

AN EVALUATION OF THE LOW-INCOME HOUSING SECTOR IN JAMAICA

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	III
LIST OF TABLES.....	VIII
LIST OF FIGURES.....	X
CHAPTER 1: INTRODUCTION.....	1
RESEARCH STATEMENT.....	2
DEFINING POVERTY AND LOW INCOME HOUSING IN JAMAICA.....	2
A PROPOSAL TO DEAL WITH HOUSING ISSUES IN JAMAICA.....	3
CRITERIA FOR EVALUATION.....	4
A BRIEF HISTORY OF JAMAICA.....	5
A COMPARATIVE OVERVIEW OF POVERTY AND HOUSING IN THREE DEVELOPING NATIONS: JAMAICA, CUBA, AND HAITI.....	6
Population Growth and Life Expectancy.....	6
Country Size and Pattern of Settlement.....	7
Unemployment Rate and Literacy Level.....	8
Level of Development.....	8
Housing Deficit.....	9
Government System.....	9
LOW INCOME HOUSING IN CUBA.....	10
A New Housing Agenda.....	10
Centralizing the Housing Industry.....	11
Architects in the Community Programme.....	13
Alternative Construction Materials.....	14
National Program for Lower Energy and Material Consumption.....	14
LOW INCOME HOUSING IN HAITI.....	15
The Haitian Economy.....	15

The Construction Industry.....	17
AN OVERVIEW OF THE JAMAICAN ECONOMY	21
LOW INCOME HOUSING IN JAMAICA	24
A National Housing Initiative	25
The Construction Industry.....	25
Jamaica’s Population.....	26
THE GOVERNMENT OF JAMAICA	29
CHAPTER 2: RESEARCH METHODOLOGY, DATA COLLECTION AND ANALYSIS	31
METHOD OF EVALUATION	31
DATA COLLECTION AND ANALYSIS	32
REVIEW AND ANALYSIS OF SURVEYS	33
CHAPTER 3: PROVIDERS OF LOW INCOME HOUSING IN JAMAICA.....	43
PUBLIC SECTOR PROVIDERS	44
The Ministry of Housing	45
The National Housing Development Corporation.....	45
The National Housing Trust.....	46
The Urban Development Corporation	47
PRIVATE SECTOR PROVIDERS	48
West Indies Home Contractors	48
Ashtröm Building System.....	49
Food for the Poor Jamaica	49
Habitat for Humanity	52
THE INFORMAL HOUSING INDUSTRY: SQUATTER SETTLEMENTS	53
FINANCING FOR HOUSING	55
CHAPTER 4: THE HOUSING DEVELOPMENT PROCESS IN JAMAICA.....	56

GOVERNMENT POLICIES	56
The National Shelter Strategy	56
The Joint Venture Policy	57
A Jamaican Housing Policy	58
The National Housing Policy	59
The National Poverty Eradication Program	59
PUBLIC SECTOR PROCUREMENT PROCEDURES	60
GOVERNMENT BODIES REGULATING THE CONSTRUCTION PROCESS	61
KSAC and the Parish Councils	61
Town and Country Planning Department	61
Office of the Contractor General	62
National Contracts Commission	63
National Land Agency	63
The Bureau of Standards Jamaica	65
The State of the Jamaica Building Codes	65
CHAPTER 5: THE HOUSING INDUSTRY IN JAMAICA	66
THE STATE OF THE HOUSING INDUSTRY	66
THE CONSTRUCTION INDUSTRY	66
INDICATORS OF THE CONSTRUCTION INDUSTRY PERFORMANCE	66
HOUSING MORTGAGES	67
HOUSING QUALITY	74
DWELLING TYPES	74
HOUSING TENURE	75
TYPE OF CONSTRUCTION MATERIAL	77
WATER SUPPLY	79
LIGHTING	81
TOILET AND SANITATION FACILITIES	82
NUMBER OF PERSONS PER HABITABLE ROOM	84

HOUSING QUALITY INDEX	85
LEVEL OF CONSUMPTION.....	86
POVERTY IN JAMAICA	87
CHAPTER 6: CASE STUDY INNERCITY HOUSING PROJECT	89
INTRODUCTION.....	89
SCOPE OF THE PROJECT	89
PROJECT PROGRESS	91
CHAPTER 7: CONCLUSIONS AND RECOMMENDATIONS.....	99
Conclusions:	99
Recommendations:.....	102
APPENDIX A	105
SURVEY COVER LETTER AND QUESTIONNAIRE.....	105
QUESTIONNAIRE	106
REFERENCES.....	109
ENDNOTES	110

LIST OF TABLES

TABLE 1: HOUSING DEFICIT AS A PERCENTAGE OF POPULATION	9
TABLE 2: A COMPARISON OF COUNTRY CHARACTERISTICS	10
TABLE 3: SOURCES OF NEW OFFICIAL DEVELOPMENT ASSISTANCE (2000 – 2005).....	22
ECONOMIC AND SOCIAL SURVEY OF JAMAICA 2005.....	22
TABLE 4: POPULATION OF JAMAICA’S MAJOR CITIES - 2001	26
TABLE 5: JAMAICA'S POPULATION BY PARISH 1982/1991/2001	27
TABLE 6: POPULATION – JAMAICA’S URBAN CENTERS – 1982 AND 1991.....	28
TABLE 7: HOUSING STARTS AND COMPLETIONS 2001-2005, JAMAICA.....	44
TABLE 8: PROCUREMENT MATRIX FOR WORKS CONTRACTS.....	64
TABLE 9: GROSS DOMESTIC PRODUCT IN PRODUCERS’ VALUES AT CONSTANT (1996) PRICES 2000- 2005, JAMAICA	67
TABLE 10: PERFORMANCE OF THE CONSTRUCTION INDUSTRY 2004.....	69
TABLE 11: MORTGAGES BY MAJOR AGENCIES – 2005, JAMAICA.....	70
TABLE 12: MORTGAGE FINANCING BY NBT (MILLIONS): UNIT TYPE, 2001 -2005.....	70
TABLE 13: HOUSING STARTS AND COMPLETIONS 2001-2005	71
TABLE 14: HOUSING STARTS BY PARISH 2005, JAMAICA	73
TABLE 15: PERCENTAGE DISTRIBUTION OF DWELLING TYPES, 1994-2002, 2004, JAMAICA	74
TABLE 16: PERCENTAGE DISTRIBUTION OF SELECTED DWELLING TYPES BY REGION, 2004	75
TABLE 17: PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY TENURE STATUS, REGION, AND QUINTILE, 2004	76
TABLE 18: USE OF SELECTED CONSTRUCTION MATERIALS OF OUTER WALL OF DWELLING, 1994-2002, 2004	77
TABLE 19: USE OF SELECTED CONSTRUCTION MATERIALS OF OUTER WALL OF DWELLING BY REGION, 2002, 2004	78
TABLE 20: PERCENTAGE DISTRIBUTION OF DWELLING BY MATERIAL OF OUTER WALL 2004, JAMAICA.....	79
TABLE 21: PERCENTAGE DISTRIBUTION OF ACCESS TO WATER BY SOURCE, 1994-2004, 2004.....	80

TABLE 22: PERCENTAGE DISTRIBUTION OF DWELLINGS BY SOURCE OF DRINKING WATER, REGION, AND QUINTILE, 2004,	81
TABLE 23: PERCENTAGE DISTRIBUTION OF SOURCE OF LIGHTING, REGION AND QUINTILE, 2004, JAMAICA	82
TABLE 24: PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY TYPE OF TOILET FACILITY, AND REGION, 2004	83
PLANNING INSTITUTE OF JAMAICA	83
TABLE 25: PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY TYPE OF TOILET FACILITY, AND QUINTILE, 2004	83
TABLE 26: PERCENTAGE DISTRIBUTION OF HOUSEHOLDS HAVING KITCHEN FACILITIES BY REGION, AND QUINTILE, 2004	84
TABLE 27: PERCENTAGE HOUSING QUALITY INDEX BY REGION, 2002, 2004, JAMAICA	85
TABLE 28: PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY ANNUAL CONSUMPTION EXPENDITURE, JAMAICA	86
TABLE 29: PERCENTAGE INCIDENCE OF POVERTY BY REGION 1995-2004, JAMAICA	88

LIST OF FIGURES

FIGURE 1: Map of the Caribbean.....	6
FIGURE 2: Map of Cuba – Population Density in 1965.....	12
FIGURE 3: Map of Haiti – Population Density in 1965, Based on 1950 Census.....	18
FIGURE 4: Food for the Poor, Typical Housing Unit, Haiti.....	20
FIGURE 5: Map of Jamaica – Population Density Based on 1960 Census.....	28
FIGURE 6: Map of Jamaica – Parish Divisions.....	30
FIGURE 7: Question 1 - Type of Organization.....	34
FIGURE 8: Question 8 – Type of Projects.....	35
FIGURE 9: Question 8: Location of Projects	36
FIGURE 10: Question 16 – The State of Low Income Housing.....	37
FIGURE 11: Question 18 – The Gap in Housing for the Poor in Jamaica.....	38
FIGURE 12: Question 20 – The Regulations on the Residential Design and Construction Industry.....	40
FIGURE 13: Question 23 – The Financial Options available to the Poor.....	41
FIGURE 14: Food for the Poor, Typical Housing Unit, Jamaica.....	51
FIGURE 15: Food for the Poor, Actual View, Jamaica.....	52
FIGURE 16: Habitat for Humanity House Jamaica	53

FIGURE 17: Denham Town ICHP Development:.....	92
FIGURE 18: Denham Town – Parking Lot Adjacent to Housing.....	92
FIGURE 19: Denham Town – Parking Lot Adjacent to Existing Inner City Housing.....	93
FIGURE 20: Trench Town – Four Storey Housing.....	94
FIGURE 21: Trench Town – Kitchen Area	94
FIGURE 22: Trench Town – Wash room	95
FIGURE 23: Trench Town – Bathroom and Vanity Unit.....	95
FIGURE 24: Trench Town – With Two Storey Units.....	96

SUMMARY

The following thesis addresses the need for low income housing in Jamaica with the purpose of evaluating the existing circumstances that influence the growth or decline of the low income housing industry. The focus is on identifying solutions that fuel growth.

Research on the current state of low income housing in Jamaica and the programs that have been established to aid in the development of such housing, was carried out in the United States and in Jamaica. Questionnaires were developed and sent to individuals within the construction industry, targeting those who participate on low income housing projects. The results were collected, analyzed, described, and were used to extrapolate the research results. From this conclusions were drawn and recommendations made.

Although Jamaica is considered a developing nation, in some advancement the island operates on a first world level. However, challenged by economic development, providing low income housing is limited by the resources available and the effectiveness of the programs implemented. This research attempts to create an overview of Jamaica's low income housing industry.

CHAPTER 1: INTRODUCTION

One of the most overwhelming problems the world faces in the 21st Century is poverty. The negative consequences of world poverty have a devastating affect on all facets of society, in third world countries as well as industrialized nations. With half of the earth's population living in poverty, there are common challenges faced by both the developed and developing worlds alike. One of those challenges is defining the policies, systems, and financing that will provide housing to the poor, affordably. Most Industrialized nations have very developed programs that address the issues of affordable housing, and these programs are usually supported by various public and private institutions. Although less developed countries attempt to employ similar programs, the challenges of social, economical, and political influences have a more limiting affect on the progress of providing affordable housing.

There is currently a very strong global push to reduce the ill effects of poverty and homelessness, as we now experience the earth's combined human population of 6.5 billion, nearly 3 billion live in poverty. As the world population continues to grow, it can be speculated that without drastic measures to increase the standard of living of those that are poverty stricken, the trend will be that the number of people affected by poverty will also grow (based on Malthus Theory¹). This research paper will examine efforts to reduce the homelessness at the lower income levels in society on the island of Jamaica.

In providing for the poor around the world, terms such as low-income housing and affordable housing have been used to describe efforts to reduce the number of people living in inadequate shelters. The definition of poverty varies, but it is usually related to a level of income in a society. According to the World Bank Organization, poverty can be defined as the minimum income level in a society, usually defined by the

“poverty line”. Although it can be argued that there are many contributors to poverty around the world, it certainly is not solely caused by a lack of total resources. The world for some time has experienced a disproportionate distribution of the world’s resources. The Gross Domestic Product (GDP)ⁱⁱ of the poorest quarter of the world is less than the wealth of the world’s three richest people. Even if the world produces enough resources to accommodate every single one of its human inhabitants, because of social, economical, and political dynamics, everyone may not necessarily benefit from such production. This reality often times has had more of a negative effect on less developed countries, already struggling with a disproportionate amount of their population living in poverty stricken environments, than more powerful industrialized countries.

Research Statement

This research study will evaluate increasing the capacity of the housing industry in Jamaica to provide more low income housing. I believe that there are efforts being made to meet the low income housing need, but these efforts fall short of housing production required. Alternative construction methods, and partial housing schemes are viable options to getting more housing in production, and allowing for a greater need to be met.

Defining Poverty and Low Income Housing in Jamaica

In Jamaica, poverty is assessed by a person's position relative to the national poverty line which is calculated on annual consumption, using standards established by the Planning Institute of Jamaica (PIOJ)ⁱⁱⁱ and the Statistical Institute of Jamaica (STATIN)^{iv}. Consumption, a measure of eating, is used to substitute for income, for which reliable data is difficult to obtain. The poverty line is computed for a reference family of five; which includes one adult male, one adult female, an infant, a teenager and a pre-teen

child. Using nutritional requirements established by the World Health Organization (WHO)^v, Pan American Health Organization (PAHO)^{vi} and the Jamaica Ministry of Health, a low-cost food basket is designed for this reference family. To account for non-food needs, the reciprocal of the average food share for the lowest income quintile is multiplied by the cost of the minimum food basket. For 2002 the poverty line for a family of five was set at J\$178,906.5 (US\$ 2,752.41 'at current 2006 exchange rate of J\$65 = US\$1') annually. In 2004 this poverty line increased to J\$221,130.78 (US\$ 3,402 'at current 2006 exchange rate of J\$65 = US\$1'). Therefore, a family is said to be living in poverty if its total annual consumption is less than J\$221,130.78 annually. The poverty line for individuals was set at J\$58,508.5 (US\$ 900) annually

In a society, persons with no-income or low income have limited access to societal resources such as money, property, medical care, and education. In order to create an equitable environment, governments subsidize these basic resources to provide a standard of living for people with lower income levels in society. For the purpose of this paper low income housing refers to housing provided for the sole purpose of meeting the needs of no- and low income persons in the Jamaican society. In Jamaica lower Income levels are determined in relation to the Poverty line. As a measure of spending and access to resources, the poverty line provides a reference, with many of poor living slightly above as well as below the \$J221,130.78 annual consumption poverty line.

A Proposal to Deal with Housing Issues in Jamaica

The government in Jamaica acknowledges that there is an increasing need for low income housing solutions. In January of 2005, then Jamaican Prime Minister, Honorable Percival PJ Patterson, in his Cabinet address, declared that 30,000 houses would need to be built annually over the next 5 years to meet Jamaica's housing

demand. Prime Minister Patterson also declared that the Government's contribution to the housing sector over the next 3 years would be in the region of J\$30 billion to provide housing for almost 35,000 Jamaicans. This future housing is to be provided by three government entities which are the largest contributors to the low income housing sector; the National Housing Trust (NHT) – 12,000 houses, the National Housing Development Corporation (NHDC) – 10,540 houses, and the Ministry of Housing – 12,000 houses.

(Post-Cabinet Briefings, Monday 9th January, 2006, the Jamaica Gleaner)

Criteria for Evaluation

In evaluating the housing industry of Jamaica, the criteria being used will fall into categories of social, economic and political factors for defining the state of development of the country. This paper will look at the following seven areas to determine the relative level of development for Jamaica and two of its neighboring countries in the Caribbean; Haiti and Cuba (See Figure 1).

- Population size, growth and life expectancy
- County Size and pattern of settlement – migration and squatter settlements
- Employment Rate and Literacy Level
- Level of Development – GDP and debt burden
- Percentage of population living below the poverty line – income level of population
- Housing deficit
- Government system - consistency and policies

A Brief History of Jamaica

Located in the Caribbean Sea, just south of Cuba, Jamaica is one of the largest islands in the Caribbean, belonging to a group of Islands known as the Greater Antilles. After the arrival and conquest of the native Arawak Indians by Christopher Columbus in 1494, Jamaica was occupied by Spanish rule until 1655, when it was captured by the British. Jamaica, like many islands in the rest of the region, became an economically viable colony through the development of plantations for the cultivation of sugar cane. From 1655 – 1838 the importation of slaves proved lucrative to the Jamaican sugar trade and the British-Jamaican economy. After 1938 and the emancipation of slaves in Jamaica, it was not until 1962 that Jamaica gained independence. This independence is still heavily influenced by the original British governmental systems which ruled the island, and was used as the basis for the island's current government system.

Jamaica has a highly developed economy, which supports numerous financial institutions and a vibrant stock exchange, compared to that of most Caribbean islands; nonetheless, because of a high national debt to income ratio and a devaluing currency the country continues to be inhibited in its economic growth. Despite this fact, some efforts are being made through various public and private entities to provide more housing opportunities for the poor in Jamaican society every year. In researching Jamaica and its endeavors to combat the housing shortage, a comparative perspective of the economic similarities and differences of other developing nations, their politics, housing policies, and current efforts to provide low-income housing will prove essential. This study will provide the foundation for understanding and comparing the housing methods used by others countries (Cuba and Haiti) to those used in Jamaica.



Figure 1: Map of the Caribbean

A Comparative Overview of Poverty and Housing in Three Developing Nations: Jamaica, Cuba, and Haiti

Jamaica's closest neighbors in the Caribbean are Cuba and Haiti. These countries share many similarities in climate, terrain, and development. Growing out of very distinct histories, they were primarily agrarian and have sought means of development to reduce social and economic inequalities within their societies. Growing populations and increased life expectancy without marked comparative increase in their incomes, have led these and other developing countries to face problems of providing sufficient housing and basic sanitary requirements for large portions of their populations.

Population Growth and Life Expectancy

Of the three islands Jamaica has the smallest population; currently estimated at 2.731 million (^{vii} *CIA Fact Book*, estimated July 2005), with an average population growth

rate of 0.71 percent. Cuba has the largest population of 11.346 million people (*CIA Fact Book*, 2005) and the lowest growth rate of the three, at 0.33 percent (2005), a decrease from 0.39 in 2000. Haiti has a population of 8.121million (*CIA Fact Book*, 2005), and is considered to be the poorest country in the Western Hemisphere, with an annual population growth rate of 2.26 percent. As Haiti's population continues to grow at a high rate estimated at almost 200,000 people per year, the country faces the lowest life expectancy of the three countries at 52 years. Cubans and Jamaicans, enjoy a life expectancy of 72 and 73 years, respectively.

Country Size and Pattern of Settlement

The area of Jamaica is 10,991 square kilometers (6,830 square miles) characterized by a mountainous interior and a discontinuous narrow coastline. Cuba, situated just north-of Jamaica, is almost ten times the size of Jamaica, measuring 100,860 square kilometers (62,672 square miles). Cuba has a terrain that is mostly flat to rolling plains, with rugged hills and mountains. To the east of Cuba is an island known as Hispaniola. This island is made up of two countries; Haiti and Dominican Republic.^{viii} The western third of the island is Haiti. Mostly rough and mountainous, Haiti's area is 27,750 square kilometers (17,243 square miles).

Although these three countries vary in size and terrain, one of the most important factors that are common among them is that their economies developed from and are still heavily supported by their agriculture industries. Only 16 percent of Jamaica's land is considered arable while Cuba's and Haiti's lands are 33 and 28.3 percent farmable, respectfully.

As populations grow, the trend is for the rural populations of these three nations to move to urban areas in search of a better and higher standard of living. About 579,000 people live in Kingston, the capital city of Jamaica at the time of the 2001

census, and just above half of Jamaica's population lives in urban environments (STATIN). Cuba's capital city Havana was reported to have a population of 2.4 million inhabitants in 2002, with 70 percent of the country's population living in urban centers (^{ix}*Handbook of World Families*, 2005). The population of Haiti's capital city Port-au-Prince was 917,112 in 1997, but in 2003, this figure more than doubled with a population of 1,977,036. Unlike Cuba and Jamaica, Haiti's population is overwhelmingly rural.

Unemployment Rate and Literacy Level

A 2004 interim report of the Jamaica Survey of Living Conditions (JSLC) showed the unemployment rate in Jamaica at 16.1 percent, a decrease from 19.7 in 2003. Cuba for its population size has a very low unemployment rate of 1.9 percent in 2005, especially compared to Haiti, which has a 73 percent unemployment rate. Literacy levels are highest in Cuba, marked at 97 percent, 88 percent in Jamaica, and 52.9 percent in Haiti.

Level of Development

Jamaica's GDP per capita is US\$4,300 while Cuba's GDP per capita is US\$3,300. Haiti's GDP per capita is US\$1600 (*CIA FB*, 2005) and most Haitians live on about US\$1 a day.

Percentage of the Population Living Below the Poverty Line

Studies suggest that levels of poverty within a society have a direct effect on the level of literacy of a society. Approximately 19.7% of the Jamaican population officially lives below the poverty line (*CIA FB*, 2005). 80 percent of Haiti's population is

considered to be living below the country's poverty line. It is unclear what percent of Cubans live below the poverty line in 2005. (Table 2)

Housing Deficit

Large population migration from rural settlements usually leads to crowding in urban areas as the public infrastructure is unable to support the large influx of people. Haiti's estimated national housing deficit is 1 million homes and growing annually. In Cuba, as no family is allowed to own more than one house, families live together for many generations. Cuba's housing deficit in 2003 was recorded as 530,000 homes a year to meet the deficit. (Table 1) In 1997, the housing deficit for Jamaica was estimated at 647,194 homes, 228,588 for the Kingston Metropolitan region and 418,606 for all other parishes.

