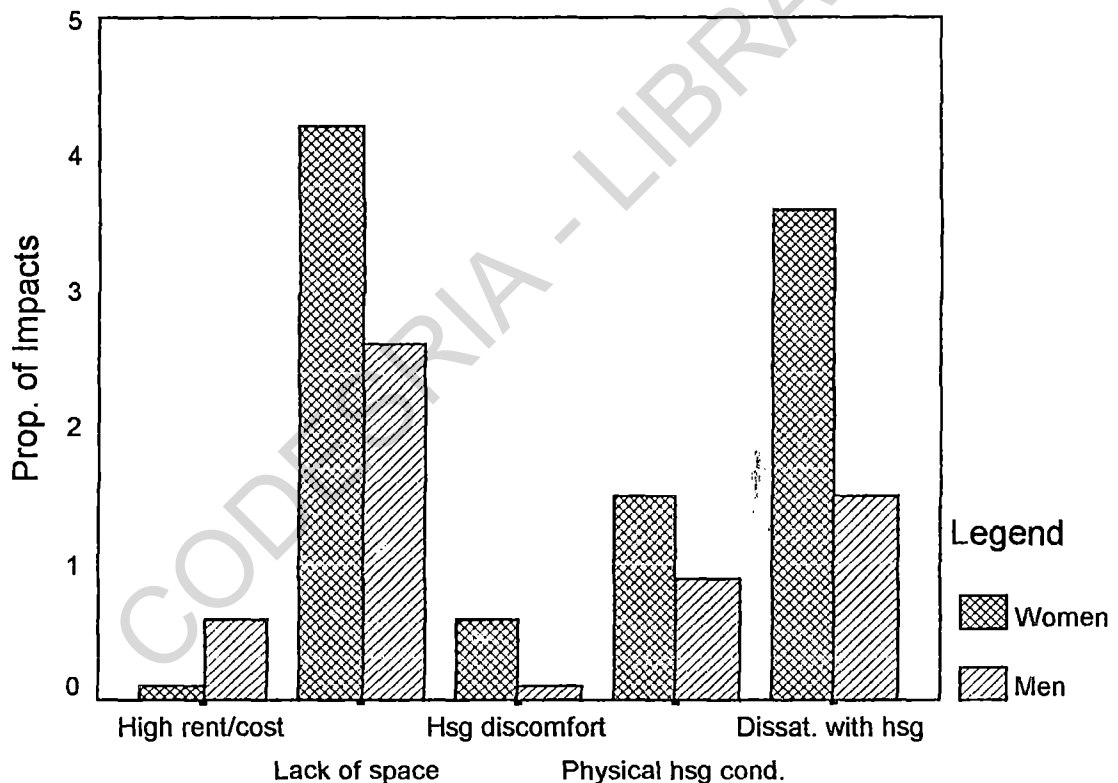
\*\* Significant at  $p < .01$

Source: Field survey, 2001

The low value of R-Square may be an indication that there are other variables apart from housing that have effect on physical well-being. Previous studies exploring the effects of housing quality on physical health have also got low R-Square (Theodore et al, 1993). This could be explored in further studies. Nevertheless, in the present study, the main interest is the relative impacts of each of the housing stressors variables on women's and men's physical well-being. This is clearly seen in Tables 8.5 (women) and 8.6 (men). The



women's most significant housing stressors are lack of space ( $p < .01$ ), dissatisfaction with housing ( $p < .01$ ), physical condition of housing ( $p < .01$ ) and housing discomfort ( $p < .05$ ) (Table 8.5). In the case of the men, the most significant housing stressors are lack of space ( $p < .01$ ) and dissatisfaction with housing ( $p < .01$ ) (Table 8.6). In all the housing stressors included in the analysis, only in the impact (as shown by the R-Square Change value) of the high rent/cost is the impact greater for men (0.6) than women (0.1) (Fig. 8.1).



### Housing Stressors Variables

Fig. 8.1: Effects of housing stressors on physical well-being gender-wise

This result may be due to the fact that while responsibility for household housing provision falls more heavily on men, women are the major consumers and users of housing. Also, it is the men that normally pay the rent and would feel the impact of payment more than women.

The impact of housing stressors variables as indicated by the proportion of variance explained by each of the housing stressors on the physical well-being of women living with their husband and the female-headed household is shown in Tables 8.7 and 8.8 respectively.

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Table 8.7: Impact of housing stressors on physical well-being of married women

Housing Stressors Variable	Physical well-being of married Women					
	Proportion of Variance (R-Square Change) (%)	R	R-Square	Std. Error of the Estimate	F- Change	Sig. F-Change
High rent/cost	0.0	.005	.000	4.0154	.015	.902
Lack of space	4.1	.201	.041	3.9392	13.594**	.000
Housing discomfort	0.5	.214	.046	3.9315	3.519	.061
Physical condition of Housing	1.3	.242	.058	3.9116	4.270*	.014
Dissatisfaction with Housing	3.1	.300	.090	3.8488	22.071**	.000

\* Significant at  $p < .05$

\*\* Significant at  $p < .01$

Source: Field survey, 2001

Table 8.8: Impact of housing stressors on physical well-being of Female-headed household

Housing Stressors Variable	Physical well-being of Female-headed household					
	Proportion of Variance (R-Square Change) (%)	R	R-Square	Std. Error of the Estimate	F- Change	Sig. F-Change
High rent/cost	7.1	.266	.071	3.3333	5.268*	.025
Lack of space	5.2	.351	.123	3.2861	1.997	.144
Housing discomfort	2.1	.380	.144	3.2709	1.624	.207
Physical condition of Housing	5.8	.450	.202	3.2067	2.334	.105
Dissatisfaction with Housing	11.0	.559	.313	2.9998	10.132**	.002

\* Significant at  $p < .05$

\*\* Significant at  $p < .01$

Source: Field survey, 2001

These results show comparatively that each of the housing stressors has more impacts on the female-headed household than on married women living in the male-headed household (see Fig. 8.2).

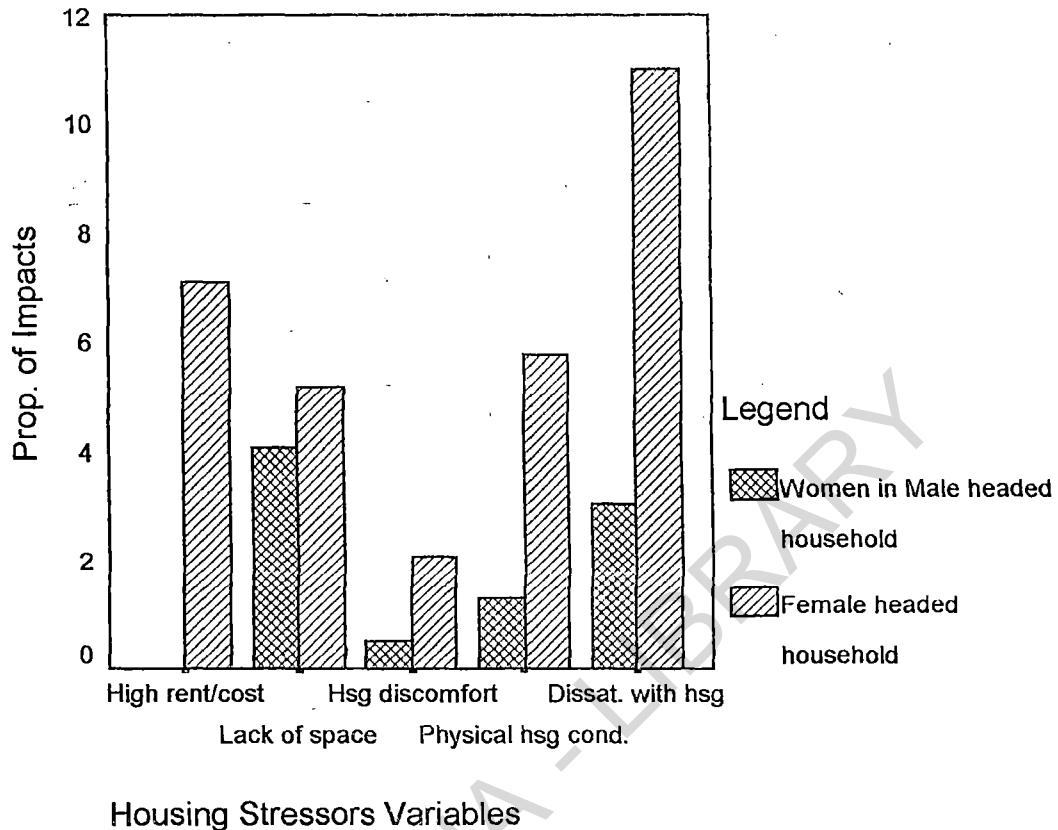


Fig. 8.2: Effects of housing stressors on the physical well being: Women living with their husband as against Female-headed household.

The married women's most significant housing stressors are lack of space ( $p < .01$ ), dissatisfaction with housing ( $p < .01$ ) and physical condition of housing ( $p < .05$ ) while those of the female-headed household are dissatisfaction with housing ( $p < .01$ ) and high rent/cost ( $p < .05$ ).

These results show that there is significant impact of the housing stressors on the physical well-being of women and men. Also gender differences are observed in the result of the impact of the housing stressors on the physical well-being. Therefore we

reject the null hypothesis which states that there is no significant impact of the housing stressors on the physical well-being of women and men and that no gender differences are expected in the impact of the housing stressors on the physical well-being of women and men.

#### **8.4.2 *Intra-urban Variations in the Housing Experience of Women and Men in Ibadan***

Housing experience is measured by the impact of housing stressors (high rent/cost, housing discomfort, lack of space, physical condition of housing and dissatisfaction with aspects of housing) on the physical well-being of women and of men. One of the usefulness of the regression statistical analysis is that it can be used to measure the amount of impact or change one variable produces in another (De Vaus, 1996; Robinson, 1998; Babbie, 1998 etc). Multiple linear regression technique was thus used to get the standardized regression scores value for each of the 721 women cases and 571 men cases in the sample. The standardized regression scores are the regression values that the regression model predicts for each case. This predicted regression value got separately for women and for men is what is referred to in this study as the housing experience of women and men respectively. The result of the analysis of variance (ANOVA) is shown in the Tables 8.9 and 8.10.

Table 8.9: ANOVA test of women housing experience

		Sum of Squares	df	Mean Square	F	Sig.
Standardized Predicted Value (Women)	Between Groups	64.632	3	21.544	23.596**	.000
	Within Groups	654.643	717	.913		
	Total	719.275	720			

\*\* Significant at  $p < .01$

Source: Field survey, 2001

Table 8.10: ANOVA of men housing experience

		Sum of Squares	df	Mean Square	F	Sig.
Standardized Predicted Value (Men)	Between Groups	50.535	3	16.845	18.334**	.000
	Within Groups	520.941	567	.919		
	Total	571.476	570			

\*\* Significant at  $p < .01$

Source: Field survey, 2001

The analysis of variance (ANOVA) F-value of women is 28.921, and of men is 26.621. The significance value of both women and men F-value is .000. These analyses of variance (ANOVA) results are significant at  $p < .01$ . These results imply that there is a significant intra-urban variation in the housing experience of women and men in Ibadan. Therefore we reject the null hypothesis which states that there is no intra-urban variation in the housing experience of women and men.

## 8.5 Housing Experience and the Socio-Economic Characteristics of Women and Men

The interest here is to examine whether there are gender differences in the effects of the socio-economic characteristics of women and men on their respective housing experience. Regression model is used to examine whether there are gender differences in the effects of the socio-economic characteristics of women and men on their respective housing experience. The model is of the form:

$$Y_1 = a_i + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Where

$Y$  = Dependent variable – Housing experience as measured by the impact of housing stressors, that is, housing attributes that could be stress-inducing on the physical well-being of women and men. This is indicated by the standardized regression scores value for each of the cases in the sample.

$a_i$  = base or multiple regression constant referred to as  $Y$  intercept

$b$ 's = regression coefficients or unknown parameters which indicate the change in  $Y$  per unit change in the explanatory variables

$X$ 's = Independent variables – Socio- economic variables which are: economic characteristics (household income, educational level, and occupation); family characteristics (age, household size, number of children, number of children schooling); and social characteristics (responsibility in the household)

$e$  = error terms or residuals



The three socio-economic characteristics used as independent variables (X1, X2, and X3) are: economic characteristics, family characteristics and social characteristics. The indicators of economic characteristics used are household income, educational level and occupation, while those of the family characteristics used are: household size, number of children, stage in the life cycle, number of children in the pre-post secondary school, and age. The variable for social characteristics is the responsibilities for the overall housework and childcare of women and men in the household (Table 8.11). The dependent variable (Y) - the housing experience - is measured as impacts of housing stressors (high cost/rent, housing discomfort, lack of space, physical condition of housing and dissatisfaction with housing) on the physical well-being of women and men.

Table 8.11: Definition of Socio- economic variables

Code	Variables	How measured
<b>1</b>	<b>Economic characteristics</b>	
X1	Household income	Amount in Naira
X2	Highest educational level of the woman	1 if post secondary education
X3	Highest educational level of the man	1 if post secondary education
X4	Occupation of the woman	1 if skilled workers, or white collar workers or administrative/professional
X5	Occupation of the man	1 if skilled workers, or white collar workers or administrative/professional
<b>2</b>	<b>Family characteristics</b>	
X6	Age of the woman	Total in years
X7	Age of the man	Total in years
X8	Household size	Total number
X9	Children number	Total number
X10	Number of children schooling	Total number
X11	Stage in the life cycle	Age of the youngest child
<b>3</b>	<b>Social characteristics</b>	
X12	Woman's responsibility in the household	1 if woman is responsible for the overall housework and childcare
X13	Man's responsibility in the household	1 if man is responsible for the overall housework and childcare

The correlations coefficients among the socio-economic variables used in the analysis are shown in table 8.12 (women) and table 8.13 (men).

