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Belize

Housing Policy.

Diagnosis and guidelines for action

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Executive Summary

This report is an assessment of the housing sector and the housing policy environment in Belize. Its goal is to provide an analysis of the housing sector in Belize focused on its parameters, potentials, and pitfalls, in order to assist the Government and various stakeholders in the housing sector in ensuring access to quality and affordable housing by all in the coming years. The objective of the report is to provide the conceptual framework for evidence-based decision making. The report is divided in four chapters (i) the context of the housing sector; (ii) an assessment of the current conditions in the sector; (iii) examinations of the housing policy environment, and; (iv) a proposal of guidelines for action in housing. Here we highlight some of the main findings and policy recommendations, that we consider key to improve the functioning of the housing sector in Belize.

Findings

Conditions in the housing sector are largely the reflection of its context. Three contextual factors that have particularly strong effects on the housing sector performance include: the availability and use of land; the use of housing finance and subsidies and the lack of adequate residential infrastructure.

1. Land

- **Low-density:** Belize has no shortage of land, and as a consequence, cities and towns have very low densities. As it is well known, low-density in cities requires higher budget allocations for capital investments, maintenance, transportation and landfill, increasing the cost of providing residential infrastructure and therefore the cost of serviced land. On the same line, the minimum plot size (400 m²) exacerbates the problem making plots too big for poor households and more expensive to provide services for the government.
- **Urban expansion:** At the same time, even though land is available, Belize is urbanizing at a rapid pace and it is expected to triple its urbanized areas by 2040. While this urbanization process is putting pressures on cities to provide serviced land to allow for the growth, cities and towns are not responding with a forward looking view, failing to create plans to accommodate the expansion in an efficient way. Failure to plan for this expansion is likely to create land supply bottlenecks that will result in higher-than-necessary land prices, and consequently in decreased housing affordability.
- **Land subdivision:** Most of the land in Belize is public land. In practice, the way that most land subdivision works is through ‘political’ subdivision of national lands, which are allocated to residential plots among politicians’ constituents. In theory, residents then pay for the land in installments and obtain title when they complete their payments, but in fact, in most of the cases, land is obtained for free or at a fraction of the price.

2. Housing Finance and subsidies

- **Private housing finance:** Private financing for housing in Belize works well. Low rates of inflation have kept mortgage interests low and affordable. Mortgage lending is popular and accessible to all urban income groups, rather than restricted to the top fringes of the urban income distribution. Both commercial banks and credit unions in Belize are lending actively for housing.

- **Public housing finance:** There is room to improve the government’s own residential mortgage lending to make it more efficient, equitable and sustainable. Public housing finance — mostly in the form of mortgage loans, hire-purchase housing loans, and home improvement loans — has been provided through two main channels: the Housing and Planning Department (HPD) of the Ministry of Housing and Urban Development; and the Development Finance Corporation (DFC). Loans have been characterized by high default rates (as high as 80%), mainly because they are perceived by the public as gifts from politicians. The collection of payments has not been enforced either. There are other problems with government involvement in the direct issuance of mortgages: it typically commits itself to issuing mortgage at below-market rates; mortgage loans or home improvement loans are given without market analysis and without due diligence. Moreover, the provision of sovereign guarantees to the DFC has worsened the government’s fiscal position, weakened its credit worthiness, and saddled it with a substantial debt that was less than transparent, not being part of its current budget nor of its capital budget.

3. Residential Infrastructure

- Existing residential infrastructure in Belize — especially water supply, sewerage and drainage in urban areas — has been deteriorating in recent years and has not caught up with urban expansion. The most visible infrastructure needs in existing urban communities are a regular, reliable and affordable piped water supply and a piped sewerage system, combined with an effective storm drainage system. In general, new subdivisions initiated by local politicians are not prepared adequately before their occupation: land is not filled, roads are not paved, piped water to plots is not provided and neither is piped sewerage or drainage. Moreover, the country does not seem to have a process in place (local growth estimates and capital investment plans) for ensuring that residential communities are properly served with infrastructure.

To sum up, all these factors contribute to exacerbate the problem of affordability, sustainability and efficiency of the housing system in Belize. Low-density construction and lack of infrastructure increase the cost of housing, making it inaccessible for low income households. At the same time, unplanned growth in towns and cities also contributes to increase housing costs, and to deteriorate the natural environment, encroaching in preserved areas and contributing to increase the negative effects of natural disasters.

Recommendations

Based on the findings and analysis, the report concludes by describing a set of fifteen guidelines that could be used to can inform government housing policy. The key message is that the thrust of the Government’s housing policy must be changed from one where the Government engages directly in the design, construction, management, and financing of limited amounts of housing and related residential infrastructure to where other actors in the sector — private companies, commercial banks and credit unions, civil sector organizations, communities, and individual households — play key roles in advancing the Government’s housing agenda, while the Government plays the key role in *enabling* the housing sector to function in an efficient, equitable and sustainable manner. Specifically:

- **Government should play the role of enabling the housing sector, rather than that of lending for housing:** The government of Belize should shy away from issuing supply-side

subsidies for the direct construction of housing, and instead limit itself to demand-side subsidies that are aimed directly at low-income beneficiaries, which are not being serviced by the private sector. Experience over the world strongly suggest that housing supply is better left to the private sector, to individual households building their own homes, and, on occasion, to the civic sector. Both the high level of indebtedness of the Government and its dismal experience in providing loans at subsidized interest rates, in the selection of beneficiaries for loans, in issuing proper loan documents, and in collecting loan repayments strongly militate against any further direct government involvement in issuing housing loans. Commercial banks and credit unions have an established record in providing such loans at affordable interest rates and their efforts should be expanded. Serious efforts should be made to get rid of the Government's loan portfolio.

- **A mandate for the preparation of land use plans:** The failure to prepare urban expansion plans in the near future and the failure to service newly-urbanized areas with infrastructure in a timely fashion are most likely to create serious land supply bottlenecks, which are likely to increase both land and house prices to levels no longer affordable by the majority of households. With minimal resources, the Government of Belize in conjunction with municipalities can prepare minimal urban expansion plans in order to calculate the amount of land that will be needed for urban expansion in the next 30 years; identify areas for urban expansion; identify areas within projected expansion areas that need to remain free of development and act to protect them; locate the major arterial roads in expansion areas and act to secure the rights-of-way for these roads. A new Town Planning Act, mandating the preparation of land use plans for all cities and towns, within the overall context of a national land use plan, is the highest legislative priority on housing and urban development.
- **Improving and upgrading residential infrastructure:** An urban upgrading program focusing on creating a reliable water supply and a sewerage/drainage network in existing poorly-serviced communities is indeed a cost-effective strategy for poverty alleviation. The extension of residential infrastructure to new settlement areas on the fringe of cities and towns has a critical influence on the housing sector. The rapidly growing cities and towns in Belize must be allowed to expand at their natural rate of growth, and not be subjected to infrastructure bottlenecks—particularly those associated with roads and water supply. There are many residential subdivisions that need serious infrastructure improvements. Key improvements are piped water supply, storm drainage, and all-weather roads. Improved drainage, within an integrated urban drainage system, is a key housing strategy for mitigating the damage from hurricanes and storm surges. A renewed emphasis on drainage investments, involving dredging, land fill, and the creation and maintenance of a connected system of urban canals should be a key thrust of an effective housing strategy.
- **The judicious use of national lands within the expansion areas of cities:** National lands that can be used for urban expansion are the key resource for the creation of affordable housing and should therefore be used judiciously. Land ownership maps within the expansion areas of cities and towns should be prepared, and all national lands in public ownership, under lease, or in private ownership should be identified. Future leasing and sale of national lands should be at market prices, and the public right to use parts of leased and sold lands as rights-of-way for roads and canals, for open space, or for other public facilities should be clearly protected. The best way to provide assistance for new housing to low-income households is a program for the creation of small land subdivisions in all cities and towns.

- **Residential development at higher densities:** Densities in the cities and towns are very low by regional standards, because residential plot sizes are very high. There should be a market study of the demand for smaller plots, particular by low-income households and immigrant households. New rules for residential subdivisions should be drafted and implemented allowing for special provisions for smaller plots in social housing schemes.

Introduction

This report is an assessment of the housing sector and the housing policy environment in Belize at the present time. Its practical and immediate goal is to provide a useful analysis of the housing sector in Belize focused on its parameters, potentials, and pitfalls, in order to assist the Government as well as the various stakeholders in the housing sector in moving together towards ensuring “access to quality and affordable housing by all” in the coming years.

Prime Minister Dean Borrow and the United Democratic Party (UDP) who came into power in a landslide election victory in February 2008 promised to make housing a key component of the Government’s new development strategy. The UDP has pledged “to ensure access to quality and affordable housing by all”; to lower home mortgage rates to recreate a home ownership society”; to finance and build 1,000 affordable housing units every year; to subsidize the formation of building cooperatives; “to give immediate title to house lots”; to regulate land use, land subdivision and building construction; and to implement municipal infrastructure projects financed by multilateral funds [United Democratic Party (UDP), 2008].

Previous work on the housing sector performance in Belize is scarce or out of date. There is a “National Housing Policy 2004-2009” study by Development Solutions from 2004, which provides a broad description of the housing environment and main national policies. A short paper on the experience of the Development Finance Corporation (DFC) by Patrick Kendall, (CDC,2002) looks at the macro aspects of the government’s participation on the housing sector.

The overall objective of this report is to provide the conceptual framework and the necessary evidence for grounding this vision in facts and transforming it into a concrete reality. The four specific objectives of this report are:

1. To examine the context of the Belizean housing sector (Part I);
2. To assess the current conditions in the sector (Part II);
3. To examine the housing policy environment (Part III); and
4. To propose a preliminary set of guidelines for action on housing (Part IV).

Conditions in the housing sector in Belize are largely the reflection of its context. Seven contextual factors have particularly strong effects on the sector: (1) Environmental hazards and natural disasters; (2) Population growth, urbanization, and household formation; (3) Poverty, the level of economic development, and economic growth; (4) The distribution of income; (5) Inflation and government fiscal policy; (6) Conditions in the financial sector; and (7) Conditions in the construction sector.

Other than the contextual factors discussed in Part I, there are three principal conditions within the housing sector itself that affect housing supply and demand in Belize: (1) The availability of land; (2) The volume, structure and costs of housing production; and (3) The availability of mortgage finance. The actual performance of the housing sector can be summarized by examining four of its key dimensions: (4) House prices, rents, and affordability; (5) Dwelling units and living space; (6) The quality of housing; and (7) Tenure.

To better understand whether the present housing policy framework can adequately address the key housing policy issues now facing the country, this report focuses on examining the housing policy environment along its five critical dimensions: (1) the property rights regime; (2) the housing finance regime; (3) housing subsidies; (4) residential infrastructure; and (5) the regulatory and institutional regime governing the housing sector.

The analysis of the evidence allows us to draft a preliminary set of fifteen guidelines that can inform government housing action at the present time and allow it to transform its housing vision into a concrete and lasting reality: (1) Engaging the housing sector as a whole; (2) A two-pronged housing strategy; (3) Policy focus on cities and towns rather than on rural areas; (4) Balanced development of inland vs. coastal cities and towns; (5) Balanced development of owned vs. rented housing; (6) Government exit from all lending for housing; (7) The judicious use of limited capital grants for housing; (8) Improving and upgrading residential infrastructure; (9) Home improvement grants and loans to reduce overcrowding; (10) A mandate for the preparation of land use plans for cities and towns; (11) The judicious use of national lands within the expansion areas of cities; (12) Residential subdivisions on national lands; (13) Residential development at higher densities; (14) The reduction of residential construction costs; and (15) A building code that emphasizes affordability.

* * *

I. The Context of the Housing Sector

Conditions in the housing sector in Belize are, to an important extent, the reflection of its context—the environmental, demographic, economic, social, cultural, and political factors that are largely external to the sector. The effects of these factors must be clearly understood, because—although they are traditionally outside the scope of *housing* policy—they influence housing sector performance in important ways. Seven of these factors have particularly strong effects on the sector:

1. Environmental hazards and natural disasters
2. Population growth, urbanization, household formation, and dwelling unit projections
3. Poverty, the level of economic development, and economic growth
4. The distribution of income
5. Inflation and government fiscal policy
6. Conditions in the financial sector
7. Conditions in the construction sector

Table 1.1 below presents the basic economic, social, and demographic indicators that summarize some of these contextual factors in Belize.¹ It also compares them to parallel indicators in other countries in the region, to conditions in Latin American and the Caribbean as a whole, to conditions in other upper–middle–income countries with per capita Gross National Product (GNP) similar to that of Belize, and to conditions in the world at large. In the following paragraphs, the seven contextual factors listed above are discussed in greater detail, bringing into focus their effects on the housing sector and their implications for housing policy.

1. Environmental Hazards and Natural Disasters:

Belize is situated in the path of severe hurricanes and tropical storms. There were four major environmental disasters in Belize since 1930: An unnamed hurricane hit Belize City in 1931, killing 2,500 people. Hurricane Janet destroyed Corozal Town in 1955, killing 16 and leaving 20,000 people homeless. Hurricane Hattie destroyed half of Belize City in 1961, killing 400 people and submerging Turneffe Island and Caulker Caye in 13-foot storm surges. Hurricane Iris destroyed 95 percent of Placentia in 2001, submerging Belize City in 14-foot storm surges and destroying some 4,000 homes there.

¹ The data for table 1.1 was collected from a large number of sources. The World Bank World Development Indicators (WDI) database online at publications.worldbank.org/WDI/; The UNDP Human Development Report (HDR) -2009 online at hdr.undp.org/en/reports/global/hdr2009/; The credit rankings by *Institutional Investor* online at www.iimagazine.com; Transparency International's "Corruption Perceptions Index" online at www.transparency.org/policy_research/surveys_indices/cpi/2009/cpi_2009_table; and several reports by the Author listed in the References section, 2000-2002.