Table 1: Housing Deficit as a Percentage of Population

Country	Population (millions)	Housing Deficit/Year	Housing Deficit as a % of Population
Haiti	8.1	1,000,000	1/8
Cuba	11	530,000	1/22
Jamaica	2.7	647,000	1/4

Government System

Of the three countries, Haiti was the first to gain independence in 1804 with the emancipation of slaves. Haiti has a presidential republic governmental system with an elected president and National Assembly; however, some claim it to be an authoritarian government in practice. Cuba is governed as a communist state with a President as the Head of State. Jamaica operates under a parliamentary democratic government system with a Prime Minister as the head of state.

**Table 2: A Comparison of Country Characteristics
Jamaica, Cuba and Haiti**

COUNTRY	SIZE (SQ. KM.)	POPULATION (MILLIONS)	POPULATION GROWTH (%)	LIFE EXPECTANCY (YEARS)	UNEMPLOYMENT (%)	LITERACY LEVEL	GDP PER CAPITA (US\$)	PEOPLE LIVING BELOW POVERTY LINE(%)
Jamaica	10.9	2.7	0.71	73	16.1	88	\$4,300	19.7
Haiti	27.7	8.1	0.33	52	73	52.9	\$1,600	80
Cuba	100.8	11	2.26	72	1.9	97	\$3,300	n/a

Low Income Housing in Cuba

A New Housing Agenda

After seizing control of the Cuban government in 1959, President Fidel Castro promised to provide housing for all who work. He seized control of all Cuban property and granted people ownership of the house where they lived, requiring them to pay rent to the government based on their income and the size of the dwelling. The government then created the Cuban National Housing Institute to distribute the properties and collect rent. Most of the new housing construction began in the 1970s, with micro brigades^x, created as an informal housing production sector where workers built their own housing. Money and materials were provided to managers of large manufacturing plants, farms or government agencies by The National Housing Institute so that workers of these agencies could be organized into micro brigades, to provide the labor for the construction process.

Problems of unskilled labor, who were replaced at the start of new projects, never allowed for an accumulated knowledge in the micro brigades. In addition, the perception of the houses produced being of a lower standard because of traditional labor intensive methods and the semi-prefabricated building products caused the government to phase out micro brigades in the late 1970's. In the mid 1980s', micro brigades experienced a resurgence-, and a rebirth in 1987 in the form of Social Brigades. Social

Brigades attracted volunteers of local communities as the labor force rather than workplaces.

Since 1959 the Cuban population has grown more than 50 percent while the housing stock has increased by 80 percent (Kapur and Smith, 2002). Most of this construction has occurred in the rural areas since the housing need was greatest in these areas. Figure 2 shows the density of population in 1965. In the early 1960s, only 30 percent of the housing in the countryside was considered suitable for habitation. By increasing housing in rural areas, the government was also able to prevent mass migration to Havana.

Centralizing the Housing Industry

Housing production then became centralized in the Ministry of Construction, which led to a more standardized and large scale production of housing. The government set a goal of 100,000 new units per year and invested significantly in industrialized methods of prefabricated materials to achieve this goal. In the 1970s, the United States embargo which has been in place since 1961 had a crippling effect on Cuba's economy.

The 1984 Housing Law converted more lease owners living in government homes into home owners, introduced greater flexibility in Cuba's housing policies, permitted limited short termed private rentals, fostered self-built housing construction, and updated existing legislation regulating housing management, maintenance, and repairs, evictions and the buying and selling of land and housing. Two main goals of the Housing Law, were to establish tenure status by converting lease holders into home owners, and attempted to clarify responsibility for ordinary maintenance and repairs.

New policies were then adopted, which included finishing one project before starting a new one, an approach which places more value on completion than on the number of units. Services and infrastructure were now to be built at the same time as housing to raise the standard of these services to an acceptable level. Housing construction dwindled with the collapse of the Soviet Union and shortage of oil and fuel caused more attention to be directed at the repair of existing housing.

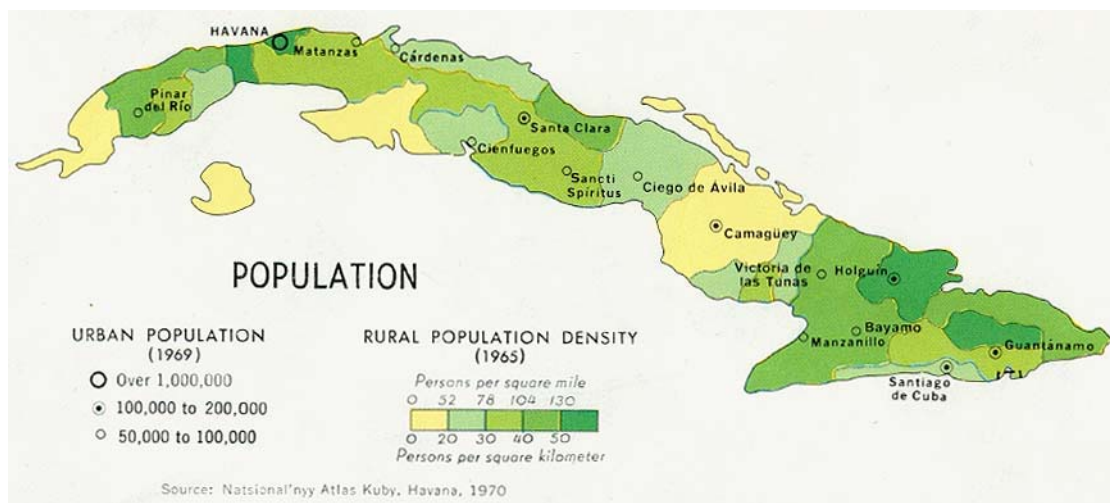


FIGURE 2: Map of Cuba – Population Density in 1965

Between 1959 and 1999, 1,500,000 dwellings were constructed by the State, cooperatives and individuals Cuba, of which almost a third have been self-built. As elsewhere in the world, this self-built housing has been of poor quality. Although mainly built of strong materials, construction quality is poor, more materials than necessary are used and rooms are too small. Ventilation is inadequate and internal layout is not good. In urban areas there are inadequate infrastructure connections.

Architects in the Community Programme

In 1990 Self-help programs were dwindling. Initiatives often resulted in incomplete and inadequate construction causing other problems due to the lack of technical knowledge and assistance. The Architects in the Community Programme (PAC) was established as a pilot program in 1994 by the National Housing Institute, together with Habitat Cuba (a local NGO) and two local governments to help meet housing needs. Its basic mission was to offer the Cuban people professional services to improve their housing conditions and to improve their quality of life. It began with 24 architects working in two municipalities with an Argentinean method of Participative Design to assist people with their housing. The program proved highly successful and has since been extended to cover the entire country and there are currently over 630 architects working in 157 of Cuba's 169 municipalities.

The emphasis of PAC is upon developing an individual solution for each family's circumstances rather than using a set of standard repetitive solutions. The need to ensure the best possible solution for the least possible cost is also a very important consideration. Some families build a second-story; others build to the side or simply rearrange the internal divisions in the house to give a better allocation of internal space and improved ventilation. The Architects in the Community Programme is seen not only as a technical program but also a social program in that it is developing the skills and the confidence of the people. The program is self-funding with the fees paid by the families covering its costs

Two main advantages of The Architects in the Community Programme are its affordability and accessibility to everyone. On average the cost of the services of the architect for a total project is Pesos 250 (approximately US\$10), and the construction cost is Pesos 14,000 (US\$560) with a typical income per household being Pesos 350 (US\$14) per month. For those households without any means of support these fees are

met by the social security system. Over 500,000 families have been assisted up until 2003 (Warah, 2003), and the effects have been growing with increasing numbers of households using its services. Good working relationships are established, and families refer with pride to 'our architect'. This program was awarded the World Habitat Award in 2001 by the UK-based Building and Social Foundation.

Alternative Construction Materials

The Centro de Investigación y Desarrollo de Estructuras y Materiales (CIDEM) was spurred into seeking alternative materials with the onset of the Cuban economic crisis which affected the production of Ordinary Portland Cements (OPC). Techniques developed by CIDEM included alternative cement using recycled wastes from the sugar industry. This material can replace up to 40 percent OPC used in concrete blocks without affecting its quality. The waste material is recycled as fuel, the ashes of which become pozzolanic raw material needed for the binder. The availability for the material was increased by creating a local network of building materials' manufactures, four workshops that produce blocks, tiles and alternative cement are fully operational in Sagua la Grande, Quemados, Caibarién and Camajuani. The workshops are owned by the National Housing Institute (NHI).

National Program for Lower Energy and Material Consumption

In 1992 the National institute of Housing established a Program for low Energy and Material Consumption for housing taking into account the possibilities and objective conditions facing the island. Over 50,000 new homes have since been built using the scarce resources available in a rational and sustainable manner. Since inception this program has developed different and creative construction techniques and systems with low energy consumption and resource optimization and substitution. These new

techniques have been applied not only in construction of new housing but also in reconstruction and rehabilitation of old housing stock. The participation of different municipalities and neighborhood associations has been the key to success of the program.

The innovative approaches and techniques for low energy use in construction have been developed and tested and the program has implemented these measures on a large scale. Community mobilization resulted in the communication of different housing needs of each community in differentiated responses and responses and improved coordination and cooperation between public, governmental and non-governmental organizations. Changes have been brought about in Cuba's housing policies to support more sustainable housing construction and use of construction material.

Low Income Housing in Haiti

Haiti remains the least-developed country in the Western Hemisphere and one of the poorest in the world. Comparative social and economic indicators show Haiti falling behind other low-income developing countries (particularly in the hemisphere) since the 1980s. Haiti now ranks 153rd of 177 countries in the United Nation's Human Development Index.

The Haitian Economy

Haiti's economy continued to be fundamentally agricultural in the 1980s, although agriculture's role in the economy--as measured by its share of GDP, the labor force, and exports had fallen sharply after 1950. Highly inefficient exploitation of the scarce natural resources of the countryside caused severe deforestation and soil erosion and constituted the primary cause of the decline in agricultural productivity. Manufacturing

became the most dynamic sector in Haiti during the 1970s, as the country's abundant supply of low-cost labor stimulated the growth of assembly operations. Services such as banking, tourism, and transportation played comparatively minor roles in the economy. Tourism, a potential source of foreign-exchange earnings, expanded rapidly in the 1970s, but it contracted during the 1980s as a consequence of political upheaval and news coverage that erroneously identified Haiti as the origin of acquired immune deficiency syndrome (AIDS).

Haiti's economy is supported by industry which includes sugar refining, flour milling, textiles, cement, tourism, light assembly using imported parts. Today nearly 70% of all Haitians still depend on the agriculture sector, which consists mainly of small-scale subsistence farming and employs about two-thirds of the economically active work force. The country has experienced little job creation since President René Prével took office in February 1996, although the informal economy is growing. Failure to reach agreements with international sponsors has denied Haiti badly needed budget and development assistance.

As a result of the traditional passivity of the government and the country's dire poverty, Haiti has depended extensively, since the mid-1970s, on foreign development aid for budget support. The United States has been the largest donor, but it has frequently interrupted the flow of aid because of alleged human rights abuses, corruption, and election fraud. Most other development agencies have followed the United States lead, thus extending United States influence over events in Haiti. Although the major multilateral and bilateral development agencies have provided the bulk of foreign funding, hundreds of nongovernmental organizations have also played a prominent role in development assistance. These nongovernmental organizations, affiliated for the most part with religious groups, have sustained hundreds of thousands of Haitians through countrywide feeding stations. They also contributed to the country's

political upheaval in 1986 by underscoring the Duvalier regime's neglect of social programs. The accomplishments of the nongovernmental organizations have proved that concerted efforts at economic development could achieve results in Haiti.

The Construction Industry

After a meager annual growth rate of 1.8 percent a year in the 1960s, Haiti's construction industry boomed in the 1970s, expanding nearly 14 percent a year, faster than any other sector except assembly manufacturing. From the 1970s onward, the construction industry had concentrated on infrastructure developments, industrial structures related to the assembly sub sector, and extravagant residential housing in Port-au-Prince and an exclusive suburb, Pétionville. The growing demand for construction caused cement output to increase from 150,000 tons a year in 1975 to 220,000 tons a year by 1985. Growth was positive, but uneven, in the 1980s, mainly as a result of political and economic turmoil. The construction industry generally failed to benefit Haiti's poor, who continued to build their own dwellings with a mixture of raw materials, mostly wood and palm thatch in rural areas and corrugated metal, cardboard, or wood in urban shantytowns.

The rural population of Haiti, grew about 1 percent a year between 1971 and 1982, and was estimated to be 3.8 million in 1982, 3.4 million in 1971, and 2.7 million in 1950. In 1982 there were about 464 people per square kilometer in rural areas, one of the highest population densities in the Western Hemisphere. The estimated population of Haiti in 1989 was 6.1 million, with an average population density of 182 people per square kilometer. Figure 3 shows population density in 1965. Some 75 percent of the population lived in rural areas, while only 25 percent remained in urban areas; this was one of the lowest urban-to-rural population ratios in Latin America and the Caribbean. A profile of the population reveals that the majority of Haitians are young.

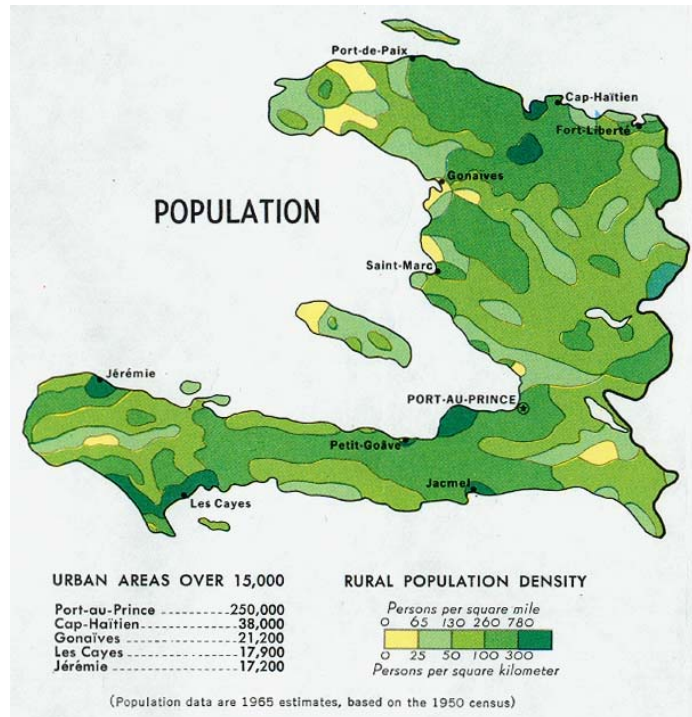


FIGURE 3: Map of Haiti – Population Density in 1965, Based on 1950 Census

Urban areas, particularly Port-au-Prince, grew significantly in the 1970s and the 1980s. The annual population growth rate of metropolitan Port-au-Prince was estimated to be 3.5 percent between 1971 and 1982, substantially above the 1.4 percent national rate for that period. The growth rate for other urban areas was estimated at 2.4 percent. Metropolitan Port-au-Prince, which includes the capital and the suburbs of Delmas and Carrefour, was by far the largest urban area, in 1982, with a population of 763,188, or about 61 percent of the total urban population. The population of the second largest city, CapHaïtien, was estimated to be 64,400 in 1982. The next two largest towns, Gonaïves and Les Cayes, had estimated populations of slightly more than 34,000. Six other towns had populations greater than 10,000.

63 percent of the Haitian populations do not have access to clean water, and two-thirds lack access to sanitary restroom facilities. The average Haitian family, a little over five persons, dwells in a home with two to three rooms and one to two bedrooms.

Roofs are usually corrugated sheet metal or straw, and over 40 percent of homes have earthen floors.

Food for the Poor in Haiti

The simple and efficient design of the houses that Food for the Poor builds in Haiti is well suited to the region. The houses are constructed from concrete blocks with corrugated metal roofing which withstands violent rainstorms that sometimes plague the country. Because of Haiti's massive deforestation, the country is prone to flooding as there are few tree roots to hold soil on mountainsides. The houses that Food for the Poor constructs are sturdier than the thatched huts many poor Haitians build as homes. (Figure 4)

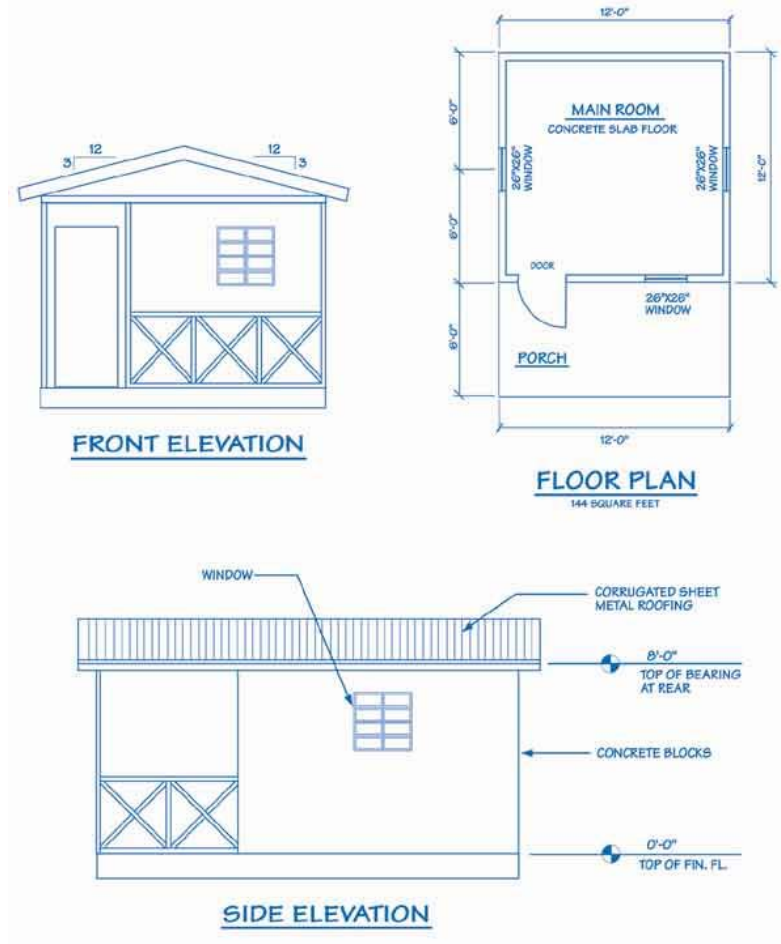


FIGURE 4: Food for the Poor, Typical Housing Unit, Haiti

According to the Food for the Poor program, because cement is very expensive in Haiti, the houses they build for \$2,000 are compact in size and yet provide comfortable living space for the families they shelter. Whenever possible, cement blocks are made on site to reduce the cost of construction. This reduces transportation expenses and the risk of breakage of the cement blocks. Recipients of Food for the Poor homes in Haiti often facilitate in the construction process by helping mix cement, bringing water to make the blocks and in clearing the land.

An Overview of the Jamaican Economy

Jamaica is a mixed, free-market economy with state enterprises as well as private sector businesses. Major sectors of the Jamaican economy include agriculture, mining, manufacturing, tourism and financial and insurance services. Tourism and mining are now the leading foreign exchange earners. Agriculture, the heart of the Jamaican economy for centuries, has been in relative decline since the early 1940's. Bauxite and alumina mining, in particular, set the pace of Jamaica's postwar economic growth through new investment and foreign exchange earnings.

Manufacturing, a quite diversified sector, underwent structural changes in the 1980s when production was refocused on exports rather than on the domestic market. Tourism declined in the 1970s, but recovered between 1980 and 1986. In the 1980s, Jamaica had a well-established financial system that was expanding. Since 1962, the number of financial institutions had more than doubled to over forty, including the country's central bank, development finance banks, commercial banks, trust companies, merchant banks, building societies, insurance companies, peoples cooperative banks, finance houses, and credit unions.

Supported by multilateral and bilateral lending agencies, Jamaica has, since the early 1980's, sought to implement structural reforms aimed at fostering private sector activity and increasing the role of market forces in resource allocation. The International Monetary Fund (IMF) and the World Bank are the lending agencies, under whose specific guidelines Jamaica has worked toward financial reforms. Table 3 indicates Jamaica's current sources of foreign assistance. Since 1991, the Government has followed a program of economic liberalization and stabilization by removing exchange controls, floating the exchange rate, cutting tariffs, stabilizing the Jamaican currency, reducing inflation and removing restrictions on foreign investment. Emphasis has been placed on maintaining strict fiscal discipline, greater openness to trade and financial

flows, market liberalization and reduction in the size of government. During this period, a large share of the economy was returned to private sector ownership through divestment and privatization programs.