Table 8.12: Correlation Coefficients among the socio- economic variables of women

Variable	X1	X2	X4	X6	X8	X9	X10	X11	X12
X1 Household income	1.000								
X2 Highest Educational level	.008	1.000							
X4 Occupation	-.079	.528	1.000						
X6 Age	.296	-.088	-.229	1.000					
X8 Household size	-.069	-.224	-.265	.298	1.000				
X9 Children number	.052	-.237	-.248	.282	.691	1.000			
X10 Number of children in schooling	-.074	-.109	-.060	-.056	.602	.388	1.000		
X11 Stage in the life cycle	-.074	-.043	-.206	.628	.081	.118	-.290	1.000	
X12 Responsibility in the household	-.008	-.127	-.066	.105	.055	.055	-.028	.107	1.000

Source: Field survey, 2001

Table 8.13: Correlation Coefficients among the socio- economic variables of men

Variable	X1	X2	X4	X6	X8	X9	X10	X11	X12
X1 Household income	1.000								
X2 Highest Educational level	.377	1.000							
X4 Occupation	.234	.314	1.000						
X6 Age	.016	-.028	-.241	1.000					
X8 Household size	-.069	-.187	-.242	.495	1.000				
X9 Children number	.052	-.202	-.230	.356	.691	1.000			
X10 Number of children in schooling	-.074	-.103	-.071	.064	.602	.388	1.000		
X11 Stage in the life cycle	-.074	-.021	-.184	.524	.081	.118	-.290	1.000	
X12 Responsibility in the household	-.094	-.070	-.104	.040	.086	.049	.034	-.123	1.000

Source: Field survey, 2001

These tables show that there is no serious multi-collinearity occurring between the independent variables (Ayeni, 1994; Oyesiku, 1995; DeVaus, 1996 etc). The highest correlation coefficient is 0.691 between the household size and the number of children which is less than 0.80 which is the rule of thumb for serious collinearity or multi-collinearity (Ayeni, 1994:73) among variables. Therefore, there is no serious multi-collinearity occurring among the independent variables. R-Square Change is another way of assessing the relative importance of independent variables. A large change in R-Square indicates that a variable provides unique information about the dependent variable that is not available from the other independent variables in the equation. R-Square Change value tells only how much R-Square increases when a variable is added to the regression equation.

The effects of the socio-economic characteristics (as indicated by the proportion of the variance explained by each of the socio-economic characteristics - R-Square Change) on the housing experience of women are shown in Tables 8.14, while those of the men are shown in Table 8.15.

Table 8.14: Effects of socio-economic characteristics on women's housing experience

Model	Variable Name	Level of Explanation (R-Square Change) (%)	R-Square	Std. Error	F-Change	Sig. F Change	Multiple Stepwise Regression ANOVA Result	
							F-value	Sig.
1	Economic characteristics	17.4	.174	.89641	40.748**	.000	40.748**	.000
2	Family characteristics	2.7	.201	.88537	3.916**	.002	18.111**	.000
3	Social characteristics	2.3	.224	.87308	17.326**	.000	18.481**	.000

\*\* Significant at  $p < .01$ 

Source: Field survey, 2001

Table 8.15: Effects of socio-economic characteristics on men's housing experience

Model	Variable Name	Level of Explanation (R-Square Change) (%)	R-Square	Std. Error	F-Change	Sig. F Change	Multiple Stepwise Regression ANOVA Result	
							F-value	Sig.
1	Economic characteristics	10.9	.109	.94907	22.258**	.000	22.258**	.000
2	Family characteristics	2.4	.132	.94069	2.961*	.012	10.347**	.000
3	Social characteristics	0.1	.134	.94078	.895	.345	9.295**	.000

\*\* Significant at  $p < .01$ \* Significant at  $p < .05$ 

Source: Field survey, 2001

The analysis of variance (ANOVA) of the multiple stepwise linear regression models shows that the F- value of each of the stepwise multiple linear regression models is significant at  $p < .01$  (Tables 8.14 and 8.15). This implies that the overall regression model is significant. In essence, this means that all the independent or explanatory variables taken together can be used to explain housing experience of women and men. In essence, this implies that there is a relationship between housing experience of women and men and their socio-economic characteristics. The low value of R-Square may be an indication of other variables that have effect on physical well-being. Nevertheless, in the present study, the main interest is the relative effects of each of the socio-economic characteristics on the housing experience of women and men. This is clearly seen in Tables 8.14 (women) and 8.15 (men).

The most important and the most significant variables in the case of the women are the economic characteristics, followed by family characteristics and the social characteristics in that order, and are significant at  $p < .01$ . In the case of the men, the most important and the most significant variables are economic ( $p < .01$ ) and family characteristics ( $p < .05$ ). Gender difference is observed in the impacts of each of the socio-economic characteristics. The relative impacts of each of the socio-economic characteristics as shown by the R-Square Change of women are higher than those of the men (see Fig. 8.3).

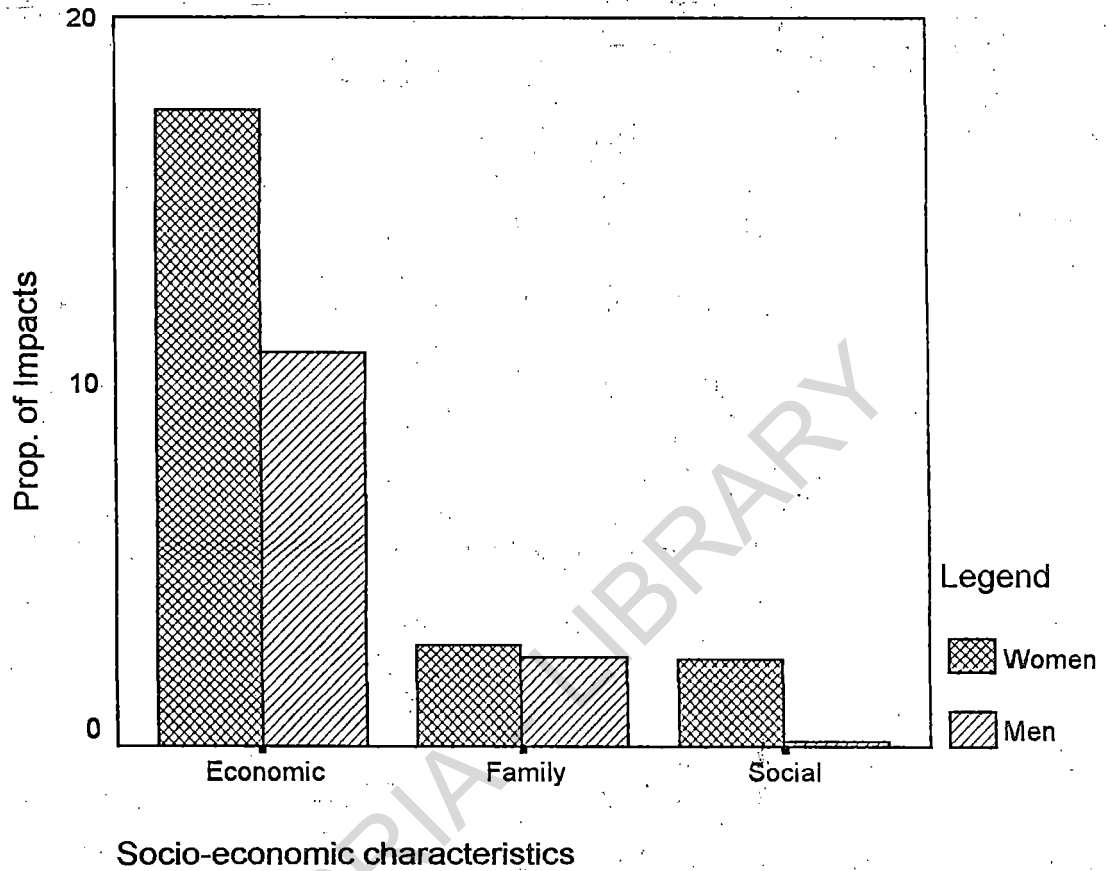


Fig. 8.3: Effects of socio-economic characteristics on the housing experience gender-wise

This implies that socio-economic characteristics have more effects on women's housing experience than that of the men. Therefore, we reject the null hypothesis which states that there is no significant relationship between the housing experiences of women and men and their socio-economic characteristics, and that no gender differences exist in the effects of the socio-economic characteristics and housing experiences of women and men. These results may be due to the fact that housing is a bundle of services and so it

varies in quality. The amount of it consumed depends on the economic status. In addition, because women are the primary consumers and users of housing and associated infrastructure due to their gender roles/responsibilities, they spend more time in the house than men.

## 8.6 Summary

In this chapter we have examined gender differences and intra-urban variations in the impact of the housing stressors on the physical well-being of women and men as well as gender differences in the impact of the socio-economic characteristics on the housing experience (as measured by the impacts of the housing stressors on the physical well-being) of women and men. The result shows that in all the housing stressor variables used in the analysis, only the impact of the high rent/cost is found to be higher for men than for women. In all the other housing stressor variables, the impacts are found to be greater for women than for men. In the case of the women living with their husbands and the female-headed household, the result shows comparatively that each of the housing stressors has more impact on the female-headed household than on the married women living in the male-headed household.

The analysis of variance result shows that there is significant intra-urban variation at  $p < .01$  in the housing experience of women and men. This analysis of variance (ANOVA) result of women and men may be due to the fact that the city spaces have been shaped unequally. City spaces have been segregated through household income and the



pursuit of fragmenting urban policy. Thus there are high quality residential areas, medium quality residential areas and low quality residential areas. Most of the houses particularly in the traditional core area of Ibadan and in the non-traditional high density residential area are in a deplorable situation. Also in most of the neighbourhoods in the traditional core area of Ibadan and in the non-traditional high density residential areas, basic amenities and facilities are non-existent. In some other neighbourhoods where basic amenities and facilities are available, they do not function regularly and frequently.

In the case of the gender differences in the effect of the socio-economic characteristics of women and men on their respective housing experience, the result shows that for women, the effects of each of these socio-economic characteristics are significant at  $p < .01$ , while for men, only economic characteristics and family characteristics are significant at  $p < .01$  and  $p < .05$  respectively. The effects of the social characteristics on the housing experience of men are not significant. Also, gender differences are observed in the proportion of variance of women and of men housing experience accounted for by each of the socio-economic characteristics. The relative effects of each of the socio-economic characteristics as shown by the R-Square Change of women are higher than that of the men. This implies that socio-economic characteristics have more effect on women's housing experience compared to that of the men. These results may be due to the fact that housing being a bundle of services varies in quality. The amount of it consumed depends on the economic status of the user. In addition, because women are the primary consumers and users of housing and associated

infrastructure due to the prescribed gender roles/responsibilities, they spend more time in the house than men.

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## CHAPTER NINE

### SUMMARY AND CONCLUSION

#### 9.1 Summary of Findings

This study has undertaken a geographical analysis of gender issues in housing delivery in Ibadan, Nigeria. Housing delivery is conceived in the study as the process of housing provision starting from development to final consumption. In the study, we have examined the involvement of women in housing delivery, determinants of women involvement in housing delivery, women's satisfaction with the houses delivered, and gender differences in the impact of housing attributes on their activities. We also examined the impact of housing stressors, housing attributes that could be stress-inducing on the physical well-being of women and men as well as the impact of socio-economic characteristics on the housing experience of women and men.

With respect to women's involvement in housing delivery both perceived involvement, awareness or knowledge of housing development and actual involvement in housing development were examined. Six critical aspects of housing development which were examined are: land acquisition and preparation, housing design and planning, housing finance, actual construction of the building, production/procurement of the building materials, and housing maintenance. The general perception of women is that housing provisions are the responsibilities of male heads of household and is significant at  $p < .05$ . Significant intra-urban variation does not exist in the perception, awareness and

in the actual involvement of women in each of the critical aspects of housing development. However, among each of the critical aspects of the housing development women are found to be more involved in the housing maintenance activities and is significant at  $p < .05$ .

Also examined in the study is the extent of women's house ownership attempts as reflected in the applications for building plan registration (1991-1999) and certificates of occupancy (1989-1999) and gender differences in landownership, house ownerships and housing plot ownerships. Significant gender difference at  $p < .01$  is found in the applications for building plan registration and certificates of occupancy as well as in the ownership of land, ownership of houses and housing plots. More men than women are found to have applied for building plan registration and certificates of occupancy. Also men are found to own more plots of land, more houses and housing plots than women. Significant intra-urban variation at  $p < .05$  is found in women ownership of houses in Ibadan. Highest percentage of women house owners are found in the low density residential area and followed by the medium density residential area. Women in the low density residential area are more of the working and income earning group than those in the non-traditional high density or traditional core high density residential areas, hence their ability to own more houses than their counterpart in the non-traditional high density and traditional core high density residential areas.

In the study, the determinants of women's involvement in housing delivery were examined. The result of the multiple (stepwise) regression analysis shows that the most

significant and most important variables in the determinants of women's involvement in housing development are their aspiration and awareness and their socio-economic characteristics. These are followed by social support/network and physical support, responsibility in the household and the house cost/value. Each of these variables is found to be statistically significant at  $p < .01$  and together account for 60% of the variations in involvement of women in housing delivery. As indicated by the beta value, the most important socio-economic characteristics are age, educational level and income. Also as indicated by the beta value sign, women's involvement in housing development is found to vary inversely with their perception of housing development involvement and directly with their aspirations and awareness of various aspects housing development. It is also found to be inversely related to their responsibility in the household while it varies directly with the presence of househelp in the household, membership of associations that assist in housing related matters and neighbourhood facility conditions. Their involvement is also found to vary inversely with the cost/value of houses.

The study further examined women's satisfaction with the houses delivered as well as gender differences in the impact of housing on women's and men's activities. The findings show that there is significant intra-urban variation at  $p < .01$  in the satisfaction of women with houses delivered. Significant gender differences at  $p < .01$  are also found in the following aspects of housing structural units in which women and men are specially interested: living room, bedroom and kitchen. Men appear to be more interested in the living room than women while women appear to be more interested in the bedroom and

kitchen than men. Also significant gender differences at  $p < .01$  are found in the overall felt adverse effects of aspects of housing on women's and men's daily activities. Women felt more that their daily activities are adversely affected than men. Significant gender relationship is found between gender attributes and housing attributes at  $p < .01$ . The order of relative importance of the independent variables shows that house location distance to the various activities has the greatest impacts for both women and men. This is followed by housing unit condition and neighbourhood facilities/services condition. Gender differences are observed in the magnitude of the impact of housing attributes on women and men. While the impact of the house location distance is more on men than women, the impacts of the neighbourhood facilities/services and housing unit condition are more on women than men.