Table 1.1: Basic Economic, Social and Demographic Indicators, 1990–2009

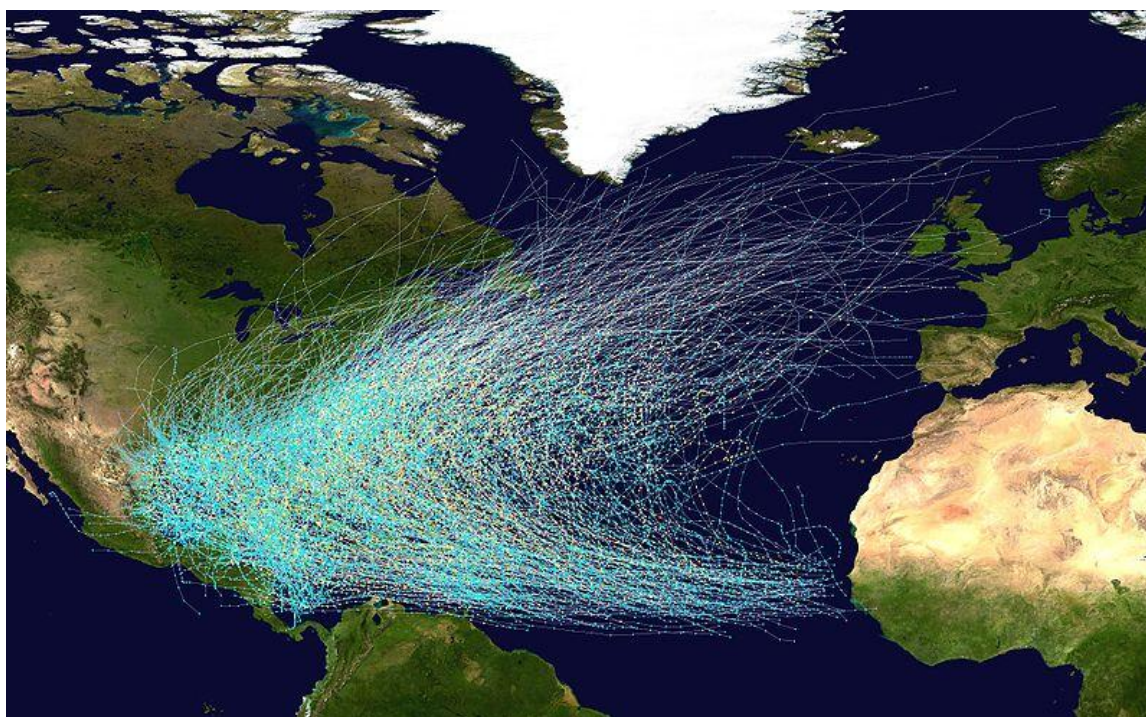
Indicator	Belize	Argentina	Dominican Republic	Ecuador	Guatemala	Honduras	Panama	Trinidad and Tobago	Latin America & Caribbean	Upper middle income	World
Country Population (millions), 2008	0.311	39.9	9.8	13.5	13.7	7.2	3.4	1.3	565	949	6,692
Annual Population Growth Rate, 2000-2008 (%)	2.72%	0.97%	1.47%	1.14%	2.46%	1.95%	1.75%	0.35%	1.23%	0.82%	1.20%
Urban Population (%), 2008	52	92	69	66	49	48	73	13	79	75	50
Employment in agriculture (% of total employment), 2005	20	1	15	8	36 ¹	39	16	4	17	16	
Average Household Size, 1990-2001	4.5 ¹	3.6 ²	4.25 ³	4.7 ⁴	4.8 ⁵	5.1 ⁶	4.2 ⁴	4.1 ⁴	4.3 ⁴	4.0 ⁴	4.1 ⁴
Annual Urban Population Growth (%), 1995-2005	1.00%	0.27%	1.34%	1.19%	1.06%	1.09%	1.26%	2.09%	0.65%	0.51%	0.77%
Country GDP (billions constant 2000 US\$), 2008	1.181	395.4	36.1	23.5	26.1	10.5	19.0	14.7	2,694.9	4,353.5	40,310.2
GDP per capita (constant 2000 US\$), 2008	3,802	9,915	3,667	1,746	1,908	1,450	5,587	10,981	4,767	4,590	6,024
Annual GDP per Capita Growth (%), 1995-2005	4.38%	4.13%	5.10%	4.87%	3.77%	4.88%	6.12%	7.36%	3.51%	4.13%	2.89%
Income Distribution Gini Index, 2003-2007	59 ⁷	49	50	46	55.1	53.8	56.1	50	51.6	..	39.1
Inflation, consumer prices (annual %), 2008	6	9	11	8	7	11	9	12
Mortality rate, under-5 (per 1,000), 2005	26	18	37	25	43	28	24	35	29	27	71
Life expectancy at birth, female (years), 2005	79	79	75	78	73	73	78	71	76	74	71
Improved water source, urban (% of urban population with access), 2000	100	98	97	92	96	94	98	95	96	97	95
Improved sanitation facilities, urban (% of urban population with access), 2000	71	91	79	90	89	74	77	92	85	88	77
General government final consumption expenditure (% of GDP), 2005	14	12	7	11	8	16	13	12	14	15	17
Government Budget Deficit as % of GDP, 2008	-11.4%	4.4%	-21.0%	-1.2%	-13.7%	-12.2%	1.6%	3.8%			
Central government debt, total (% of GDP), 2008	69.1%	39.3%		34.4%	16.7%	20.5%	43.5%	12.9%			
Gross fixed capital formation (% of GDP), 2005	19	21	16	22	18	25	17	15	19	19	21
Value Added by Construction as % of total value added, 2007	3.0	4.13	6.96	8.83	5.85	5.78	5.20	7.53			
Gross domestic savings (% of GDP), 2008	10	27	11	23	4	9	25	44	23	24	22
Domestic credit provided by banking sector (% of GDP), 2008	70	24	39	18	37	50	86	13	62	53	158
Interest rate spread (lending rate minus deposit rate, %)	6	8	10	6	8	8	5	5	8	6	6
Human Development Index Rank (Rating in parenthesis), 2007	93(0.772)	49(0.866)	90(0.777)	80(0.806)	122(0.704)	112(0.732)	60(0.840)	64(0.837)			
<i>Institutional Investor</i> Credit Rank (Rating in parenthesis), March 2009	132(25.5)	114(28.3)	91(34.7)	131(25.6)	82(43.0)	95(33.7)	64(53.4)	46(65.2)			
Corruption Perceptions Rank (Rating in parenthesis), 2008	109(2.9)	109(2.9)	102(3.0)	151(2.0)	96(3.1)	126(2.6)	85(3.4)	72(3.6)			

Notes: ¹ Data for 2000; ² Data for 1997; ³ Data for 1998; ⁴ Data for 1990; ⁵ Data for 1995; ⁶ Data for 2001; ⁷ Calculated by author from 2007 LFS Survey.

How vulnerable is Belize to hurricanes and tropical storms? Since 1930, 8 major hurricanes (one every 10 years, on average), 8 minor hurricanes (one every 10 years, on average), and 16 tropical storms (one every 5 years, on average) have hit Belize, a total of 32 storms (one every 2.5 years, on average).²

In comparison, during this period there were a total of 793 storms (10.2 per year, on average) in the Atlantic basin as a whole (see figure 1.1): 176 major hurricanes (2.2 per year, on average), 275 minor hurricanes (3.5 per year, on average), and 342 tropical storms (4.4 per year, on average).

Figure 1.1: Tracks of all Hurricanes and Tropical Storms in the Atlantic, 1851-2008



Source: National Hurricane Center, 2009.

On average, only one in 25 hurricanes and tropical storms in the Atlantic basin (4%) hits Belize: one in 22 major hurricanes (4.5%), one in 34 minor hurricanes (2.9%), and one in 21 tropical storms (4.7%). In general, Belize and other Central American countries are less prone to hurricane strikes than the Southern Caribbean islands or the Northern Caribbean and the southern and eastern coasts of the United States. Pielke et al (2003, 101) estimate that the long-term average for Central America is 0.2 hurricane strikes per year; for the Southern Caribbean 0.4 strikes per year; and for the Northern Caribbean and the Southern and Eastern U.S 1.0 strikes per year. Indeed, based on the specific hurricane statistics for Belize, the long-term average for a hurricane strike is 0.2 strikes per year, and for tropical storms it is also 0.2 strikes per year. In other words, on average, a hurricane or a tropical storm is likely to make landfall in Belize once every 2.5 years.

² A major hurricane is defined as a hurricane of category 3 or above when winds exceed 96 knots (111 miles per hour); a minor hurricane is defined as a hurricane of category 1 and 2, with winds in the range of 64-95 knots (74-110 mph); a tropical storm is a storm with winds in the range of 34-63 knots (39-73 mph).

Figure 1.2: The Frequency of Hurricanes and Tropical Storms in Belize, 1930-2008

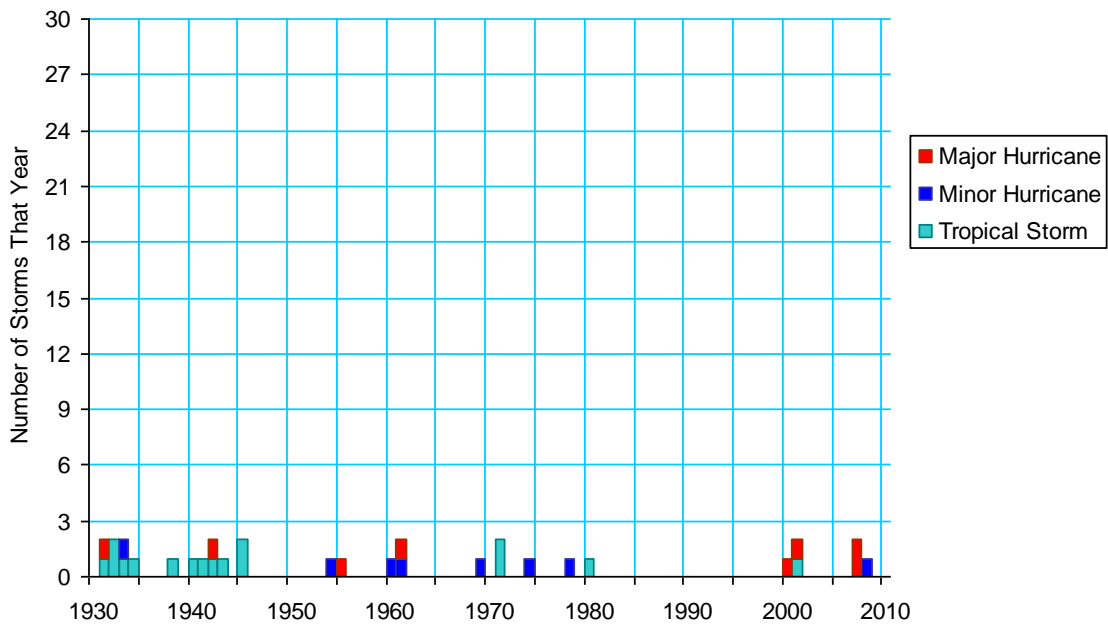
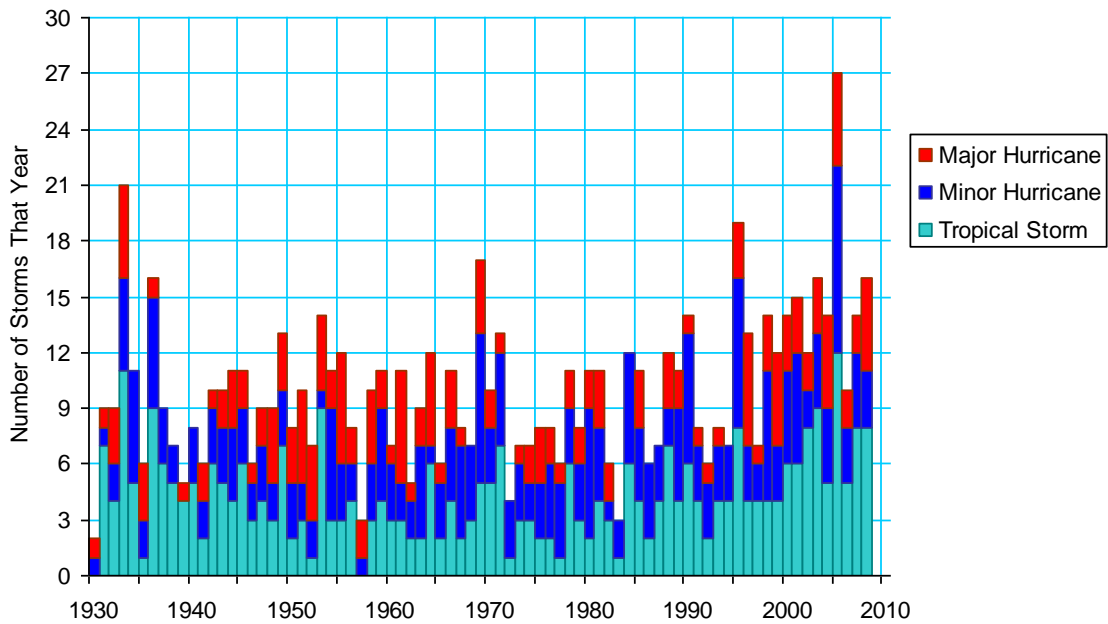


Figure 1.3: The Frequency of Hurricanes and Tropical Storms in the Atlantic Basin, 1930-2008



Source: National Hurricane Center, 2009.

This comparison between the frequency of hurricanes and tropical storms in the Atlantic basin and in Belize for the period 1930-2008 is shown graphically in figures 1.2 and 1.3.

There is no question that severe tropical storms impose great human and economic burdens on the Belizean economy: Storms kill people, destroy physical assets, damage crops, halt or slow down industrial production, increase unemployment, render people homeless, and create immediate

needs for humanitarian assistance on a large scale. More particularly, any city in Belize, be it inland or on the coast, can find itself in the direct path of a destructive hurricane that can raze it to the ground. In addition, coastal areas in Belize are also vulnerable to destructive flooding during storm surges, and this risk is expected to increase in future decades with the expected rise of sea levels as a consequence of global warming.

What are the housing policy implications of the vulnerability of Belize to hurricanes and tropical storms? Belize undertook the radical measure of relocating its capital inland to Belmopan after hurricane Hattie struck Belize City in 1961. Since hurricanes weaken considerably after they make landfall, there is no doubt that Belmopan, located 50 kilometers from the coast is better protected against hurricanes. That said, there is no question that the flat, low-lying coastal areas and the low-lying outlying cayes on Belize's barrier reef remain attractive to agriculture, industry, and tourism and are likely to continue to be populated and to grow in future years.