Table 3: Sources of New Official Development Assistance (2000 – 2005)
Economic and Social Survey of Jamaica 2005
 Planning Institute of Jamaica

SOURCES OF NEW OFFICIAL DEVELOPMENT ASSISTANCE, 2000-2005												
(US\$ Million)												
Agency	2000		2001		2002		2003		2004		2005	
	Loan	Grant	Loan	Grant	Loan	Grant	Loan	Grant	Loans	Grant	Loan	Grant
Bilateral Cooperation	13.5	20.3	12.9	29.2	-	9.0	-	10.7	-	36.1	105.0	84.0
Multilateral Technical Cooperation	-	1.2	-	4.4	-	5.3	-	6.6	-	29.0	-	5.4
Multilateral Financial Institutions	320.2	51.5	238.8	32.8	221.8	9.5	28.7	71.7	92.4	38.6	54.1	8.9
Total	333.7	73.0	251.7	66.4	221.8	23.8	28.7	89.0	92.4	103.7	159.1	98.3

Source: Planning Institute of Jamaica and International Development Partners (IDPs)

¹ The Exchange rate used was US\$1 : J\$ 62.60

² The Inter-American Development Bank (IDB), International Bank for Reconstruction and Development (IBRD), European Union and the Caribbean Development Bank are the main Multilateral Financial Institutions that provide development assistance to the Government.

In 1992, then Prime Minister, Percival J Patterson and the government inherited one of the largest per capita national debts in the world and started a comprehensive economic program to reduce inflation and unemployment. Jamaica now has a very strict fiscal policy and is open to trade and free markets. A floating exchange rate, which at times can be quite unstable, is maintained with the United States, and there are reduced restrictions on foreign investments. In 1996, Jamaica went through an economic crisis that left the economy stagnant for four years. The Gross Domestic Product (GDP) didn't increase again until 2000 and only then by 0.8 percent, accelerating slightly to 1.7 percent of growth in 2001. With the global recession that

followed the September 11, 2001 attacks on the World Trade Center, slowed Jamaica's GDP in growth again to 0.8 percent in 2002.

The GDP of Jamaica is made up of three primary industries: Services comprise 65 percent of GDP, manufacturing and mining make up 28 percent, and agriculture accounts for 7 percent. Interestingly enough, agriculture, which is very labor intensive, accounts for 21 percent of the workforce in spite of being the smallest major industry on the island. One of every three employed workers in Jamaica works in tourism and services. In 2000, Jamaica hosted more than 1 million visitors, and tourism and services contributed \$1.33 billion to the economy, up 4.2 percent from 1999. The majority of visitors are from the United States, although citizens of the United Kingdom and Canada can also frequent the Island.

Mining accounts for a large percentage of Jamaica's GDP and employs 6,000 people. Two thirds of the island is made of limestone, and Jamaica is the world's third largest producer of bauxite, following Australia and Guinea. There are also mine-able deposits of gypsum, marble, silica, sand, and clays. Bauxite and silica production have both fallen in recent years, however, gypsum and limestone production have been on the rise; in 2000, limestone exports rose by 3.6 percent, and gypsum exports skyrocketed with a 40.1 percent increase.

From 1993 to 1997, manufacturing produced \$2 billion in exports, mostly to the United States. The industry accounts for 13 percent of GDP, employs a large percentage of the work force, and is of increasing importance to the economy. The government has begun granting concessions to industrialization, such as with duty-free imports and tax relief to stimulate industrial growth. New plants are being built for everything from printed fabrics and footwear to agricultural machinery and fertilizer. Other revenues generated in this area have come from the breaking up of the Government Telecom for \$200 million, privatizing the power and public service

companies and adding a levy to bauxite sales. Since the signing of North American Free trade Agreement (NAFTA) by President Clinton, the textile industry has shrunk due to competition with Mexico.

Although agricultural exports account for 7 percent of GDP, the agriculture industry employs 21 percent of the Jamaican workforce. Sugarcane is still the chief crop. In 2001, 2.4 metric tons were exported. Bananas follow at a distant second with 42,000 tons exported in 2000, down 20 percent from the previous year. Jamaica is also the world's largest supplier of pimento, also called allspice. Blue Mountain Coffee, one of the world's finest and most expensive coffees, is grown in the Blue Mountains of Jamaica. In 2000, 1,721 tons of Blue Mountain coffee was exported, up 18.2 percent from the previous year. Other agricultural products that the economy depends upon include arrowroot, cacao, citrus, corn, ginger, mango, potatoes, and tobacco. As with many other islands, in the Caribbean, rum, distilled from sugarcane, is also a significant export and is considered a by-product of agricultural production.

In 2005, Jamaica experienced its seventh consecutive year of real GDP growth with an estimated 1.4 percent increase. The exchange rate moved to \$64.67 per US\$1.00 at the end of the year an increase from \$61.85 per US\$1.00 at the end of 2004. All sectors of the economy experienced growth except for Manufacturing and Agriculture which suffered from the effects of Hurricane Ivan in 2004 and Hurricanes Dennis and Emily as well as Tropical Storm Wilma in 2005.

Low Income Housing in Jamaica

In the 1970's, as a result of a growing population and the inability of the public and private sectors to provide adequate houses, Jamaica experienced a housing shortage. Studies in the seventies indicated that 23,000 new housing units were required at a cost of J\$200 million annually over a ten-year period in order to satisfy the

existing need; this would suggest a housing need of 230,000 homes. Lower middle and middle income groups, were unable to afford mortgages through the traditional private sector financial agencies, but also did not qualify for subsidized housing the Government. The realization of this social restriction in Jamaica's programs society highlighted another housing need that called for the government's attention.

A National Housing Initiative

The National Housing Trust was established in 1976 to address the housing need, as well as serving as a financial institution that could mobilize additional funds for housing. The new government entity was also to ensure that funding be made available to more Jamaican families at rates below the traditional markets rates. The NHT, though having experienced amendments to the original act which varied its charter, since 1989, has readily accepted its dual roles of housing development and a mortgage financier. The NHT is the largest provider of residential mortgages in Jamaica. As of 2003, there were over 60,000 active mortgages, of which about 16 percent were in arrears, and steps were taken to tackle the arrears problem by requiring that prospective borrowers have monthly combined loan repayment of no more than 33 percent of their gross income.

Between 1985 and 1996 the private and public sectors provided 50,258 housing solutions. In a 1997 study by the NHT^{xii} it was estimated that 16,370 units of new construction would be needed and 7,087 upgrades are required annually to meet Jamaica's housing need in 2002.

The Construction Industry

The construction sector experienced a weak performance during 1994, due largely to factors which included high interest rates and rising building material prices.

Negative changes included a 61.3 percent decline in housing starts and a 1.3 percent decline in the production of cement. Additionally, the US\$ value of imported construction materials declined by 6.0 percent over the previous period.

Jamaica's Population

Statistics from the 2001 Census show that between 1991 and 2001, the parish of St. Catherine grew 26.3 percent while Kingston declined by 3.7 percent and St. Andrew grew by only 3.0 percent. Table 4 indicates the population of Jamaica's major cities. In 2001, 52 percent of Jamaica's population lived in areas classified as urban. This represents an increase of 2 percent over the 1991 urban population. Jamaica's urban population moved from 1,192,000 to 1,354,900 between 1991 and 2001, growing annually by 1.42 percent. The population for the Kingston Metropolitan Area (KMA) alone in 2001 stood at 579,137, representing 88.8 percent of the population of Kingston and St. Andrew combined and 22.2 percent of the country's population. Outside of KMA the largest capital town in 2001 was Spanish Town in St. Catherine with 131,515 people. Table 5 indicates that in 1991 of Jamaica's parishes, Hanover has the smallest population of 67,037 people.

TABLE 4: Population of Jamaica's Major Cities - 2001

Jamaica's Population of Major Cities 2001			
	Name	Adm.	UA C 2001-09-10
1	Kingston	KIN	579,137
2	Portmore	CAT	161,658
3	Spanish Town	CAT	131,515
4	Montego Bay	JAM	96,488
5	May Pen	CLA	57,334

TABLE 5: Jamaica's Population by Parish 1982/1991/2001

Jamaica's Population by Parish 1982/1991/2001						
Name	Abbr.	Capital	A (km2)	C 1982-06-08	C 1991-04-08	C 2001-09-10
Clarendon	CLA	May Pen	1,196	203,132	212,324	237,024
Hanover	HAN	Lucea	450	62,837	65,958	67,037
Kingston	KIN	Kingston	22	104,041	103,771	96,052
Manchester	MAN	Mandeville	830	144,029	164,979	185,801
Portland	POR	Port Antonio	814	73,656	76,067	80,205
St. Andrew	AND	Kingston	431	482,889	540,030	555,828
St. Ann	ANN	St. Ann's Bay	1,213	137,745	149,015	166,762
St. Catherine	CAT	Spanish Town	1,192	332,674	361,535	482,308
St. Elizabeth	ELI	Black River	1,212	136,897	144,118	146,404
St. James	JAM	Montego Bay	595	135,959	156,152	175,127
St. Mary	MAR	Port Maria	611	105,969	107,993	111,466
St. Thomas	THO	Morant Bay	743	80,441	84,266	91,604
Trelawny	TRE	Falmouth	875	69,466	71,646	73,066
Westmoreland	WML	Savanna-la-Mar	807	120,622	128,213	138,947
Jamaica	JAM	Kingston	10,991	2,190,357	2,366,067	2,607,632

In 2001 Census also showed that there were 599,800 housing units, 723,000 private dwellings and 748,000 households. A total of 137,900 units were added to the housing stock in 10 years since 1991. This represents an increase of almost 30 percent. St. Catherine was the parish experiencing the largest increase of 47 percent. The number of occupied dwellings was recorded as 723,343.

70 percent of households in St. Andrew enjoyed piped water supply, while 40 percent of households lack their own sanitary facilities. However, in Kingston, approximately half of households lack piped water and 60 percent lack their own sanitary facilities, a high figure for the country's urban center. 84 percent of all Jamaicans have access to potable water according to the Planning and Evaluation Unit of the Ministry of Health. Figure 5 indicates the density of Jamaica's population based on the 1960 census. Kingston and its surrounding areas have had Jamaica's largest population since then. (Table 6)

TABLE 6: Population – Jamaica’s Urban Centers – 1982 and 1991

Jamaica's Urban Centers Population 1982/1991			
Name	Adm.	UA C 1982-06-08	UA C 1991-04-07
Black River	ELI	3,601	3,675
Falmouth	TRE	6,713	7,245
Kingston	KIN	524,638	587,798
Lucea	HAN	5,652	6,002
Mandeville	MAN	34,502	39,430
May Pen	CLA	40,962	46,785
Montego Bay	JAM	70,265	83,446
Morant Bay	THO	8,828	9,185
Port Antonio	POR	12,285	13,246
Port Maria	MAR	7,508	7,651
Portmore	CAT	73,426	90,138
Savanna-la-Mar	WML	14,912	16,553
Spanish Town	CAT	89,097	92,383
St. Ann's Bay	ANN	9,058	10,518

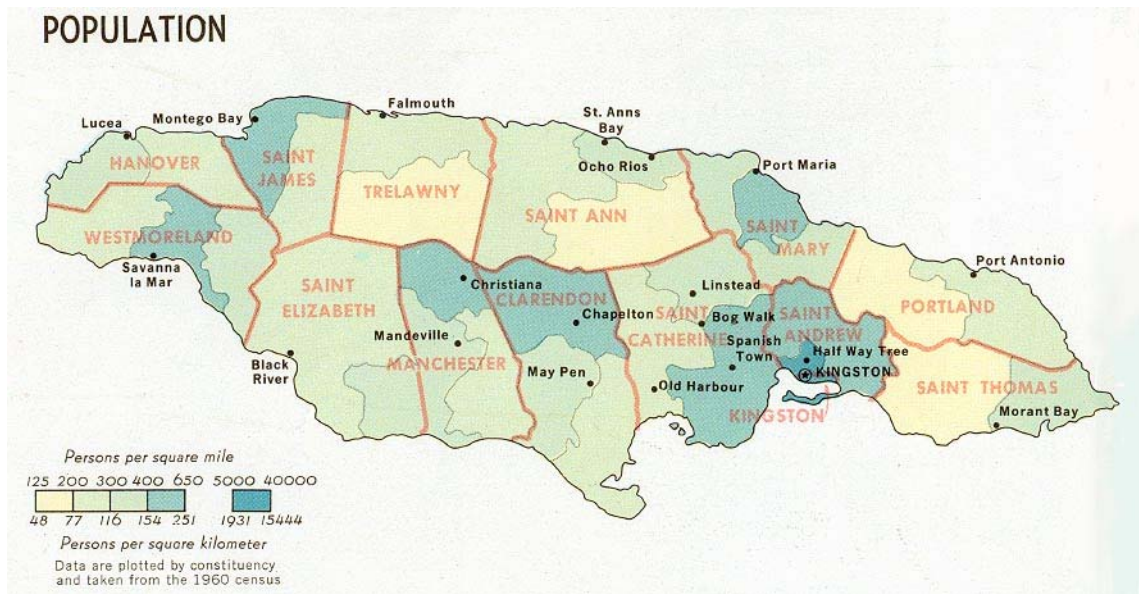


FIGURE 5: Map of Jamaica – Population Density Based on 1960 Census

The Government of Jamaica

Jamaica is governed under a parliamentary democracy. The Prime Minister is the Head of the Jamaican Government, with the Governor General, representing the Chief of State Queen Elizabeth II. Neither the Queen nor the Governor General has any real authority in the administration of the country which rest solely in the hands of the elected leaders. The Jamaican Parliament is bicameral, consisting of two Houses, the Senate and the House of Representatives. The Senate functions mainly as a review chamber for legislation passed by House of Representatives. Jamaica currently has three major political parties, the People's National Party (PNP), the Jamaica Labour Party (JLP) and the National Democratic Party (NDP). Jamaica is a member of the Commonwealth of Nations, the United Nations, and also a founding member of the Caribbean Community and Common Market (CARICOM).

Jamaican government business is conducted under ministries, each headed by a minister selected by the Prime Minister from the House of Parliament. Each minister is designated a central office, with assignment for specific departments, statutory bodies^{xii} and agencies. The principal legal advisor of the Government of Jamaica is the Attorney General, who is appointed on the recommendation of the Governor General.

Jamaica is divided into three counties; Cornwall, Middlesex and Surrey, and fourteen parishes for administrative purposes, with two parishes, Kingston and St Andrew, amalgamated and administered by the Kingston and St Andrew Corporation (KSAC). (Figure 6, Jamaica Parish divisions). Each parish is represented by an elected Parish Council. Traditionally these representatives were responsible for the administration of local government services, such as road works, health and sanitation services, fire brigade services, water supply etc., but some of these services have been taken over by the government.



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FIGURE 6: Map of Jamaica – Parish Divisions

CHAPTER 2: RESEARCH METHODOLOGY, DATA COLLECTION AND ANALYSIS

Method of Evaluation

The literature used for this project was collected from various sources involved in the low income housing industry in Jamaica. Two research visits which included interviews and site visits to Jamaica facilitated information gathering. A questionnaire on Jamaica's low income housing industry was sent to architects, engineers, contractors, non-governmental organizations and civil servants active within the housing industry via email and the postal system. Information obtained from questionnaire responses provided an overview of the housing industry. This research includes social and economic studies of Jamaica's developing economy, the problems faced in dealing with poverty, the need for low-income housing and the means used to obtain financing for projects.

Specific research studies on the Jamaican economic structure and development will also be utilized for this project. In comparing the low income housing of Jamaica with that of Cuba and Haiti, 'Self help housing the poor and the State in the Caribbean,' edited by Robert B. Potter and Dennis Conway (1997, University of Tennessee Press and The Press University of the West Indies), will provide a comparative study for the region and information on the challenges faced by other countries of the region in drafting their housing policies and implementing self help programs.

Data Collection and Analysis

Data for this research project came from various sources; however, the Internet proved to be a rich source for building the foundation that lead to research within the other references within this paper. Although Jamaica is considered a third world country on many levels, there is a vast amount of information about Jamaica on the 'world wide web'. Nevertheless, local Jamaican research bodies provide only a fraction of the information stored in their library data base on the web. On visiting Jamaica and accessing the Library of the Ministry of Transportation Housing and Works, historic and current information on Jamaica's low income housing industry was obtained. Publications from the Statistical Institute of Jamaica and the Planning Institute of Jamaica provided more specific information on the social and economic situation in Jamaica and progressive trends over the years.

Both the National Housing Trust and the National Housing Development Corporation have been responsible for a large portion of the low-income housing schemes developed in the last 5 years. The Resource Information Center of the National Housing Trust provided studies on the housing shortage in Jamaica, and the number of housing units being provided and funded by the NHT annually. Collection of statistical information on Jamaica such as the GDP, health, wealth, poverty, education and housing need are all important to laying the foundation of the research data. The cost of units, construction methods and the number of units produced in the last five years, provide a frame of reference and comparison for this research project.

Review and Analysis of Surveys

Of the 350 questionnaires issued, 4 percent completed responses were received. Additional respondents noted that although they are involved in the housing industry, their lack of involvement in low income housing prevented them from partaking in the survey. The following evaluation of the responses will note trends and differences in answers regarding the low income housing industry in Jamaica and the current state of efforts to provide adequate low income housing. For a copy of The Cover Letter and Questionnaire issued please see appendix A. By issuing a survey to active participants in the construction of housing in Jamaica, the intent was to understand the views of the professionals that participate in the low income housing arena.

The responses to Question one (what type of organization the respondent works for) is depicted in Figure 7. The largest number of responses came from construction firms which accounted for 46 percent of respondents, while architects made up the second largest group, 31 percent of the responses. Responses from government organizations accounted for 13 percent of replies. This data could suggest that construction firms are more involved in and concerned about the state of low income housing.

Question two referenced the age of the organizations of the respondents; government agencies and some architecture and construction firms that responded have been in existence for over twenty years. Responses from younger firms were appreciated, as their views are new and offer a contrast to more established ideas of Jamaica's housing industry. However firms that have been working in the industry for years may be more complacent regarding the state of the industry, having become accustomed to the existing procedures. Questions three, four, five and six were benchmark questions, used to record the position or job function of the respondent in the firm, both years working in the firm and professionally, and the size of the firm as a

measure of the number of employees. One could possibly infer that a firm director with over 20 years of experience in a large firm of over 100 people would have a greater understanding of the industry and a greater voice in a public forum.

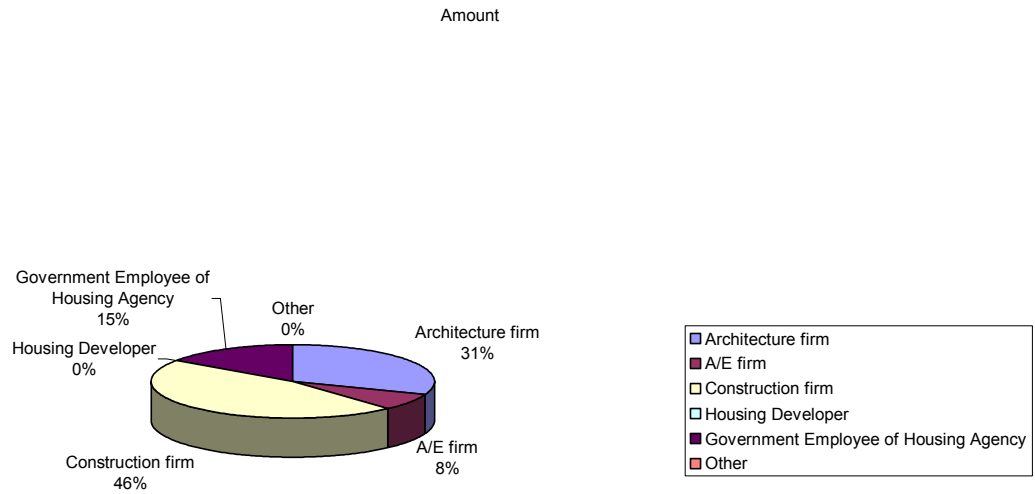


FIGURE 7: Question 1: Type of Organization

Responses to question eight, shown in Figure 8, noted the type of projects the respondents are currently working on. Residential, commercial, office, hotel, institutional and industrial projects were all noted as areas in which the respondents are participating. Most respondents noted working on mixed projects, involving the public and private sector, while a smaller percentage of respondents only worked on private sector projects. This indicates that there is a likely trend of growing interest for collaboration on projects that involve both the public and private sectors. The Jamaican government’s Joint Venture Policy program encourages these types of partnerships. However, of the respondents only working on private sector projects, one of them alone

accounted for the largest number of housing units produced in a given year, noting 4,000 units, at an average value of J\$2,500,00 (US\$38,462 approximately) per unit. Interestingly, according to the Economic and Social Survey of Jamaica 2005, the total housing completions in Jamaica for 2004 was 5,832 units.