The study also examined intra-urban variations and gender differences in the impact of housing stressors on the physical well-being of both women and men as well as gender differences in the impact of the socio-economic characteristics on the housing experience (as measured by the impacts of the housing stressors on the physical well-being) of women and men. Significant intra-urban variations at  $p < .01$  are found in the impacts of the housing stressors on the physical well-being of both women and men. However, gender differences occur in the impacts of each of the housing stressors used in the analysis of their physical well-being. The impacts are found to be greater for women than for men in terms of housing stressors variables that is, lack of space, housing discomfort, physical housing condition and dissatisfaction with housing. The only

exception is the high rent/cost where the impact is greater for men than for women. In addition, each of the housing stressors has more impact on the female-headed households than on married women living in the male-headed households. There is significant relationship between women and men housing experience (as measured by the impacts of the housing stressors on their physical well-being) and their socio-economic characteristics. However, for women's housing experience, the effect of each of the socio-economic characteristics that is, economic characteristics, family characteristics and social characteristics which are defined as responsibility for the overall housework and childcare is significant at  $p < .01$ , while for men's housing experience, only the effects of economic characteristics and family characteristics are significant at  $p < .01$  and  $p < .05$  respectively.

## **9.2 Implications of the Study**

The findings in this study have implications for theory and methodology as well as for urban spatial planning and policy purposes as they relate to women empowerment in housing delivery.

### **9.2.1 Theory and Methodology**

Previous empirical and theoretical discussions in geographic literature assumed the universality of women's and men's experience. Robinson (1998) note that the human geography techniques and models, many of which originated within geography from the

pioneering studies in the 1960s, were applied in research that completely ignored gender. According to him, although there were references to consumers, decision-makers and heads of households, there was no attempt to distinguish between the different realities confronting men and women, and the differential power relations associated with gender (Jackson, 1990). Gender was largely a taken-for-granted variable and the different nature of women's lives was simply ignored.

This study, in line with various other recent geographical studies has sought to uncover women's experiences of geographical phenomena. This approach has thrown into sharp focus the different types of experience of geographical phenomena by men and women. In fact, Carter (1995) argues that gender as represented by 'he' or 'she' will produce different reactions to city space. Therefore, it is important to integrate gender consideration into geographical theory and methodology. This is because, by focusing solely upon the male view, not only were women's views being marginalized but vital aspects of people-place interaction are simply ignored (Robinson 1998).

It is undeniable that gender relations play a central role in every aspect of social activity and relationship. The analysis of gender relations and gender roles is fundamental to a thorough understanding of the causal relationship between women's and men's actions and socio-spatial structures such as cities. These relations are central to the allocation of resources, facilities and opportunities in the city, which are in turn essential to the structuring of urban space. As such, it is crucial that a consideration of gender forms part of urban models. Gender relations are not constant over time or space, and as



gender relations are reflected in the spatial structure of cities, it follows that the spatial structure of cities varies over time. The particular form that gender relations and gender roles take at any moment in time is manifested in the concrete appearance of space. The location of residential areas, work places, transportation networks; the layout of the urban city, reflects a patriarchal capitalist society's view of what types of activities take place where, when and by whom. In this way, the city perpetuates the social processes that it reflects spatially. Therefore, the reality that gender is one of the interpretive lenses influencing our relationship to space means that empirical and theoretical discussions should be gender sensitive.

### ***9.2.2 Urban Spatial Planning and Policy***

The contemporary urban pattern is such that spaces are shaped unequally. There has been the pursuit of fragmenting urban policy. An interesting aspect of this division with respect to residential pattern is the division as expressed through the household income. Byrne (1999) in his article on "Divided Spaces: Social Division in the Post-industrial City" notes that with income, the rich are separated from the rest of us and with space, it is the poor who are separated off. The pursuit of fragmenting urban policy, with the resultant increasing separation of spheres of work and home, have implications for the issues of transport and accessibility, coupled with that of local service provision which are critical to women's lives. The increasingly vital role of women in the labour market is not reflected in the planned environment of cities and towns. Access to services and

employment in the cities and towns assumes traditional roles. This is evident in the lack of appropriate nursery and public transport provision and in the physical layout of the cities and towns. Low or inadequate service provision and gender blind design have hitherto hindered women's social as well as physical access.

Most studies of residential landuse in Nigerian cities have identified three major categories of residential landuse which are distinct in social and physical patterns. There are low, medium and high quality residential landuse areas. While the high quality residential landuse areas have the common characteristics of being well-planned the opposite is the case with the low quality residential landuse areas. The most distinguishing feature of the low quality residential landuse areas is that they have never been planned in most cases. Consequently, houses have been built without reference to a street network. In some of the modern forms, a significant proportion of the low quality residential landuse districts are planned with a grid pattern and network of roads. Nevertheless, the standard of housing construction is low, and most of such residential landuse districts lack basic amenities and facilities that make housing environment a convenient place to live. This study has shown that even though both women and men are affected by the housing condition, the effect on women is more due to their expected roles and responsibilities in the households.

Therefore, in order to address the situation, there is the need to carry out spatial engineering which Okafor (2000) terms "spatial manipulation" of the residential environments but with gender sensitivity. In other words, and as Filani (1999) identifies

in the challenge to the future of geography, there is the need to organize and re-organize space within the dwelling unit and the dwelling environments in such a way that is gender sensitive. Hitherto, the focus of professionals engaged in the business of creating dwellings and dwelling environments has been on households defined and interpreted more often as household heads, whereas women are the primary and major consumers and users of these environments. For instance, it is common for the architect, in preparing a programme of requirements for the design of owner-occupied residences, to involve in the process, only the household head (usually a man) who has commissioned him to design a house. Little or no importance is attached to the specific requirements, values, roles and attitudes of women with respect to both the dwelling and its environment. To carryout spatial engineering in such a way that is gender-sensitive can only be achieved by approaches to planning and design that are more gender-conscious and sensitive. Such approaches to planning include participatory approach and open-ended 'supports' approach.

Participatory approach considers the participation of the user in the design process as a fundamental principle of design if the environment is to reflect the needs and aspirations of its users. It is an approach in which women would actively participate in the design and planning of their residential environment. Planners and Architects would have the opportunity to be enlightened by women about the kinds of environments they would want to live in as well as the values they hold about different aspects of the residential environment. Participation should be encouraged at all stages of designing

residential environment. The concept of open-ended 'support' is based on the premise that design should be flexible enough to accommodate changes according to the users' specific requirements. The potential of flexibility is of great benefit especially with rapidly changing gender roles and attributes in a developing society as ours. More importantly each woman has the opportunity to modify and complete her home environment to suit her requirement.

The need for gender-conscious and sensitive spatial engineering even becomes more imperative with the fact that there has been a continuing process of separation of spheres of work and home. There is the need for the upgrading of the residential areas. Roads and other basic amenities and facilities need to be provided where they are non-existent and also made functional where they are no more functioning.

Women should be encouraged to be involved in the planning interventions in the urban problems. This is because, in almost all aspects of the urban problem, women would most benefit from improvements. Tasks such as collecting drinking water and fuel, cooking and washing, keeping homes and land tidy, getting rid of waste, keeping up allotments, bringing up children and caring for the sick and invalids in the home usually fall on their shoulders. Hitherto, just as it is taken for granted that women should be responsible for these tasks, it is also assumed that women do not need to be involved in planning interventions in these areas. This perspective to urban planning and policy must change. The needs and priorities of women must be taken into account when neighbourhood improvements and basic facilities are being prepared.

As emphasized by Kolstee et al (1994), women should be the starting point of plans for landuse, routes to schools and markets, child care centers and local family and healthcare centers, and the location and layout of collective drinking water and sanitary facilities, collection points for domestic waste and facilities in the home ranging from ventilation in kitchens to space for a cottage industry that can supplement the household's income.

Man, naturally, would like to follow the line of least resistance and expend minimum efforts in reaching his goals. In an urban planning setting, the goal is achieving distance/cost minimization in the pursuit of shopping, recreation, schooling and urban activities system. In urban planning, it is desirable to decentralize through the ordering of urban activities and services in a hierarchical manner to ensure utilities maximization and distance minimization. Greater attention should be given to the development of neighbourhood parks, shopping centers, corner shops and other lower order services as a matter of deliberate physical planning policy. Also, as a matter of urgency, the master plan of the Ibadan metropolis should be revised, (as it is already outdated) in order to incorporate the suburban development, upgrading of the decaying neighbourhoods and, above all, meet the needs of the dynamic population of the city.

Since women are the major and primary consumers and users of shelter and infrastructure, there is the need to increase the enlightenment and raise the consciousness of women, particularly the illiterate women, on issues relating to sanitation, hygiene, and other public health matters. Of course, policies geared towards improving the number of

females going to school should be pursued. Observation from the literature shows that educated women live a better quality of life than uneducated women. Women enlightenment and education generally on their need to be involved in discussions and activities in housing development are recommended. At the individual household level, there is a social aspect of housing which can be negotiated and re-negotiated when it is necessary. This has to do with choice of house locations vis-à-vis activity pattern locations of women and men.

In summary, to obtain improved housing for women, there is the need to adopt the design and planning approaches to dwellings and dwelling environments that are more gender-conscious and sensitive. There is the need to device programmes to improve infrastructure for water, energy supply, sanitation, transportation, education and employment so that women's burden of work is reduced, enabling them to contribute more to the development process. Also, there is the need to design and construct on a self-help basis, houses specifically geared to meeting the physical requirements of women in maintaining family life and home-based income-generating activities. In addition, there is the need to improve neighbourhood facilities to provide an adequate and safe environment.

### ***9.2.3 Women Empowerment in Housing Delivery***

Empowerment here means enabling women to act or perform effectively. In this regards women need to be equipped with necessary skills, tools, and resources so that

they can be effective participants in the process of housing delivery. The study suggests that strengthening the participation of women as professionals and developers will enhance women empowerment in housing delivery. This can be achieved through improved access to adequate education and training, employment, provision of social support/network and a reorientation of women's mindset about responsibility for housing provision. There is also the need to deliberately reduce the cost of acquiring and building houses. Furthermore, there is the need to formulate housing policies and strategies at the national level that specifically recognize the role of women both as agents and beneficiaries in the housing development programmes.

### **9.3 Areas for Further Research**

This study investigated variations in the involvement of women and men in housing development, and the determinants of women's involvement in housing development decisions. The study also examined variations in the level of women's satisfaction with the houses delivered, and gender differences in the impact of housing on the activities of women and men. Furthermore, it examined the impact of housing stressors, housing attributes that could be stress-inducing on the physical well-being of women and men. With the increasing separation of work and home spheres, further research is needed on the linkages between transport and housing particularly of the urban poor. Such study will provide useful information for the development of a range of policies which will alleviate the intra-urban mobility problems of both women and men.

Furthermore, further research could also be directed at investigating the ideologies, policies and activities of the various agencies and professional mediators of housing supply as these affect women.

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## APPENDICES

### Appendix 3.1 Questionnaire

DEPARTMENT OF GEOGRAPHY  
UNIVERSITY OF IBADAN  
IBADAN

#### HOUSEOLD QUESTIONNAIRE

A GEOGRAPHIC ANALYSIS OF GENDER ISSUES IN HOUSING DELIVERY IN A  
DEVELOPING COUNTRY: A CASE STUDY OF IBADAN METROPOLIS NIGERIA

#### IDENTIFICATION

1. Identification No. ....
2. (i) Name of Residential Area .....
- (ii) Residential Density: Low            Medium            High
- (iii) Location of House: No ..... Street ..... Neighbourhood.....

INSTRUCTION: The woman is to answer Questions 3-124

#### A. SOCIO-ECONOMIC/DEMOGRAPHIC CHARACTERISTICS

3. Sex:    Male                                  Female
4. How old were you on your last birthday?.....
5. How old is your spouse (If any)? .....
6. Marital status
  - (i) Never married
  - (ii) Married

(iii) Separated

(iv) Divorced

(v) Widowed

7. If married, which of the following best fits your family

(i) Monogamy: Husband, wife, siblings and other members

(ii) Polygamy: Husband, wives, siblings and other members

8. If polygamy, how many are the housewives in the household? .....

9. What is your position in question 8 above? .....

10. What is your religion?.....

11. What is your ethnic origin?.....

12. What is your state of origin and town? State of origin: .... Town.....

13. Have you ever attended school? Yes No

14. What is the highest educational qualification obtained?

	Response	
	Yourself	Your spouse (If any)
i. Koranic		
ii. Primary school		
iii. Secondary school		
iv. Colleges of Education		
v. Modern/Teacher Training School		
vi. Polytechnic		
vii. University		

## 15. Occupation

	Yourself	Your spouse
1. Unskilled workers (messengers, postmen, labourers, vendors, factory workers, shop attendant etc).		
2. Traders		
3. Agriculture (farmers, hunters, fishermen etc.)		
4. Skilled workers (mechanics, drivers, blacksmiths, tailors, shoemakers, carpenters, hairdressers etc.)		
5. White collar workers (clerical officers; typists, salesworkers, teachers, nurses etc.)		
6. Administrative/Professional(Doctors, Engineers, Layers, Economists, Statisticians etc.		
7. Retired/Pensioners		

## 16. Monthly Income

Monthly Income	Yourself	Your spouse (If any)
Below N5,000		
N5,001 – N10,000		
N10,001 – N15,000		
N15,000 – N20,000		
Above N20,000		

## 17. Number of vehicles in the household:

Bicycle .... Motorcycle ..... Pickup Vans..... Cars .....

Lorries ..... None ..... Others (specify) .....

## 18. If there is only one car in the household who takes the car to workplace

most: Yourself      Your spouse



19. What is the size of your household? .....
20. How many children are in your household? .....
21. How old is the youngest child? .....
22. Do you belong to any association                      Yes                      No
23. If yes, do the association(s) you belong assist you in any way with respect to your housing related issues?
24. If yes, in what form is this assistance? Tick ( ) as appropriate
- (i) Loan
  - (ii) Assist to acquire land
  - (iii) Assist to acquire building materials
  - (iv) Assist in the actual construction
  - (v) Others (specify) .....
25. From your own view, whose responsibility is household housing provision?
- (i) Man only
  - (ii) Woman only
  - (iii) Man wholly but with woman partially
  - (iv) Man and woman equally
26. What is your perception of the building activities?
27. How many of your children are in
- (i) Nursery school .....

(ii) Primary school .....

(iii) Secondary school .....