While sustained efforts should continue to be made to develop Belmopan and other inland cities at higher elevations so as to make them more attractive to human settlement, abandoning development and improvement efforts in coastal areas would be a mistake. Future housing policy must seek to strike a balance between supporting residential development both in inland areas and in coastal areas, refraining from favoring one or the other. Both inland and coastal areas are and will remain vulnerable to massive destruction by tropical storms, and in the long-run, low-lying coastal areas and cayes may be subject to more severe flooding if sea levels rise as now predicted.

What is of key importance is the added recognition that the vulnerability of Belize to severe tropical storms also has serious implications for investment in the country's housing stock as a whole, and that investment per dwelling unit is higher in Belize than, say, in Trinidad and Tobago, and higher still in coastal cities than in inland cities. More specifically: (a) the preparation of lands for urban expansion is more expensive because it may require landfill and drainage, as well as protective sea walls; (b) infrastructure is more expensive because roads need to be elevated and more investment in drainage channels, ponds, and outlets is required; (c) infrastructure maintenance is more expensive because drainage channels have to be maintained in good order; (d) plot preparation is more expensive because it requires infill; (e) houses are more expensive because they need to be built to withstand storms, and possibly on stilts to protect them from flooding; (f) both infrastructure and structures have shorter expected life spans and therefore higher depreciation rates; and (g) houses and infrastructure may require costly storm and flood insurance, whether issued by the private or by the public sector.

From the perspective of housing policy, the continued vulnerability of Belize to severe tropical storms thus requires coordinated action on a number of fronts: (a) a robust institutional framework for managing the housing sector that can facilitate post-disaster housing activities at short notice as an integral part of national housing policy; (b) a national effort to plan, put in place, and maintain integrated urban storm drainage systems in all cities, covering both existing and expansion areas; (c) an infrastructure upgrading program in existing cities, focused in the settlements of the urban poor, to improve flood protection and storm drainage; (d) a national effort to improve land subdivision standards, to ensure adequate land fill of plots and roads, as well as adequate storm drainage; (e) a program of retrofitting existing houses in both urban and rural areas to better withstand tropical storms; (f) a campaign to spread information and to enforce storm-resistant house-building methods, including building on stilts; and (g) a program for insuring houses against floods and storms tied to improved construction and infrastructure standards.

Housing destruction from hurricanes in Belize, whether from winds or storm surges, can be quite substantial when considered in light of the annual additions to the housing stock. A major hurricane like Iris that hit Belize in 2001 can destroy thousands of housing units, equivalent to one or two years of regular housing supply. Such destruction requires immediate reconstruction — often of temporary shelters — typically far exceeding the regular capacity of the housing construction sector. It then creates excess housing demand for several years, over and above the regular increases in housing demand required by population growth and new household formation, the subject of the next section.

2. Population growth, urbanization, and household formation³:

The overall quantitative demand for new urban housing is, in large part, a function of new household formation, which, in Belize, is a function of three inter-related factors—its high population growth rate, its rapid rate of urbanization, and the gradual reduction in household size concomitant with the increased urbanity of its population. In comparison, as we shall see below, rural housing presents less of a problem.

Belize had a population of 246,146 in 2000. Between 2000 and 2010, its population growth rate was 2.70 percent per annum. In comparison, the global population growth rate during this period was 1.17 percent per annum; that of Latin America and the Caribbean as a whole was 1.24 percent per annum; that of the Caribbean was 0.86 percent per annum; that of Central America was 1.33 percent per annum; and that of South America was 1.25 percent per annum.

Table 1.2 and figure 1.4 below present three population projections for Belize prepared by the Statistical Institute of Belize. Annual population growth rates are expected to decline considerably in the coming decades. According to the median variable projections, the population of Belize will reach 370,000 in 2020, and 500,000 in 2050. Rates of population growth will decline 1.80 per annum in 2010-2020, and to 0.70 per annum in 2040-2050.

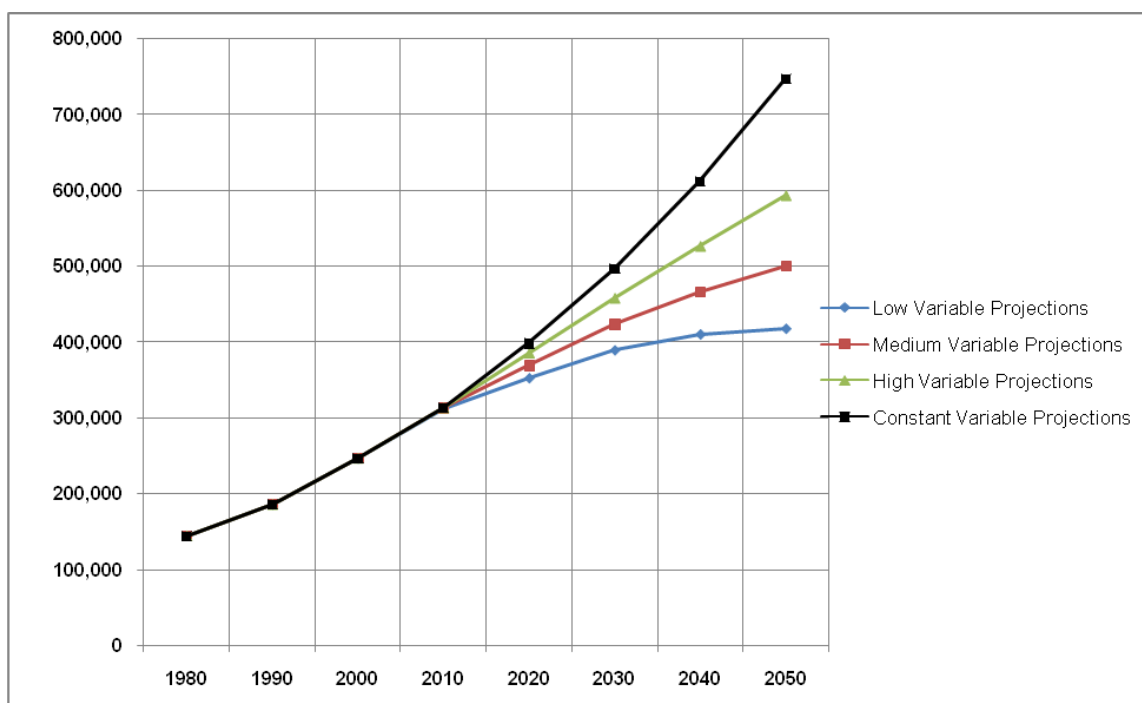
Belize is still one of the less urbanized countries in Latin America and the Caribbean, with only 50.2 percent of its population residing in urban areas in 2005. 14 out of 46 countries in Latin America and the Caribbean were less urbanized than Belize that year and 31 were more urbanized. By contrast, the average level of urbanization in the world that year was 48.6 percent; it was 77.5 percent in Latin America and the Caribbean as a whole; 64.3 percent in the Caribbean; 70.2 percent in Central America; and 81.8 percent in South America.

³ The analysis in this section borrows the preliminary census data of 2010, <http://www.statisticsbelize.org.bz/>

Table 1.2: Population Projections for Belize, 1980-2050

Year	Low Variable Projections		Medium Variable Projections		High Variable Projections		Constant Variable Projections	
	Population	Annual Growth Rate (%)	Population	Annual Growth Rate (%)	Population	Annual Growth Rate (%)	Population	Annual Growth Rate (%)
1980	143,792	1.88	143,792	1.88	143,792	1.88	143,792	1.88
1990	185,217	2.53	185,217	2.53	185,217	2.53	185,217	2.53
2000	246,136	2.84	246,136	2.84	246,136	2.84	246,136	2.84
2010	312,698	2.70	312,698	2.70	312,698	2.70	312,698	2.70
2020	352,449	1.45	368,693	1.80	384,926	2.13	397,903	2.39
2030	389,284	0.99	423,093	1.38	457,513	1.73	496,634	2.22
2040	410,377	0.53	466,179	0.97	525,940	1.39	611,757	2.08
2050	417,778	0.18	499,836	0.70	592,858	1.20	746,518	1.99

Figure 1.4: Population Projections for Belize, 1980-2050



Urbanization in Belize is still in full swing. Being one of the less urbanized countries in Latin America and the Caribbean, Belize now has the third highest urban population growth rate in the region, 3.1 percent per annum between 2005 and 2010, exceeded only by Haiti (4.5%) and Guatemala (3.4%). In comparison, the global urban population growth rate during this period was 2.0 percent per Annum; that of Latin America and the Caribbean as a whole was 1.7 percent per Annum; that of the Caribbean was 1.6 percent per Annum; that of Central America was 1.8

percent per Annum; and that of South America was 1.7 percent per Annum. The high rate of urban growth in Belize implies that the housing problem is fast becoming more and more of an urban—rather than a rural—problem.

Urban population growth in Belize is not evenly distributed and some cities are growing faster than others. Table 1.3 below displays urban population statistics for the period 1970-2010. Two important trends can be observed in this table. First, the primacy of Belize City is declining: its population comprised 60 percent of the total urban population in the country in 1970, declining to 39 percent in 2010. Second, the share of inland cities in the total urban population in the country is increasing: the share of the urban population of Belize’s inland cities — Orange Walk, San Ignacio/Santa Elena, Banque Viejo and Belmopan — increased from 19 percent in 1970 to 36 percent in 2010.

Table 1.3: Urban Population Statistics for Belize, 1970-2000

Cities	City Population									
	1970	% of Total	1980	% of Total	1991	% of Total	2000	% of Total	2010	% of Total
Coastal Cities & Towns	52,796	81.2	56,852	74.5	62,891	69.9	74,580	65.1	89,244	64%
Belize City	39,050	60.1	39,771	52.1	44,087	49	49,050	42.8	53,532	38.6%
Corozal	4,724	7.3	6,899	9	7,062	7.8	7,888	6.9	9,901	7.1%
Dandriga	6,939	10.7	6,661	8.7	6,435	7.1	8,814	7.7	9,096	6.6%
San Pedro		0	1,125	1.5	1,849	2.1	4,499	3.9	11,510	8.3%
Punta Gorda	2,083	3.2	2,396	3.1	3,458	3.8	4,329	3.8	5,205	3.8%
Inland Cities & Towns	12,229	18.8	19,425	25.5	27,114	30.1	39,961	34.9	49,552	36%
Orange Walk	5,698	8.8	8,439	11.1	11,014	12.2	13,483	11.8	13,400	9.7%
San Ignacio/Santa Elena	4,336	6.7	5,616	7.4	8,962	10	13,260	11.6	16,977	12.2%
Banque Viejo	1,921	3	2,435	3.2	3,580	4	5,088	4.4	5,824	4.2%
Belmopan	274	0.4	2,935	3.8	3,558	4	8,130	7.1	13,351	9.6%
Total Urban Population	65,025	100	76,277	100	90,005	100	114,541	100	138,796	100%

The United Nations Population Division expects the urban population of Belize to increase to 211,000 in 2020, 263,000 in 2030, 314,000 in 2040, and 360,000 in 2050. These estimates were used to project the growth of individual cities during the period 2020-2050. The method for obtaining these projections relied on one constraint and one assumption. The total number of urban residents in all cities in a given year was constrained to equal the projected total urban population in that year. The added population to a given city was then assumed to be proportional to the average of three values: the population that was added to the city between 1991 and 2000, the population that was added to the city between 1980 and 2000, and the population that was added to the city between 1970 and 2000. The resulting projections are given in table 1.4 below.

Several important trends can be observed in this table. First, the share of the urban population in coastal and inland cities can be expected to become more and more equal over the years: By 2030 coastal cities will contain 59 percent of the population and inland cities 41 percent; and by 2050 coastal cities will contain 58 percent of the population and inland cities 42 percent. These trends suggest that there is a natural tendency for these shares to become more and more equal over time. Second, the primacy of Belize City will continue to decline: By 2030 it will contain only 32 percent of the total urban population in the country and this share will further decline to 27

percent by 2050. Third, the secondary cities in Belize will continue to grow, while both Belmopan and San Pedro will double their populations between 2020 and 2050.

Table 1.4: Urban Population Projections for Belize, 2020-2050

Cities	City Population Projections							
	2020	% of total	2030	% of total	2040	% of total	2050	% of total
Coastal Cities & Towns	128,178	61%	156,217	59%	183,718	59%	208,522	58%
Belize City	67,879	32%	78,211	30%	88,344	28%	97,485	27%
Corozal	14,583	7%	17,955	7%	21,262	7%	24,245	7%
Dandriga	11,521	5%	13,268	5%	14,981	5%	16,526	5%
San Pedro	26,117	12%	36,636	14%	46,954	15%	56,259	16%
Punta Gorda	8,078	4%	10,147	4%	12,177	4%	14,007	4%
Inland Cities & Towns	82,822	39%	106,783	41%	130,282	41%	151,478	42%
Orange Walk	17,538	8%	20,518	8%	23,441	7%	26,077	7%
San Ignacio/Santa Elena	29,082	14%	37,800	14%	46,350	15%	54,062	15%
Banque Viejo	9,135	4%	11,520	4%	13,859	4%	15,969	4%
Belmopan	27,067	13%	36,945	14%	46,633	15%	55,371	15%
Total Urban Population	211,000	100%	263,000	100%	314,000	100%	360,000	100%

As urbanization in Belize proceeds and larger and larger shares of its population reside in cities, the pressure to increase the rural housing stock will decline and the housing problem will become more and more of an urban problem. That said, the rural population in the country has been growing steadily and is not expected to reach a plateau until 2025. The rural population statistics for Belize are given in tables 1.5 and 1.6.

Several important patterns and trends can be observed in table 1.5. First, the rural population of Belize is relatively evenly distributed among the country's six administrative districts: the shares of the rural population varied a minimum of 13.4 percent in Stann Creek to a maximum of 21.4 in Cayo. Second, the share of the rural population in the Belize district has declined: from 19 percent of the total in 1970 to 14 percent of the total in 2010. Third, the shares of the total rural population in other administrative districts have been rather stable with minor increases the shares of the Cayo and Toledo districts.