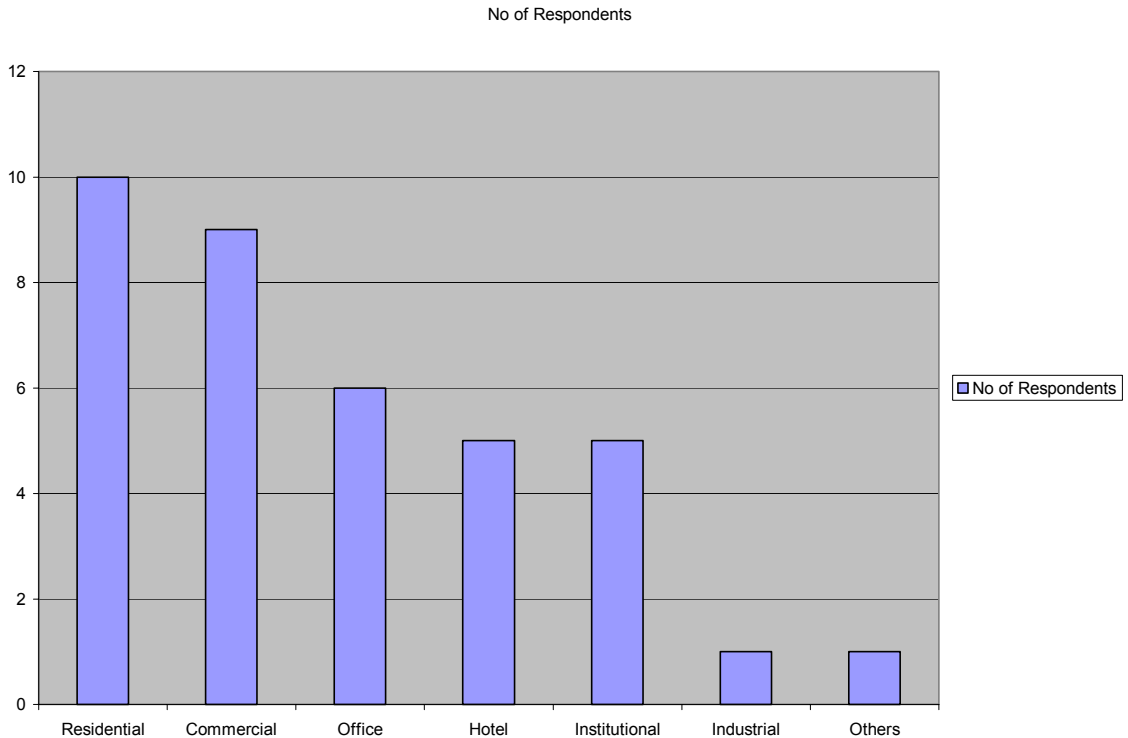


FIGURE 8: Question 8: Type of Project

Most of the respondents have projects in Kingston and the Metropolitan area (KMA) 45 percent; while 9 percent have projects in the areas surrounding KMA (Figure 9). 14 and 9 percent of respondents have projects in Montego Bay and Ocho Rios respectively, while Rural Interior area projects accounted for only 14 percent. The data suggests that the majority of the focus on low income housing occurs in KMA and its surrounding areas, with rural areas and the highly populated locations of Montego Bay and Ocho Rios having secondary importance for low income projects.

No of Respondents

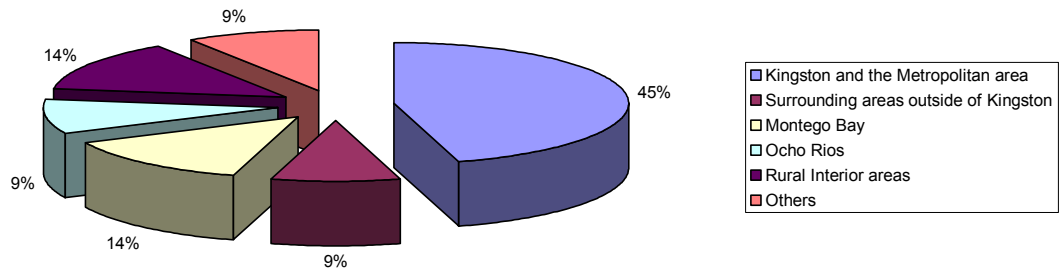


FIGURE 9: Question 8: Location of Projects

Question 16 (results shown in Figure 10) examined the adequacy of low income housing for the poor in Jamaica, with respondents offering an opinion on the current state of low income housing. As much as 60 percent of respondents believe that low income housing is inadequate, while only 30 percent believe that it is somewhat adequate. The industry seems to be aware of the shortcoming of the amount of low income housing being provided.

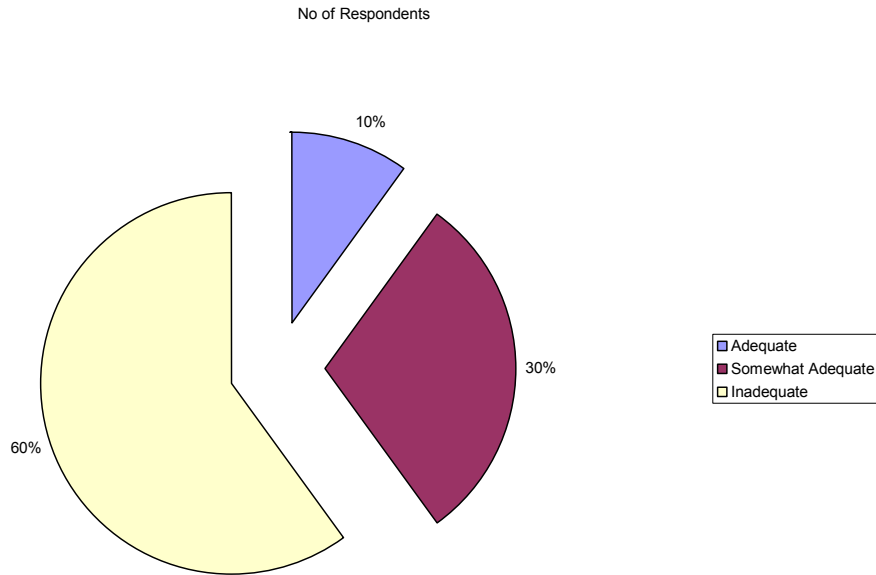


FIGURE 10: Question 16 – The State of Low Income Housing

Question 18 (Figure 11) is more specific in questioning respondents on whether the housing gap is being reduced. 59 percent believe it is being reduced, while 33 percent believe it is not. It can be inferred that progress is being made in the industry to provide low income housing, but more needs to be done to have a greater impact. Question 19 refers to possible reasons for the reduction in the housing gap. One respondent who noted that the gap was being reduced offered this explanation:

“NHT Inner-city Housing Project, NHDC operation, NHT build on own land loans, increase in mortgage value to buy on open market. Starter unit construction and serviced lots by NHT have all allowed the average Jamaican to own a house, hence reduce the gap”.

This respondent refers to several efforts of the public sector to offer more opportunities to own housing. Another respondent understanding the government’s efforts but realizing the short coming stated

“Government have not been able to meet their projections - they try”

Q18 - Do you believe that during the past 10 years the gap in housing for the poor in Jamaica has being reduced?

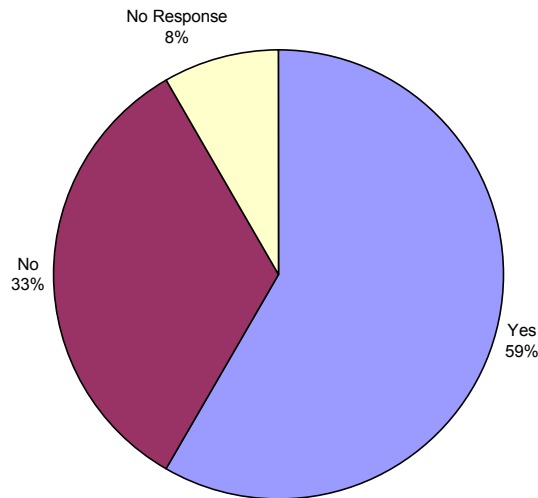


FIGURE 11: Question 18 – The Gap in Housing for the Poor in Jamaica

Question 20 (Figure 12) asks respondents to comment on the adequacy of the regulations governing the low income housing industry, while Questions 21 and 22, and refer to the reasons for answers to question 20 and recommendation for improvement of housing regulations, respectively. 8 percent of respondents believe that the current regulations are adequate, while only 23 percent consider the current regulations to be inadequate. From the responses, it can be determined that although the regulations may need to be more stringent, they define the parameters to which the industry must conform. As a reason for the regulations being inadequate, one respondent offered this explanation:

“Regulations are side stepped in the sense that dwellings are being constructed on undeclared and unsuitable land - land for construction has to be surveyed and declared suitable for housing construction by the regulating body. Additionally, residential redesigns are fancy but are unable to withstand the elements as building codes are not being observed by contractors”.

This respondent raised several important points and refers to the processes. The first point is that by developing housing on undeclared lands, squatting, the land may not be suitable for housing i.e. may lie in a flood plain, lacks the basic infrastructure required for settlement and may be under public or private ownership and planned for future development. In any of these cases, the regulating body needs to protect the rights of the ownership and ensure that land is settled within the confines of zoning and planned development. The second point also refers to the informal housing industry, housing is constructed based on aesthetic requirements and do not necessarily conform to prevailing building code guidelines.

One respondent clarified the adequacy of the building regulations with the following statement:

“There are many agencies (whose functions sometimes overlap) that will ensure that regulations are enforced, NEPA, KSAC, Parish Councils, NWA etc. Regulations exists but administration and enforcement is lacking”

This respondent suggests that although there are regulations in place and numerous agencies representing these regulations, the updating and maintaining of regulations as well as implementation needs much improvement.

In responding to question 22, recommendations for improving the regulations included; formalizing of the Jamaica Building Codes with review by the Jamaica Bureau of Standards, reorganization and simplification of the approval process, and providing more inspectors, specifically incorruptible ones. Comments from the survey suggest that the implementation of regulating systems on the housing industry need to be improved and the Jamaica Building Codes finally passed.

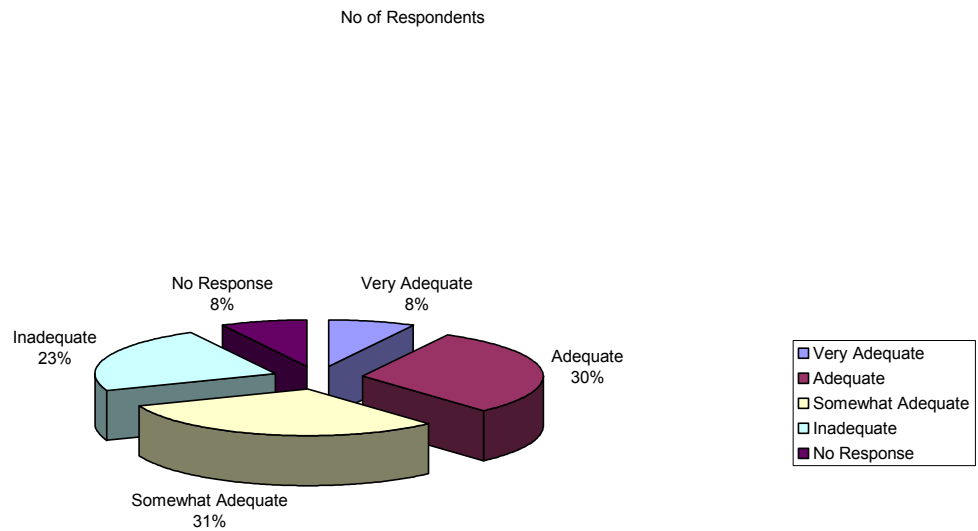


FIGURE 12: Question 20 - The Regulations on the Residential Design and Construction Industry

Question 23, Figure 13, depicts the responses to the industry providing financial options for the poor in Jamaica. The majority of respondents at 51 percent believe that the current financing opportunities being offered to the poor in Jamaica are unsatisfactory. Surprisingly, in contrast as many as 33 percent of respondents believe that options provided are very satisfactory. Reasons for responses of unsatisfactory

financial options include; the least cost for a house falling in the J\$900,000 (US\$13,846.15) bracket, a large percentage of the poor still cannot access funding due to inadequate income and insufficient number of social agencies.

Q23 - In your opinion, for the residential design and construction industry in Jamaica the financial options available to the poor are

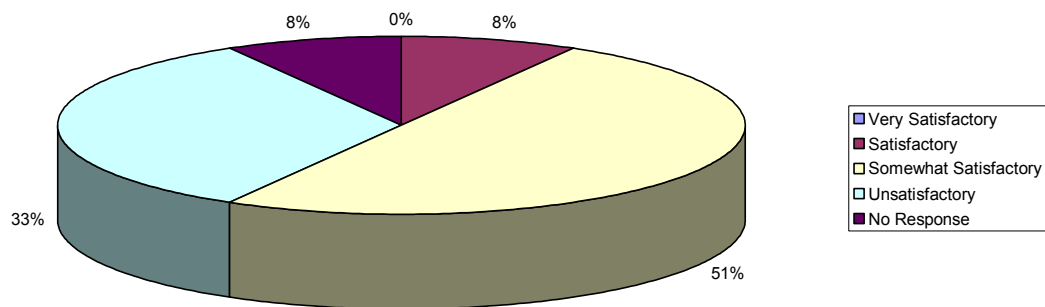


FIGURE 13: The Financial Options available to the Poor

Of the few responses who offered recommendations for improving financial options, the most outstanding was to “increase government subsidy of local housing”. One respondent suggested a more cost effective housing option which entailed “providing the outer structure and certain facilities, and allowing the owner to finish (the house) on their own, this will cost less to develop”. Under the informal housing sector, housing built by self-help methods are usually constructed over an extended period of time as financing became available. This option would allow a home owner the same type of flexibility in long term financing to complete the house, financing not tied to a mortgage body.

Inflation was characterized by one respondent as the problem, which is further compounded by unemployment, stating that “under (Jamaica’s) current circumstances, very few if any financing options will work.” Jamaica’s level of annual inflation on housing in 2004 was 16.9 percent, which increased to 17.6 percent in 2005 (ESSJ, 2005 *Planning Institute of Jamaica*).

In the final question of the survey, respondents are asked to refer to what they believe is the greatest challenge faced by the industry to provide low income housing. The responses included; the cost of materials, high interest rates, unsecured returns for private developers, cheaper labor to fit in available bidding options, land availability and the openness of the government to cost effective means of alternative construction methods for affordable housing.

From the responses to the questionnaires it can be suggested that as a profession, contractors are more interested in the low income housing industry and the majority of the respondent’s projects are located in Kingston and the Metropolitan areas. Most respondents feel that Jamaica’s low income housing industry is inadequate, but the majority also agree that the housing gap is being reduced. The regulations governing the low income housing industry are believed to be somewhat adequate, while most respondents agree that the financial options for the poor are somewhat satisfactory. The efforts being made in the low income housing industry are recognized in the responses to the questionnaire, although there are areas for improvement. Hopefully in the future Jamaica’s professionals in the construction industry will take more of an active role in, much like the case of Cuba’s Architects in the Community Programme.

CHAPTER 3: PROVIDERS OF LOW INCOME HOUSING IN JAMAICA

Jamaica's housing industry consists of a formal and an informal sector providing low income housing. Within the formal housing sector, several public and private entities provide housing to the market geared towards the low-income Jamaican. The public entities include the Ministry of Housing, the National Housing Development Corporation (NHDC), the National Housing Trust (NHT) and the Urban Development Corporation (UDC) (Table 7).

Of the private sector entities, two of the largest providing low income housing in Jamaica is West Indies Home Contractors (WIHCON) and Ashtrom Building Systems (ASHTROM). Both these companies are profit driven and though working in the low income industry, have company requirements of profitability. The private sector is also comprised of non-profit organizations, Food for the Poor and Habitat for Humanity Jamaica are the two making the greatest contributions to the housing industry.

Within the informal housing sector self-help housing initiatives are the means to an ends. Located within an economy unable to provide for a basic housing need, self-help initiatives in both rural and urban areas have led to the development of shanty towns. Riverton City in Kingston, Whitehall in Negril, and Flankers in Montego Bay are three of these spontaneous settlements.

Table 7: Housing Starts and Completions 2001-2005, Jamaica
 Planning Institute of Jamaica

HOUSING STARTS AND COMPLETIONS, 2001 - 2005										
Particulars	STARTS					COMPLETIONS				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
Public Sector:										
Ministry of Water & Housing	531	869 ^a	225 ^b	1 168	n/a	401	1 288 ^a	380 ^b	1 843	n/a
Urban Development Corporation	306	0	0	0	0	94	306	0	0	0
National Housing Development Corporation	688	4 096	1 881	0	0	52	1 190	1 478	139	630
National Housing Trust	1 477	3 671	1 484	2 197	2 338	2 484	2 130	1 281	2 984	2 246
Private Sector:										
West Indies Home Contractors (WIHCON)	210	400	456	457	296	0	630	135	599	233
Others	1 961	360	610	1 381	1 487	164	0	693	267	1 077
Total	5 173	9 396^r	4 656	5 203	4 121	3 195	5 544	3 967	5 832	4 186

a - figures for April - December 2002

b - figures for January - March 2003

n/a - not available

Note: The Sugar Industry Housing Limited has been closed since 2000. The NHT is now responsible for financing the Sugar Housing Programme.
 Source: Compiled by the Planning Institute of Jamaica

3 See Chapter on Manufacturing and Processing

4 See Chapter on the Labour Market

5 The annual average in 2005 is the average of January, April, July and October, while the annual average in 2004 was for April, July and October.

6 Housing starts refer to the commencement of infrastructure/foundation work on a housing solution.

7 A housing solution refers to a service lot or a housing unit. A service lot is a plot of land allocated for a housing unit and a unit refers to the physical construction of a dwelling.

8 Housing Starts by parishes exclude Build-on-Own-Land (BOL) and Home Improvement (HI), because information collected on BOL and HI is not broken down by parishes.

Public Sector Providers

The Ministry responsible for Housing has been given the mandate for providing affordable housing. The National Housing Development Corporation, the Jamaica Mortgage Bank and the Rent Assessment Board are agencies of the Ministry of Housing which provide housing, create financing for projects and provide assessment and monitoring of rental rates, respectively. The National Housing Trust and the Urban Development Corporation are both special Executive Agencies created by Acts of parliament to assist in the formalization and management of public housing construction.

Public residential construction housing starts increased from 4,166 in 1999 to 8,177 in 2000. There were further significant increases in 2001 of 5,173, with the highest number of starts having been achieved in 2002, a production of 9,396 housing

units (Table 7). The marked improvement in housing starts resulted from an increase in construction activities by the major public sector provider of housing solutions, the National Housing Trust (NHT). The NHT accounted for 41 percent of total starts in its role as housing developer and through the provision of interim financing for some private sector schemes. The Ministry of Water and Housing (Housing) and the National Housing Development Corporation also registered increased outputs.

The Ministry of Housing

The Ministry of Housing over the years has experienced many changes in name which signify a restructuring to reformat the functions of the Ministry. The ministry now in its most recent change has been renamed to the Ministry of Housing Transportation and Works and represents an amalgamation of the previous Ministries of Water and Housing and Transportation and Works. Through its various agencies, the ministry is now responsible for providing a safe and efficient transportation system, building and maintaining quality roads, building of affordable, safe and legal housing solutions and to provide the island with an adequate quality supply drinking water for domestic and commercial purposes.

Historically the Ministry of Housing had the largest housing portfolio providing housing under several programs which include; the slum clearance program, the owner-occupied program, the joint venture program, the government housing schemes, the housing co-op and condominium program, the joint Cuban/Jamaica housing program, and the sites and services program.

The National Housing Development Corporation

In 1998 The National Housing Development Corporation (NHDC) was formed through the merging of three entities; the Caribbean Housing Finance Corporation

Limited (CHFC), the National Development Corporation Limited (NDC) and The Programme for Resettlement of Integrated Development Enterprise (Operation Pride). The CHFC was a quasi-governmental unit providing mortgage opportunities on government housing development projects. Operation Pride (Pride), was designed to provide affordable shelter solutions for public sector workers, young professionals and the low income community. This concept enabled the transfer of state owned land to first time landowners through different types of projects.

The NHDC undertakes real estate developments for both Operation Pride and the Open Market. Projects developed through Operation Pride fall into the following categories; Greenfield or Brownfield (informal settlements), new sites for low income groups and individuals, joint venture, upgrading and regularization, slum clearance and improvement, and farmstead. The NHDC is not funded by the Ministry of Finance, and although the company is wholly owned by the Government of Jamaica, it is registered as a limited liability company and is responsible for generating its own financing. The construction of various sites is done by contractors selected through selective or public tendering which is guided by the stipulations of the National Contracts Commission. The NHDC provides construction or project management services for its projects.

The National Housing Trust

In the construction industry in Jamaica, much like many developing countries, the housing industry is affected by the demand and supply of market forces which are allowed to set pricing of housing. In Cuba, housing is a state requirement for all, and therefore the housing industry is not regulated by market forces which can drive the prices of housing out of reach. In the 1970's middle and lower middle income families in Jamaica found their incomes to be too high for government housing, but too low for the

restrictions of private financing institutions. The push to provide both expanded housing and financing led to the formation of the National Housing Trust (NHT).

The National Housing Trust (The Trust), established in 1976, operates under the portfolio of the office of the Prime Minister. NHT is able to mobilize additional funds for housing which it makes available to more Jamaican families in need of housing. The Trust is funded by a combination of personal and corporate savings. All employed persons between ages 18 and 65 who are earning more than the minimum wage or any other amount specified by Parliament, as well as employers, are required to make contributions to the NHT. Employers are required to deduct 2 percent of each employee's salary along with 3 percent of their own wage bills, and remit these funds to the NHT on a monthly basis.

The NHT operates both as a financier and developer of housing projects. From time to time, it provides interim financing for housing projects, subject to the approval of the Prime Minister. The interim financing activity of the Trust facilitates the building of houses and ensures that the benefit of the NHT's lower cost financing goes to the home buyers and not the developers. Under the NHT, loans are offered include the following type of housing projects; NHT Schemes, Open Market, Build-on-Own-Land, NHT Service Lots, house lots and Home Owners.

The Urban Development Corporation

The Urban Development Corporation (UDC) was formed in March 1968 as the Jamaican Government's urban developer in accordance with the provisions of the Urban Development Corporation Act. With the increasing trend towards overpopulation in the urban centers and problems of urban growth in the newly independent Jamaica, the UDC was created to developed programs, significantly improved the coverage and quality of public infrastructure, and introduced alternative patterns of urban settlement,

including creative shelter solutions and the development of new townships. The main interest of the UDC lies in land assembly and primary developments of urban centers, but it is associated with secondary developments such as housing to fulfill the needs of the people in designated area. The UDC is currently working as a part of the Inner City Renewal Program project.