28. Do you have a housemaid?      Yes                      No

**B. INVOLVEMENT IN HOUSING DEVELOPMENT INFORMATION**

29. Do you own land?                                      Yes                      No

30. If yes, how many plots.....

31. Does your spouse own land?                      Yes                      No

32. If yes, how many plots? .....

33. Do you have a house?                                      Yes                      No

34. If yes, how many? .....

35. Does your spouse have a house?      Yes                      No

36. If yes, how many? .....

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37. State the type of house and the number

Type of House	Total Number		Number of built by self	Number built by you and your spouse	Number inherited (Woman's family side)	Number of inherited (Man's family side)
	Your self	Your spouse				
i. Rooming home (Bungalow)						
ii. Flats						
iii. Duplex						
iv. Storey						
v. Mansion						
vi. Traditional building (compound type)						

38. Have you started developing your land?                      Ye      No

39. Has your spouse started developing his/her land?    Yes                      No

40. What do you intend to do with your land?

(i) Residential building .....

(ii) Commercial building .....

(iii) Re-sell .....

(iv) Others (specify) .....

41. What does your spouse intend to do with his/her land?

- (i) Residential building
- (ii) Commercial building
- (iii) Re-sell
- (iv) Others (specify) .....

42. If you don't own a land or a house, do you want to own a land/house?

Yes No

43. If yes, how do you want to procure money for it?

.....  
.....

44. Will you be willing to build a house on your own alone?

Yes No

45. If no, why?

.....

46. If you are to assess your self as you are at present can you build a house on your own?

Yes No

47. If no, why?

.....

48. If you want to own a house, how do you want to go about it?

.....

49. If you belong to any community association, who represents the household at the meeting?
- (i) Man only
  - (ii) Woman only
  - (iii) Others (specify) .....
50. Of all the rooms and the facilities in the house, which of the following do you take special interest in?
- (i) Living room
  - (ii) Bedroom
  - (iii) Kitchen
  - (iv) Bathroom
  - (v) Toilet
  - (vi) Parking space/garage
  - (vii) Others (specify) .....
51. In determining the choice of a house to rent, what aspect of the house fascinates you most?
- (i) Kitchen
  - (ii) Bedroom
  - (iii) Living room
  - (iv) Toilet

- (v) Garage/parking space
- (vi) Bathroom
- (vii) Others (specify) .....

52. Tick ( ) any of the following as it applies to your knowledge and involvement in the development and maintenance of your family house (if there is any)

Variable	Knowledge		Involvement		
	Know	Don't Know	Wholly involved	Partially involved	Not involved
Land purchase					
Land preparation					
Production of building materials					
Finance of building					
Actual construction					
Design of building					
Planning to build					
Housing structural defects repairs					
Housing non-structural repairs					
Housing preventive maintenance					
Housing improvement					
Housing modernization					
Security within the house					

53. In the design of your family house (if any), did you comment on any of the following with respect to their size?

- |                        |     |    |
|------------------------|-----|----|
| (i) Kitchen size       | Yes | No |
| (ii) Bedroom size      | Yes | No |
| (iii) Living room size | Yes | No |
| (iv) Toilet size       | Yes | No |
| (v) Bathroom size      | Yes | No |

(vi) Garage/Parking space size      Yes                      No

54. From your perception and the knowledge of your culture, tick ( ) any of the following as it applies to the role/participation/involvement of women/men in the following housing development activities.

Involvement of Women/Men						
	Men only	Women only	Men and Women equally	Women partially	Women rarely	Women never
i. Land purchase						
ii. Land ownership						
iii. House ownership						
iv. Home provision whose responsibility						
v. Access to land						
vi. Control of landed property						
vii. Actual building construction						
viii. Foundation laying						
ix. Making of blocks						
x. Plastering						
xi. Painting						
xii. Roofing						
xiii. Site cleaning						
xiv. Design of building						
xv. Planning of building						
xvii. Production of building materials						
xviii. Choice of home location						
xix. Housing structural defects repairs						
xx. Housing non-structural repairs						
xxi. Housing preventive maintenance						
xxii. Housing improvement						
xiii. Housing modernization						

55. How will you describe the stages involved in housing development process?

- .....
- .....
56. In your own opinion, what are the limitations to women's participation in the housing (development) process?

- .....
- .....
57. What are the strategies for ensuring greater women participation in housing development?
- .....
- .....

C. ACTIVITY PATTERN INFORMATION

58. Tick ( ) as appropriate any of the following a its part of your daily activities

Daily Activities	Often	Not often	Not at all
1. Going to work place			
2. Shopping			
3. Taking the child to childcare center			
4. Taking the children to school			
5. Going to recreation center			
6. Going to religious centre			
7. Getting rid of household waste			
8. Fetching water			
9. Cooking			
0. Cleaning the house and the surroundings			
11. Domestic activities generally			
12. Childcare			



Others (specify) .....

58. Which of these activities are adversely affected by the general condition and location of your house?

Daily Activities	Often	Not often
1. Going to work place		
2. Shopping		
3. Taking the child to childcare center		
4. Taking the children to school		
5. Going to recreation center		
6. Going to religious centre		
7. Getting rid of household waste		
8. Fetching water		
9. Cooking		
10. Cleaning the house and the surroundings		
11. Domestic activities generally		
12. Childcare		

60. Where you are adversely affected. Specify which of the following aspects of housing affect you most. Tick ( ) as appropriate.
- (i) Home location distance to some activity is too far
  - (ii) Kitchen space too small
  - (iii) Power supply not regular
  - (iv) Drinkable water supply is scarce
  - (v) Washing water is scarce
  - (vi) Neighbourhood road is bad
  - (vii) Lack of space for income generating activities
  - (viii) Lack of adequate living space
  - (ix) Others (specify) .....

61. Please fill in all the number of your trips made as in the table below for the immediate past week. Note: A trip is one way travel to a point from another point for a particular purpose.

Days of the week	Work	Children school	Childcare	Recreation	Shopping	Religion	Fetching of water	Getting rid of household waste or refuse
Monday								
Tuesday								
Wednesday								
Thursday								
Friday								
Saturday								
Sunday								

62. Who is responsible for the following in your household?

Responsibility	Woman only	Woman with man helping	Shared equally	Man with woman helping	Man only
Housework					
Caring work e.g. childcare					
Taking children to school/childcare					
Household service work and kin work					
Financial management					
Household subsistence					
Overall responsibility for housework and childcare					

## D. LOCATION INFORMATION

63. Please give the name of the street and the area of the city where each of the following are situated.

	Street/Name Where necessary	Area of the City	Commuting Cost (N)	Commuting Time
Your workplace				
Your spouse's workplace				
Your children's nursery school				
Your childcare center				
Your children's primary school				
Your children's secondary school				
Solid waste depot where you use to dump your refuse				
Name and location of regular shopping center or market for foodstuffs				
Location of regular recreation center				
Name and location of spouse's regular recreation center				
Name and location of religious center visited on a regular basis				
Name and location of a health facility visited on a regular basis				

64. Is this location of your house convenient from your point of view to
- |       |                                |     |    |
|-------|--------------------------------|-----|----|
| (i)   | Your work place                | Yes | No |
| (ii)  | Your spouse workplace          | Yes | No |
| (iii) | Your child's childcare center  | Yes | No |
| (iv)  | Your children's nursery school | Yes | No |
| (v)   | Your children's primary school | Yes | No |

(vi) Your children's secondary school    Yes                  No

65. Compared to your spouse, will you say that you are experiencing difficulties than your spouse in carrying out your activities with respect to your house location.                  Yes                  No

66. If yes, do you consider your present residence more convenient for your than the previous one you lived before?                  Yes                  No

67. In the choice of your current residence, tick ( ) the most important factor that you consider?

Convenience to your job

Convenience to spouse's job

Convenience to your job and spouse's job equally required

Close to childcare

Close to children's school

Design of the house

Age of the house

Facilities available in the house

General condition of the house structure

General condition of the neighbourhood

The location of the house

68. In the choice of your current residence

	Who decided to locate/relocate residence here?	Who defined the search space?	Who actually choose this particular home or land location?
Woman only			
Man only			
Woman and man			
Relatives			
Friends			

69. How will you describe the distance between your house and the following places you use to go?

Activity Areas	Response	
	Far	Not far
(i) Workplace		
(ii) Shopping center		
(iii) Religious center		
(iv) Recreation center		
(v) Children's school		
(vi) Childcare center		
(vii) Where you go to fetch water		
(viii) Where you go to dispose solid waste		
(ix) Where you go to get firewood		

### E. NEIGHBOURHOOD CHARACTERISTICS

70. How will you describe your neighbourhood?

Neighbourhood Attributes	Response					
	Condition		If bad, does the condition bother you		If bad, is it so objectionable that you would like to move from the neighbourhood	
	Good	Bad	Yes	No	Yes	No
Neighbourhood road quality						
Garbage collection						
Neighbourhood public transport						
Neighbourhood state of cleanliness						
Neighbourhood street light						
Neighbourhood state of security						
Neighbourhood crime level (low or high)						
Neighbourhood pollution e.g. noise from traffic, odours, smoke or gas (low or high)						
Neighbourhood water supply						
Interpersonal relations among neighbourhood						
Neighbourhood school quality						
Neighbourhood shops						
Neighbourhood drainage system						
Neighbourhood power supply						
General condition of neighbourhood						

### F. STRUCTURAL CHARACTERISTICS OF THE HOUSE

71. What type of house are you living in?

- (i) Rooming apartment i.e. face me I face you
- (ii) Flat
- (iii) Duplex
- (iv) Bungalow
- (v) Storey building
- (vi) Mansion
- (vii) Traditional building compound type housing

72. Who built the house you are living in presently?

- (i) Rented
- (ii) Husband only
- (iii) Wife only
- (iv) Husband and Wife
- (v) Husband's family
- (vi) Wife's family
- (vii) Friends
- (viii) Government
- (ix) Others (specify) .....

73. If story building, how many floors are there in this building? .....

74. If flats, how many? .....

75. If you are living in a storey building, which floor are you occupying?  
.....

76. If house is rented, what is the sex of the landlord?

Male                      Female

77. How much are you paying as rent per month and year?

Month (N).....

Year (N) .....

78. Who pays for the following?

Item	Men only	Women only	Man and woman share it	Others (specify)
i. House rent				
ii. Water supply				
iii. Electricity				
iv. Security				
v. Waste disposal				

79. If man and woman share it, how will you describe the sharing?

- (i) Equal halves
- (ii) Woman only contribute about one-thirds of the rent
- (iii) Woman only contribute about one-quarter of the rent
- (iv) Woman only add whatever amount she could afford
- (v) Others (specify).....

80. What is the approximate age of this building?

81. How many rooms, excluding kitchen and utilities are in the building?

82. How many bedrooms are there in this building? .....

83. How many rooms are actually occupied by this household?.....

84. How many households are living in this building? .....

85. How many bathrooms are there in this building?.....

86. How many kitchen are there in the building?.....

87. How many lavatories are there in the building?.....

88. Is/are your lavatories water system operated?

Yes                      No

89. Are essential facilities (such as bathrooms, lavatories, kitchen etc) shared between your household and other households in this building?

Yes                      No

90. What is your main source of power supply?

Electricity                      Other

91. Is/are there any garages for parking car?                      Yes                      No

92. Does your house have a fence surrounding it?

Yes                      No

93. Does your house have a hedge surrounding it?

Yes                      No

94. Does your house have a balcony/corridor/verandah either at the front or backyard?

Yes                      No

95. What materials is your roof made of?

(i) Corrugated iron sheet

(ii) Asbestos sheets

96. What materials are the walls of your house?

Mud blocks                      Cement blocks

Others (specify.....)

97. Are there any cracks in the walls of your house?

Yes                      No



98. Are there any cracks in the floors of your building?

Yes No

99. Is your roof generally looking old/leaking and needs repairs?

Yes No

100. Do the walls of your house need repainting?

Yes No

101. Does your house need general repairs?

Yes No

Questions 101 and 102 should be determined by the enumerator if the respondent is not sure.

102. What is the approximate size of your flat or compound? .....

103. What is the approximate size of the floor space of your building? .....

104. How will you describe the prevalence of pests (e.g. cockroaches, rats, etc.) in this house?

Yes No

105. Indicate whether you are strongly dissatisfied, dissatisfied, satisfied or strongly satisfied with the following aspects of your house.

Aspects of housing	Strongly dissatisfied	Dissatisfied	Satisfied	Strongly satisfied
Kitchen				
Balcony/corridor/Verandah				
Backyard				
Bathroom				

Toilet				
Ventilation				
Drinking water				
Washing water				
Noise				
Smell				
Safety				
Power supply				
Courtyard				

106 At home do you have as much privacy as you want? Tick ( )

- (i) Usually
- (ii) Sometimes
- (iii) Rarely
- (iv) Never

107. Indicate whether you strongly agree, agree, disagree or strongly disagree with the following as experienced to your house.

Experience	Strongly agree	Agree	Disagree	Strongly disagree
i. At home, there are too many people around				
ii. In this house, I have almost no time alone				
iii. In my house people get in each others way				
iv. At home, I don't have enough room to do things conveniently				

G. PHYSICAL WELL-BEING INFORMATION

108. Within the past month, was there any time when you were so sick that you could not work for two or more consecutive days

Yes

No

109. If yes, how many times did that happen .....

110. How many days in the past month were you so sick that, you could not work? .....

111. Within the past month, was there any time when you went so sick that you could not even get out of bed for two or more consecutive days.