Table 1.5: Rural Population Growth in Belize, 1970-2010

Cities	Rural Population									
	1970	% of Total	1980	% of Total	1991	% of Total	2000	% of Total	2010	% of Total
Coastal Districts	34,122	62.1	42,794	62	58,127	58.5	74,170	59	103,061	60
Belize	10,305	18.8	9,905	14.3	11,094	11.2	14,648	11.7	24,205	14.1
Corozal	10,827	19.7	16,003	23.2	21,402	21.5	24,820	19.8	30,453	17.7
Stann Creek	6,084	11.1	7,520	10.9	11,650	11.7	15,734	12.5	23,070	13.4
Toledo	6,906	12.6	9,366	13.6	13,981	14.1	18,968	15.1	25,333	14.7
Inland Districts	20,787	37.9	26,282	38	41,260	41.5	51,493	41	68,766	40
Orange Walk	11,343	20.7	14,431	20.9	19,667	19.8	25,407	20.2	32,019	18.6
Cayo	9,444	17.2	11,851	17.2	21,593	21.7	26,086	20.8	36,747	21.4
Total Rural Population	54,909	100	69,076	100	99,387	100	125,663	100	171,827	100

Rural population projections, using the same method employed for calculating urban population projections, are displayed in table 1.6 below. According to United Nations estimates, the rural population of Belize is expected to decline to 152,000 by 2020, to 150,000 by 2030, to 140,000 by 2040, and to 126,000 by 2050. The projections show that the relative shares of each district in the total rural population are likely to remain relatively stable over time and that there will be absolute declines in the rural population by 2025. Clearly, then, most of the demand for housing in Belize in the years to come will be in urban areas.

Table 1.6: Rural Population Projections for Belize, 2020-2050

Districts	Rural Population Projections							
	2020	% of total	2030	% of total	2040	% of total	2050	% of total
Coastal Districts	91,054	59.9%	89,843	59.9%	83,787	59.8%	75,309	59.8%
Belize	21,003	13.8%	20,680	13.8%	19,064	13.6%	16,803	13.3%
Corozal	27,700	18.2%	27,422	18.3%	26,033	18.6%	24,089	19.1%
Stann Creek	20,031	13.2%	19,724	13.1%	18,191	13.0%	16,045	12.7%
Toledo	22,321	14.7%	22,018	14.7%	20,499	14.6%	18,372	14.6%
Inland Districts	60,946	40.1%	60,157	40.1%	56,213	40.2%	50,691	40.2%
Orange Walk	28,739	18.9%	28,408	18.9%	26,754	19.1%	24,437	19.4%
Cayo	32,207	21.2%	31,749	21.2%	29,459	21.0%	26,253	20.8%
Total Rural Population	152,000	100.0%	150,000	100.0%	140,000	100.0%	126,000	100.0%

Population estimates and projections give us a good sense of how many people will require housing in the years to come. But the number of dwelling units to be required is not exactly proportional to the number of people requiring housing. The demand for dwelling units is a function of the number of households rather than of the number of people. Individual households in Belize typically occupy individual dwelling units. Household size, or the number of persons per household, therefore allows us to calculate the number of dwelling units needed to house a given population. And if household size is in decline, then the number of needed dwelling units can be expected to grow at a faster rate than the rate of population growth.

Household size statistics for the urban and rural areas in Belize's six administrative districts for 1991, 2000 and 2010 are shown in Table 1.7. Several patterns can be observed in this table. First, urban households were typically smaller than rural households in all districts in 1991, and the average household size in the country as a whole was 4.2 in urban areas and 5.4 in rural areas. Average urban household sizes declined in all six districts between 2000 and 2010. Average rural household sizes also declined in five out of six districts and increased slightly in the Cayo district. In the country as a whole, average urban household size decreased from 4.13 in 1991 to 3.5 in 2010, while average rural household size declined from 5.35 to 4.3 in the same period.

Table 1.7: Household Size Statistics for Belize Administrative Districts, 1991, 2000 and 2010

Districts	1991		2000		2010	
	Urban	Rural	Urban	Rural	Urban	Rural
Coastal Districts	4.03	4.91	3.91	4.74	3.6	4.1
Belize	3.98	4.09	3.85	4.13	3.3	3.3
Corozal	4.17	5.6	4.05	5.08	3.7	4.7
Stann Creek	4.06	4.32	4.01	4.24	3.6	3.6
Toledo	4.26	5.25	4.28	5.39	3.8	4.9
Inland Districts	4.52	6.12	4.8	4.75	4.0	4.7
Orange Walk	4.84	6.17	4.48	5.03	4.0	4.6
Cayo	4.33	6.07	4.98	4.5	3.9	4.8
Country as a Whole	4.16	5.35	4.18	4.74	3.5	4.3

The data in table 1.7 were used to project household sizes for 2020-2050. Given the general patterns observed in table 1.7 it was assumed that household size in coastal districts will decline at the rate of one percent per decade and that household size in inland districts will decline at the rate of two percent per decade. The resulting projections are displayed in table 1.8 below.

The Statistical Institute of Belize assumes that each household in the country occupies a single dwelling unit and treats households and occupied dwelling unit totals as identical. In formulating housing policy for the country, we can therefore use population and household data to estimate the number of occupied dwelling units in cities and districts and to project them into the future. Later tables will provide statistics and projections of the number of occupied dwelling units in cities and rural areas for the period 1991-2050.

Table 1.8: Household Size Projections for Belize Administrative Districts, 2020-2050

Districts	2020		2030		2040		2050	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Coastal Districts	3.84	4.65	3.80	4.60	3.77	4.56	3.73	4.51
Belize	3.77	4.05	3.74	4.01	3.70	3.97	3.66	3.93
Corozal	3.97	4.98	3.93	4.93	3.89	4.88	3.85	4.83
Stann Creek	3.93	4.15	3.89	4.11	3.85	4.07	3.82	4.03
Toledo	4.20	5.28	4.16	5.23	4.12	5.18	4.07	5.13
Inland Districts	4.64	4.65	4.55	4.61	4.46	4.56	4.38	4.52
Orange Walk	4.31	4.93	4.22	4.88	4.14	4.84	4.06	4.79
Cayo	4.78	4.41	4.69	4.36	4.60	4.32	4.51	4.28
Country as a Whole	4.15	4.65	4.11	4.60	4.07	4.56	4.01	4.51

3. Poverty, the Level of Economic Development, and Economic Growth:

There is no doubt that housing conditions are, first and foremost, a function of the level of economic development. Measured across the globe, the size of houses, their monetary value, and

their quality are all highly correlated with the level of economic development [Angel, 2000a]. When looking at housing conditions in Belize, therefore, it is important to remember that Belize is a poor country.

A new poverty assessment report [Halcrow Group Limited and the Belize National Assessment Team, 2010] and several other sources make it possible to assess its poverty in recent years. The report estimated the percentage of the indigent (extremely poor) population and the poor population in the country⁴, the former lacking adequate resources to meet basic food needs alone and the latter lacking adequate means to meet both basic food and non-food needs. The results are displayed in table 1.9 below.

Table 1.9: Poverty Estimates in Belize, 2002-2009

District	Extremely Poor Population (%)			Poor Population (%)		
	2002	2009	Percent Change	2002	2009	Percent Change
Coastal Districts						
Belize	5	6	1	20	23	3
Corozal	6	21	15	20	35	15
Stann Creek	6	19	13	33	44	11
Toledo	56	50	-6	79	25	-54
Inland Districts						
Cayo	5	12	7	22	29	7
Orange Walk	7	15	8	32	28	-4
Urban*	4.8	6.2	1.4	23.7	27.9	4.2
Rural*	17.4	25.8	8.4	44.2	55.3	11.1
Country as a Whole	11	16	5	23	25	2

Source: Halcrow Group Limited and the Belize National Assessment Team, 2010. “Final Report: Country Poverty Assessment”, December, Table 3.9 and Table 4.1* : % of Poor Population both for urban and rural areas includes all poor population including indigent poor population.

The poverty assessment estimated that in 2009, 16 percent of the people in Belize were indigent and that 25 percent were poor. It also established that poverty was concentrated in the rural areas, where 25.8 percent were indigent and 55.3 percent were poor. Poverty levels in urban areas were considerably lower: in urban areas only 6.2 percent of the people were indigent and 27.9 percent were poor. Poverty was found to be unevenly distributed across the country’s six administrative districts: the Stann Creek district contained a much larger share of the poor population: in 2009, 44 percent of its residents were found to be poor. Indigent population was extremely high in Toledo district (50 percent). Other districts were found to have lower levels of indigence and poverty.

The poverty assessment also found that poverty is on the increase in Belize. The indigent population in the country increased by 5 percent between 2002 and 2009 and the poor population

⁴ The Household Indigence Line represents the minimum cost of a food basket needed to provide a healthy diet for an adult male. Households whose expenditure is below this amount are defined as indigent, (extremely poor). The General Poverty Line is made up of the Household Indigence Line together with an allowance for non-food expenditure.

increased by 2 percent. Increases were registered in both urban and rural areas and in all districts except Toledo and Orange Walk, where there were declines in indigence and poverty.. A very significant increase in both indigence and poverty was recorded in Corozal district. Needless to say, these increases do not bode well for the housing sector. Housing cannot be expected to improve when poverty increases. On the contrary, housing conditions tend to worsen when poverty increases.

Poverty is also relative. When considering poverty in the context of housing policy it is important to ask: How poor is Belize in comparison to other countries in the Latin American and Caribbean region? The reason this is an important question is that housing policy decisions are often taken without considering the level of private and public resources available for implementing them. Realistically speaking, the expected quality and size of dwelling units and the infrastructure and amenities surrounding them must be considered in the light of available resources. Adopting standards and expectations from richer countries is a recipe for sure failure. Table 1.10 uses several poverty indicators from the latest *Human Development Report* (United Nations Development Programme, 2009), to compare poverty in Belize to poverty in 32 other countries in the region.

The table establishes quite clearly that Belize is one of the poor countries in the region. It ranks 23rd on the Human Development Index, a key measure of the relative level of economic development, placing it in the lower third of countries in the region. It also ranks 23rd with its level of GNP per capita measured in Purchasing Power Parities, also a key measure of the relative level of economic development. It ranks 25rd on the UNDP Human Poverty Index and 28rd on Adult Literacy. Belize ranks higher, the 7th highest in the region on Life Expectancy, and 15th in the region in terms of educational enrolment, but these accomplishments are not yet able to elevate it to a higher rank in key measures of development and poverty.

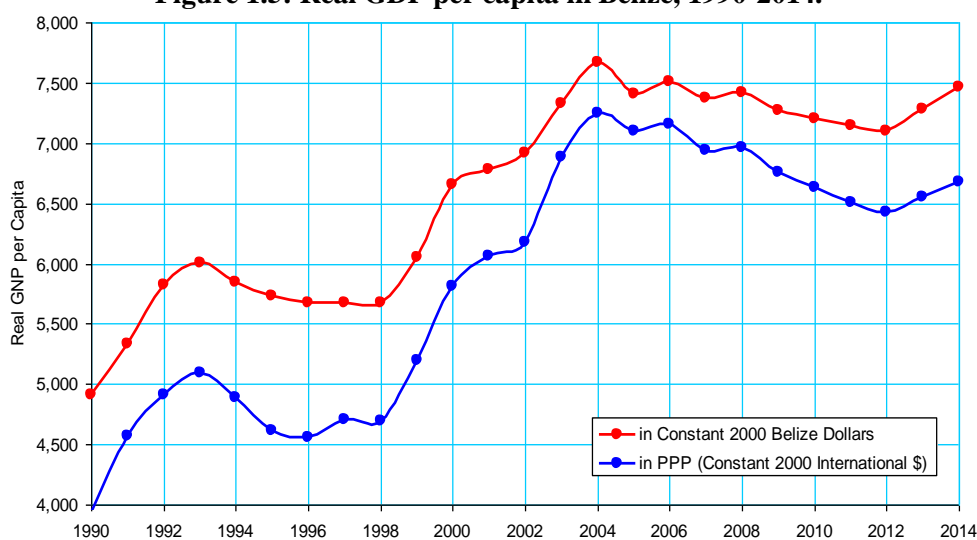
Table 1.10: Comparative Data on Poverty in Latin America and the Caribbean, 2007

Country	Human Development Index		Life Expectancy at Birth (years)		Adult Literacy Rate (% Aged 15 and Above)		Comb. Gross Enrolment Ratio in Education (%)		GDP per Capita (PPP US\$)		Human Poverty Index	
	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank
Barbados	0.903	1	77.0	4			92.9	2	17,956	4	2.6	1
Chile	0.878	2	78.5	2	96.5	7	82.5	10	13,880	7	3.2	3
Antigua and Barbuda	0.868	3			99.0	2			18,691	3		
Argentina	0.866	4	75.2	10	97.6	6	88.6	4	13,238	8	3.7	4
Uruguay	0.865	5	76.1	5	97.9	4	90.9	3	11,216	11	3.0	2
Cuba	0.863	6	78.5	3	99.8	1	100.8	1	6,876	22	4.6	6
Bahamas	0.856	7	73.2	14			71.8	27	20,253	2		
Mexico	0.854	8	76.0	6	92.8	14	80.2	11	14,104	6	5.9	7
Costa Rica	0.854	9	78.7	1	95.9	9	73.0	24	10,842	12	3.7	5
Venezuela	0.844	10	73.6	12	95.2	10	85.9	8	12,156	9	6.6	10
Panama	0.840	11	75.5	8	93.4	13	79.7	12	11,391	10	6.7	11
Saint Kitts and Nevis	0.838	12			97.8	5	73.1	22	14,481	5		
Trinidad and Tobago	0.837	13	69.2	26	98.7	3	61.1	30	23,507	1	6.4	9
Saint Lucia	0.821	14	73.6	13	94.8	11	77.2	17	9,786	13	6.3	8
Dominica	0.814	15			88.0	23	78.5	14	7,893	16		
Brazil	0.813	17	72.2	19	90.0	19	87.2	6	9,567	14	8.6	14
Grenada	0.813	16	75.3	9	96.0	8	73.1	23	7,344	21		
Colombia	0.807	18	72.7	16	92.7	15	79.0	13	8,587	15	7.6	12
Peru	0.806	19	73.0	15	89.6	20	88.1	5	7,836	17	10.2	17
Ecuador	0.806	20	75.0	11	91.0	16	..		7,449	20	7.9	13
Dominican Republic	0.777	21	72.4	18	89.1	21	73.5	21	6,706	24	9.1	15
Saint Vincent and the Grenadines	0.772	22	71.4	23	88.1	22	68.9	29	7,691	19		
Belize	0.772	23	76.0	7	75.1	28	78.3	15	6,734	23	17.5	25
Suriname	0.769	24	68.8	27	90.4	18	74.3	19	7,813	18	10.1	16
Jamaica	0.766	25	71.7	21	86.0	24	78.1	16	6,079	25	10.9	20
Paraguay	0.761	26	71.7	22	94.6	12	72.1	25	4,433	28	10.5	19
El Salvador	0.747	27	71.3	24	82.0	26	74.0	20	5,804	26	14.6	23
Honduras	0.732	28	72.0	20	83.6	25	74.8	18	3,796	30	13.7	22
Bolivia	0.729	29	65.4	29	90.7	17	86.0	7	4,206	29	11.6	21
Guyana	0.729	30	66.5	28			83.9	9	2,782	31	10.2	18
Guatemala	0.704	31	70.1	25	73.2	29	70.5	28	4,562	27	19.7	26
Nicaragua	0.699	32	72.7	17	78.0	27	72.1	26	2,570	32	17.0	24
Haiti	0.532	33	61.0	30	62.1	30	..		1,155	33	31.5	27
LAC	0.821		73.4		91.2		83.4		10,077			
World	0.753		67.5		83.9		67.5		9,972			

Source: United Nations Development Programme, Human Development Report - 2009.