Private Sector Providers

West Indies Home Contractors

West Indies Home Contractors (WIHCON) has been the largest developer and producer of mass housing communities in Jamaica since 1958. WIHCON is a builder of middle and low-income housing, and has been successfully used in other Caribbean counties such as Trinidad and Tobago. WIHCON uses an industrialized system of recast concrete panels fixed together using metal plates. A substantial part of the work is done off site in a controlled environment, which avoids delays caused by adverse weather conditions and slows the construction process, as well as offering a high level of quality control. A greater economy of production is achieved using the WIHCON system as opposed to using traditional methods of construction. Units built in the past by WIHCON for the NHT include the Urbana, the Quadraminium (quad) and two bedroom duplex.

The Urbana studio units were typically 21.85 sq. meter (235.19 square feet) and included a bathroom and kitchenette. The quad units measured the same size as the Urbana, but were originally designed as an alternative for individuals renting inner city one-room units. These units included a bathroom and kitchenette and were built as very basic, expandable blocks of four. The duplex units were larger; measuring 44.75 square meters (481.69 square feet) and included a bathroom kitchenette and washroom,

while offering limited capabilities of expansion. WIHCON has worked with NHT on numerous projects over the years.

Ashtrom Building System

Ashtrom Building Systems (Ashtrom) is an Israel-based construction company and a large scale developer which has been active in the Jamaican construction Industry for many years and has been able to win a number of bids on public infrastructure and housing projects by being able to provide a competitive price for its services and costs of construction. Ashtrom was selected from among nine contractors who submitted bids to provide construction services on the Inner City Housing Program project.

Under the NHT, Ashtrom has provided both studio and two bedroom unit schemes. The studio units are slightly smaller than those provided by WIHCON, at 20.90 square meters (224.97 square feet) with an estimated cost of construction of US\$627 per sq meter (approximately US\$13,104.30/ J\$851,779.50 – Masters 1998, *Building Systems used by Jamaica, National Housing Trust, On Housing 2*) These units also included a bathroom and kitchenette, and are built as expandable detached units. Ashtrom's two bedroom units are a townhouse type and measures 58 sq. m. (624.31 sq ft), which is somewhat larger than WIHCON's two bedroom duplex. These units have two complete bedrooms and a bathroom on the upper floor and a living/dining and kitchenette on the ground floor. A washroom is also provided on the ground floor and these units are also expandable.

Food for the Poor Jamaica

Food for the Poor is a non-profit organization founded in 1982 by a Jamaican businessman Ferdinand Mahfood. Funded by contributions, this organization's mission is to supply critically needed support to the poorest in Jamaica, the Caribbean and

Central America. Jamaica's housing needs are unique in the sheer numbers of the poor who lack adequate homes. At present, there are 15,000 families waiting for a new Food for the Poor house. Food for the Poor builds wood houses, which have concrete foundations and are constructed with termite-resistant lumber. The cost of wood is the biggest factor in building these homes, since all the lumber is imported.

Every home is built with a veranda, a characteristic of the Jamaican lifestyle is to enjoy sitting on the front porch. The houses have steel front doors and corrugated sheet metal roofing. The wood siding is tongue and groove and louvered windows allow air to ventilate the house. These dwellings can be constructed quickly, in as short a time span as a day and assembled on small lots. A Food for the Poor house costs about US\$2,500 (J\$162,500) to build. A typical Food for the Poor house measures 216 square feet (Figures 14 and 15). Land for building homes is donated to FFP by the Ministry of Water and Housing every year, as the government has pledged to build the roads, install sewer connections and provide electricity for the new home sites. FFP builds restrooms and shower facilities for the new home communities.

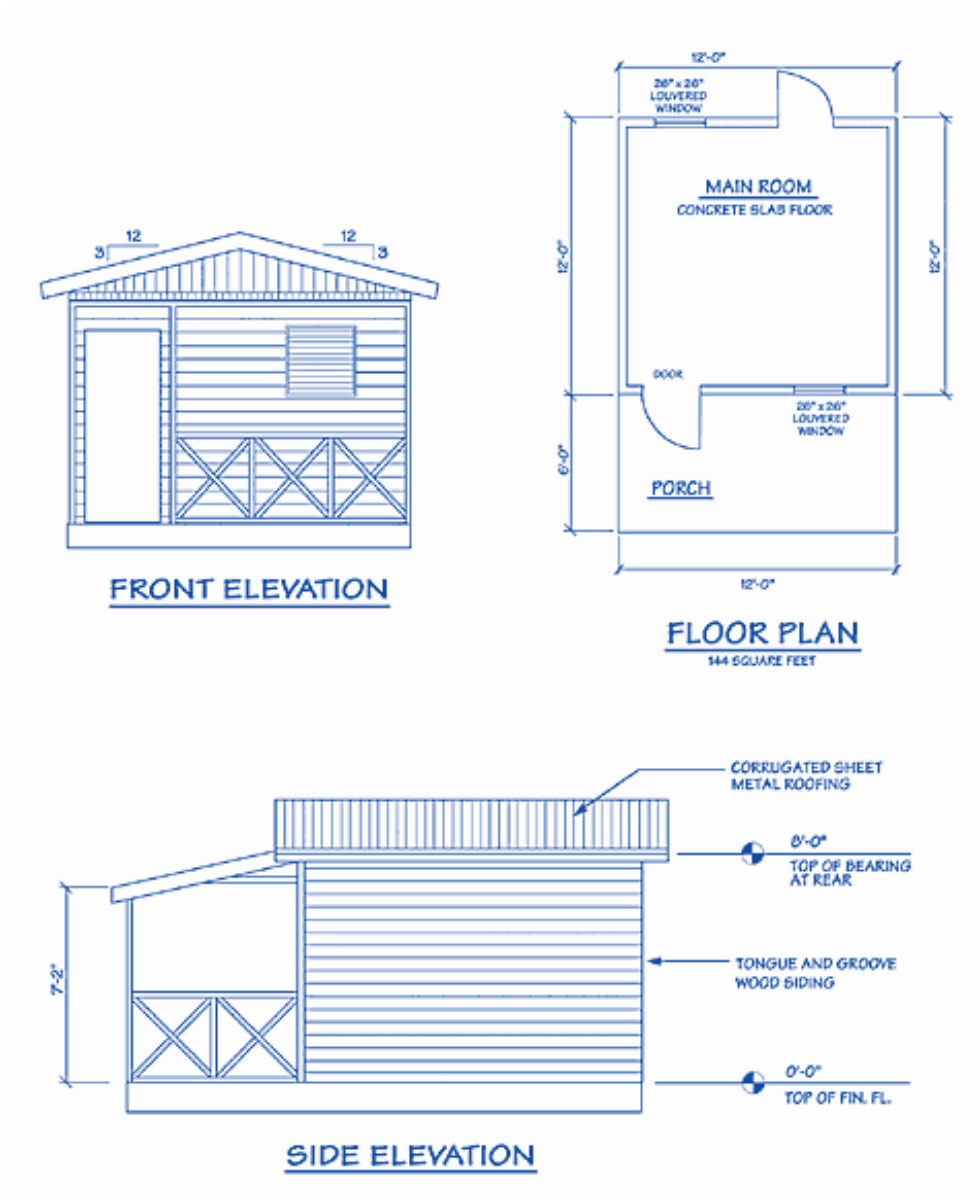


FIGURE 14: Food for the Poor, Typical Housing Unit, Jamaica (216 Square Foot House)



FIGURE 15: *Food for the Poor, Actual View, Jamaica
(216 Square Foot House)*

Habitat for Humanity

Habitat for Humanity Jamaica is a non-profit organization whose mission is to eradicate sub-standard housing on the island of Jamaica by building homes for families in need. Initiated by local business leaders in 1992, Habitat for Humanity Jamaica has, since provided decent homes for almost 300 families in seven parishes in the island. Habitat homes are built with block and steel, post and panel and the Royal Building System which uses pre-fabricated concrete technology and vary between one and two bedroom units with a living area, indoor kitchen & bathroom. A typical 500 sq foot house built by Habitat for Humanity Jamaica using Royal Building Systems (Figure 16).

Habitat for Humanity Jamaica is governed at the national level by its Board of Directors, and at the community level it is managed by community residents and potential beneficiaries organized in a Habitat Local Affiliate. Habitat for Humanity home building in Jamaica has slowed and financial assistance is needed to keep programs functioning. Financial support comes from various sources including Habitat programs

abroad, local individuals, churches and corporations. Contributions provide 10 to 12 year interest free loans to low-income families. Their monthly payments go into a revolving fund, which offers other families a chance at home ownership. The average cost of building a Habitat house in Jamaica is US\$ 12,000 (J\$ 780,000). Habitat houses are today located in one urban and several rural communities in seven parishes of the island.



FIGURE 16: *Habitat for Humanity House Jamaica
(500 Square Foot House)*

The Informal Housing Industry: Squatter Settlements

The informal housing sector in Jamaica is that area of housing construction which is not a part of a formal housing provision effort. Housing in this sector usually occurs as spontaneous settlements characterized by illegal occupation of land, the use of waste materials for construction, the violation of building code requirements and the use of informal methods of financing. These settlements are usually referred to a “shanty towns” in overcrowded inner-city areas. When faced with problems of limited rental accommodations, dilapidated and overcrowded existing housing areas, and highly distorted housing and land markets, the poor have used self-help strategies to solve their housing problems in both rural and urban environments. Using affordable

materials and captured land many Jamaicans have made a home for their families out of the necessity for shelter.

Shanty towns are formed in various ways and may become a part of the formal fabric of a community or removed for the creation of newer developments. The original settlement of shantytowns may occur on captured lands, state or privately owned, or on rented lands, where limitations on physical improvement are severe. By stages of improvement these captured areas can be improved to become a part of the state infrastructure of water, sewage removal and electricity systems.

Jamaica has a long tradition of self-help housing, a large part of both rural and urban dwellers live in houses to which they have contributed most or all of the construction labor. In 1997, Potter and Conway stated that in Montego Bay 67,000 out of the 97,000 population lived in self-help dwellings. Jamaica's tradition of self help housing grew from slave housing on plantations which were built by slaves, while state housing and private housing for many decades earlier in the 20th century was largely confined to the towns of the sugar belt (Eyre 1965a). In the 1950's housing built at Maverly and August Town, referred to as "Hurricane Housing" were two out of the small number of shelters built by the government. Tenement yards grew out of private funding in all Jamaican towns, but were uncoordinated. State and aid-funded low income housing mass provision of housing in Jamaica resulted in areas like Tivoli Gardens, Trench Town, and Zimbabwe in the 1960's and 1970's.

Potter and Conway stated in 1997 (self-help housing the poor, and the state in the Caribbean) "Self-help housing is not an option, it is a necessity". The Jamaica Survey of Living Conditions (SLC) for years has reported that the majority of Jamaican dwellings are occupied by owners. This particularly true for households of the lowest quintile and in 1991, the SLC recorded that over 60 percent of the housing occupied by the lowest percent had been constructed by the households themselves. This was also

true for the second poorest quintile. The informal industry has been meeting some of Jamaica's housing need at the lowest income levels for some time. Public policy to provide serviced sites, core housing, settlement upgrading, refurbishing and housing assistance programs are attempts at addressing this industry that has managed to support the construction and financing of housing outside of any formal real estate system.

Relocation 2000 was announced in 1999 as a program to address the problem of squatting in four communities island wide; Mona Commons in St. Andrew, Seville in St. Ann and Railway Lane and Barracks road in St James. These settlements were located on land planned for future development, and were characterized as having poor housing and inadequate sanitation. The NHT identified and developed alternate sites for relocation and to date 120 households from Seville and 320 from St James, have been settled in Belle Aire, St. Ann and Providence Heights, St James

Financing For Housing

Apart from financing provided by the NHT and NHDC, financial institutions that support the housing industry include; the Jamaica Mortgage Bank (JMB), The Jamaica Development Bank, Jamaica Co-operative Credit Union League, Building Societies, Insurance Companies. The JMB which falls under the portfolio of the Ministry of Housing, is a statutory body set up in 1973 to primarily to approve mortgage lending institutions. The banks current main functions include the mobilization of on-lending funds for both public and private sector housing developers and other lending institutions, the operation of a second mortgage market facility, the provision on Mortgage Insurance services. JMB's authorized, issued and fully paid up share capital to date is J\$100 million.

CHAPTER 4: THE HOUSING DEVELOPMENT PROCESS IN JAMAICA

Government Policies

Jamaica is somewhat of an anomaly, unlike most less developed countries, Jamaica's middle and upper-income housing is comparable to housing in North America but low income housing, by any standard, is poor. The activities of the Housing Division in the Ministry of Water and Housing are governed by the policy framework of the National Shelter Sector Strategy, established in 1987 and the Joint Venture Policy enacted in 2003. In the Ministry's provision of affordable, safe and legal housing, these policies provide guidelines for the securing of tenure for all Jamaicans by 2025.

The National Shelter Strategy

The National Shelter Strategy (NSS) called for dramatic changes to the Jamaican governments past policies and programs. It recognized that the majority of all new housing was being produced by the informal sector, typically crude shelter without water or other basic services. The output of government programs was negligible in relation to the need, heavily subsidized, and occupied to a surprising extent by middle income groups. The main theme of this strategy is that government changes its role from directly providing housing to facilitating more effective shelter production by the private sector (formal and informal).

In 1988, the NSS Institute played the lead role in designing a "sector lending" approach under USAID's Housing Guaranty (HG) Program to support the strategy's implementation. Unlike past HG loans, whose required output was a fixed number of government housing units, the outputs required under sector lending are reforms of a variety of existing policies and procedures. The recommended program contained designs for long term reforms in each of three areas and clear first year targets to make

progress toward those goals. The first year agenda included, for example: pilot projects and policy changes by the National Water Commission to rapidly expand the delivery of water and sanitation to low income areas; management improvements in the Ministry of Construction (Housing) to enhance their site production capability and a land information system to facilitate site selection and acquisition; reforms of Town Planning standards and applications processing; progress toward building a CBO/NGO network to provide information and other support for informal sector shelter provision. The design was reviewed and agreed to by USAID and the Government and the first borrowing (US\$10 million out of the US\$50 million allocated) took place in September 1988.

The Joint Venture Policy

The Joint Venture Policy provided greater opportunities for the private and public sectors to partner on housing projects. As a guide for initiating such partnerships in the provision, for new home owners, benefits of housing created under these partnerships, include savings on land (stamp duty, and registration fees), legal fees and ultimately a reduction in the final cost of the housing solution, as well as an advantage of living in a safe well planned communities. For the private and public partner, advantages include cost saving elements such as, a faster approval process under the Housing Act, access to lands, savings on land cost, exemption from stamp duties transfer taxes and security in the engagement of business with Government. The policy provides for processes that are transparent and offer protection to the prospective purchasers.

A Jamaican Housing Policy

In 1993 the new Jamaica Housing Policy was implemented. Under the new government's housing policy, NHT's role switched to that of mortgage financing institution. The role of the NHT was changed from that of being a provider of both mortgage and interim finance, to that of providing mortgage finance only. The Priority Entitlement Index (PEI) Selection System was used to introduce The Priority Entitlement Index System to replace the Random Selection System. Under the PEI, loan financing went to eligible contributors having higher ratings within income groups. New Mortgage Payment System introduced The Graduated Payment Mortgage (GPM) Plan was introduced. The plan is intended to increase contributors' affordability for loans. It allows for lower monthly payments in the earlier life of the mortgage. It was expected to be particularly more beneficial to those contributors in the lower income groups.

The National Land Policy

The National Land Policy of Jamaica was established in 1996 to create the framework for an efficient land management system. This policy has implemented with the Land Administration and Management Program (LAMP), under which current activities include the upgrading of the Land Surveyors Act to incorporate the use of modern surveying technology such as global positioning systems and electronic distance meters. In 2005 approximately 25, 500 parcels of land have been mapped under LAMP and while another 7,500 and in the process of mapping for completion in early 2006. Under LAMP the National Land Agency has also made marked technological improvements

The National Housing Policy

In 2005 the Ministry of Water and Housing began preparations for the formulation of a National Housing Policy and Implementation Plan for Jamaica, which will work in conjunction with the National Shelter Sector Strategy and the Joint Sector Policy. A technical review committee of both private and government agencies was established to guide the establishment of the National Housing Policy. Specific objectives of the policy include facilitating creative approaches to increasing the housing supply through partnerships with the private sector and other providers, rationalize and formalize the role of the informal sector in housing production, formulate a framework to support the delivery of housing and make urban lands available for renewal and upgrading, as well as streamlining the housing finance sector.

The National Poverty Eradication Program

The National Poverty Eradication Program (The Program) was initiated by the Government of Jamaica in 1995 as a part of Jamaica's commitment to eradicate poverty. The activities of The Program are guided by "Jamaica's Policy Towards Poverty Eradication" (The Policy). Through consultation with the private sector, academia, Non-Government Agencies (NGOS), international agencies, church, opposition and Community Based Organizations (CBOS) and many other groups, The Policy and The Program: a Community Based Partnership Approach, were developed.

According to the Jamaica Survey of Living Conditions 2001, the incidence of poverty in the island continues to be highest in rural Jamaica. In 2001, 24.1 percent of those in rural Jamaica live in poverty, while the incidence for Kingston Metropolitan Area (KMA) and Other Towns was 7.6 percent and 13.3 percent respectively. If we were to take the mean per capita consumption of Jamaicans by region for 2001, we would see that, at current prices, the estimates of mean per capita consumption expenditure for the

KMA, Other Towns and Rural Areas stood at J\$116,176 (US\$1,787), J\$85,687(US\$1,318) and J\$59,138(US\$910), respectively. When compared to 2000 data this reflects an increase of 21.1 percent for Rural Areas, an increase of 12.4 percent for the KMA and a 13.9 percent increase for Other Towns. In 2001, in real terms, KMA, Other Towns and Rural Areas, all experienced increases in per capita consumption expenditure, of 3.3 percent, 7.8 percent and 16.9 percent respectively. This is a significant turnaround from 2000, when in real terms all three areas experienced declines. This increase experienced in rural areas, is the highest ever observed since 1991.

Public Sector Procurement Procedures

Jamaica's Procurement Policy defines that the acquisition of goods, works and services must be guided by the following objectives; maximizing economy and efficiency of procurement, creating an atmosphere of fairness, integrity therefore encouraging public confidence in the process, minimizing negative impact on the environment through sustainable development processes and the fostering of national growth and development.

In pursuit of these objectives the Government of Jamaica shall ensure that the Public Sector Procurement Policy applies to all public sector entities. In the procurement process 'The Value of Money' is primary; service is transparent, coordinated and uniform, commitment to minimizing of negative impact on the environment, disaster preparedness and emergency management, international and regional obligations provide opportunities for capable local contractors, recognizing the need for flexibility in the process although competitive tender is the primary mode, the use of limited tender and direct contracting through negotiations is permitted with due consideration to the nature and circumstances.

Government Bodies Regulating the Construction Process

KSAC and the Parish Councils

Construction of buildings in towns and any areas which may be delimited by the parish councils (Local Authority) is controlled under The Parish Councils Building Act. The Parish Councils and Kingston and St Andrew Corporation (KSAC) are local planning authorities with the responsibility of evaluating development applications and approving or refusing them depending on their desirability and conforming to state policies.

These agencies are allowed to impose suitable conditions with regards to size, elevation, and structural integrity of buildings. To date, regulations cover the principal towns of all the parishes. In those areas which have been delimited under the Building Act, permission is to be obtained from the (Council/KSAC) before construction commences. The extent of the building area for which permission is required from persons desirous of constructing buildings in the Kingston area is larger than that delimited under the Town and Country Planning Act. It should be noted that sections of the parish of St Andrew are outside the jurisdiction of the Kingston and St Andrew Building Act. In summary, in areas where both acts preside an applicant needs both a planning permission and a building permit.

Town and Country Planning Department

In Jamaica, the granting of permission to build requires meeting the requirement of three pieces of legislation which have significant impact on the development of properties. These are: The Town and Country Planning Act of 1957, The Local Improvements Act of 1914 and The Parish Council's Building Act of 1908 and the KSAC's Building Act.

The Town and Country Planning Act stipulates that in areas for which a Development Order has been prepared, planning permission is required from the Local Planning Authority before "development" as defined by the Act can be undertaken. In those areas for which no development orders have been prepared no planning permission is required to undertake development. The Development Order is therefore the legal document guiding development in Jamaica. These orders are prepared by the Town and Country Planning Authority in consultation with the Local Planning Authority (Parish Councils & KSAC).

The Local Improvements Act legislates the policies the subdivision of land throughout Jamaica. The Act stipulates that all subdivision of land for building or sale throughout Jamaica requires the permission of the local planning authority of the parish in which the land is located. The Act requires that the comments of the Chief Technical Director be obtained prior to the applicant being notified of the Parish Council's decision. By virtue of an amendment in 1959 the expert advice of the Government Town Planner is also required by the local authority prior to notification of applicants.

Office of the Contractor General

The Contractor General (CG) has responsibility to monitor and as necessary, investigate, at its own discretion, the award and implementation of any government contract. The CG's office therefore ensures that contracts have been awarded impartially and on the basis of merit, that the circumstances under which it is awarded or terminated do not involve impropriety, and that the contract is implemented in conformity with its terms and conditions.

The Office of the Contractor-General was established in 1986 following the passing of the Contractor-General Act in Parliament in 1983. This Act provides for the operation of an independent body, which seeks to ensure efficiency, impartiality and

integrity in the awarding of government contracts, licenses and permits. The Contractor-General's Office also has the responsibility to ensure that Government contracts are implemented efficiently, economically, and expeditiously through constant monitoring.