Yes

No

112. If yes, how many times did that happen? .....

113. How many days in the past month were you so sick that you could not even eat well? .....

114. Indicate the degree of sickness in the past month. Tick ( )

- (i) Too sick to work, get out of bed and eat at some point during the past months.
- (ii) Too sick to work and either too sick to get out
- (iii) of bed or too sick to eat at some point during the past months.
- (iv) Too sick to work at some point during the past months, but never too sick to get out of bed or eat.
- (v) Not sick during the past months



122. Within the past months, indicate whether you have experienced any of the following symptoms/diseases and the degree of the experience

Symptoms/disease	Yes	No	If Yes, indicate the degree of the experience	
			Slight	Severe
Persistent cough				
Persistent wheeze				
Persistent blocked nose				
Persistent breathlessness				
Persistent respiratory				
Skin infections/diseases e.g eczema, rashes etc				
Persistent tiredness or body weakness of feverish or feeling hot internally				
Malaria				
Persistent headache				
Persistent feeling like vomiting/stooling or actually vomit and pass stool				
Cholera				
Diarrhea				

#### H. PSYCHOLOGICAL DISTRESS INFORMATION

123. Indicate how often you experienced the following kinds of feelings during the previous few weeks

	Often	Sometimes	Rarely	Never
(i) Anxious about something or someone				
(ii) That people are trying to pick quarrels or start argument with you				
(iii) So depressed that it interferes with your daily activities				
(iv) That personal worries are getting you down physically ill				
(v) Moody				
(vi) Felt you were confused				
(vii) Are you ever bothered by nervousness i.e by being irritable fidgety or tense				

(viii) Do feel that nothing ever turns out for you the way you want it to				
(ix) Do you have trouble concentrating or keeping your mind on what you are doing				

124. Are you the worrying type you know a worrier? Yes No

**Questions 125 – 137 are exclusively for the spouse.**

125. Tick ( ) as appropriate any of the following as its part of your daily activities.

Daily Activities	Often	Not Often	Not at all
1. Going to work place			
2. Shopping			
3. Taking the child to childcare center			
4. Taking the children to school			
5. Going to recreation center			
6. Going to religious center			
7. Getting rid of household waste			
8. Fetching water			
9. Cooking			
10. Cleaning the house and the surroundings			
11. Domestic activities generally			
12. Childcare			

Others (specify) .....

126. Which of these activities are adversely affected by the general condition and location of your house?

Daily Activities	Adversely Affected	Not Affected
1. Going to work place		
2. shopping		
3. Taking the child to childcare center		
4. Taking the children to school		
5. Going to recreation centre		
6. Going to religious center		
7. Getting rid of household waste		
8. Fetching water		

9. Cooking		
10. Cleaning the house and the surroundings		
11. Domestic activities generally		
12. Childcare		

127a. Of all the rooms and the facilities in the house which of the following do you take special interest?

- (i) Living room
- (ii) Bedroom
- (iii) Kitchen
- (iv) Bathroom
- (v) Toilet
- (vi) Parking space/garage
- (vii) Others (specify) .....

127b. Indicate whether you are strongly dissatisfied, dissatisfied, satisfied or strongly satisfied with the following aspects of your house.

Aspects of housing	Strongly dissatisfied	Dissatisfied	Satisfied	Strongly satisfied
Kitchen				
Balcony/corridor/Verandah				
Backyard				
Bathroom				
Toilet				
Ventilation				
Drinking water				
Washing water				
Noise				
Smell				
Safety				
Power supply				
Courtyard				

128. In determining the choice of a house to rent, what aspect of the house fascinates you most?

- (i) Kitchen
- (ii) Bedroom
- (iii) Living room
- (iv) Toilet
- (v) Garage/parking space
- (vi) Bathroom
- (vii) Others (specify) .....

129. Please fill in the number of all your trips made as in the table below for the immediate past week. Note: A trip is one way travel to a point from another point for a particular purpose.

Days of the week	Work	Children school	Childcare	Recreation	Shopping	Religion	Fetching	Getting rid of household waste or refuse
Monday								
Tuesday								
Wednesday								
Thursday								
Friday								
Saturday								
Sunday								

130. How will you describe the distance between your house and the following places you use to go?

Activity Areas	Response	
	Far	Not far
(i) Workplace		
(ii) Shopping center		
(iii) Religious center		
(iv) Recreation center		
(v) Children's school		



(v) Children's school		
(vi) Childcare center		
(vii) Where you go to fetch water		
(viii) Where you go to dispose solid waste		
(ix) Where you go to get firewood		

131. Where you are adversely affected, specify which of the following aspects of housing affect you most. Tick ( ) as appropriate.

- (i) Home location distance to some activity areas is too far
- (ii) Kitchen space too small
- (iii) Power supply not regular
- (iv) Drinkable water supply is scarce
- (v) Washing water is scarce
- (vi) Neighbourhood road is bad
- (vii) Lack of space for income generating activities
- (viii) Lack of adequate living space
- Others (specify) .....

132. At home do you have as much privacy as you want? Tick ( )

- (i) Usually
- (ii) Sometimes
- (iii) Rarely
- (iv) Never

133. Indicate whether you strongly agree, agree, disagree or strongly disagree with the following as experienced in your house.

Experience	Strongly agree	Agree	Disagree	Strongly disagree
(i) At home, there are too many people around				
(ii) In this house, I have almost no time alone.				
(iii) In my house people get in each others way				
(iv) At home, I don't have enough room to do things conveniently				

134. Within the past months, indicate whether you have experienced any of the following symptoms/diseases and the degree of the experience.

Symptom/disease			If Yes, indicate the degree of the experience	
	Yes	No	Slight	Severe
Persistent cough				
Persistent wheeze				
Persistent blocked nose				
Persistent breathlessness				
Persistent respiratory				
Skin infections/diseases e.g eczema, rashes etc.				
Persistent tiredness or body weakness or feverish or feeling hot internally				
Malaria				
Persistent headache				
Persistent feeling like vomiting/stooling or actually vomiting and passing stool				
Cholera				
Diarrhoea				

135. Indicate how often you experienced the following kinds of feelings during the previous few weeks.

	Often	Sometimes	Rarely	Never
(i) Anxious about something or someone				
(ii) That people are trying to pick quarrels or start argument with you.				
(iii) So depressed that it interferes with your daily activities				
(iv) That personal worries are getting you down physically ill.				
(v) Moody				
(vi) Felt you were confused				
(vii) Are you ever bothered by nervousness i.e. by being irritable, fidgety or tense.				
(viii) Do feel that nothing ever turns out for you the way you want it to				
(ix) Do you have trouble concentrating or keeping your mind on what you are doing				

136. Are you the worrying type you know a worrier?

Yes

No

**Appendix 3.2: Locality in Ibadan Municipal Area, 1999 Population Projection,  
Number of Households and Number of Questionnaire forms administered**

S/N	LOCALITY (Traditional core high density residential areas)	1999 Population Projection	Number of Households	Number of Questionnaires		Total Number of Respondents	
				Administered	Returned	Women	Men
1.	Yemetu	14,750	3,292	7	7	7	6
2.	Oke-Aremo	9,529	2,127	4	4	4	4
3.	Oniyanrin	4,884	1,090	2	2	2	1
4.	Oke-Are	12,456	2,780	6	6	6	6
5.	Adeoyo	10,577	2,361	5	5	5	3
6.	Alli-Iwo	5,299	1,183	2	2	2	2
7.	Igosun	10,877	2,428	5	-	-	-
8.	Aladorin	6,642	1,483	3	3	3	3
9.	Ire-Akari	3,568	796	2	2	2	2
10.	Ode-Olo	4,540	1,013	2	2	2	2
11.	Agbadagbudu	1,928	430	1	-	-	-
12.	Inalende	33,410	7,458	15	15	15	11
13.	Opo-Yeosa	11,814	2,637	5	5	5	5
14.	Oje	13,269	2,962	6	6	6	4
15.	Itu-taba	11,876	2,651	5	5	5	1
16.	Ogunpa	2,599	580	1	1	1	1
17.	Gege	5,526	1,234	3	3	3	2
18.	Agbeni	18,352	4,096	8	8	8	5
19.	Foko	39,354	8,784	18	18	18	12
20.	Agbokojo	4,032	900	2	2	2	2
21.	Popo Yemoja	16,428	3,667	7	7	7	6
22.	Isale-Osi	23,105	5,157	10	10	10	6
23.	Idi-Arere	7,353	1,641	3	3	3	1
24.	Amunigun	2,160	482	1	1	1	1
25.	Dugbe	2,887	644	1	1	1	1
26.	Bode	16,524	3,688	8	8	8	5
27.	Isale-Ijebu	10,179	2,272	5	5	5	5
28.	Oja'ba	4,148	926	2	2	2	2
29.	Mapo	2,368	529	1	1	1	1
30.	Agbongbon	5,864	1,309	3	3	3	3
31.	Ita-Ege	2,302	514	1	1	1	1
32.	Labo	11,554	2,579	1	5	5	2
33.	Idi-Aro	12,599	2,812	6	6	6	3
34.	Eleta	5,446	1,216	2	2	2	2
35.	Ile-tuntun	6,185	1,381	3	3	3	2
36.	Kudeti	9,114	2,034	4	4	4	3
37.	Kunfayakun	10,614	2,369	5	5	5	3
38.	Oke-Oluokun	18,066	4,033	8	8	8	6

39	Becere	5,232	1,168	2	2	2	1
40	Odo Oba	26,456	5,905	12	12	12	7
41	Academy	23,739	5,299	11	10	10	9
42.	Olomi	1,350	301	1	1	1	1
43	Odinjo	29,866	6,667	14	14	4	7
44.	Oramiyan	12,759	2,848	6	6	6	4
45.	Elekuro	33,527	7,484	15	15	15	15
46.	Isale-Alfa	3,197	714	1	1	1	1
47.	Oke-Offa Atipe	15,507	3,461	7	7	7	5
48.	Oke Offa Babasale	11,815	2,637	5	5	5	3
49.	Oluyoro Oke-Ofa	11,243	2,510	5	5	5	5
50.	Agugu	44,581	9,951	20	20	20	18
51.	Ode-aje	15,258	3,406	20	20	20	18
52.	Oja-Igbo	16,411	3,663	7	7	7	5
53.	Beyerunka	6,522	1,456	3	3	3	3
54.	Ita-Bale	6,956	1,553	3	3	3	3
55.	Areemo	22,423	5,005	10	10	10	4
56.	Koloko	14,113	3,150	5	6	6	6
57.	Adekile	16,524	3,688	8	8	8	5
58.	Aperin	8,685	1,939	4	4	4	2
69.	Oke-Ado	9,449	2,109	4	4	4	3
60.	Irefin	2,027	453	1	1	1	
61.	Alafara	6,304	1,407	3	3	3	3
62.	Labiran	3,917	874	2	2	2	2
63.	Adeyinka	1,096	245	1	1	1	1
64.	Onipepeye	1,368	305	1	1	1	1
65.	Kosodo	1,345	300	1	1	1	1
66.	Gbelekale	1,405	314	1	1	1	1
67.	Oke-Padre	3,633	811	2	2	2	2
68.	Abebi	14,886	3,323	7	7	7	6
69.	Idikan	10,741	2,398	5	5	5	4
70.	Olorisaoko	5,930	1,324	3	3	3	3
71.	Ayeye	11,015	2,459	5	5	5	4
72.	Omitowoju	2,548	569	1	1	1	1
73.	Kobomoje	8,636	1,928	4	4	4	2
74.	Ekotedo	14,314	3,195	7	7	7	6
75.	Feleye	2,716	606	1	1	1	
76.	Atowoda	1,543	344	1	1	1	1
77.	Asukuna	3,088	689	1	1	1	1
78.	Akere	1,400	313	1	1	1	1
79.	Alekuso	3,497	781	2	2	2	2
TOTAL		829,200	185,090	390	384	384	292

S/N	LOCALITY (Non-traditional core high density residential areas)	1996 Population Projection	Number of Households	Number of Questionnaire		Total Number of Respondents	
				Administered	Returned	Women	Men
1.	Oremeji	3,752	838	2	2	2	1
2.	Coca-Cola	5,661	1,264	3	3	3	1
3.	Ojoo	1,903	425	1	1	1	1
4.	Eleyele	26,719	5,964	12	12	12	10
5.	Apata	39,428	8,801	18	18	18	18
6.	Orita Challenge	11,236	2,508	5	5	5	3
7.	Ijokodo	28,609	6,386	13	13	13	11
8.	Adamasingba	11,143	2,487	5	5	5	3
9.	Yeji	9,685	2,162	4	4	4	3
10.	Sango	51,021	11,389	23	23	23	12
11.	Sabo	9,384	2,095	4	4	4	3
12.	Odo-Ona	27,207	6,073	12	12	12	8
13.	Ago-Taylor	1,121	250	1	1	1	1
14.	Molete	20,308	4,533	9	9	9	7
15.	Adesola	8,984	2,005	4	4	4	3
16.	Agbowo	56,651	12,645	26	26	26	21
17.	Orogun	16,901	3,773	8	8	8	8
TOTAL		329,713	73,598	150	150	150	114

S/N	LOCALITY (Medium density residential areas)	1999 Population Projection	Number of Household	Number of Questionnaire		Total Number of Respondents	
				Administered	Returned	Women	Men
1.	Ashi	8,657	1,932	4	4	4	4
2.	Total Garden	5,333	1,190	2	2	2	2
3.	Samonda	4,452	994	2	2	2	2
4.	Oke-Itunu	17,231	3,846	8	8	8	7
5.	Orita-Bashorun	13,330	2,976	36	6	6	5
6.	Oke-Bola	8,737	1,950	4	4	4	4
7.	Oke-Ado	80,437	17,955	37	37	37	32
8.	Ring Road	24,774	5,530	11	11	11	11
9.	Challenge	27,592	3,332	13	13	13	12
10.	Felele	27,756	6,196	13	13	13	12
11.	Old Ife Road	14,927	3,332	7	7	7	7
12.	Idi Ape	7,946	1,774	4	4	4	4
13.	Mokola	21,334	4,762	10	10	0	8
14.	Iwo Road	33,409	7,457	15	15	5	15
TOTAL		295,913	66,053	136	136	136	125

S/N	LOCALITY (Low density residential areas)	1999 Population Projection	Number of Household	Number of Questionnaire		Total Number of Respondents	
				Administered	Returned	Women	Men
1.	Ibadan Polytechnic	2,279	509	2	2	2	2
2.	Bodija	29,818	6,656	15	15	15	11
3.	UCH	2,663	594	2	2	2	1
4.	Ikolaba	8,245	1,840	5	5	5	3
5.	Agodi	17,086	3,814	9	9	9	8
6.	University of Ibadan	5,923	1,322	4	4	4	3
7.	Iyaganku	6,355	1,419	3	3	3	1
8.	Oluyole Estate	6,391	1,427	3	3	3	3
9.	Jericho	11,305	2,523	6	6	6	6
10.	Idi-Ishin	4,651	1,038	2	2	2	2
TOTAL		94,716	21,142	51	51	51	40

Appendix 4.1: General Perception of Women on their Participation in the Housing Development in Ibadan