If housing conditions are dependent on the level of economic development in Belize, they are likely to improve if the economy improves and worsen if the economy worsens. What are the prospects of economic growth in Belize in the coming years? Figure 1.5 below shows the fluctuations in real Gross Domestic Product (GDP) per capita in constant Belize Dollars and in constant international dollars. As the table shows, the country's economy grew steadily between 1998 and 2004, following the expansionist policies of the People's United Party (PUP) and additional expansions in agriculture, fishing, and tourism. Expansion slowed in later years, and the economy shrank in 2009 as a result of the U.S. recession. According to the International Monetary Fund (IMF), growth is now scheduled to resume slowly, while inflation is expected to be kept at bay. While real GDP growth is expected to be of the order of 1.5 percent per annum in the coming years, real per capita GDP growth is likely to remain negative until 2012 and to become positive only in 2013 and 2014.

Figure 1.5: Real GDP per capita in Belize, 1990-2014.



Source: International Monetary Fund, 2009.

The effect of the expected decline in real GDP in the coming three years has serious implications for the housing sector. In simple terms, real purchasing power of house buyers and house builders may decline, on average, by 1.9 percent in 2010, by 1.8 percent in 2011, and by 1.3 percent in 2012 before growth resumes in 2013 and 2014. The real purchasing power of government in terms of housing goods and services may decline by similar percentages as well. In short, to the extent that housing construction and purchase relies on household and government income and income growth, the outlook for the coming three years is not very promising. The housing budgets of both will still shrink rather than expand, with the resulting weakening of housing demand.

From the perspective of housing policy, it is important to understand that poverty in Belize exacerbates inadequate housing conditions and inadequate housing conditions exacerbate poverty. It stands to reason, therefore, that housing policy must be an integral part of Belize's anti-poverty strategies. At the same time, however, housing policy must be constrained by poverty, namely by the limited ability of both households and government to afford housing at adequate standards.

As we shall see later, income poverty in Belize limits the ability of most households to afford the housing produced by the formal housing market. And although levels of home ownership in the country are not low, the poor quality of housing creates asset-poverty, increasing economic risk

and uncertainty for poor households. Poor housing, in turn, exacerbates poverty. High levels of overcrowding in Belize, brought about by income and asset poverty in the housing sector have also been detected, as we shall see later. Overcrowding has indeed been identified as a key Unsatisfied Basic Need (UBN) in the country. It increases stress and vulnerability to disease, it affects educational performance, and it reduces income-generating opportunities at home. Poor residential communities in Belize, especially in urban areas, tend to keep people in poverty instead of offering them constructive paths out of it. In short, as noted earlier, inadequate housing exacerbated poverty, much as inadequate incomes exacerbate inadequate housing conditions.

4. The distribution of income:

Household income typically determines how much can be spent on housing, and, in turn, what quantity and quality of housing can be purchased. While overall housing conditions in Belize are clearly a function of its level of development as a whole, the specific housing conditions of different households cannot be understood without reference to the distribution of income. The distribution of income in Belize has three important characteristics: first, it is highly skewed, as in most countries in Latin America; second, as in most countries, incomes are much higher in urban areas; and third, the income distribution in Belize is less skewed in urban areas than in rural areas.

Tables 1.11 and 1.12 below present the annual household income distributions in urban and rural areas and in the country as a whole in Belize dollars and U.S. dollars respectively. Figure 1.6 presents the monthly household income distributions in urban and rural areas. These were calculated from data gathered in the 2007 Belize Labor Force Survey.⁵ The tables show that the median annual household income in the urban areas of Belize in 2007 was BZ\$ 23,040 (US\$ 11,520); the median annual household income in rural areas was BZ\$ 15,840 (US\$ 7,920). Median urban household incomes were therefore 45 percent higher than median rural household incomes.

Table 1.11: Annual Household Income Distribution in Belize (\$BZ), 2007

Decile	Urban		Rural		Country as a Whole	
	From	To	From	To	From	To
1 st	0	7,920	0	6,480	0	6,480
2 nd	7,920	10,800	6,480	7,920	6,480	7,920
3 rd	10,800	15,120	7,920	9,360	7,920	11,520
4 th	15,120	18,720	9,360	12,360	11,520	15,120
5 th	18,720	23,040	12,360	15,840	15,120	18,720
6 th	23,040	30,240	15,840	19,440	18,720	23,760
7 th	30,240	41,280	19,440	24,720	23,760	30,240
8 th	41,280	53,280	24,720	31,680	30,240	41,160
9 th	53,280	69,240	31,680	46,800	41,160	56,280
10 th	69,240	135,720	46,800	117,480	56,280	135,720

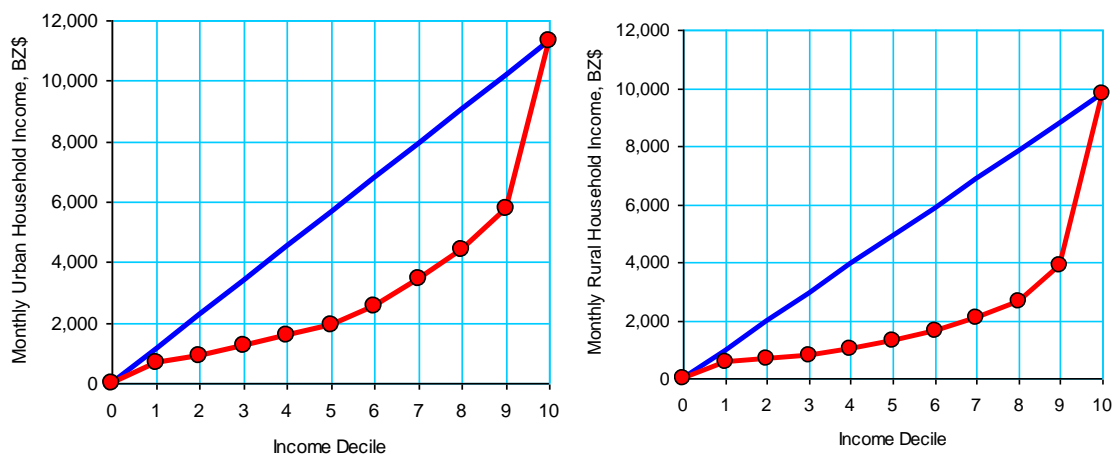
⁵ The 2007 Labor Force Survey (LFS) obtained data on the incomes of each income earner in a sample of 588 urban households and 719 rural households. The income distributions were constructed from aggregating these data, excluding households that had 10 or more income earners.

Table 1.12: Annual Household Income Distribution in Belize (\$US), 2007

Decile	Urban		Rural		Country as a Whole	
	From	To	From	To	From	To
1 st	0	3,960	0	3,240	0	3,240
2 nd	3,960	5,400	3,240	3,960	3,240	3,960
3 rd	5,400	7,560	3,960	4,680	3,960	5,760
4 th	7,560	9,360	4,680	6,180	5,760	7,560
5 th	9,360	11,520	6,180	7,920	7,560	9,360
6 th	11,520	15,120	7,920	9,720	9,360	11,880
7 th	15,120	20,640	9,720	12,360	11,880	15,120
8 th	20,640	26,640	12,360	15,840	15,120	20,580
9 th	26,640	34,620	15,840	23,400	20,580	28,140
10 th	34,620	67,860	23,400	58,740	28,140	67,860

Figure 1.6 presents the urban and rural income distributions in Belize in 2007 in graphic form. The Gini Coefficient of the income distribution is the ratio of the area between the red curve and the blue line and the area of the triangle formed by the blue line and the X-axis. The Gini Coefficient of the urban income distribution in Belize in 2007 was found to be 0.50 and that of the rural income distribution was found to be 0.60. The income distribution in rural areas is thus found to be more skewed than that of urban areas. The Gini Coefficient of the income distribution of the country as a whole in 2007 was found to be 0.59, making Belize one of the countries with higher-than-average income inequality in Latin America and the Caribbean. In the region as a whole the Gini Coefficient was of the order of 0.52, while that of the world as a whole was 0.39.

Figure 1.6: The urban and rural income distributions in Belize, 2007



Income distribution data allows us to estimate how much households and urban and rural areas can afford to pay for housing, either in mortgage payments, in investments in the gradual improvement of their houses or in rents. As we shall see later, these data allow us to calculate the

ability to pay for housing. Extreme income inequality in Belize suggests that information on average incomes and average house prices and rents in the country may give a wrong impression about the true affordability of housing to large groups of people. Only by looking at the housing budgets of families in each income decile in both rural and urban areas and comparing them to housing solutions available for them can we obtain a true picture of housing affordability in the country at the present time.

5. Inflation and Government Fiscal Policy:

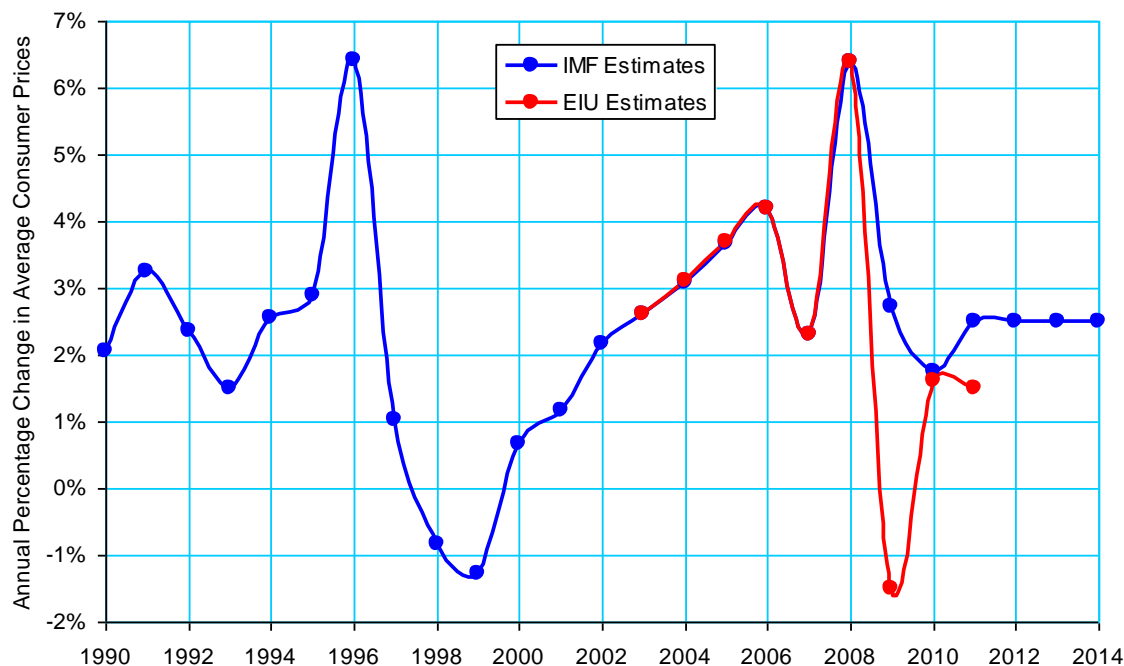
There is no question that inflation and government fiscal policy have a serious impact on housing sector performance.

Above a certain level of double-digit inflation, for example, mortgage markets are not sustainable [Buckley, 1996]. Indeed, keeping mortgage interest rates within affordable limits requires serious curbs on hyperinflation. Fortunately, the Belize dollar (BZ\$) was pegged to the U.S. dollar in 1976 at US\$ 1.00 = BZ\$ 2.00 and has remained at this exchange rate ever since. This fixed exchange rate has prevented the wild currency fluctuations common to many countries in Latin America and the Caribbean, and has kept price inflation at a low-to-moderate rate. Consumer price inflation in Belize has, in fact, been among the lowest in the region. Figure 1.7 below shows the estimated annual rate of inflation of consumer prices in Belize, 1990-2014. The economic expansion initiated by the previous government in 1998 was accompanied by an increasing rate of inflation. The inflation rate reached its peak annual rate of 6.4 percent in 2008 and has declined sharply in 2009 with the onset of the U.S. economic crisis. According to the International Monetary Fund (IMF) it declined to 2.7 percent in 2009, while according to the Economist Intelligence Unit (EIU) it declined to -1.5 percent. Both sources predict low inflation rates of 1-3 percent per annum in the years to come.

Exchange rate stability and low rates of inflation in the coming years bode well for the housing sector: interest rates on housing loans, be they mortgage loans or micro loans for site preparation, house construction, or home improvements, are more likely to remain affordable and sustainable.