National Contracts Commission

As an amendment to the Contractor General Act in 1999, the National Contracts Commission (NCC) was established as an independent Commission of Parliament responsible for the overseeing the public sector procurement process. NCC is headed by a chairman, and is comprised of eight appointed members who represent both the government and the private sector. Members serve on the commission for seven years. Table 8 shows the procurement matrix for works contracts.

National Land Agency

Established in April of 2001, the National Land Agency (NLA) is an Executive Agency which reports to the Ministry of Agriculture and Lands. Formed as a part of the Public Sector Modernization Program, it houses the land functions of the government under one roof. These functions include; land titles, surveys and mapping, land valuation, and estate management. Under the Land Administration and Management Programme, NLA has improved the computerization of title documents and the automation of the Office of Titles. In 2005, it was noted that over 400,000 titles and 6,888 deposited plans had been scanned and indexed into the system. Increasing the accessibility of information and the security of documentation has been a great improvement to the NLA operations.

The Bureau of Standards Jamaica

The Bureau of Standard is a statutory body established by the Standards of Act of 1968, and it governed by the guidelines of this Act as well as both the Processed Foods Act (1959) and the Weight and Measures Act (1976). The Bureau was created to promote and encourage higher standards for products, practices and processes. The Bureau prepares standards, checks products against claims of public standards, issues licenses to use certification marks, and the testing and calibration of instruments and appliances. The Bureau also promotes research and education in standardization and promotes the implementation of quality control procedures in production and service systems. The Standards Council is responsible for policy and general administration of the Bureau.

The State of the Jamaica Building Codes

Jamaica (at least in Kingston and St Andrews), although having had an official requirement to comply with formally-articulated technical standards for several decades, has proposed technical provisions for a national building “code”, but the building fraternity in Jamaica has been discussing a draft Jamaica National Building Code for several years. Building developments are generally controlled by the individual parish councils who have building bylaws which authorize the councils to approve or reject building applications. Some of these bylaws provided some details of construction which must be observed. However a 1984 study carried out by the Pan Caribbean Disaster Preparedness and Prevention Project found that enforcement of the bylaws was not carried out efficiently. The number of building inspectors in each parish was insufficient to carry out the inspections required.

CHAPTER 5: THE HOUSING INDUSTRY IN JAMAICA

The State of the Housing Industry

The Construction Industry

In 2005 the Jamaican economy recorded a real Gross Domestic Product growth of 1.4 percent (Table 9). Jamaica's construction and installation sector grew by 7 percent in 2005, an increase from the previous year, and the highest growth rate since 1989. This growth was marked by improved performance in both residential and non-residential activities with higher levels being achieved in the residential construction. Increased activity in this sector was influenced by reconstruction associated with damage created by hurricanes Ivan (September, 2004), Dennis and Emily (July 2005), and tropical storm Wilma (October 2005).

Indicators of the Construction Industry Performance

With increased levels of activity in the construction industry, cement production and sales grew by 4.5 and 9.1 percent respectively (Table 9). Construction inputs silica sand and paint recorded increases in production by 27.7 and 7 percent respectively, while marl and fills production decreased by 10 percent. Persons employed in the sector reduced by 1.4 percent compared to 2004, with males representing 96.6 percent of the construction industry workforce.

Table 9: Gross Domestic Product in Producers' Values at Constant (1996) Prices 2000-2005, Jamaica
Planning Institute of Jamaica

GROSS DOMESTIC PRODUCT IN PRODUCERS' VALUES AT CONSTANT (1996) PRICES, 2000 -2005 (\$ million)						
INDUSTRIAL SECTOR	2000 ^f	2001 ^f	2002 ^f	2003 ^f	2004 ^f	2005 ^p
GOODS	79 358.5	81 326.4	80 936.6	82 278.1	83 353.4	84 086.2
Agriculture, Forestry & Fishing	14 270.6	15 175.9	14 112.5	14 793.7	13 472.4	12 492.9
Mining & Quarrying	11 935	12 250.5	12 658.4	13 272.4	13 612.4	13 988.2
Manufacturing	31 899.8	32 150.0	31 860.2	31 581.2	32 513.5	32 177.3
of which: Food, Beverages & Tobacco	16 824	17 656.2	17 639.8	17 348.9	18 076.9	17 467.2
Other Manufacturing	15 075.8	14 493.8	14 220.5	14 232.3	14 436.5	14 710.1
Construction & Installation	21 253	21 750.1	22 305.5	22 630.8	23 755.1	25 427.9
SERVICES	161 014.9	160 963.4	164 667.3	168 771.8	170 713.2	173 114.6
Electricity & Water	8 607.4	8 669.9	9 071.6	9 499.6	9 491.8	9 885.7
Transport, Storage & Communication	28 296.9	29 735.4	31 579.7	32 732.1	33 014.9	33 421.3
Distributive Trade	50 631.9	50 621.5	50 685.3	51 214.6	51 897.3	52 486.2
Financing & Insurance Services	19 395	17 790.2	18 891.6	19 697.1	19 555.1	19 641.3
Real Estate & Business Services	11 546.6	11 678.9	11 761.2	11 971.1	12 223.8	12 449.6
Producers of Government Services	23 145.2	23 280.1	233 90.9	23 442.7	23 496.5	23 586.4
Miscellaneous Services (incl. Household & Non-Profit Institutions)	19 391.8	19 187.4	19 287	20 214.5	21 033.8	21 644.1
of which: Hotels, Restaurants & Clubs	14 264.6	14 051	14 060.5	14 841.7	15 520.4	16 041.0
LESS Imputed Bank Service Charge	16 321.7	14 829	15 628.2	15 883	16 691.7	16 448.0
TOTAL GDP AT CONSTANT PRICES	224 051.7	227 460.9	229 975.7	235 166.9	237 374.9	240 752.9

Source: Statistical Institute of Jamaica

Housing Mortgages

The value of mortgages in the construction industry increased to J\$14,525.1 million (US\$) from J\$12,578.6 million (US\$) in 2004, a percentage change of 15.5, although the total number of mortgages allocated declined by 8.3 percent to 9,873 (Table 10). NHT allocated 5,812 mortgages valued at J\$4,147.0 million (US\$), representing 58.9 percent of the total number of mortgages for the year while NHDC and Building Societies allocated .0075 and 35 percent respectively (Table 11). The NHT experienced a 5.4 percent decrease in mortgages allocated, which appeared marginal in comparison to the NHDC decrease of 83.5 percent. While Building Societies increased mortgages closed by 32.6 percent, Credit Unions and Insurance Companies experienced a 45.3 percent decrease.

Under NHT mortgages the following categories experienced declines; Open Market, down 27.0 percent to 1,839, Serviced Lot, down 24.3 percent to 921, Build-on Own Land, down 15.9 percent to 459 and House Lots, down 12.3 percent to 1,056 (Table 12). The following categories experienced increases; Housing Scheme, up 101.2 percent to 505, home Improvement, up 10.2 percent to 151 and Other Construction Loans, up 9.7 percent to 881. The Jamaica Mortgage Bank (JMB) loans disbursed to developers in the construction and installation sector increased by 45.2 percent in 2005, with 81.4 percent of this allocation going towards residential activities.

TABLE 10: Performance of the Construction Industry 2004
Planning Institute of Jamaica

PERFORMANCE OF THE CONSTRUCTION SECTOR, 2001 - 2005							
	2001	2002	2003	2004	2005	% Change 2004/2003	% Change 2005/2004
Number of Housing Starts (excluding the MOWH)	4 642	8 527	4 431	4 035	4 121	-8.9	2.1
MOWH Housing Starts	531	869 ^a	225 ^b	1 168	n/a	n/a	n/a
Total Housing Starts	5 173	9 396	4 656	5 203	n/a	n/a	n/a
Number of Housing Completions (excluding the MOWH)	2 794	4 256	3 587	3 989	4 186	11.2	4.9
MOWH Housing Completions	401	1 288 ^a	380 ^b	1 843	n/a	n/a	n/a
Total Housing Completions	3 195	5 544	3 967	5 832	n/a	n/a	n/a
Number of Home Improvement Starts By NHT	101	174	232	373	215	60.8	-42.4
Number of Home Improvement Completions By NHT	227	172	219	316	196	44.3	-38.0
Number of Electrical Inspections	23 497	24 630	27 008	28 815	24 764	6.7	-14.1
Total Number of Mortgages	10 245	9 953	10 667 ^f	10 768 ^f	9 873	0.9	-8.3
Total Value of Mortgages (\$m)	8 200.7	8 460.5	10 634.5	12 578.6 ^f	14 525.1	18.3	15.5
Number of Mortgages by NHT	7 317	6 361	6 748	6677	5 812	-1.1	-13.0
Value of Mortgages by NHT (\$m)	4 609.0	3 966.0	4 261.8	4 382.7	4 147.0	2.8	-5.4
Commercial Bank Loans & Advances (\$m)	2 339.4	3 326.4	6739.7	5875.7	5 512.3	-12.8	-6.2
Cement Production ('000 Tonnes)	595.0	614.1	615.3	808.6	844.8	31.4	4.5
Concrete Production ('000 cu metres)	86.8	140.3	176.8	194.4	n/a	10.0	n/a
Concrete Production (\$m)	475.9	805.7	1 163.5 ^f	1 409.8 ^f	n/a	21.2	n/a
Silica Sand Production ('000 tonnes)	8.2	9.4	12.8	11.2	14.3	-12.5	27.7
Limestone Production ('000 tonnes)	2 422.0 ^f	2 430.0 ^f	2 483.0 ^f	2 500.0 ^f	2 610.0	0.7	4.4
Sand and Gravel Production ('000 tonnes)	2 205	2 249	2 316	2 362	2 392	2.0	1.3
Marl & Fill Production ('000 tonnes)	5 422	5 693	6 376	5 900	5 310	-7.5	-10.0
Paint Production ('000 ltrs)	9 364	10 337	11 216	11 283	12 073	0.6	7.0
Value of Cement Imports (US\$'000)	5 975.4	9 331.5	10 847.7 ^d	9 368	n/a	-13.6	n/a
Value of Construction Material Imports (US\$m)	144.6	142.6	111.3 ^e	230.1	n/a	106.7	n/a
Employment (annual average '000 persons)	80.2	87.5	97.2 ^f	104.8	103.3	7.8	-1.4
Contribution to GDP	9.5	9.6	9.6	10.0	10.6	4.2	6.0

a - Figures for April - December 2002

b - Figures for January - March 2003

c - Three concrete companies were surveyed

d - This figure is for January - August and it refers to Cement imported as both Capital goods (i.e. "Construction Materials") and Raw Material goods.

e - This figure is for January - August

r - revised

n/a - not available or not reported

Source: Compiled by the Planning Institute of Jamaica.

TABLE 11: Mortgages by Major Agencies – 2005, Jamaica
Planning Institute of Jamaica

MORTGAGES BY MAJOR AGENCIES, 2001 - 2005										
	Number of Mortgages					Value of Mortgages (\$ Million)				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
Specialized Mortgage Agencies:										
National Housing Trust	7 317	6 361	6 748	6 677	5 812	4 609	3 966	4 261.8	4 383.0	4 147.0
National Housing Development Corporation	413	459 ^f	890 ^f	458 ^f	75	175.4	237.1	267.6	121.8	20.0
Building Societies	1 779	2 264	2 879	3 489	3905	3 152.6	3 994.4	5 645.5	7 630.4	10 115.2
Non-Specialized Agencies:										
Credit Unions & Insurance Companies	736	12	150	144 ^f	81	263.7	263.0	459.6	443.8	242.8
Total	10 245	9 096	10 667	10 768 ^f	9 873	8 200.7	8 460.5	10 634.5	12 578.6	14 525.1

r - revised

TABLE 12: Mortgage Financing by NBT (Millions): Unit Type, 2001 -2005
Planning Institute of Jamaica

MORTGAGE FINANCING BY NHT (\$Million): UNIT TYPE, 2001 - 2005										
Benefit Type	2001		2002		2003		2004		2005	
	Mortgage	Value	Mortgage	Value	Mortgage	Value	Mortgage	Value	Mortgage	Value
Housing Scheme	1 234	991	948	626	579	404.3	251	186.0	505	382.7
Serviced Lot	1 333	401	468	137	839	288.5	1 216	697.0	921	467.4
Build-on Own Land	937	530	608	450	534	436.2	546	508.0	459	448.3
Open Market	2 318	2 019	2 422	1 888	2 823	2 288.2	2 520	1 988.0	1839	1800.1
Home Improvement	201	45	205	68	150	43.2	137	54.0	151	61.2
House Lots	700	238	911	376	999	358.7	1 204	433.0	1 056	396.2
Other: Construction Loan	594	385	802	420	824	442.7	803	516.0	881	590.8
Total:	7 317	4 609.0	6 364	3 965.0	6 748	4 261.8	6 677	4 382.7	5 812	4 147

Note: errors due to rounding

Source: Compiled by the Planning Institute of Jamaica

- 15 Under the North Western School Programme, 17 schools will be built in the parishes of Westmoreland, Hanover, St. James and Trelawny at a cost of \$3.5 billion. The project aim is to accommodate approximately 16 000 new students when completed.
- 16 An electrical inspection is required for all new building units or expansion/modification to existing units.

Housing Starts and Completions

In 2005, 4,121 Housing starts^{xiii} were recorded and 4,186 housing completions (Table 10). Between 2004 and 2005 the NHDC had no housing starts, and the private sector experienced a decline of 64.9 percent of housing starts. NHT interim financing

agreement with the private sector accounted for 53.3 percent of the 1,783 housing starts by the private sector.

NHT housing starts reached its highest level for the 2001-2005 period, achieving 2,338 in 2005 compared to 1,477 in 2001 (Table 13). Housing starts under the NHT include starts for the NHT Sugar Housing Programme and the NHT Scheme, which both experienced increases to 402 and 98 respectively. There were however declines in the providing of housing starts under the Inner City Housing Project, down 14.5 percent to 496, Build-on-Own-Land, down 9.4 percent to 1127 and Home Improvement, down 42.4 percent to 215. No data was available for the Ministry of Water and Housing in 2005, while the UDC has recorded no housing starts since 2001. The Parish of St Catherine accounted for the most housing starts in 2005, 1,796 housing starts (Table 14).

TABLE 13: Housing Starts and Completions 2001-2005
Planning Institute of Jamaica

Particulars	STARTS					COMPLETIONS				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
Public Sector:										
Ministry of Water & Housing	531	869 ^a	225 ^b	1 168	n/a	401	1 288 ^a	380 ^b	1 843	n/a
Urban Development Corporation	306	0	0	0	0	94	306	0	0	0
National Housing Development Corporation	688	4 096	1 881	0	0	52	1 190	1 478	139	630
National Housing Trust	1 477	3 671	1 484	2 197	2 338	2 484	2 130	1 281	2 984	2 246
Private Sector:										
West Indies Home Contractors (WIHCON)	210	400	456	457	296	0	630	135	599	233
Others	1 961	360	610	1 381	1 487	164	0	693	267	1 077
Total	5 173	9 396^r	4 656	5 203	4 121	3 195	5 544	3 967	5 832	4 186

a - figures for April - December 2002

b - figures for January - March 2003

n/a - not available

Note: The Sugar Industry Housing Limited has been closed since 2000. The NHT is now responsible for financing the Sugar Housing Programme.
Source: Compiled by the Planning Institute of Jamaica

3 See Chapter on Manufacturing and Processing

4 See Chapter on the Labour Market

5 The annual average in 2005 is the average of January, April, July and October, while the annual average in 2004 was for April, July and October.

6 Housing starts refer to the commencement of infrastructure/foundation work on a housing solution.

7 A housing solution refers to a service lot or a housing unit. A service lot is a plot of land allocated for a housing unit and a unit refers to the physical construction of a dwelling.

8 Housing Starts by parishes exclude Build-on-Own-Land (BOL) and Home Improvement (HI), because information collected on BOL and HI is not broken down by parishes.

Housing completions for 2005 decreased from 5,832 in 2004 to 4,186. NHDC and private developers experienced an increase in housing completions in 2005, while NHT completions declined. NHDC recorded 630 completions of which Operation PRIDE accounted for 570 completions, 90.5 percent. Under Operation Pride, Bushy Park in Clarendon, received 426 completions, the largest allotment. Private sector housing completions increased to 1310 from 866 completions in 2004. Interim NHT financing accounted for 38.6 percent of Private sector housing completions, and increase from 11.0 percent in 2004. NHT completions declined from 2,984 in 2004 to 2,246 completions in 2005. This change can be attributed to the changes in Housing Completions by the following categories; NHT Schemes, down 86.6 percent to 139 completions, Home Improvement, down 38.0 percent to 196 solutions and Build-on-Own Land, down 2.8 percent to 1,017 completions. Increased housing completions were reflected in the following categories; NHT Sugar Housing Programme, up 213 completions and the Inner City Housing Project, up 94 completions.

**TABLE 14: Housing Starts by Parish 2005, Jamaica
NHT, NHDC AND Private Sector Developers**

HOUSING STARTS BY PARISH ^a	
PARISH	2005
St. Catherine	
Aviary Housing Project II	220
Innswood Village	197
Caribbean Estate Housing	950
Bernard Lodge	402
St. James	
Bogue Village	416
Kingston	
Denham Town	248
Spanish Town Road	248
Westmoreland	
Waterworks Housing	98
Total	2 779

a - Housing starts by parishes excludes information on Build-on-own-land (BOL) and Home Improvement (HI),
Information on BOL and HI are not broken down by parishes

Source: National Housing Trust, National Housing Development Corporation and Private Sector Developers.

Housing Quality

In an attempt to examine the Jamaica's National Housing Stock and its constituent make up, the following variables will be examined for the year 2004: dwelling types, household tenure, type of construction material of outer walls, toilet/sanitation, facilities, source of water and lighting, kitchen facilities and number of persons per habitable room. Housing Quality is a measure of the housing conditions in Jamaica.

Dwelling Types

Over the period of 1994 – 2004, Separate House, Detached remained the dominant choice of households in Jamaica, with an average of 77.3 percent and forming the largest component in 2004 at 84.3 percent (Table 15). At 7.3 percent in 2004, Part of a House ranked as the second largest component of the housing stock, a sharp decline from 18.7 percent in 2001 to 6.5 percent in 2002. Yet, this type of dwelling showed only a marginal change from 2002 to 2004 of 0.8 percent.

TABLE 15: Percentage Distribution of Dwelling Types, 1994-2002, 2004, JAMAICA
Planning Institute of Jamaica

PERCENTAGE DISTRIBUTION OF DWELLING TYPES, 1994–2002, 2004										
Dwelling Type	1994	1995	1996	1997	1998	1999	2000	2001	2002	2004
Separate House, Detached	78.6	76.1	76.0	74.9	73.9	74.3	78.5	74.2	82.0	84.3
Part of a House	13.7	14.1	14.4	16.2	15.5	15.6	15.5	18.7	6.5	7.3
Semi-detached House	4.6	5.7	5.7	4.7	7.0	5.1	3.5	3.0	6.6	4.5
Apartment/Townhouse	2.4	3.6	3.3	3.4	2.8	4.2	1.9	2.7	4.1	3.1
Part of Commercial Building	0.2	0.2	0.3	0.5	0.4	0.5	0.3	1.0	0.5	0.7
Other	0.2	0.2	0.3	0.4	0.2	0.1	0.2	0.5	0.3	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Figures have been rounded

Regionally, Separate House Detached accounted for a greater proportion of dwellings in both Rural Areas and Other Towns, accounting for 91.4 percent and 93.4

percent respectively, while in the Kingston Metropolitan Area (KMA) these dwellings recorded as 68.8 percent (Table 16). Unlike the other regions, KMA recorded high percentages for all other dwelling types. Apartment Building or Town house accounted for 8.8 percent while Part of House and Semi-Detached house accounted for 12.7 and 9.6 percent respectively.

TABLE 16: Percentage Distribution of Selected Dwelling Types by Region, 2004
Planning Institute of Jamaica

PERCENTAGE DISTRIBUTION OF SELECTED DWELLING TYPES BY REGION, 2004			
Dwelling Type	KMA	Other Towns	Rural Areas
Separate House Detached	68.8	93.4	91.4
Semi-detached House	9.6	0.5	2.6
Part of a House	12.7	4.2	4.8
Apartment Building/Townhouse	8.8	0.5	0.2

Housing Tenure

Housing tenure includes the following categories; owned by household member, rented or leased, squatted and rent-free. A significant number of Jamaican households are owned by a household member, 56.9 percent, while 22.5 percent of households are rented or leased. People living Rent Free constitutes 19.3 percent, while 1.2 percent of households squat (Table 17). The Owner occupied category fluctuated between 56.9 percent and 61.2 percent between 1994 and 2004, but experienced a decline of points between 2002 and 2004.