S/N	Variables	Men Only		Women only		Mean and Women Equally		Women Partially		Women Rarely		Women Never		Total	
		No	%	No	%	No.	%	No	%	No	%	No	%	No	%
1	<b>Land acquisition and preparation</b>														
	Land purchase	532	73.8	-	0.0	127	17.6	53	7.4	8	1.1	1	0.1	721	100.0
	Land preparation	506	70.2	14	19.4	109	15.1	77	10.7	13	1.8	2	0.3	721	100.0
2	<b>Housing design and planning</b>														
	Planning to build	554	76.8	2	0.3	97	13.5	56	7.8	12	1.7	-	0.0	721	100.0
	Design to build	510	70.7	15	2.1	121	16.8	67	9.3	6	0.8	2	0.3	721	100.0
3	<b>Housing development finance</b>														
	Finance of building	471	65.3	4	0.6	142	19.7	91	12.6	13	1.8	-	0.0	721	100.0
4	<b>Production/Procurement of building material</b>														
	Building materials production/procurement	512	71.0	2	0.3	126	17.5	71	9.8	10	1.4	-	0.0	721	100.0
5	<b>Housing construction</b>														
	Actual construction of the building	561	77.8	2	0.3	84	11.7	63	8.7	10	1.4	1	0.1	721	100.0
6	<b>Housing maintenance</b>														
	Housing structural defects repairs	450	62.4	18	2.5	149	20.7	96	13.3	8	1.1	-	0.0	721	100.0
	Housing non-structural repairs	388	53.8	40	5.5	178	24.7	105	14.6	10	1.4	-	0.0	721	100.0
	Housing preventive maintenance	319	44.2	74	10.3	228	31.6	88	12.2	11	1.5	1	0.1	721	100.0
	Housing improvement	319	44.2	79	11.0	230	31.9	86	11.9	5	0.7	2	0.3	721	100.0
	Housing modernization	349	48.8	71	9.8	221	30.7	71	9.8	8	1.1	1	0.1	721	100.0

Source: Field Survey, 2001



Appendix 4.2: General Perception of Women on their Participation in the Housing development in the high (core) residential areas in Ibadan

S/N	Variables	Men Only		Women only		Mean and Women Equally		Women Partially		Women Rarely		Women Never		Total	
		No	%	No	%	No.	%	No	%	No	%	No	%	No	%
1	<b>Land acquisition and preparation</b>														
	Land purchase	277	72.2	-	0.0	82	21.4	25	6.5	-	0.0	-	0.0	384	100.0
	Land preparation	276	71.9	10	2.6	52	13.5	37	9.6	7	1.8	2	0.5	384	100.0
2	<b>Housing design and planning</b>														
	Planning to build	296	77.1	2	0.5	54	14.1	25	6.5	7	1.8	-	0.0	384	100.0
	Design to build	266	69.3	14	3.6	74	19.3	28	7.3	1	0.3	1	0.3	384	100.0
3	<b>Housing development finance</b>														
	Finance of building	259	66.7	3	0.8	82	21.4	37	9.6	3	0.8	-	0.0	384	100.0
4	<b>Production/Procurement of building material</b>														
	Building materials production/procurement	270	70.3	1	0.3	82	21.4	28	7.3	3	0.8	-	0.0	384	100.0
5	<b>Housing construction</b>														
	Actual construction of the building	310	80.8	1	0.3	40	10.4	27	7.0	5	1.3	1	0.3	384	100.0
6	<b>Housing maintenance</b>														
	Housing structural defects repairs	219	57.0	14	3.6	98	25.5	51	13.3	2	0.5	-	0.0	384	100.0
	Housing non-structural repairs	199	51.9	27	7.0	108	28.1	47	12.2	3	0.8	-	0.0	384	100.0
	Housing preventive maintenance	158	41.2	53	13.8	127	33.1	40	10.4	5	1.3	1	0.3	384	100.0
	Housing improvement	151	39.3	68	17.7	123	32.0	39	10.4	1	0.3	2	0.5	384	100.0
	Housing modernization	169	44.0	63	16.4	115	29.9	33	8.6	3	0.8	1	0.3	384	100.0

Source: Field Survey, 2001

Appendix 4.3: General Perception of Women on Their Participation in the Housing Development in the High Density Residential area in Ibadan

S/N	Variables	Men Only		Women only		Mean and Women Equally		Women Partially		Women Rarely		Women Never		Total	
		No	%	No	%	No.	%	No	%	No	%	No	%	No	%
1	<b>Land acquisition and preparation</b>														
	Land purchase	112	74.7	-	0.0	16	10.7	19	12.7	2	1.3	1	0.7	150	100.0
	Land preparation	112	74.7	-	0.0	16	10.7	18	12.0	4	2.7	-	0.0	150	100.0
2	<b>Housing design and planning</b>														
	Planning to build	114	76.0	-	0.0	18	12.0	15	10.0	3	2.0	-	0.0	150	100.0
	Design to build	106	70.7	1	0.7	16	10.7	24	16.0	3	2.0	-	0.0	150	100.0
3	<b>Housing development finance</b>														
	Finance of building	88	58.7	-	0.0	20	13.3	37	24.7	5	3.3	-	0.0	150	100.0
4	<b>Production/Procurement of building material</b>														
	Building materials production/procurement	110	73.3	-	0.0	12	8.0	25	16.7	3	2.0	-	0.0	150	100.0
5	<b>Housing construction</b>														
	Actual construction of the building	111	74.0	-	0.0	15	0.0	22	14.7	2	1.3	-	0.0	150	100.0
6	<b>Housing maintenance</b>														
	Housing structural defects repairs	99	66.0	-	0.0	16	10.7	31	20.7	4	2.7	-	0.0	150	100.0
	Housing non-structural repairs	78	52.0	7	4.7	23	15.3	39	26.0	3	2.0	-	0.0	150	100.0
	Housing preventive maintenance	66	44.0	11	7.3	36	24.0	32	21.3	5	3.3	-	0.0	150	100.0
	Housing improvement	78	52.0	6	4.0	36	24.0	27	18.0	3	2.0	-	0.0	150	100.0
	Housing modernization	82	54.7	4	2.7	35	23.3	26	17.3	3	2.0	-	0.0	150	100.0

Source: Field Survey, 2001

Appendix 4.4: General Perception of Women on their Participation in the Housing Development in the Medium Density Residential Area in Ibadan

S/N	Variables	Men Only		Women only		Mean and Women Equally		Women Partially		Women Rarely		Women Never		Total	
		No	%	No	%	No.	%	No	%	No	%	No	%	No	%
1	<b>Land acquisition and preparation</b>														
	Land purchase	100	73.5	-	0.0	24	17.6	7	5.1	5	3.7	-	0.0	136	100.0
	Land preparation	79	58.1	4	2.9	32	23.5	19	14.0	2	1.5	-	0.0	136	100.0
2	<b>Housing design and planning</b>														
	Planning to build	101	73.3	-	0.0	20	14.7	13	9.6	2	1.5	-	0.0	136	100.0
	Design to build	97	71.4	-	0.0	25	18.4	11	8.1	2	1.5	1	0.7	136	100.0
3	<b>Housing development finance</b>														
	Finance of building	91	66.9	1	0.7	29	21.3	11	8.1	4	2.9	-	0.0	136	100.0
4	<b>Production/Procurement of building material</b>														
	Building materials production/procurement	94	69.1	-	0.0	24	17.6	15	11.0	3	2.2	-	0.0	136	100.0
5	<b>Housing construction</b>														
	Actual construction of the building	97	71.3	1	0.7	23	16.9	12	8.8	3	2.2	-	0.0	136	100.0
6	<b>Housing maintenance</b>														
	Housing structural defects repairs	93	68.4	2	1.5	29	21.3	10	7.4	2	1.5	-	0.0	136	100.0
	Housing non-structural repairs	81	59.6	3	2.2	35	25.7	13	9.6	4	2.9	-	0.0	136	100.0
	Housing preventive maintenance	70	51.5	4	2.9	49	36.0	12	8.8	1	0.7	-	0.0	136	100.0
	Housing improvement	69	50.5	2	1.5	51	37.5	13	9.6	1	0.7	-	0.0	136	100.0
	Housing modernization	73	53.7	1	0.7	53	39.0	7	5.1	2	1.5	-	0.0	136	100.0

Source: Field Survey, 2001

Appendix 4.5: General Perception of Women on Their Participation in the Housing Development in the Low Density Residential Areas in Ibadan

S/N	Variables	Men Only		Women only		Mean and Women Equally		Women Partially		Women Rarely		Women Never		Total	
		No	%	No	%	No.	%	No	%	No	%	No	%	No	%
1	<b>Land acquisition and preparation</b>														
	Land purchase	43	84.3	-	0.0	5	9.8	2	3.9	1	2.0	-	0.0	51	100.0
	Land preparation	39	76.5	-	0.0	9	17.6	3	5.9	-	0.0	-	0.0	51	100.0
2	<b>Housing design and planning</b>														
	Planning to build	43	84.3	-	0.0	5	9.8	3	5.9	-	0.0	-	0.0	51	100.0
	Design to build	41	80.4	-	0.0	6	11.8	4	7.8	-	0.0	-	0.0	51	100.0
3	<b>Housing development finance</b>														
	Finance of building	33	64.7	-	0.0	11	21.6	6	11.8	1	2.0	-	0.0	51	100.0
4	<b>Production/Procurement of building material</b>														
	Building materials production/procurement	38	74.5	1	2.0	8	15.7	3	5.9	1	2.0	-	0.0	51	100.0
5	<b>Housing construction</b>														
	Actual construction of the building	43	84.3	-	0.0	6	11.8	2	3.9	-	0.0	-	0.0	51	100.0
6	<b>Housing maintenance</b>														
	Housing structural defects repairs	39	76.5	2	3.9	6	11.8	4	7.8	-	0.0	-	0.0	51	100.0
	Housing non-structural repairs	30	58.8	3	5.9	12	23.5	6	11.8	-	0.0	-	0.0	51	100.0
	Housing preventive maintenance	25	49.0	6	11.8	16	31.4	4	7.8	-	0.0	-	0.0	51	100.0
	Housing improvement	21	41.0	3	5.9	20	39.2	7	13.7	-	0.0	-	0.0	51	100.0
Housing modernization	25	49.0	3	5.9	18	35.3	5	9.8	-	0.0	-	0.0	51	100.0	

Source: Field Survey, 2001

Appendix 4.6: Awareness of Women of the aspects of their household housing development

	Variables	High (core) Density				High Density			
		Aware		Not Aware		Aware		Not Aware	
		No	%	No	%	No	%	No	%
1	<b>Land acquisition and Preparation</b>								
	Land Purchase	57	42.5	77	57.5	16	29.3	37	69.8
	Land Preparation	50	37.3	84	62.7	15	28.3	38	71.7
2	<b>Housing Design and Planning</b>								
	Planning to build	49	36.6	85	63.4	16	29.3	37	69.8
	Design of building	46	34.3	88	65.7	15	28.3	38	71.7
3	<b>Housing development finance</b>								
	Finance of building	64	47.8	70	52.2	18	34.0	35	66.0
4	<b>Production/Procurement of Building Materials</b>								
	Building Materials Production / Procurement	53	39.6	81	60.4	13	24.5	40	75.5
5	<b>Housing construction</b>								
	Actual construction of the building	55	41.0	79	59.0	15	28.3	38	71.7
6	<b>Housing Maintenance</b>								
	Housing structural defects repairs	55	41.0	79	59.0	23	52.1	30	56.6
	Housing non-structural repairs	56	48.1	78	58.2	27	50.9	26	49.1
	Housing preventive maintenance	73	54.5	61	45.5	30	56.6	23	43.4
	Housing improvement	79	59.0	55	41.0	30	56.6	23	43.4
	Housing modernization	74	55.2	60	44.8	28	52.8	25	47.2

Table 5.6 contd

Medium Density				Low Density				All the Residential Areas			
Aware		Not Aware		Aware		Not Aware		Aware		Not Aware	
No	%	No	%	No	%	No	%	No	%	No	%
15	29.4	36	70.6	12	52.2	11	47.8	100	36.8	161	61.7
15	29.4	36	70.6	12	52.2	11	47.8	92	35.2	169	64.8
16	32.4	35	68.6	13	47.8	10	43.5	91	34.1	170	65.1
17	31.4	34	66.7	9	56.5	14	60.9	87	34.9	174	66.7
17	33.3	34	66.7	9	39.1	14	60.9	87	33.3	174	66.7
21	41.2	30	58.8	11	47.8	12	52.2	115	44.1	146	55.9
15	29.4	36	70.6	9	39.1	14	60.9	90	34.5	171	65.5
19	37.3	32	62.7	11	47.8	12	52.2	100	38.3	161	61.7
21	48.2	30	58.8	12	58.3	11	47.8	111	51.0	150	57.5
25	41.2	30	58.8	12	52.2	11	47.8	120	42.5	141	54.0
24	49.0	26	51.0	12	52.2	11	47.8	120	46.0	141	54.0
24	47.1	27	52.9	14	60.9	9	39.1	141	54.0	120	46.0
27	52.9	24	47.1	15	62.2	8	34.8	151	57.9	110	42.1
26	51.0	25	49.0	14	60.9	9	39.1	142	54.4	119	45.6

Source: Field survey, 2001

**Appendix 4.7: Involvement of women in the housing development decisions of the house they are living among the house owners occupiers in Ibadan (n = 261)**

S/N	Variables	Involvement of women in the housing development decisions					
		Wholly Involved		Partially Involved		Not Involved	
		No	%	No	%	No	%
1.	<b>Land acquisition and preparation</b>						
	Land purchase	33	12.6	57	21.8	171	65.5
	Land preparation	29	11.1	53	20.3	179	68.6
2.	<b>Housing design and planning</b>						
	Planning to build	40	15.3	51	19.5	170	65.1
	Design of building	23	8.8	51	19.5	187	71.6
3.	<b>Housing development finance</b>						
	Finance of building	22	8.4	73	28.0	166	63.6
4.	<b>Production of building materials</b>						
	Building materials production	24	9.2	60	23.0	177	67.8
5.	<b>Housing construction</b>						
	Actual construction of the building	29	11.1	61	23.4	171	65.5
6	<b>Housing maintenance</b>						
	Housing structural defects repairs	34	13.0	81	31.0	146	56.0
	Housing non-structural repairs	45	12.2	77	29.9	139	53.3
	Housing preventive maintenance	67	25.7	86	33.0	108	41.4
	Housing improvement	71	27.2	85	32.6	105	40.2
	Housing modernization	65	24.9	76	29.1	120	46.0