Government housing policy, and more specifically the size of the government housing budget for both capital and operating expenses is typically a function of the government's fiscal position: When the government's budget is constrained by deficits, by its inability to increase spending by essentially printing money, or by the inability to borrow, the public funds available for the housing sector are likely to be limited. Conversely, when government revenue exceed expenditures and when the government can freely borrow, then the public funds available for the housing sector are likely to be in more ample supply.

Figure 1.7: Annual Inflation Rates in Belize, 1990-2014

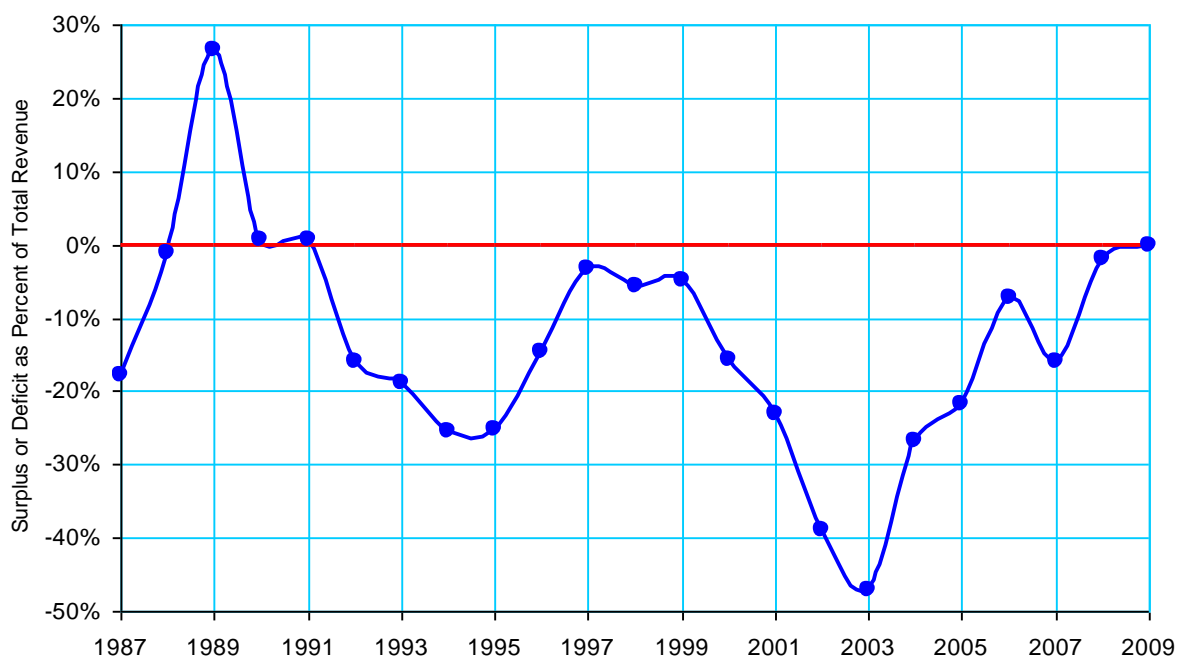


Sources: International Monetary Fund (IMF), 2009; The Economist Intelligence Unit (EIU), 2008. *Belize Country Profile — 2008*, 15; The Economist Intelligence Unit (EIU), 2009. *Country Report Belize*, October, 11.

Since the Belize dollar is pegged to the U.S. dollar, the Government of Belize cannot freely print money. If expenditures exceed revenues, then the balance must be met with borrowing either domestically or abroad. Figure 1.8 below displays government surplus or deficit (total revenue minus total expenditure) as a percentage of total revenues for the years 1987-2009. The fiscal laxity of the previous government from 1998 to 2005 entailed massive deficits, deficits that reached 47 percent of GDP in 2003. These deficits required extensive borrowing mostly from external sources, some from bilateral and multilateral sources, but mostly from overseas commercial banks (60 percent of total external public debt by 2003). External public debt as a share of GDP for the years 1990-2009 is shown in figure 1.9 below.

External borrowing proved to be unsustainable, taking Belize to the verge of a debt and balance-of-payments crisis in 2006. The government restructured its external commercial debt in 2007, averting the crisis. The implications for the incoming government were clear: extravagant deficits financed by extravagant external borrowing are now a thing of the past. Indeed, 2009 was the first time since 1991 in which the budget was balanced.

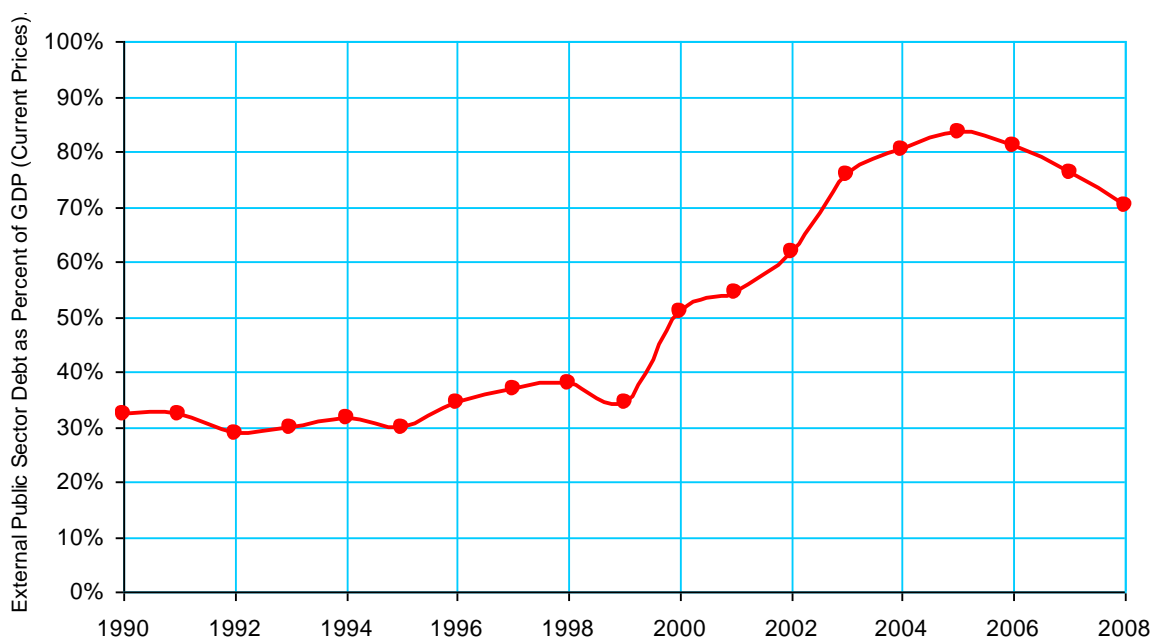
Figure 1.8: Government Surplus or Deficit as Percent of Total Revenue, 1987-2009



Sources: International Monetary Fund (IMF), 2009. Central Bank of Belize, *2008 Annual Report*, table A17, 73.

In the case of Belize, prudent fiscal policy was compromised not only by extravagant deficit spending on the books, but also by assuming contingent liabilities off the books, mostly through the provision of sovereign guarantees of debt incurred by the Development Finance Corporation (DFC). The DFC, a government-backed financial institution, was encouraged to borrow heavily to finance the expansion program initiated in 1998, with a special emphasis on fulfilling a government promise to build 10,000 dwelling units in five years. The portfolio of the DFC more than tripled, from BZ\$ 96.4 million to BZ\$ 328 million, between June 2000 and its peak in August 2004, shortly before it had to suspend its lending operations when it ran out of funds. During this period, the DFC, with sovereign government guarantees, managed to issue some BZ\$20-30 million in mortgage-backed securities in international capital markets through the Royal Merchant Bank of Trinidad and Tobago. The specific effects of DFC lending on the housing sector during the early years of the decade will be discussed later. What has already become clear, however, is that the provision of sovereign guarantees to the DFC has worsened the government's fiscal position, weakened its credit worthiness, and saddled it with a substantial debt that was less than transparent, not being part of its current budget nor of its capital budget. There is little doubt that the financing of housing with mortgage-backed securities guaranteed by the Government of Belize is now a thing of the past too.

Figure 1.9: External Public Debt as Percent of GDP, 1990-2008



Source: Central Bank of Belize, 2008. *Statistical Digest – 2007*; Central Bank of Belize, 2008 *Annual Report*, table A.1, 66.

A stringent fiscal policy in the coming years essentially means that there will be serious constraints on government direct and indirect spending on housing and related residential infrastructure. It also means that the limited funds that are expected to be available for housing must be used diligently, so that they can help as many people as possible, so that they are properly targeted at those that need housing assistance, and so that they can generate the maximum multiplier effects by harnessing private sector funds, domestic savings, and ‘sweat equity’. When unforeseen demands on the government budget — such as the need to repair roads, bridges and schools destroyed by hurricanes and tropical storms — are taken into account, there is little hope for a regular and reliable stream of public funds to finance well-planned multi-year housing programs. Government housing assistance is more likely to be irregular and uneven, relying on one-time capital grants or loans from bilateral and multilateral institutions rather than on a steady stream of line-budget yearly expenditures on housing assistance.

6. Conditions in the Financial Sector:

One of the main reasons for the collapse of the Development Finance Institution, like other government-backed financial institutions in the region, was that it did not operate like a commercial bank. It issued long-term loans at less-than-market interest rates while it did not attract any domestic deposits to finance these loans. Furthermore, as we shall see later, it did not bother to select borrowers with due diligence nor to insist that loans be repaid, with the result that a significant share of the loans in its portfolio quickly degenerated into non-performing loans.

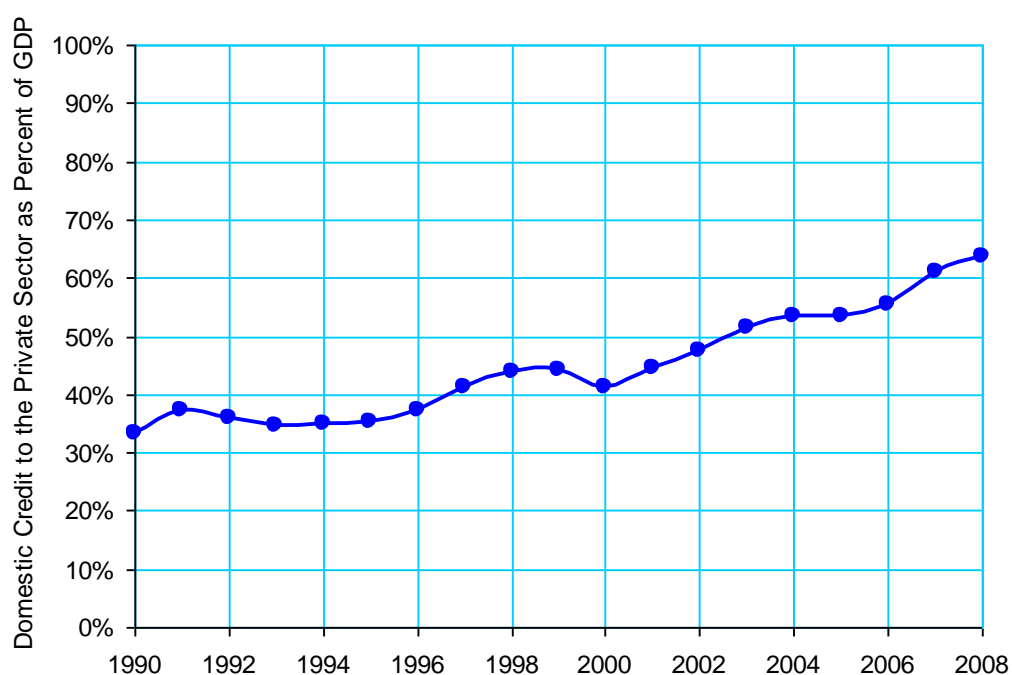
The experience of the DFC is not very different from the experience of other government housing banks in the region. Mortgage loans at less-than-market interest rate are in essence, housing subsidies and, as such, they are an inferior form of subsidy. Because market interest rates vary, the actual subsidy amounts remain unknown and non-transparent. The survival of these public

banks depends on the continuous replenishment of their coffers from sources other than deposits, rendering them dependent on the generosity of government or of bilateral and multilateral institutions. Their ability to screen borrowers properly or to collect mortgage payments is compromised because they are seen as an arm of government that dispenses houses to those in need, as of right, with little power to act decisively to foreclose and evict non-paying clients. Finally, the institutional standing of these banks renders them opaque to proper oversight and supervision, making it difficult to assess their financial transactions in general, and the targeting of their loans to deserving borrowers in particular.

The common experience of government housing banks in the region leaves no doubt that the development of long-term mortgage finance for the purchase of houses, micro-finance for home improvements, and the support of housing projects with construction loans must rely on lending by private sector commercial banks or by civic-sector credit unions operating under strict and transparent financial regulations. The health of the financial sector is therefore of crucial importance in a well-functioning housing sector. What can be said of the health of the financial sector in Belize?

Belize has a vibrant and stable domestic banking system comprised of five commercial banks and 13 credit unions. Figure 1.10 below presents the evolution of domestic credit to the private sector as a share of Gross Domestic Product (GDP) in Belize from 1990 to 2008. During this period, that share has almost doubled, from 33 percent to 64 percent, and is now among the highest in Latin America and the Caribbean. Information on the financial profiles of the commercial banks and credit unions in Belize for the period ending in December 2008 is summarized in table 1.13 below. Several aspects of this table merit consideration. First, total loans in the financial system exceeded BZ\$ 2 billion by the end of 2009, amounting to 75 percent of the current Gross Domestic Product (GDP). Second, credit unions provided one-sixth of the total loan portfolio. Third, the average spread between average lending rates and average deposit rates was 8.8 percent, quite low by regional standards. The average spread between average residential mortgage rates and average deposit rates was 7.6 percent, also quite low by regional standards. Fourth, capital adequacy standards were high, averaging 24 percent. Fifth, despite the effects of the global financial crisis on Belize, asset quality was quite high: loans in arrears formed some 11 percent of all loans, while loans in default formed less than 3 percent of all loans. Finally, banks and credit unions in Belize remain profitable with a 3 percent average return on assets and a 16.5 percent average return on equity.

Figure 1.10: Domestic Credit to the Private Sector as a Share of GDP, 1990-2008



Source: Central Bank of Belize, 2008. *Statistical Digest — 2007*; Central Bank of Belize, 2008 Annual Report, table A.24, 77.