TABLE 17: Percentage Distribution of Households by Tenure Status, Region, and Quintile, 2004
 Planning Institute of Jamaica

PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY TENURE STATUS, REGION, AND QUINTILE, 2004					
Tenure Status	Jamaica	Region			
		KMA	Other Towns	Rural Areas	
<i>Owned By</i>					
Household Member	56.9	44.9	61.7	63.4	
Rent-Free	19.3	20.9	15.1	19.9	
<i>Rented</i>					
Leased	2.6	4.3	1.9	1.8	
Private Rented	18.8	26.7	18.0	13.4	
Government Rented	1.1	2.3	0.0	0.7	
Squatter	1.2	0.7	3.0	0.6	
Other	0.2	0.2	0.2	0.2	
Total	100.0	100.0	100.0	100.0	
Quintile					
	Poorest	2	3	4	5
<i>Owned By</i>					
Household Member	60.7	63.4	56.7	58.9	57.6
Rent-Free	23.4	20.9	21.7	21.2	20.0
<i>Rented</i>					
Leased	4.3	4.2	3.5	2.8	2.6
Private Rented	8.2	9.1	15.5	16.1	17.3
Government Rented	1.2	1.4	1.1	0.5	1.0
Squatter	2.0	0.4	1.6	0.7	1.2
Other	0.4	0.7	0.0	0.0	0.2
Total	100.0	100.0	100.0	100.0	100.0

Note: Estimates for Region and Jamaica adjusted for non-response

Household tenure by region indicates that in rural areas owner occupied housing recorder the highest distribution of 63.4 percent much higher than KMA, but only slightly higher than other towns. All areas recorded a significant portion of households living in rent free environments, an average of 19 percent. The number of households living in Rented or Leased housing was the greatest in KMA, 30.3 percent, compared to Other Towns, 19.9 percent and rural areas 15.9 percent.

The highest proportion of households in the owner occupied category fall within the lowest quintiles; 1 and 2 quintiles recording 60.7 and 63.4 percentage respectively. The middle income groups record the lowest percentage of ownership of dwellings occupied 56.7 percent, with the wealthiest quintile 57.6 percent. The Rented and Leased arrangement was the lowest in the two poorest quintiles and highest in the wealthiest quintile. Persons living rent free situations were measured proportionally uniform across all the quintiles recording an average percentage of 21.4.

Type of Construction Material

This variable is an indicator of the durability of the housing for withstanding the elements of weather and for creating greater security for occupants. Block and Steel is the benchmark for fulfilling requirement of durability in housing. Wood, block and steel and concrete nog were the main construction materials considered in the analysis. Since 1994, block and steel has consistently been the material of choice for dwelling construction in Jamaica, with usage increasing from 49.8 percent to 64.3 percent in 2004 (Table 18). Wood was the second strongest preference, with fluctuations from year to year since 1994, but with an overall decline of 2.7 percent over the ten year span. Over the period of this study, Concrete Nog usage declined by just about 10 percent.

TABLE 18: Use of Selected Construction Materials of Outer Wall of Dwelling, 1994-2002, 2004
Planning Institute of Jamaica

USE OF SELECTED CONSTRUCTION MATERIALS OF OUTER WALL OF DWELLING, 1994-2002, 2004 (Per cent)										
Construction Material	1994	1995	1996	1997	1998	1999	2000	2001	2002	2004
Wood	27.5	29.0	27.7	23.9	25.8	24.8	22.6	23.8	24.6	24.8
Block & Steel	49.8	48.9	55.6	59.2	57.4	58.3	62.7	63.3	58.4	64.3
Concrete Nog	18.8	16.6	12.3	10.5	11.2	11.0	11.3	9.2	11.3	8.9

Regionally Block and Steel was the dominant material used in all three regions, and since 2002, all regions have increased in the use of this material. While rural areas have shown a decline in the use of Wood, KMA and other towns have recorded an increase in the use of this material (Table 19). The use of Concrete Nog decreased in all regions. By quintile, comparing Wood and Block and Steel usage, in the poorer quintiles, proportionally more Wood is used, while in the wealthiest quintile Block and Steel is the more dominantly used material. (Table 20)

TABLE 19: Use of Selected Construction Materials of Outer Wall of Dwelling by Region, 2002, 2004
Planning Institute of Jamaica

USE OF SELECTED CONSTRUCTION MATERIALS OF OUTER WALL OF DWELLING BY REGION, 2002, 2004 (Per cent)

Region	Material of Outer Wall					
	Wood		Block and Steel		Concrete Nog	
	2002	2004	2002	2004	2002	2004
KMA	11.9	18.0	68.1	71.0	10.6	8.3
Other Towns	24.5	26.9	58.4	64.2	12.7	7.2
Rural Areas	32.6	28.8	52.3	59.5	11.3	10.0

TABLE 20: Percentage Distribution of Dwelling by Material of Outer Wall 2004, Jamaica
Planning Institute of Jamaica

PERCENTAGE DISTRIBUTION OF DWELLINGS BY MATERIAL OF OUTER WALL, REGION, AND QUINTILE, 2004

Region	Material of Outer Wall							All Types
	Wood	Stone	Brick	Concrete nog	Block & Steel	Wattle & daub	Other	
KMA	18.0	0.8	1.3	8.3	71.0	0.2	0.3	100.0
Other Towns	26.9	0.5	0.3	7.2	64.2	0.0	0.9	100.0
Rural Areas	28.8	0.6	0.1	10.0	59.5	0.1	0.8	100.0
Quintile								
Poorest	37.6	1.2	0.4	7.0	52.3	0.4	1.2	100.0
2	33.2	0.0	0.4	11.9	53.5	0.0	1.1	100.0
3	31.0	0.8	0.5	9.9	57.0	0.0	0.8	100.0
4	23.7	0.5	0.9	9.9	64.1	0.0	0.9	100.0
5	18.1	0.8	0.5	5.9	74.5	0.2	0.0	100.0
Jamaica	24.8	0.7	0.5	8.9	64.3	0.1	0.7	100.0

Note: Estimates for Region and Jamaica adjusted for non-response

Water Supply

The sources of water supplied to households based on the Jamaica Survey to Living Conditions include Safe Water which refers to Tap or Piped Water, Public Standpipe, and Truck or Bottled water. Safe water may include untreated but not uncontaminated water sources such as rivers, springs, rainwater and tanks. Over the ten year study, the survey revealed that Piped water is the main supply, 68.2 percent in 2004 (Table 21). Public Standpipe and Rainwater are other significant sources recorded at 9.5 percent and 7.9 percent respectively. While Piped Water has shown a steady increase over the ten year period, Public Standpipe and Rainwater sources have both shown a general decline in usage.

TABLE 21: Percentage Distribution of Access to Water by Source, 1994-2004, 2004
Planning Institute of Jamaica

PERCENTAGE DISTRIBUTION OF ACCESS TO WATER BY SOURCE, 1994–2002, 2004

Source of Water	1994	1995	1996	1997	1998	1999	2000	2001	2002	2004
Piped Water	63.0	63.4	66.8	66.1	65.7	67.6	66.6	70.9	64.5	68.2
Public Standpipe	18.7	16.5	14.9	15.1	14.2	15.3	13.2	13.1	12.1	9.5
Truck/Bottled Water	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	1.9	1.8
River/Spring/Pond	2.7	2.9	2.3	3.8	4.4	3.2	3.2	3.1	3.3	4.1
Rainwater (tank)	12.5	13.2	12.9	11.4	13.1	10.5	11.7	11.6	15.3	7.9
Well/Other	3.2	4.1	3.1	3.5	2.6	3.5	5.4	1.3	3.0	2.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Figures have been rounded, N/S: Not Surveyed

KMA recorded the highest number of households with access to Piped Water, 93.6 percent, with Other Towns recording 87.1 percent and Rural Areas registering much less at 41.7 percent (Table 22). Households with Indoor Piped Water were highest in KMA, and lowest in Rural Areas, 24.2 percent. Outside Private Tap was the predominant source of water in the poorest quintile, 27.2percent.

TABLE 22: Percentage Distribution of Dwellings by Source of Drinking Water, Region, and Quintile, 2004, Planning Institute of Jamaica

PERCENTAGE DISTRIBUTION OF DWELLINGS BY SOURCE OF DRINKING WATER, REGION, AND QUINTILE, 2004												
Region	SOURCE OF DRINKING WATER											
	Indoor Tap/Pipe	Other Private Tap/Pipe	Public Standpipe	Well	River/Lake/Spring Pond	Rainwater (Tank) PID	Rainwater (Tank) NPID	Trucked Water (NWC) PID	Trucked Water (NWC) NPID	Bottled Water	Other	All Types
KMA	76.4	17.2	1.8	0.0	0.0	0.0	0.3	0.2	1.6	0.0	2.5	100.0
Other Towns	62.4	24.7	7.2	0.0	0.7	2.1	1.6	0.2	0.5	0.3	0.3	100.0
Rural Areas	24.2	17.5	16.0	0.5	8.4	12.8	16.0	0.8	1.2	0.0	2.6	100.0
Quintile												
Poorest	16.0	27.2	19.5	1.2	11.3	9.3	10.5	0.0	1.6	0.0	3.5	100.0
2	29.3	25.8	11.9	0.0	7.7	5.2	15.3	0.0	1.1	0.0	3.8	100.0
3	38.3	22.4	11.6	0.0	5.7	8.4	9.4	0.5	1.3	0.0	2.4	100.0
4	51.3	17.2	8.1	0.2	2.8	9.0	7.8	0.2	1.4	0.0	2.1	100.0
5	67.3	12.8	5.8	0.0	0.8	5.6	4.2	1.3	1.3	0.2	0.8	100.0
Jamaica	49.3	18.9	9.5	0.2	4.1	6.4	7.9	0.5	1.2	0.1	2.1	100.0

Note: Estimates for Region and Jamaica adjusted for non-response

Lighting

Lighting as a variable in this research is an indicator of the ease of access to electricity compared to other sources. At 89.0 percent, electricity was recorded as the main source of lighting for Jamaican households in 2004, and has been the main source of lighting since 1994 (Table 23). In 1975 the Rural Electrification Program was introduced and has subsequently resulted in the increase of Electricity in Rural areas as a shift from Kerosene which recorded a decline from 26.9 percent to 6.9 percent in 2004. Use of Electricity in Rural increased to 86.0 percent from 80.9 percent in 2002.

TABLE 23: Percentage Distribution of Source of Lighting, Region and Quintile, 2004, Jamaica
Planning Institute of Jamaica

PERCENTAGE DISTRIBUTION OF SOURCE OF LIGHTING, 1994–2002, 2004										
Source of Water	1994	1995	1996	1997	1998	1999	2000	2001	2002	2004
Electricity	70.8	71.5	76.9	78.2	80.4	80.8	86.9	86.1	87.1	89
Kerosene	26.9	25.7	21.1	17.9	15.9	14.8	11.2	11.3	10.8	6.9
Other	0.7	0.5	0.8	0.6	0.4	0.5	0.7	0.8	0.6	1.3
None	2.4	2.3	1.3	3.3	3.3	4.0	1.2	1.7	1.4	2.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Figures have been rounded

Toilet and Sanitation Facilities

Most of the houses surveyed had some access to toilet facilities; this was recorded as 99.9 percent. These facilities took the form of Water Closets at 63.8 percent or Pit Latrines at 36.1 percent in 2004 (Table 24). Water Closets were distinguished as ones linked to a sewer system and those not linked to a sewer system, absorption pit or soak away. 41.9 percent of the survey used Water Closets not linked to a sewer system, while only 21.9 percent used sewers linked to a sewer system. KMA recorded the highest level of use of water closets at 88.7 percent while Rural Areas recorded the lowest use at 43.5 percent (Table 25). All regions showed an increase of this type of facility, but still 56.5 percent of Rural Areas do not have access to water closets. Exclusive use of the facility was recorded to be a characteristic of 54.9 percent of Jamaican households.

Pit Latrine use was recorded as at 66.5 percent in the poorest quintile, the households in this group being the least likely to have Water Closets and less likely to have them linked to a sewer system. Exclusive use of Water Closets remained dominant in the wealthiest quintile.

TABLE 24: Percentage Distribution of Households by Type of Toilet Facility, and Region, 2004
 Planning Institute of Jamaica

PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY TYPE OF TOILET FACILITY, AND REGION, 2004

Type of Toilet Facility	REGION							
	Jamaica		KMA		Other Towns		Rural Areas	
	Households With Facility	Households Having Exclusive Use	Households With Facility	Households Having Exclusive Use	Households With Facility	Households Having Exclusive Use	Households With Facility	Households Having Exclusive Use
WC Linked To Sewer	21.9	18.3	50.4	40.8	10.5	9.4	6.5	6.1
WC Not Linked To Sewer	41.9	36.6	38.3	28.8	58.5	55.6	37.0	33.6
Pit	36.1	27.8	11.2	7.1	30.8	23.2	56.4	44.7
Other	0.1	0.1	0.0	0.0	0.3	0.3	0.1	0.0
None	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All Types	100.0	82.7	100.0	76.7	100.0	88.5	100.0	84.4

Note: Estimates adjusted for non-response

TABLE 25: Percentage Distribution of Households by Type of Toilet Facility, and Quintile, 2004
 Planning Institute of Jamaica

PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY TYPE OF TOILET FACILITY, AND QUINTILE, 2004

Type of Toilet Facility	QUINTILE									
	Poorest		Quintile 2		Quintile 3		Quintile 4		Quintile 5	
	Households With Facility	Households Having Exclusive Use	Households With Facility	Households Having Exclusive Use	Households With Facility	Households Having Exclusive Use	Households With Facility	Households Having Exclusive Use	Households With Facility	Households Having Exclusive Use
WC Linked to Sewer	10.5	6.5	10.0	6.8	14.6	10.8	19.2	16.4	34.0	29.7
WC Not Linked to Sewer	23.0	19.0	33.1	26.7	42.4	37.6	46.7	41.8	46.5	41.9
Pit	66.5	48.0	56.9	46.3	43.0	32.7	33.9	25.2	19.3	14.8
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.0
None	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All Types	100.0	73.4	100.0	79.7	100.0	81.1	100.0	83.6	100.0	86.4

Kitchen Facilities

Kitchen facilities as is an indicator of the degree of sanitation and a satisfactory standard of living. Exclusive use of Kitchens was recorded in 90.9 percent of households, while households with general access to a kitchen measured 92.2 percent. KMA with 87.8 percent had the lowest percentage of households with Exclusive use of a Kitchen (Table 26).

TABLE 26: Percentage Distribution of Households Having Kitchen Facilities by Region, and Quintile, 2004
Planning Institute of Jamaica

PERCENTAGE DISTRIBUTION OF HOUSEHOLDS HAVING KITCHEN FACILITIES BY REGION, AND QUINTILE, 2004		
Classification	Households With Facility	Households Having Exclusive Use of Facility
Region		
KMA	92.3	87.8
Other Towns	91.9	95.0
Rural Areas	92.3	91.3
Quintile		
Poorest	89.1	83.4
2	90.6	92.7
3	90.4	99.9
4	94.0	91.2
5	93.0	91.7
Jamaica	92.2	90.9

Note: Estimates for Region and Jamaica adjusted for non-response

Number of Persons per Habitable Room

The Number of Persons Per Habitable Room gives and Indication of overcrowding within a household, although size of room is not accounted for in this survey, as an average 1 to 1.01 person per habitable room is used as a benchmark. In 2004 almost a half of Jamaican households recorded one or less person per habitable room. Regarding quintiles, the wealthiest reported 76.0 percent living in households

with one or less per habitable room, while the poorest quintile by contrast recorded only 18.1 percent in this category.

Housing Quality Index

The Housing Quality Index (HQI) is a measure of changes in the quality of housing stock by assessment of the indicators of housing conditions. The index is derived by the mean scores of each housing indicator. The indicators used in determining the HQI are: Material of outer wall, existence of Indoor tap or pipe, main source of water, main source of lighting, exclusive use of water closet, exclusive use of kitchen and the number of persons for habitable room.

The HQI shows a gradual increase in the quality of housing in Jamaica moving from 55.1 percent in 1994 to 66 percent in 2004 (Table 27). All indicators under the HQI have shown improvement over the last ten years, although there have been fluctuations.

TABLE 27: Percentage Housing Quality Index by Region, 2002, 2004, Jamaica
Planning Institute of Jamaica

HOUSING QUALITY INDEX (HQI), 1994–2002, 2004										
Indicator of Housing Quality	Percentage of Households									
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2004
Wall of Block & Steel	49.8	48.9	55.6	59.2	56.9	58.3	62.7	63.3	58.4	64.3
Indoor Taps	40.1	42.3	44.3	46.2	42.3	44.3	46.3	46.6	45.0	49.3
Electricity for Lighting	70.8	71.5	76.9	78.2	80.4	80.8	86.9	86.1	87.1	89.0
Exclusive Use of Water Closet	41.3	42.3	44.0	45.2	47.0	47.7	48.8	50.7	50.5	54.9
Exclusive Use of Kitchens	81.0	82.4	82.8	81.1	89.3	89.6	91.0	92.4	90.5	90.0
No of person per Habitable Room	48.1	46.4	47.9	50.6	50.1	53.8	54.6	56.0	50.8	48.7
HQI	55.1	55.6	58.5	60.0	61.0	62.4	65.0	65.8	63.7	66.0

Level of Consumption

In reviewing annual consumption by quintile, in 2004 the majority of annual consumption of the lowest quintile remained below J\$300,000 (US\$4,615.39) while for quintile 2, annual consumption remained below J\$400,000 (US\$6,153.85) (Table 28). While in wealthiest quintile the majority of consumption remained below J\$600,000 (US\$4,9230.77), 7.8 percent of this quintile fall within the J\$1,000,000 plus (US\$15,384.62 plus) consumption bracket, three times the majority spending of the lowest quintile.

TABLE 28: Percentage Distribution of Households by Annual Consumption Expenditure, Jamaica Planning Institute of Jamaica

PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY ANNUAL CONSUMPTION EXPENDITURE, BY QUINTILE, 2004

Annual Consumption Expenditure	Quintile				
	Poorest	Quintile 2	Quintile 3	Quintile 4	Quintile 5
Less than 100 000	26.5	12.2	17.7	7.4	0.0
>100 000 – 200 000	41.2	28.2	19.0	20.5	19.2
>200 000 – 300 000	24.2	32.1	24.3	25.1	18.1
>300 000 – 400 000	5.8	15.7	23.8	19.3	13.6
>400 000 – 500 000	1.5	9.4	8.8	12.0	11.8
>500 000 – 600 000	0.8	2.1	4.3	8.5	10.2
>600 000 – 700 000	0.0	0.4	1.6	3.9	7.5
>700 000 – 800 000	0.0	0.0	0.3	1.8	4.6
>800 000 – 900 000	0.0	0.0	0.3	0.9	4.2
>900 000 – 1 000 000	0.0	0.0	0.0	0.2	2.9
1 000 000+	0.0	0.0	0.0	0.5	7.8
All Classes	100.0	100.0	100.0	100.0	100.0

Poverty in Jamaica

In 2004 the incidence of poverty in Jamaica was measured at 16.9 percent of the population. (Table 29). This is a significant decrease since 1995, when a level of 27.5 percent was recorded. Between 1995 and 2004, Rural Areas have had a higher level of poverty than KMA and Other Towns. In 2004 poverty in KMA measured 14.3 percent, 7.8 percent in Other Towns, and 22.1 percent in Rural Areas.

The government of Jamaica implemented the Programme for Advancement Through Health and Education (PATH) in 2002. PATH was instituted as a reform for the existing social support programs which include; the Poor Relief Outdoor Programme, the Old Age and Incapacity element of the Public Assistance Programme, and the Food Stamp Programme (FEP). PATH targets the poor who fall in the following categories: the elderly, persons with disabilities, children 0-7 years, pregnant and nursing mothers and destitute able-bodied adults.

As a conditional cash transfer program, PATH requires the applicants comply with established criteria in order to continue benefits. Based on the Jamaica Survey of Living conditions 2004, of the number of people receiving benefits from PATH, 79.3 percent came from the two lowest quintiles.

TABLE 29: Percentage Incidence of Poverty by Region 1995-2004, Jamaica
Planning Institute of Jamaica

INCIDENCE OF POVERTY BY REGION, 1995-2004

Region	(Per cent)									
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
KMA	15.0	17.2	9.3	8.6	10.6	9.9	7.6	10.4	9.5	14.3
Other Towns	22.8	22.0	14.8	13.4	12.1	16.6	13.3	18.7	15.8	7.8
Rural Areas	37.0	32.8	27.4	19.5	22.0	25.1	24.1	25.1	24.2	22.1
Jamaica	27.5	26.1	19.9	15.9	16.9	18.7	16.9	19.7	19.1	16.9

Source: JSLC, 2003

In 2005 construction industry and the GDP continue to experience growth. The drop in interest rates on mortgages creates a positive outlook for increasing mortgages for 2006. As the number of projected housing completions for 2006 is 4,121, far below the projected need, it is a positive note that the HQI continues to increase, with more households using more durable materials for construction, gaining access to indoor water and light, and the exclusive use of water closets. An increase in PATH beneficiaries from the two poorest quintiles suggests that more funding is going to those who need it most.

CHAPTER 6: CASE STUDY INNERCITY HOUSING PROJECT

Introduction

In 1994, statistics from the Jamaica Survey of Living Conditions showed that the parishes with large urban centers, including Kingston and St. Andrew, St. Catherine (Portmore, Spanish Town) and St James (Montego Bay) ranked better than the national average on all housing indicators. 70 percent of households in St Andrew enjoyed piped water supply, while 40 percent of households lack their own sanitary facilities. However, in Kingston, approximately half of households lack piped water and 60 percent lack their own sanitary facilities, a high figure for the country's urban center. 84 percent of all Jamaicans have access to potable water according to the Planning and Evaluation Unit of the Ministry of Health.

Scope of the Project

The Inner City Renewal Programme is an effort of the Jamaican government aimed at redeveloping the downtown business district of Kingston and its metropolitan areas. The Inner City Housing Project (ICHP) was created as a part of this program under which targeted areas and communities would benefit from improved housing, physical and social conditions.