Source: Field survey, 2001

Appendix 4.8: Involvement of women in the housing development decisions of the house they are living among the house owners occupiers in the high (core) density residential area in Ibadan (n = 134)

S/N	Variables	Involvement of women in the housing development decisions					
		Wholly Involved		Partially Involved		Not Involved	
		No	%	No	%	No	%
1.	<b>Land acquisition and preparation</b>						
	Land purchase	17	12.7	36	26.9	81	60.4
	Land preparation	13	9.7	31	23.1	90	67.2
2.	<b>Housing design and planning</b>						
	Planning to build	18	13.4	30	22.4	86	64.2
	Design of building	12	9.0	27	20.1	95	70.9
3.	<b>Housing development finance</b>						
	Finance of building	13	9.7	43	32.1	78	58.2
4.	<b>Production of building materials</b>						
	Building materials production	14	10.4	33	24.6	87	65.0
5.	<b>Housing construction</b>						
	Actual construction of the building	14	10.4	36	26.9	84	62.7
6	<b>Housing maintenance</b>						
	Housing structural defects repairs	14	10.4	41	30.6	79	59.0
	Housing non-structural repairs	19	14.2	37	27.6	78	58.2
	Housing preventive maintenance	28	20.9	50	37.3	56	41.8
	Housing improvement	32	23.9	46	34.3	56	41.8
	Housing modernization	24	17.9	47	35.1	63	47.0

Source: Field survey, 2001

**Appendix 4.9: Involvement of women in the housing development of the house they are living among the house owners occupiers in the high density residential area in Ibadan (n = 53)**

S/N	Variables	Involvement of women in the housing development decisions					
		Wholly Involved		Partially Involved		Not Involved	
		No	%	No	%	No	%
1.	<b>Land acquisition and preparation</b>						
	Land purchase	4	7.5	13	24.5	36	67.9
	Land preparation	5	9.4	11	20.8	37	69.8
2.	<b>Housing design and planning</b>						
	Planning to build	9	17.0	7	13.2	37	69.8
	Design of building	1	1.9	12	22.6	40	75.5
3.	<b>Housing development finance</b>						
	Finance of building	3	5.7	12	22.6	38	71.7
4.	<b>Production of building materials</b>						
	Building materials production	2	3.8	12	22.6	39	73.6
5.	<b>Housing construction</b>						
	Actual construction of the building	4	7.5	11	20.8	38	71.7
6	<b>Housing maintenance</b>						
	Housing structural defects repairs	6	11.3	20	37.7	27	50.9
	Housing non-structural repairs	8	15.1	22	41.5	23	43.4
	Housing preventive maintenance	14	26.4	20	37.7	19	35.8
	Housing improvement	12	22.6	23	43.4	18	34.0
	Housing modernization	14	26.4	16	30.2	23	43.4

Source: Field survey, 2001



**Appendix 4.10: Involvement of women in the housing development decisions of the house they are living among the house owners occupiers in the medium density residential area in Ibadan (n = 51)**

S/N	Variables	Involvement of women in the housing development decisions					
		Wholly Involved		Partially Involved		Not Involved	
		No	%	No	%	No	%
1.	<b>Land acquisition and preparation</b>						
	Land purchase	6	11.8	4	7.4	41	80.4
	Land preparation	5	9.8	7	13.7	39	76.5
2.	<b>Housing design and planning</b>						
	Planning to build	9	17.6	9	17.6	33	64.7
	Design of building	7	13.7	8	15.7	36	70.6
3.	<b>Housing development finance</b>						
	Finance of building	3	5.9	12	23.5	36	70.6
4.	<b>Production of building materials</b>						
	Building materials production	4	7.8	9	17.6	38	74.5
5.	<b>Housing construction</b>						
	Actual construction of the building	7	13.7	8	15.7	36	70.6
6.	<b>Housing maintenance</b>						
	Housing structural defects repairs	7	13.7	16	31.7	28	54.9
	Housing non-structural repairs	8	15.7	13	25.5	30	58.8
	Housing preventive maintenance	13	25.5	13	25.5	25	49.0
	Housing improvement	16	31.7	11	21.6	24	47.1
	Housing modernization	16	31.7	9	17.6	26	51.0

Source: Field survey, 2001

**Appendix 4.11: Involvement of women in the housing development decisions of the house they are living among the house owners occupiers in the low density residential area in Ibadan (n = 23)**

S/N	Variables	Involvement of women in the housing development decisions					
		Wholly Involved		Partially Involved		Not Involved	
		No	%	No	%	No	%
1.	<b>Land acquisition and preparation</b>						
	Land purchase	6	26.1	4	17.4	13	56.5
	Land preparation	6	26.1	4	17.4	13	56.5
2.	<b>Housing design and planning</b>						
	Planning to build	4	17.4	5	21.7	14	60.9
	Design of building	3	13.0	4	17.4	16	69.6
3.	<b>Housing development finance</b>						
	Finance of building	3	13.0	6	26.1	14	60.9
4.	<b>Production of building materials</b>						
	Building materials production	6	26.1	4	17.4	13	56.5
5.	<b>Housing construction</b>						
	Actual construction of the building	4	17.4	6	26.1	13	56.5
6	<b>Housing maintenance</b>						
	Housing structural defects repairs	7	30.4	4	17.4	12	52.2
	Housing non-structural repairs	10	43.5	5	21.7	8	34.8
	Housing preventive maintenance	12	52.2	3	13.0	8	34.8
	Housing improvement	11	47.8	5	21.7	7	30.4
	Housing modernization	11	47.8	4	17.4	8	34.8

Source: Field survey, 2001

Appendix 5.1: Plan Application by Gender in each Residential area in Ibadan (1991-1999)

Residential Area	Women			Men		
	Sum	Mean	Percentage	Sum	Mean	Percentage
Traditional core high density	1360	57	18.0	6069	252	82.0
Non-traditional core high density	3506	146	17.0	17449	727	83.0
Medium density	686	43	13.0	4625	289	87.0
Low density	99	14	48.0	747	106	52.0
All the residential areas	5651	80	16.0	28890	407	84.0

Source: Compiled by the Author from the records of Town Planning Departments in Ibadan Municipal Area, and Property Development Corporation of Oyo State (PDCOS)

Appendix 5.2: Certificate of Occupancy Application by Gender in each Residential area in Ibadan (1989-1999)

Residential Area	Women			Men		
	Sum	Mean	Percentage	Sum	Mean	Percentage
Traditional core high density	59	5	15.2	310	28	84.8
Non-traditional core high density	392	36	16.3	2032	185	83.7
Medium density	258	24	15.6	1428	130	84.4
Low density	56	5	16.1	280	26	83.9
All the residential areas	765	70	15.9	4050	368	84.1

Source: Compiled by the Author from the records of Town Planning Departments in Ibadan Municipal Area, and Property Development Corporation of Oyo State (PDCOS)

Appendix 5.3: Trend in Application for Plan Registration by Gender in Ibadan (1991-1999)

Year	Women		Men	
	Sum	Percentage	Sum	Percentage
1991	554	22.0	2028	78.0
1992	621	14.0	3911	86.0
1993	424	12.0	3079	88.0
1994	585	18.0	2715	82.0
1995	973	21.0	3642	79.0
1996	604	15.0	3452	85.0
1997	695	18.0	3169	82.0
1998	495	13.0	3453	87.0
1999	700	17.0	3441	83.0

Source: Compiled by the Author from the records of Town Planning Departments in Ibadan Municipal Area, and Property Development Corporation of Oyo State (PDCOS)

Appendix 5.4: Trend in Application for Certificate of Occupancy by Gender in in Ibadan (1989-1999)

Year	Women		Men	
	Sum	Percentage	Sum	Percentage
1989	103	13.0	689	87.0
1990	36	21.0	140	79.0
1991	1	11.0	8	89.0
1992	70	15.0	403	85.0
1993	81	13.0	550	87.0
1994	82	14.0	490	86.0
1995	129	18.0	581	82.0
1996	90	19.0	395	81.0
1997	65	19.0	271	81.0
1998	56	16.0	298	84.0
1999	49	18.0	217	82.0

Source: Compiled by the Author from the records of Town Planning Departments in Ibadan Municipal Area, and Property Development Corporation of Oyo State (PDCOS)

## Appendix 5.5: Land ownership in Ibadan

Respondents	Response					
	Own land		Does not own land		Total	
	No	%	No	%	No	%
Men	318	55.7	253	44.3	571	100.0
Married women	218	33.5	432	66.5	650	100.0
Female headed household	12	16.9	59	83.1	71	100.0

Source: Field survey, 2001

## Appendix 5.6: Land ownership in Ibadan (Traditional core high density residential area)

Respondents	Response					
	Own land		Does not own land		Total	
	No	%	No	%	No	%
Men	158	53.1	134	45.9	292	100.0
Married women	112	32.8	229	67.2	341	100.0
Female headed household	7	16.3	36	83.7	43	100.0

Source: Field survey, 2001

## Appendix 5.7: Land ownership in Ibadan (Non-traditional high density residential area)

Respondents	Response					
	Own land		Does not own land		Total	
	No	%	No	%	No	%
Men	61	53.5	53	46.5	114	100.0
Married women	33	24.3	103	75.7	136	100.0
Female headed household	2	14.3	12	85.7	14	100.0

Source: Field survey, 2001

Appendix 5.8: Land ownership in Ibadan (Medium density residential area)

Respondents	Response					
	Own land		Does not own land		Total	
	No	%	No	%	No	%
Men	76	60.8	49	39.2	125	100.0
Married women	54	41.9	75	58.1	129	100.0
Female headed household	2	28.6	5	71.4	7	100.0

Source: Field survey, 2001

Appendix 5.9: Land ownership in Ibadan (Low density residential area)

Respondents	Response					
	Own land		Does not own land		Total	
	No	%	No	%	No	%
Men	23	57.5	17	42.5	40	100.0
Married women	19	43.2	25	56.8	44	100.0
Female headed household	1	14.3	6	85.7	7	100.0

Source: Field survey, 2001

Appendix 5.10: House ownership in Ibadan

Respondents	Response					
	Own house		Does not own house		Total	
	No	%	No	%	No	%
Men	240	42.0	331	58.0	571	100.0
Married women	104	16.0	546	84.0	650	100.0
Female headed household	6	8.5	85	91.5	71	100.0

Source: Field survey, 2001



Appendix 5.11: House ownerships in Ibadan (Traditional core high density residential area)

Respondents	Response					
	Own house		Does not own house		Total	
	No	%	No	%	No	%
Men	123	42.1	169	57.9	292	57.9
Married women	49	14.4	292	85.6	341	100.0
Female headed household	2	4.7	41	95.3	43	100.0

Source: Field survey, 2001

Appendix 5.12: House ownership in Ibadan (Non-traditional high density residential area)

Respondents	Response					
	Own house		Does not own house		Total	
	No	%	No	%	No	%
Men	47	41.2	67	58.8	114	100.0
Married women	18	13.2	118	86.8	136	100.0
Female headed household	-	0.0	14	100.0	14	100.0

Source: Field survey, 2001

Appendix 5.13: House ownerships in Ibadan (Medium density residential area)

Respondents	Response					
	Own house		Does not own house		Total	
	No	%	No	%	No	%
Men	52	41.6	73	58.4	125	100.0
Married women	27	20.9	102	79.1	129	100.0
Female headed household	3	42.9	4	57.1	7	100.0

Source: Field survey, 2001

Appendix 5.14: House ownerships in Ibadan (Low density residential area)

Respondents	Response					
	Own house		Does not own house		Total	
	No	%	No	%	No	%
Men	18	45.0	22	55.0	40	100.0
Married women	10	22.7	34	77.3	44	100.0
Female headed household	1	14.3	6	85.7	7	100.0

Source: Field survey, 2001

Appendix 5.15: Housing plot ownership in Ibadan

Respondents	Response					
	Own house		Does not own house		Total	
	No	%	No	%	No	%
Men	180	31.6	391	68.5	571	100.0
Married women	65	10.0	585	90.0	650	100.0
Female headed household	9	12.7	62	87.3	71	100.0

Source: Field survey, 2001

Appendix 5.16: Housing plot ownership in Ibadan (traditional core high density residential area)

Respondents	Response					
	Own house		Does not own house		Total	
	No	%	No	%	No	%
Men	86	29.4	206	70.5	292	100.0
Married women	29	8.5	312	91.5	341	100.0
Female headed household	7	16.3	36	83.7	43	100.0

Source: Field survey, 2001

Appendix 5.17: Housing plot ownership in Ibadan (Non-traditional core high density residential area)

Respondents	Response					
	Own house		Does not own house		Total	
	No	%	No	%	No	%
Men	33	28.9	81	71.1	114	100.0
Married women	11	8.1	125	91.9	136	100.0
Female headed household	2	14.3	12	85.7	14	100.0

Source: Field survey, 2001

Appendix 5.18: Housing plot ownership in Ibadan (Medium density residential area)

Respondents	Response					
	Own house		Does not own house		Total	
	No	%	No	%	No	%
Men	48	38.4	77	61.6	125	100.0
Married women	18	14.0	111	86.0	129	100.0
Female headed household	-	-	7	100.0	7	100.0

Source: Field survey, 2001

Appendix 5.19: Housing plot ownership in Ibadan (Low density residential area)

Respondents	Response					
	Own house		Does not own house		Total	
	No	%	No	%	No	%
Men	13	32.5	27	67.5	40	100.0
Married women	7	15.9	37	84.1	44	100.0
Female headed household	-	-	7	100.0	7	100.0

Source: Field survey, 2001

Appendix 5.20: Number of plot of land owned by the respondents in Ibadan

Number of Plot Land	Response					
	Men		Married women		Female-headed household	
	No	%	No	%	No	%
1 plot of land	132	23.1	138	21.2	6	8.5
2 plots of land	107	18.7	64	9.8	5	7.0
3 plots of land	28	4.9	5	0.8	1	1.4
4 plots of land	27	4.7	3	0.5	-	0.0
More than 4 plots	24	4.2	9	1.4	-	0.0
None at all	253	44.3	43	6.6	59	83.1
Total	571	100.0	650	100.0	71	100.0

Source: Field survey, 2001

Appendix 5.21: Number of plot of land owned by the respondents in Ibadan (traditional core high density residential area)