Table 1.13: Summary Indicators of the Financial System in Belize, Dec. 2008 (‘000)

Financial Indicator	Alliance Bank of Belize	Atlantic Bank	Belize Bank	First Caribbean Int'l Bank	Scotia Bank	Credit Unions	Total Financial System
Total Loans	114,958	259,904	715,285	175,794	458,237	318,977	2,043,155
Total Deposits	135,846	340,619	713,785	223,549	510,706	272,595	2,197,100
Total Capital	9,047	45,218	165,339	43,702	97,005	164,463	524,774
Base Lending Rate	14.0%	14.0%	14.5%	14.0%	16.0%	12.0%	14.3%
Residential Mortgage Rate	13.0%	14.0%	13.0%	12.0%	14.0%	12.0%	13.1%
Average Deposit Rate	8.6%	6.0%	5.9%	5.5%	5.7%	2.1%	5.5%
Capital Adequacy: Capital/Deposit Ratio	6.7%	13.3%	23.2%	19.6%	19.0%	60.3%	23.9%
Liquidity: Net Loans/Deposit Ratio	80.9%	73.7%	98.2%	74.9%	88.3%	112.5%	93.0%
Asset Quality: Adversely Classified Loans/Total Loans	19.3%	9.4%	17.9%	3.2%	2.7%	11.0%	11.1%
Asset Quality: Total Loan Loss Reserves/Total Loans	4.4%	3.5%	2.0%	4.8%	1.6%	3.9%	2.8%
Profitability: Percent Return on Assets	-0.7%	3.1%	2.1%	3.3%	2.6%	6.3%	3.0%
Profitability: Percent Return on Equity	-10.7%	28.1%	11.9%	21.8%	18.0%	17.4%	16.5%

Source: Central Bank of Belize, 2009. “Quarterly Financial Information of Commercial Banks and Quarterly Consolidated Financial Information of Credit Unions”, Quarter Ending; December 2008.

It is worth noting that the banking system is facing increased risks. In recent years, nonperforming loans (NPLs) have surged, to the equivalent of 20 percent of total loans in mid-2010. While banks comply with current regulations, provisioning remains low by international standards, covering less than 16 percent of NPLs. The increase in NPLs has been largely concentrated in three banks (two domestic banks and one offshore), which account for over 40 percent of deposits in the banking system. This includes a large domestic bank, accounting for close to one third of total banks deposits, which has been faced with deterioration in its loan portfolio since the beginning of this year. Deposits and credit in the banking system have remained broadly stable through June 2010.

Table 1.14: Financial Soundness Indicators (Domestic banks; in percent)

	2007	2008	2009	Jun-10
Capital/risk-weighted assets 1/	23.1	19.5	20.7	22.9
Excess liquidity 2/	16.3	20.6	23.5	32.5
NPLs/total loans	6.6	12.7	12.2	20.0
Provisions/NPLs	34.2	23.1	19.5	15.5
NPLs net of provisions/capital	18.9	48.8	46.5	79.1
Net earnings/assets 3/	3.5	2.6	1.7	0.5

Source: Belize: 2010 Article IV Consultation—Staff Report; Informational Annex; Staff Statement; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director for Belize

1/ the required capital adequacy ratio is 9 percent; 2/ in percent of the statutory liquidity requirement; 3/ net profit after taxes over average assets (annualized).

The future health of the financial sector in Belize is essential for the future health of the housing sector, as it continues to play a critical role in providing a steady stream of finance for the construction and purchase of housing. While data on the composition of loans given by credit unions is not readily available, as of December 2008 commercial banks issued a total of BZ\$ 364 million in building and construction loans, amounting to 21 percent of their total loan portfolio.

7. Conditions in the Construction Sector:

Residential construction activity is influenced to a significant extent by conditions in the construction sector. First, the volume of residential construction is usually affected by the cyclical ups and downs in the construction sector, which are themselves affected by the overall economic and investment climate. Second, the character of residential construction is affected by the organization and the division of labor in the sector as a whole, by its level of sophistication and competitiveness, and by its business practices. Third, residential construction costs are affected by the costs of construction labor and materials in the sector as a whole.

Table 1.15 below provides an overview of conditions in the construction sector in Belize in the years 1990-2008. Several aspects of this table merit the reader's attention. First, the volume of construction formed relatively fixed shares of gross fixed capital formation and of the Gross Domestic Product (GDP): Over the years, it formed, on average, 19.6±0.4 percent of the former and 4.3±0.2 percent of the latter. These percentages are not particularly high by regional

standards, and it must lead to the conclusion that the construction sector performance in Belize can be improved. As elsewhere, the volume of construction fluctuated with the ups and downs of the business cycle. It reached peak in 1993 and another peak in 2000, and it reached a trough in the interim period in 1998. Since 2000, the volume of construction as a share of GDP has been in decline, from a high of 5.0 percent in 2000 to a low of 2.9 percent in 2008. And despite the random destruction brought about by hurricanes and tropical storms it did not fluctuate wildly. We must conclude, therefore, that reconstruction after hurricanes is gradual and requires a long time, as it common and as is to be expected.

Table 1.15 also presents information on the availability of construction finance for all forms of construction, by both the private and the public sector. We can observe that private sector loans for building and construction grew steadily over the years in nominal terms, at an average annual rate of 12.6 ± 0.2 percent. The remained a relatively fixed share, 22.5 ± 0.4 percent, of all credit to the private sector, and we can therefore surmise that they grew at the same rate as the overall rate of growth of domestic credit. Still, the average volume of new loans issued annually could only finance about one-quarter, 24.6 ± 3.9 percent to be exact, of new construction in the country.

Table 1.15: Conditions in the Construction Sector in Belize, 1990-2008

Year	Volume of Construction			Private Sector Loans for Building and Construction			Public Sector Loans by DFC for Building and Construction		
	Volume (BZ\$ millions, current prices)	As Percent of Gross Fixed Capital Formation	As Percent of Gross Domestic Product	Volume of Loans (BZ\$ millions)	As Percent of All Credit to Private Sector	Percent Growth over Previous Year	Volume of Loans (BZ\$ millions)	As Percent of All DFC Credit	Percent Growth over Previous Year
1990	42.3	19.7%	5.1%	58.0	21.2%	42.0%	12.2	35.7%	2.3%
1991	47.3	18.1%	5.3%	64.6	19.5%	11.5%	12.9	39.2%	6.0%
1992	54.8	18.9%	5.3%	81.8	22.0%	26.6%	13.9	37.8%	7.5%
1993	64.3	19.2%	5.7%	82.7	21.4%	1.0%	14.6	36.2%	4.9%
1994	51.1	21.4%	4.4%	92.6	22.8%	12.0%	18.7	40.9%	28.0%
1995	52.6	19.5%	4.2%	102.4	23.4%	10.6%	20.6	43.7%	10.0%
1996	54.3	20.8%	4.2%	105.2	22.0%	2.8%	22.2	41.4%	8.3%
1997	52.0	19.9%	4.0%	112.1	20.7%	6.6%	24.1	39.4%	8.3%
1998	50.7	19.6%	3.7%	119.0	19.6%	6.1%	26.9	41.2%	11.5%
1999	59.2	16.5%	4.0%	142.5	22.0%	19.8%	8.1	13.1%	-69.8%
2000	82.8	17.4%	5.0%	153.3	22.4%	7.6%	77.9	39.1%	859.7%
2001	83.7	19.1%	4.8%	177.7	22.9%	15.9%	91.2	34.2%	17.0%
2002	88.6	21.0%	4.8%	224.2	25.2%	26.2%	91.4	42.2%	0.2%
2003	75.3	19.9%	3.8%	252.8	24.9%	12.8%	93.7	41.8%	2.6%
2004	82.4	22.1%	3.9%	276.7	24.5%	9.4%	126.3	38.1%	34.8%
2005	82.3	19.7%	3.7%	300.8	25.2%	8.7%	79.6	33.3%	-37.0%
2006	85.6	16.9%	3.5%	316.5	23.6%	5.2%			
2007	76.3		3.0%	365.2	23.4%	15.4%			
2008	81.2		2.9%	363.8	21.0%	-0.4%			

Source: Central Bank of Belize, 2008. *Statistical Digest — 2007*; Central Bank of Belize, *2008 Annual Report*, table A.1, 66.

A more complicated picture emerges from the examination of the fluctuations in credit given for building and construction, mostly for housing, by the Development Finance Corporation (DFC). Between 1990 and 1998, credit for building and construction amounted to 35-42 percent of all DFC credit, while gradually increasing from 12 percent to 27 percent of private sector credit for building and construction. After a serious dip in the volume of loans in 1999, DFC lending for building and construction increased rapidly, surpassing private sector lending for construction in 2002. The high volume of lending could not be sustained and the DFC stopped lending in 2005 with a substantial share of its loans, more than one half, according to unofficial estimates, in default.

There is no data available for separating short-term construction loans from long-term mortgage loans, and it is therefore difficult to tell exactly what share of the total loans to the construction sector are construction loans and what share are mortgage loans. That also makes it difficult to ascertain whether shortage of credit for construction is a binding constraint in Belize, nor whether shortage of credit for mortgages is currently a binding constraint. A cursory examination suggests that neither is the case and that at present there appears to be ample and affordable credit for both construction and mortgage finance in commercial banks, and, to a more limited extent, in credit unions.

It was not possible to obtain comparative data on the organization and performance of construction sector in Belize. Interviews in the country suggest that Belize produces very little of its basic building materials or machinery: it imports steel, cement, and plywood as well as most other building components. And although the country contains substantial timber resources, it has moved away from timber construction, especially in urban areas. Belize has not conserved traditional building methods and most construction now takes place using modern building materials, especially concrete and steel. The move away from locally-available building materials to imported ones has serious cost implications.

How do construction costs in Belize compare with construction costs in other countries, both in absolute terms and relative to incomes (measured, say, in GDP per capita)?

Table 1.16 below presents comparative construction costs in several countries in February 2008 in US dollar terms obtained from *Builder* magazine and compares them to current construction costs in Belize obtained by informal questioning. The table shows clearly that construction costs in Belize are on the high side. The per-square meter construction costs of high-end apartments, for example, are the highest among the developing countries in the table. Construction labor costs are also the highest among the developing countries in the table.

Table 1.16: Comparative Construction Costs by Various Categories, in US\$, 2008

Category	Unit	Belize	Argentina	Brazil	China	India	Indonesia	U.K.	U.S.A.
High Rise Apartments									
Low Range	US\$/m ²	400	468	781	411	598	482	2,459	3,112
High Range	US\$/m ²	890	726	885	559	716	659	3,934	6,456
Building Material Supply Prices									
Steel Reinforcem't Bars	US\$/ton	...	907	1,886	454	757	745	1,279	769
Structural Steel		1,610	2,118	4,097	856	836	832	1,475	1,080
Ordinary Cement	US\$/ton	210	75	256	39	110	89	207	163
Processed Timber	US\$/ton	406	378	287	252	346	608	610	218
Construction Labor Basic Rates									
Unskilled	US\$/hour	2.50	1.99	1.55	0.65	0.41	0.77	15.50	
Semi-skilled	US\$/hour	3.00	2.16	1.91	0.73	0.53	0.87	15.99	
Skilled	US\$/hour	4.40	2.34	2.16	0.85	0.71	1.02	20.65	
GDP per capita	US\$	4,402	8,235	8,400	3,263	1,068	2,254	43,088	46,716

Source: Calculated from Gardiner and Teobald Ltd. 2008 data in *Builder* magazine.

Construction costs in Belize thus appear to be high in absolute terms. They appear to be even higher when we consider the affordability of construction in different countries relative to incomes. The last row in table 1.15 displays per capita GDP in the countries in the table. When we consider, for example, that per capita income in Belize is one-tenth that of the United Kingdom, we can see that construction labor costs relative to income are higher in Belize than they are in the United Kingdom, and the same is true for the per-square meter cost of apartments. We can therefore conclude that construction in Belize is less affordable than construction in other countries.

From the perspective of housing policy, high construction costs imply that housing is likely to be less affordable in Belize than in other countries where they are lower. This calls for a more penetrating investigation into the question of why construction costs are higher than expected in Belize, and into the question of how they can be made lower. At this point, it is not clear whether this is a matter of inefficiency, of an under-developed construction industry, of the lack of a well-trained, disciplined, and productive construction work force, of the high transportation cost of importing and distributing construction materials, of the lack of effective local and international competition in the construction sector, or of corrupt accounting practices in the sector. What is clear is that construction sector reform that aims to significantly reduce residential construction costs so as to make housing more affordable to the masses must be part and parcel of an effective housing policy for Belize.

This brings the discussion of the context of the housing sector in Belize to an end. The next chapter will discuss conditions in the housing sector.

* * *

II. Conditions in the Housing Sector

This section presents a broad perspective of the housing sector in Belize, concentrating on housing conditions in Belize City, where one–sixth of the population of the country and one–third its urban population now reside, and to a more limited extent on Belmopan and San Pedro, two rapidly-growing cities, where 8% the country’s population and 18% of its urban population now reside. It is important to focus on Belize City because this is where, along numerous dimensions, housing problems are and will be most severe. This does not mean, however, that the housing problems of other cities and of villages in the rural areas can be ignored. Surely, they need to be addressed, and will be addressed to the extent possible in this preliminary analysis.

Other than the contextual factors discussed in Part I, there are five principal conditions within the housing sector itself that affect housing supply and demand and that characterize the performance of the housing sector:

1. The availability of land;
 - a. Dwelling Units, Overcrowding, and the Volume of Housing Production;
 - b. House prices, rents, and affordability;
 - c. The quality of housing; and
 - d. Tenure.

These five aspects of the housing sector in Belize in general, and in Belize City in particular, will be discussed in greater detail below.

1. The availability of land:

Is land in Belize in short supply? The short answer is no. Belize has the fourth lowest gross population density in Latin America and the Caribbean, 13 persons per km², after Suriname (3 persons/km²), Guyana (4 persons/km²), and Bolivia (8 persons/km²). By comparison, population densities in neighboring countries are much higher: 117 persons/km² in Guatemala, 61 persons/km² in Honduras, and 53 persons/km² in Mexico; average population density in Latin America and the Caribbean as a whole is 27 persons/km², and in the world at large it is 50 persons/km²). This suggests that in broad terms land in Belize is not in short supply.