The ICHP involves the building of 5,000 housing units within the Kingston Metropolitan Region (KMR), as well as three other parishes of Jamaica; St. Catherine, St. Mary and Westmoreland. ICHP will also include the refurbishing of some selected government-built apartment complexes and the implementation of a social development program. This project is a part of the government's efforts to develop communities, by providing employment in the construction phase of the project, facilitating training and encouraging business renewal in development areas which further provides job

opportunities for residents. By creating secure, healthy environments, the intent of the ICHP is to encourage community development by improving the lives of inner city residents.

The initial time frame for providing these housing units was 3 years, which has now been extended to 7 years. The initial budget for the project was J\$6 billion (US\$92.3 million) based on preliminary projections, but the cost of infrastructure and land acquisition are two factors which have influenced the increase in project costs to J\$15 billion (US\$230.77 million) (Jamaica Gleaner, Sunday, August 20, 2006, “*Government low-income housing project costs balloons*”.) Managing Director of NHT, Earl Samuels noted that in the conceptualizing of the ICHP, the government was expected to provide lands for development, but this has not been the case as land in some areas slated for development are privately owned and property therefore has to be purchased.

Some of the communities in the Kingston Metropolitan region which will benefit from the program include; Denham Town, Tivoli (Mid town), Matthews Lane, Hannah Town, Parade Gardens, Swallowfield and Monaltrie. Two Open Market schemes in Trench Town and Spanish Town sites are additionally being built. Outside of the KMR area the sites will include; Port Maria, Spanish Town and Savannah-la-Mar. The NHT is the financier of the project and holds responsibility for planning and administration for all areas of the project. The ICHP is an important part of NHT’s mandate to provide low income housing for inner city communities.

The housing being built for the ICHP is primarily apartment style buildings consisting of two, three and four storey walk-ups but row houses will also be considered. The housing complexes have been attractively designed and constructed to offer increased convenience and safety to residents using the Crime Prevention through

Environmental Design (CPTED) principle, which discourages some types of criminal activity. The new units will include bathrooms and a washroom in each unit.

All new units being provided will be for sale and none will be held for rental. All persons in the targeted communities will be eligible to apply for units, but conditions will apply. Housing will be subsidized and typical two and three bedroom units will cost approximately JA\$1,100,000 (US\$ 16,923) and JA\$1,300,000 (US\$ 20,000) respectively. The Jamaica Defense Force (JDF) will be involved in all projects as clerk of works. Ashtrom Building Systems was selected awarded the contract to build 3,000 of the ICHP housing units based on a best price selection. A total of nine contractors submitted bids on the project.

Project Progress

Of the 634 housing units planned for the Denham Town area, 94 units were completed in June of 2005, and since have been occupied (Figure 17, 18 and 19). Amenities provided include central open green spaces for children to play, community mailboxes, as well as a community garbage collection area. Two and three storey units have been provided in these initial stages of the Denham Town development.

At Monaltrie, 48 housing units are basically complete, while the 186 housing units at Spanish Town Road development are nearing completion. The Spanish Town Road scheme is a "Greenfield" site, which means that beneficiaries must live within the constituency and be able to afford a mortgage under the ICHP. This development will include a community centre, basic school and an amphitheatre as social amenities.



**FIGURE 17: DENHAM TOWN ICHP DEVELOPMENT,
Completed AND Occupied Units (94)**



**FIGURE 18: DENHAM TOWN
Parking Lot adjacent to Housing**



FIGURE 19: DENHAM TOWN
Parking Lot adjacent to Existing Inner City Housing

In Trench Town the ICHP has completed 252 new housing units in the centre of this area (Figures 20 and 24). For the first time a commercial centre will be offered as one of the social amenities of the scheme. The hope is to boost the community's economy and bring back people who had fled this area because of violence. These units are also built apartment style as two and four storey blocks of housing organized around a central communal space. The units have a single door entry into the kitchen space (Figure 21). The open plan layout creates a large open area between the kitchen and the living space. Double doors from the living space open to the shared community areas. A small laundry room with a washing tub serves its purpose, yet is big enough to include a washer and dryer (Figure 22).



FIGURE 20: TRENCH TOWN
Four Storey Housing Units with Enclosed Access Stairwell



FIGURE 21: TRENCH TOWN
Kitchen Area adjacent to door entry from stairwell



FIGURE 22: TRENCH TOWN
Wash Room

The vanity has been removed from the usual location in the bathing area into a nook adjacent to the bathroom to allow for access to bathroom facilities by more people at once (Figure 23). A bath tub and the toilet are enclosed in the bath room. The unit is tiled throughout, which is both easier to keep clean and healthier. Louvered exterior windows allow light and ventilation to pass through the rooms. Louvered transom windows above the doors throughout allow for cross ventilation when the doors are closed.



FIGURE 23: TRENCH TOWN
Bathroom and Vanity Unit in Open area



FIGURE 24: TRENCH TOWN
Four Storey Housing Units along with Two Storey Units

These housing units offer a central area for children in the community to play, as well as a shared drying yard for sun drying clothing. Additional amenities adjacent to new housing units include an existing basic school, and in addition a new cricket field and the community center to be built in the next phase of construction.

Being a part of the government's Inner City Renewal Programme, the ICHP strives to provide new housing for Jamaica's low income population in targeted areas, but on a broader scale attempts to provide a community framework for social development. By providing a clean, secure and multi-functional setting, the intent is to create an atmosphere that residents take ownership of and protect, dispelling any negative elements of violence. Jamaica's inner city areas have long had reputations of being violent and secured areas only easily accessed by its citizens. By creating a community center and other amenities such as a cricket field, the environment encourages a communal way of living and participating in area activities.

Skills training for residents are aimed at positioning them for employment in the Business Improvement Development enterprises as a part of the ICRP. Assistance with locating employment as well as perusing entrepreneurial endeavors will also be provided by a Social Development team. The NHT recently held a job fair for suitably trained and certified inner-city residents. It was noted that 40 companies participated in the event and several made offers for employment.

The ICHP has been very successful in providing housing units for targeted, although not in the initial time frame proposed or at initial budget outlined. In 2005 Kingston and St. Andrew accounts for 24.8 percent of Jamaica's population (ESSJ, 2005) the largest population of any parish. Because of the size of the population of this area and the percentage of the housing being substandard, the inner city is an important area for improvement on the government's agenda.

Kingston and St. Andrew also has the highest rate of crime of all the Parishes, an incidence of 7,942 crimes reported in 2005. Social development improvements in these could have an effect on the level of crime. The overall effects of the effects of the ICHP on the lives of many inner city citizens will only be realized in the long term, when research will be able to determine a possible decline in the rate of crime in relation to the increased standard of living.

The Inner City Housing Project is an attempt to address the problem of inadequate housing in Jamaica, but with a new concept of responding to issues identified by post occupancy of older housing developments. The idea of a community oriented design offering shared spaces and security through visibility and enclosed staircases, upgraded amenities: of french windows, wash rooms with accommodations for a washing machine and dryer, and tiled interiors all respond to the needs of the Jamaican cultural esthetic of home. In its provision of housing this project is the Jamaican dream.

The total housing to be provide by this project is 5,000 housing units, and although the program is providing more housing, the number of units still fall far below the annual projected need of 30,000. Jamaica as a developing nation in unableable to sustain and support financing numerous projects with similar levels of project costs, and therefore the viability of providing more of this type of low income housing will depend on alternate options.

Finally, in providing low income housing, the need of no-income persons in society must be addressed by providing state owed housing with no options for ownership or housing resale. The ICHP does more that just provide housing by offering new home owners skills training and job fairs to increase exposure to job opportunities. These efforts must be promoted on a larger scale if the level of employment in society is to be increased, allowing more Jamaicans to afford an improved standard of living.

CHAPTER 7: CONCLUSIONS AND RECOMMENDATIONS

Low Income housing around the world has proven to have varying degrees of success, depending on the social, economical and political environment of any particular country. Low income housing in Jamaica is unique compared to other countries, but particularly countries within the Caribbean. Based on the research carried out in the development of this thesis it has been concluded that although many entities in Jamaica both private and public are building houses, the housing need of the poor in Jamaica is not being fulfilled. The cost of labor, materials, land and overall construction are based on market conditions, and the idea of providing the poor with a house and a mortgage seems to be contrary to the fact that the poor is challenged by their resources.

Conclusions:

1. Government efforts are being made to provide more low income housing by the MOH, NHT and NHDC, but the scale of these efforts must be escalated if a significant impact on the housing need is to be made. Jamaica has a population of 2.6 million (ESSJ, 2005) and a housing need of 150,000 houses (in 2005), 30,000 houses need to be produced per year for five years to meet this need. At the end of 2004, the number of housing completions by the public and private sectors combined was 5,832 housing units (Table 12). The number of housing starts for expected completion in 2005 was 5,203 housing units. With the exception of 2003 when 9,396 housing units were produced, the industry has not been able to achieve its goals of a higher level of housing production. The National Housing Policy and Implementation Plan (NHPIP) being formulated by

the MOH aims to facilitate creative approaches to increasing housing supply and streamlining the housing finance sector.

2. The National Poverty Eradication Program coordinates various programs and projects through ministries and agencies with a commitment to promoting economic and social development and to reducing the number of persons living below the poverty line. Jamaica's poverty line was measured at J\$221,130.78 (US\$ 3,402) in 2004. In 2005, 12.7 percent of the Jamaican population was recorded by the Jamaica Survey of Living Conditions as living below the poverty line. This is a reduction from the previous year, in which it measured 14.8 percent and ten years earlier when 27.5 percent was recorded in 1995. Jamaica's level of poverty is being reduced. Indirectly a reduction in the number of people considered as living in poverty affects the need for low income housing, by reducing the number of people in Jamaica's society considered as poor.

3. Using the evaluation criteria of this research; Jamaica's population has continued to grow at a steady rate of 0.5 percent in the last three years and life expectancy remains steady at 73 years of age. It could be speculated that a greater percentage of Jamaica's population is getting older, and belonging to either the elderly dependent or working class. Optimistically, the economy could potentially grow from this effect, if the economy is able to take advantage of the increased number of working Jamaicans, by expanding employment opportunities. Although somewhat speculative, this could mean reductions in the need for low income housing, as more income earning Jamaicans are able to afford their own for homes.

4. In order to be more effective at providing housing opportunities, financing for housing has become more accessible, with increased mortgage opportunities being offered by both public and private entities. By contributing to the NHT through wages, all working Jamaicans are eligible to receiving housing financing under various housing programs offered by the NHT.. In addition to subsidized NHT housing programs like the Inner City Housing Programme, other types of opportunities for housing financing include; serviced lots, build on own land, open market and home improvement schemes. The Joint Venture Housing Policy provides guidelines for partnerships between the government and private sector entities, with an emphasis on meeting national shelter needs using financially viable, economically affordable projects which utilize technically sound construction methodologies.

5. The Jamaican government has taken responsibility for the poor in society, and while the projected numbers of housing units are not achieved, changes in existing policies and new policies being provided, such as the NHPIP, may have a significant impact on low income housing industry. Initiatives suggest that in order to be more effective the housing need must be approached a social effort to be supported by all. Emphasis in the Jamaican economy, like many developing nations is on technology which will encourage and allow for more seamless communication in international trade, as well as increasing the efficiency of existing systems. The key to Jamaica's housing future may lie in acknowledging its uniqueness, highlighting its traditions and historic construction methodologies, learning from and using them as an important part of a sustaining future.

Recommendations:

1. In streamlining Jamaica's construction process from land acquisition to design and construction, the appropriate regulations need to be implemented into the system formally. The National Land Policy seeks to establish an effective network and geographic information management system, which forms the basis for all land planning, development and utilization in Jamaica. The National Land Agency now houses all public land functions in one location, and is continually improving on computerization for better filing and management of land documentation. The effective implementation of the Jamaica Building Codes and training of personnel to enforce all construction related regulations can come from the experience of professionals within the industry, i.e. contractors, architects and engineers who understand the shortcomings of the system and are willing to work towards improvement. With increased enforcement of regulations and accountability through local government, the ability to build on land without a title in areas not been zoned or planned for development, can be greatly reduced. A result of formalizing regulatory systems is a reduction in the number of squatter settlements.
2. Food for the Poor gives housing to those who cannot afford it. Not a new concept, but one intended to target the poorest in society, for which means of improvement seem prohibitive. The selection process would need to be stringent and rigorous, to protect against misrepresentation. Creating a housing stock would allow more families to experience a better standard of living. These allotment houses would not be for resale, and would not be allowed to become part of the open market. MOH or private developers may offer this housing alternative.

3. A partial construction of a housing unit could be offered as an alternate to a typical single family detached NHT housing unit, at a much reduced cost. This unit would offer options to upgrade the house in the future, at the owner's own pace. Building codes, quality standards and construction education should all be a part of any future developments enabling only construction that meets stringent guidelines. Self help housing has long been the tradition in Jamaica. By educating the homeowner in best practices, the quality of self help housing, and the overall quality of the housing stock would be improved. The NHPIP being developed also aims to promote a rationalization and formalization of the role of the informal sector in the housing industry.

4. Borrowing the concept from Cuba's Architects in Community Programme, encouraging self-help repairs and upgrades to housing by subsidizing professional services, the potential to use Jamaica's knowledge base to build on the existing housing stock. NHT should evaluate this system and see what elements of the process may be applied to the Jamaican situation. Creating programs which allow for greater Involvement of professionals in the industry is a start, the possibility for similar results as achieved in Cuba, can only be understood through more in-depth research.

Initiatives to house the poor are at the forefront of the agenda of developing countries as well as the developed world, all are affected. Alternative models for housing construction, using indigenous or sustainable means of construction can drastically reduce the cost of construction; using self help labor instead of being regulated by the market cost for labor. Housing the poor is not a choice, but a requirement. Jamaica will

continue to struggle with a first world persona and a third world population if its ability to house its poor cannot start to meet the needs.

APPENDIX A

Survey Cover Letter and Questionnaire

June 18, 2006

Mr./Miss Brown
XYZ Company
1235 James Street, Nowhere, Jamaica

Re: Low-Income Housing in Jamaica Questionnaire (enclosed)

Dear Sir/Madam,

I am a student at the Georgia Institute of Technology studying in the Building Construction Master's program. I am currently doing research for my Thesis study on the **Low-Income Housing Industry** in Jamaica.

Please find attached a questionnaire on the Residential Design and Construction Industry in Jamaica. The questions in this survey will aid in providing me with views from the industry on the public and private sector in providing housing for the low-income sector of Jamaican society. All information obtained from this questionnaire will be kept confidential. Please feel free to contact me with any questions you may have at the following mailing address:

Grace Daley
7 Durham Avenue,
Kingston 6, Jamaica

You may also email at: emailme@gracedaley.net

Please find an enclosed envelope with postage for the return of this survey. Please complete and return this survey by June 30, 2006. Thank you for your time in contributing your views to this survey.

Sincerely,



Grace Daley

Questionnaire

RESIDENTIAL DESIGN AND CONSTRUCTION INDUSTRY IN JAMAICA

Please answer the following questions regarding the Design and Construction Industry in Jamaica.

NAME: _____

DATE: _____

ORGANIZATION: _____

PART I GENERAL

1. In what type of organization do you work? (Check only one box)

- Architecture firm
- A/E firm
- Construction firm
- Housing Developer
- Government Employee of Housing Agency
- Other(s) _____
(Please Indicate)

2. How long has your organization existed?

3. Is your organization a government entity?

- Yes
- No

4. 4. What is your job function? (Check only one box)

- Architect
- Engineer
- Designer
- Contractor/Constructor
- Project Manager
- Firm Director
- Other _____
(Please Indicate)

5. How long have you worked at this organization?

6. In general, how many years of professional practice in the design and construction arena do you possess?

7. How many people work in your organization?

8. Indicate the type of projects your organization specializes in. If your selection does not include residential, please proceed to question 26. (Check all that apply)

- Residential
- Commercial
- Office
- Hotel

- Institutional
- Industrial
- Others _____
(Please Indicate)

Please note that the remainder of the questions in this survey refers to the residential design and construction industry in Jamaica.

PART II CURRENT PROJECTS

9. What is the nature of the projects your organization develops? (Check all that apply)

- Private
- Public
- Mixed

10. Please list the dollar amount (in Jamaican dollars) and number of the housing units on which your organization has worked in the past year?

11. Where are most of your organization's projects located? (Check all that apply)

- Montego Bay and surrounding areas
- Ocho Rios and surrounding areas
- Rural interior areas _____
(Please Indicate)
- Kingston and the Metropolitan area
- Surrounding areas outside of Kingston i.e., Port more, Spanish town etc.
- Other _____
(Please Indicate)

12. Has your organization created partnerships or joint ventures with others for the development of one or more projects?

- Yes
- No (skip to question 14)

13. If your answer is yes for question 12, please indicate the type of project, and the reason for the association.

14. Has your organization worked with international clients in Jamaica?

- Yes
- No (skip to question 16)

15. If your answer to question 14 is yes, please indicate the type and size of the projects, and the nationality of your client.

PART III LOW INCOME HOUSING:

16. In your opinion, low income housing for the poor in Jamaica is: (Check only one box)

- Very adequate
- Adequate
- Somewhat adequate

Inadequate

17. In your opinion, what percentage of low income housing is provided by the sectors of the design and construction industry listed below:

Public sector _____%

Private Sector _____%

Other _____

(Please Indicate)

18. Do you believe that during the past 10 years the gap in housing for the poor in Jamaica has been reduced?

Yes

No

19. Please explain your answer above _____

20. In your opinion, the regulations on the residential design and construction industry in Jamaica are: (Check only one box)

Very adequate

Adequate

Somewhat adequate

Inadequate

21. What are your reasons for your response above?

22. Do you have any recommendations for ways to improve the regulations governing the residential design and construction industry in Jamaica?

23. In your opinion, for the residential design and construction Industry in Jamaica the financial options available to the poor are: (Check only one box)

Very satisfactory

Satisfactory

Somewhat satisfactory

Unsatisfactory

24. What are your reasons for the response above?

25. Do you have any recommendations for ways to improve the financing options for the poor in the residential design and construction industry in Jamaica?

26. What do you consider as the greatest challenges faced by the residential design and construction industry to provide low income housing in Jamaica?

ADDITIONAL COMMENTS

Thank you for your time.

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ENDNOTES

i Malthus' Theory of population – Thomas Malthus argued in *An Essay on the Principle of Population*, first published in 1798, that if left unrestricted, human populations would continue to grow until they would become too large to be supported by the food grown on available agricultural land, by the middle of the 19th century. He proposed that, while resources tend to grow linearly, population grows exponentially. At that point, the population would be restrained through mass famine and starvation. Malthus argued for population control, through "moral restraint", to avoid this happening. As the population of a species exceeds the amount of available resources, it decreases, sometimes sharply, since the lack of resources causes mortality (deaths) to increase. This process keeps the population in check and ensures it doesn't exceed the amount of resources.

ii [The Gross Domestic Product (GDP) for a region, is the "the market value of all the goods and services produced by labor and property located in" the region, usually a country. GDP equals the Gross National Product (the value of all the goods and services produced in an economy) minus the net inflow of labor and property incomes from abroad.

iii The Planning Institute of Jamaica (PIOJ) was established in 1955 as the Central Planning Unit (CPU) with the mandate to provide the Government with research and data information for the development process. The CPU became the National Planning Agency in 1974. The functions, however, remained the same. In 1984 the Agency became a statutory body and its name was changed to the Planning Institute of Jamaica (PIOJ). The PIOJ was placed under the Ministry of Finance.

iv The Statistical Institute of Jamaica (STATIN) was established under the Statistics (Amendment) Act 1984 on April 9, 1984. The Institute has been invested with all the powers formerly vested in the Department of Statistics and previously the Bureau of Statistics (which came into existence in 1946) along with other powers.

v World Health Organization

The World Health Organization is the United Nations specialized agency for health.

vi Pan American Health Organization

The Pan American Health Organization (PAHO) is an international public health agency with 100 years of experience in working to improve health and living standards of the countries of the Americas. It serves as the specialized organization for health of the Inter-American System. It also serves as the Regional Office for the Americas of the World Health Organization and enjoys international recognition as part of the United Nations system.

vii The United States has carried on foreign intelligence activities since the days of George Washington but only since World War II have they been coordinated on a government-wide basis. Three programs have highlighted the development of coordinated basic intelligence since that time: (1) the Joint Army Navy Intelligence Studies (JANIS), (2) the National Intelligence Survey (NIS), and (3) The World Factbook. Available online, The World Factbook, offers information on countries around the world on which it the United States has gathered intelligence over the years. This information is periodically updated.

viii Although Dominican Republic also suffers from some of the common problems listed with this paper, the comparisons are limited to only Jamaica, Cuba, and Haiti.

ix Edited by Bert N. Adams and Jan Trost, *Handbook of World Families*, Chapter 19, Families in Cuba, from Colonialism to Revolution, Annie R. Roschelle, Maura I. Toro-Morn, Elisa Facio, Sage Publications Inc., 2005

x Micro brigades are a form of collective self-help through a building scheme set up by the State, where participation of people is the basis of the movement. Building material is financed centrally, technical support is organized by state enterprises and members are contributing with their work force.

xi Estimating the national Housing Needs 1997-2002, Marlene Smith, Essay from the NHT, On Housing 2, 1999

xii A statutory body is made up of a board, set up by statute to support a ministry or special interest area by providing local knowledge. This body operates solely within the laws that create it and can be free to sue and be sued on its own. With its involvement in the public sector and in some instances funding being provided by the Government, this body must be accountable for spending and its statutory status may be terminated by the government at any time.

xiii Housing Start – refers to the commencement of infrastructure or foundation work on a housing solution. A housing solution refers to a service lot or a housing unit. Service lot is a plot of land allocated for a housing unit. A housing unit refers to a physical construction of a dwelling.