Number of Plot of land	Response					
	Men		Married women		Female-headed household	
	No	%	No	%	No	%
1 plot of land	70	24.0	76	22.3	4	9.3
2 plots of land	49	16.8	29	8.5	3	7.9
3 plots of land	13	4.5	3	0.9	-	0.0
4 plots of land	12	4.1	1	0.3	-	0.0
More than 4 plots	14	4.7	4	21.2	-	0.0
None at al	134	45.9	228	66.9	36	83.7
Total	292	100.0	341	100.0	43	100.0

Source: Field survey, 2001

Appendix 5.22: Number of plot of land owned by the respondents in Ibadan (Non-traditional core high density residential area)

Number of Plot of land	Response					
	Men		Married women		Female-headed household	
	No	%	No	%	No	%
1 plot of land	20	17.5	14	10.3	2	13.3
2 plots of land	23	20.2	16	11.8	-	0.0
3 plots of land	9	7.9	-	0.0	-	0.0
4 plots of land	6	5.3	1	0.7	-	0.0
More than 4 plots	3	2.7	2	1.5	-	0.0
None at al	53	46.5	103	75.7	12	85.7
Total	114	100.0	136	100.0	14	100.0

Source: Field survey, 2001

Appendix 5.23: Number of plot of land owned by the respondents in Ibadan (Medium residential area)

Number of Plot of land	Response					
	Men		Married women		Female-headed household	
	No	%	No	%	No	%
1 plot of land	34	27.2	39	30.2	-	0.0
2 plots of land	27	21.6	12	9.3	1	14.3
3 plots of land	4	3.2	-	0.0	1	14.3
4 plots of land	8	6.4	1	0.8	-	0.0
More than 4 plots	3	2.4	2	1.6	-	0.0
None at al	49	39.2	75	58.1	5	71.4
Total	125	100.0	129	100.0	7	100.0

Source: Field survey, 2001

Appendix 5.24: Number of plot of land owned by the respondents in Ibadan (Low density residential area)

Number of Plot of land	Response					
	Men		Married women		Female-headed household	
	No	%	No	%	No	%
1 plot of land	8	20.0	9	20.5	-	0.0
2 plots of land	8	20.0	7	16.9	1	14.3
3 plots of land	2	5.0	2	4.5	-	0.0
4 plots of land	1	2.5	-	0.0	-	0.0
More than 4 plots	4	10.0	1	2.3	-	0.0
None at al	17	42.5	25	56.8	6	85.7
Total	40	100.0	44	100.0	7	100.0

Source: Field survey, 2001

Appendix 5.25: Number of house owned by the respondents in Ibadan

Number of house owned	Response					
	Men		Married women		Female-headed household	
	No	%	No	%	No	%
1 House	147	25.7	80	12.3	3	4.1
2 Houses	67	11.7	19	2.9	2	2.8
3 Houses	17	3.0	2	0.3	1	1.4
4 Houses	7	1.2	2	0.3	-	0.0
More than 4 Houses	2	0.4	-	0.0	-	0.0
None at all	331	58.0	547	84.2	65	91.5
Total	571	100.0	650	100.0	71	100.0

Source: Field survey, 2001

Appendix 5.26: Number of the house owned by the respondents in Ibadan  
(Traditional core high density residential area)

Number of house owned	Response					
	Men		Married women		Female-headed household	
	No	%	No	%	No	%
1 House	79	27.1	42	12.3	2	4.7
2 Houses	34	11.6	7	2.1	-	0.0
3 Houses	6	2.1	-	0.0	-	0.0
4 Houses	4	1.4	-	0.0	-	0.0
More than 4 Houses	-	0.0	-	0.0	-	0.0
None at all	169	57.9	292	85.6	41	95.3
Total	292	100.0	341	100.0	43	100.0

Source: Field survey, 2001

Appendix 5.27: Number of the house owned by the respondents in Ibadan (Non-traditional core high density residential area)

Number of house owned	Response					
	Men		Married women		Female-headed household	
	No	%	No	%	No	%
1 House	26	22.8	10	7.4	-	0.0
2 Houses	16	14.0	4	2.9	-	0.0
3 Houses	2	1.8	2	1.5	-	0.0
4 Houses	3	2.6	2	1.5	-	0.0
More than 4 Houses	-	0.0	-	0.0	-	0.0
None at all	67	58.8	118	86	14	0.0
Total	114	100.0	136	100.0	14	100.0

Source: Field survey, 2001

Appendix 5.28: Number of the house owned by the respondents in Ibadan  
(Medium density residential area)

Number of house owned	Response					
	Men		Married women		Female-headed household	
	No	%	No	%	No	%
1 House	31	24.8	22	17.1	1	14.3
2 Houses	12	9.6	5	3.9	1	14.3
3 Houses	7	5.6	-	0.0	1	14.3
4 Houses	-	0.0	-	0.0	-	0.0
More than 4 Houses	2	1.6	-	0.0	-	0.0
None at all	73	58.4	102	79.0	4	57.1
Total	125	100.0	129	100.0	7	100.0

Source: Field survey, 2001

Appendix 5.29: Number of house owned by the respondents in Ibadan (Low density residential area)

Number of house owned	Response					
	Men		Married women		Female-headed household	
	No	%	No	%	No	%
1 House	11	27.5	6	13.6	-	0.0
2 Houses	5	12.5	3	6.8	1	14.3
3 Houses	2	5.0	-	0.0	-	0.0
4 Houses	-	0.0	-	0.0	-	0.0
More than 4 Houses	-	0.0	-	0.0	-	0.0
None at all	22	55.0	35	79.6	6	85.7
Total	40	100.0	44	100.0	7	100.0

Source: Field survey, 2001



Appendix 6.1: Result of the Stepwise Multiple Linear Regression Model of the Explanatory variables of involvement in the housing development decision-making of women in the traditional core high density residential area in Ibadan.

Model	Variable Name	Level of Explanation (R-Square Change)	R-Square	Std. Error	F-Change	Sig. F Change	Multiple Stepwise Regression ANOVA Result	
							F-value	Sig.
1	Socio-economic	.106	.106	4.2866	7.426**	.000	7.426**	.000
2	Responsibilities in the Household	.045	.150	4.1839	19.725**	.000	9.499**	.000
3	Social Support & Social Network	.022	.173	4.1448	3.374*	.019	7.788**	.000
4	Aspiration and Awareness	.457	.629	2.7856	151.931**	.000	48.324**	.000
5	House Value	.001	.630	2.7865	.784	.376	44.902**	.000

R-Square = 63 %

\* Significant at the .05 level

\*\* Significant at the .01 level

Source: Field survey, 2001

Appendix 6.2: Result of the Stepwise Multiple Linear Regression Model of the Explanatory variables of involvement in the housing development decision-making of women in the non-traditional core high density residential area in Ibadan.

Model	Variable Name	Level of Explanation (R-Square Change)	R-Square	Std. Error	F-Change	Sig. F Change	Multiple Stepwise Regression ANOVA Result	
							F-value	Sig.
1	Socio-economic	.154	.154	4.1193	4.327**	.000	4.327**	.000
2	Responsibilities in the Household	.006	.160	4.1191	1.012	.316	3.854**	.000
3	Social Support & Social Network	.039	.199	4.0645	2.281	.082	3.455**	.000
4	Aspiration and Awareness	.405	.604	2.8906	46.273**	.000	15.933**	.000
5	House Value	.014	.617	2.8514	4.770*	.031	15.546**	.000

R-Square = 61.7 %

\* Significant at the .05 level

\*\* Significant at the .01 level

Source: Field survey, 2001

Appendix 6.3: Result of the Stepwise Multiple Linear Regression Model of the Explanatory variables of involvement in the housing development decision-making of women in the medium density residential area in Ibadan.

Model	Variable Name	Level of Explanation (R-Square Change)	R-Square	Std. Error	F-Change	Sig. F Change	Multiple Stepwise Regression ANOVA Result	
							F-value	Sig.
1	Socio-economic	.105	.105	4.2543	2.516*	.025	2.516**	.000
2	Responsibilities in the Household	.029	.134	4.2011	4.285*	.040	2.824**	.000
3	Social Support & Social Network	.133	.267	3.9114	7.554**	.000	4.547**	.000
4	Aspiration and Awareness	.353	.619	2.8525	37.680**	.000	15.272**	.000
5	House Value	.007	.626	2.8374	2.298	.132	14.496**	.000

R-Square = 62.6 %

\* Significant at the .05 level

\*\* Significant at the .01 level

Source: Field survey, 2001

Appendix 6.4: Result of the Stepwise Multiple Linear Regression Model of the Explanatory variables of involvement in the housing development decision-making of women in the low density residential area in Ibadan.

Model	Variable Name	Level of Explanation (R-Square Change)	R-Square	Std. Error	F-Change	Sig. F Change	Multiple Stepwise Regression ANOVA Result	
							F-value	Sig.
1	Socio-economic	.322	.322	4.5903	3.475**	.007	3.475**	.000
2	Responsibilities in the Household	.019	.341	4.5778	1.241	.271	3.173**	.000
3	Social Support & Social Network	.108	.448	4.3415	2.603	.065	3.250**	.000
4	Aspiration and Awareness	.272	.720	3.2134	12.005**	.000	7.334**	.000
5	House Value	.018	.738	3.1537	2.412	.129	7.242**	.000

R-Square = 73.8 %

\* Significant at the .05 level

\*\* Significant at the .01 level

Source: Field survey, 2001

Appendix 6.5: Correlation analysis result between Women involvement in the housing development (Y) and the independent or explanatory variables (X)

Variables	Correlation value ('r')	Sig. value
Age	.284**	.000
Educational level	.079*	.035
Income	.100**	.007
Household size	.117**	.002
Stage in the life cycle	.157**	.000
Marital status	.112**	.003
Responsibilities in the household	-.136**	.000
Physical support	.094*	.012
Availability of househelp	.147**	.000
Membership of association that assist in housing matters	.115**	.002
Women housing development involvement perception	-.269**	.000
Women intention to be involved in the housing development	.177**	.000
Level of knowledge of women of their household housing development	.729**	.000
House rent value	-.118**	.002

\* Significant at the .05 level

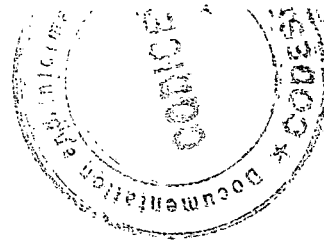
\*\* Significant at the .01 level

Source: Field survey, 2001

Appendix 7.2: shows the percentage figure of women and men that takes special interest in each of these aspects of the household housing structural unit

Aspects of the household housing structural unit	Traditional core high density residential area		Non-traditional core high density residential area		Medium density residential area		Low density residential area		All the residential areas	
	Women (n=384) (%)	Men (n=292) (%)	Women (n=150) (%)	Men (n=114) (%)	Women (n=136) (%)	Men (n=125) (%)	Women (n=51) (%)	Men (n=40) (%)	Women (n=721) (%)	Men (n=571) (%)
Living room	42.0	65.8	32.7	70.5	41.2	65.3	66.7	65.0	45.5	66.6
Bedroom	55.2	37.6	53.4	40.0	38.9	41.1	60.8	55.0	52.1	40.1
Kitchen	32.6	14.4	49.3	18.3	44.1	16.9	43.1	35.0	39.0	17.2
Bathroom	15.4	13.7	17.4	13.9	16.9	12.9	25.5	22.5	16.7	14.2
Toilet	22.6	21.2	36.7	30.5	36.8	33.9	19.6	22.5	28.1	25.9
Parking-garage	5.0	8.2	6.7	9.6	14.0	16.1	21.6	20.0	8.2	11.1

Source: Field survey, 2001



Appendix 7.3: Paired Samples 't' Test result of some Aspects of Housing that women and men takes special interest in, in each residential area in Ibadan

Variables	High (core) Density Residential Area			High Density Residential Area			Medium Density Residential Area			Low Density Residential Area			All the Four Residential Area		
	t-value	D.F.	Sig.	t-value	D.F.	Sig.	t-value	D.F.	Sig.	t-value	D.F.	Sig.	t-value	D.F.	Sig.
Living Room	-5.611**	291	.000	-6.210**	114	.000	-4.695**	123	.000	.000	39	1.000	-9.087**	570	.000
Bedroom	3.659**	291	.000	1.520	114	.131	.235	123	.815	.255	39	.800	3.190**	570	.001
Kitchen	6.997**	291	.000	6.157**	114	.000	5.183**	123	.000	1.160	39	.253	10.501**	570	.000
Bathroom	.468	291	.640	.904	114	.368	.755	123	.452	.000	39	1.000	1.192	570	.234
Toilet	.688	291	.492	.844	114	.400	.973	123	.332	-.813	39	.421	1.205	570	.229
Parking space/Garage	-1.151	291	.250	-.942	114	.348	.294	123	.769	.330	39	.743	-.762	570	.446

\*\* Significant at  $p < .01$

\* Significant at  $p < .05$

Source: Field Survey, 2001

Appendix 7.4: Shows the percentage figures of women and men that their daily activities are adversely affected by the aspects of housing

Aspects of the household housing	Traditional core high density residential area		Non-traditional core high density residential area		Medium density residential area		Low density residential area		All the residential areas	
	Women (n=384) (%)	Men (n=292) (%)	Women (n=150) (%)	Men (n=114) (%)	Women (n=136) (%)	Men (n=125) (%)	Women (n=51) (%)	Men (n=40) (%)	Women (n=721) (%)	Men (n=571) (%)
Location of the house	25.1	21.6	18.7	22.8	22.1	14.4	13.7	10.0	22.4	19.4
Kitchen	18.0	10.3	17.4	11.4	11.8	8.8	11.8	5.0	16.2	9.8
Power supply	62.5	61.3	66.0	49.1	64.0	66.4	43.1	47.5	62.1	59.0
Water supply	35.2	26.4	35.0	23.7	41.9	35.4	20.6	11.3	35.4	26.8
Neighbourhood road condition	24.0	18.2	36.0	28.9	35.3	34.4	7.8	12.5	27.5	23.5
Space for income generation	17.7	7.5	18.0	9.6	8.8	8.0	9.8	7.5	15.5	8.1
Living space	19.3	13.0	10.7	10.5	5.9	4.0	2.0	2.5	13.7	9.8

Source: Field survey, 2001