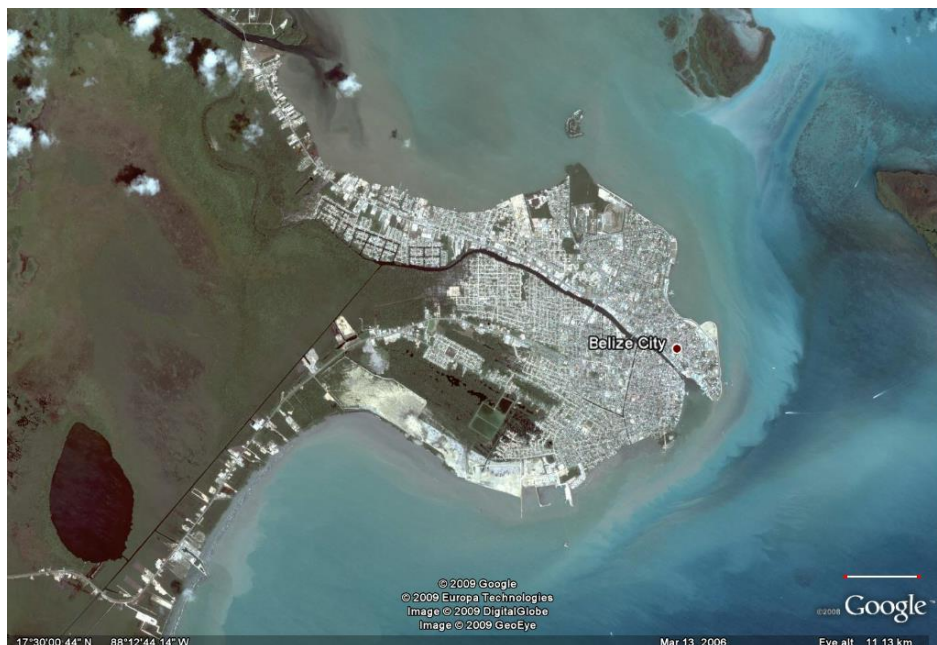
The northern part of the country is a low-lying, marshy, coastal plateau, while the southern part is a highland plateau containing the low range of the Maya Mountains. Some 60 percent of the country is forested. Only 7 percent of the land in Belize is agricultural land, compared with 42 percent in Guatemala, 26 percent in Honduras, and 36 percent in the region as a whole. Only 3 percent of the land in the country is under cultivation, compared with 13 percent in Guatemala, 10 percent in Honduras, and 7 percent in the region as a whole. And because of its rich bio-diversity, some 37 percent of the land in the country is under some form of environmental protection. While there are no national land use plans that are diligently enforced, it is estimated that only 20 percent of the land in the country is suitable for agriculture and human settlement. This still leaves plenty of land for urban areas.

How much of the land in Belize is taken up by urban areas? At present, as table 2.1 shows, urban areas in Belize occupy some 60km² out of a total land area of 23,000 km², or 0.26 percent of the land area of the country. This percentage amounts to about one-half of the global average (Potere, 2008) and about one-eighth of that of the United States. Thus, even if cities were to quadruple in

area by 2050, they would still occupy only one percent of the land area of the country, or 5 percent of the land in the country deemed suitable for human habitation. This essentially means that the preparation of national land use plans, plans that balance the development imperatives of Belize against its firm commitment to environmental protection, must contain provisions for ensuring that there is ample land to accommodate urban population growth. This is particularly critical for the orderly and equitable expansion of the country's cities and towns, where the refusal to prepare an adequate supply of lands for expansion in the name of environmental protection, or the failure to plan for expansion out of neglect or oversight, may lead to the formation of disorderly, expensive, unsustainable and inequitable settlements. The implications of the availability of land for urban expansion in Belize for the conduct of housing policy will be explored later.

Is urban land in Belize used efficiently? To answer this question, we needed to calculate the density of the urbanized areas of cities and towns in the country. We defined the urbanized area of cities in Belize to include their built-up areas, their public open spaces (including airports), and the land in vacant plots that were already subdivided and provided with service roads. We then estimated the total urbanized area of each city and town in Belize by measuring it on high resolution *Google Earth* images, such as that of Belize City in 2006 shown in figure 2.1.

Figure 2.1: Google Earth Image of Belize City, 2006



Note: The length of the thin white line on the bottom right is one kilometer long.

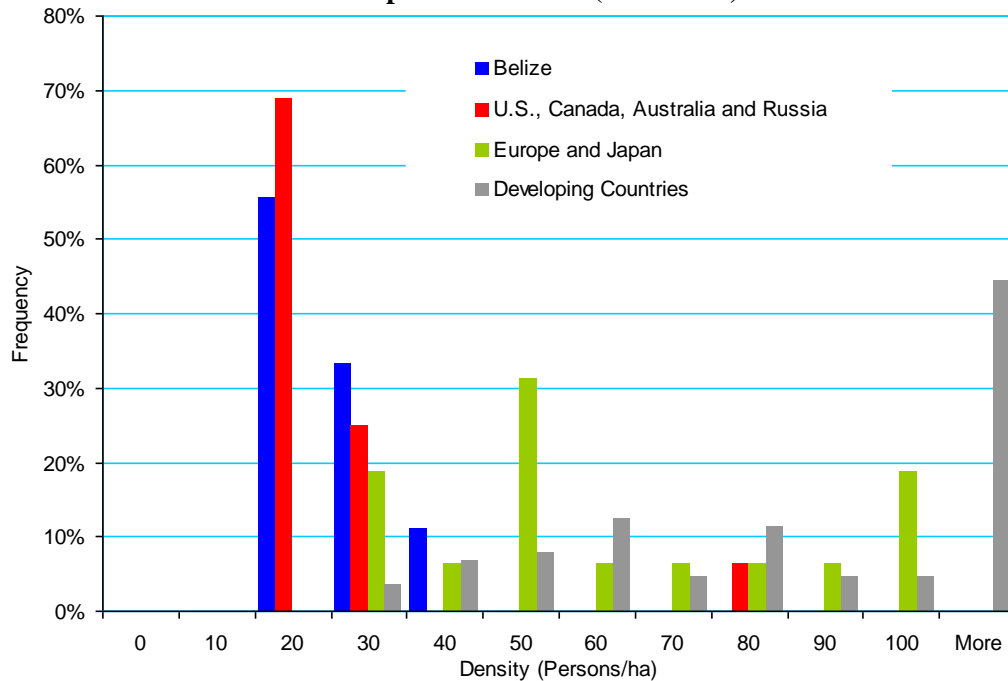
Table 2.1 displays the results, while figure 2.2 compares these results with urbanized area densities in a global sample of cities.

Table 2.1: Urbanized Areas and Densities of Belize Cities circa 2002-2008

Cities	Date	Population	Urbanized Area in hectares (ha)	Urbanized Area Density (persons/ha)
Coastal Cities & Towns				
Belize City	Mar-06	55,000	1,395	39.4
Corozal	Apr-08	9,384	670	14.0
Dandriga	Mar-06	10,487	350	30.0
San Pedro	May-03	5,524	263	21.0
Punta Gorda	Dec-07	5,670	235	24.1
Inland Cities & Towns				
Orange Walk	May-02	14,519	790	18.4
San Ignacio/Santa Elena	Jan-02	14,655	810	18.1
Banque Viejo	Jan-02	5,585	320	17.5
Belmopan	Sep-06	12,011	900	13.3
Urban Population (total/average)		179,603	5,733	31.3

Note: City urbanized areas were estimated from *Google Earth* images in the dates shown in the table; city populations were interpolated for the image date from tables 1.3 and 1.4.

Figure 2.2: Comparison of densities between Cities in Belize (2002-2008) and a Global Sample of 120 Cities (1999-2002)



Sources: Belize data from table 2.1; Global sample data from Angel et al (2009).

A few numbers in table 2.1 merit our attention: First, the densities in Belize City are the highest in the country, 39.4 persons per hectare, and densities in Belmopan are the lowest in the country, 13.3 persons per hectare. In fact, the urbanized area density in Belmopan is only one-third that of Belize City. Second, coastal cities and towns appear to have higher densities than inland cities

and towns: Except for Corozal, all coastal cities and towns have densities that are higher than 20 persons per hectare, while all inland cities and towns have densities that are lower than 20 persons per hectare. These differences may be at least partially explained by observing that the development of residential land in coastal areas is more expensive, as it typically involves at least partial landfill.

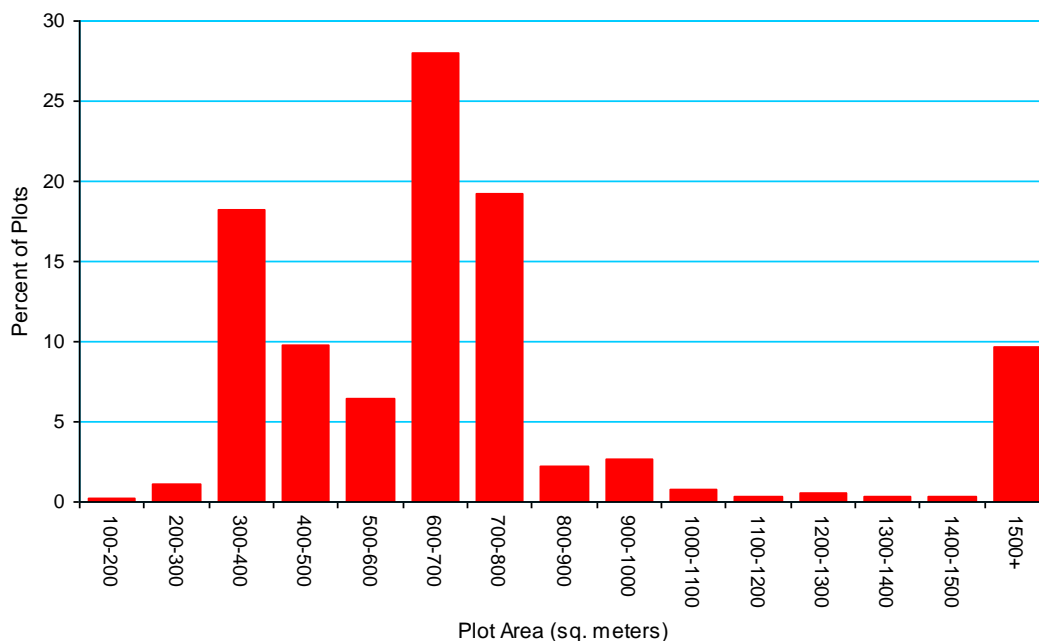
Figure 2.2 establishes quite clearly that Belizean cities and towns have very low densities in comparison with cities in other countries. The figure compares densities in Belize with urbanized area densities in the global sample of 120 cities in Angel et al (2009). Only two cities in the global sample, St. Catharines in Canada and Tacoma in the state of Washington in the United States had lower densities than those of Belizean cities. Only one in ten cities in developing countries had a density lower than that of Belize City, the densest city in Belize. In fact, cities in Belize have densities that are incongruent with the level of economic development in the country.

Low density residential development in Belize has serious implications for housing policy. First, low-density neighborhoods require lengthy roads, drainage canals, pipes, and cables to serve individual lots, increasing the cost of providing residential infrastructure and therefore the cost of serviced land. Second, typical residential densities in Belize are too low to be efficiently served by public transport: it is estimated that for regular and reliable public transport to be feasible, densities have to be 30-50 persons per hectare (see, for example, Holtzclaw 1994), much higher than those prevailing in urban residential neighborhoods in Belize. Third, in coastal areas where plots may need to be filled, large plots greatly increase the cost of landfill. Finally, thinly spread houses on large lots create large distances among neighbors and community members, making it more difficult to organize communities or to generate a strong community identity.

Part of the explanation for the low densities in Belize is that cities are small. Generally speaking, smaller cities have lower densities than larger ones (see Angel et al, 2009). A second part of the explanation is that Belize is rich in land resources and that there are no shortages of land for urban expansion. A third part of the explanation is a cultural one: Belizeans are used to live in large plots, reminiscent of rural living. A fourth part of the explanation is a regulatory one: minimum lot sizes are very large by global standards. According to a planner in the Land Utilization Authority, the present minimum lot size is 4,000 square feet (400 m²); another informant suggested that this minimum lot size has been recently increased to 60 feet-by-90 feet (540m²). A housing ministry official suggested that lot sizes could be reduced to 50 feet-by-65 feet (375m²), but probably no further.

What are typical sizes of residential plots in Belize? We have commissioned a map of all properties in the mostly-undeveloped area west of Belize City from the Land Information Centre. The study identified more than 3,600 properties with a total land area of 31.2 square kilometers (3,120 hectares). Some 6.5 percent of the area, 2.0 square kilometers (or 200 hectares), has already been subdivided into some 3,260 residential plots. Plots in residential subdivisions were typically less than 1,500m². The size distribution of all 3,600 properties is given in figure 2.3 below.

Figure 2.3: The distribution of plot sizes to the west of Belize City, 2009



Source: Study by Land Information Centre commissioned for this report.

Figure 2.3 shows that the great majority of residential plot sizes (91 percent) fall in the range of 300-800m². Some 18 percent of all plots were in the 300-400m² category, smaller than the present minimum lot size of 400m², but there were very few plots (1.5 percent) of less than 300m². A pattern of plot sizes may be discerned: there may be two plot size categories in residential subdivisions in Belize: one category in the 300-600m² range and one category in the 600-1,000m² range. Needless to say, these plot size ranges are very large by international standards, especially when it comes to developing countries that have similar incomes to that of Belize.

At present levels of land consumption, how much land will be needed for urban expansion in the coming decades? We can estimate the amount of land that will be needed for urban expansion in Belize by combining population projections with density projections. We do not have longitudinal data for densities in Belize. Global longitudinal data suggests that long-term densities in developing countries are declining at one to two percent per annum. Densities in the United States, however, which are among the lowest in the world and the most comparable to those of Belize, are no longer declining significantly, and in some cities they are on the increase. We have chosen to assume that densities in Belizean cities will neither decline nor increase in the coming decades. Given this assumption, we can estimate the amount of land needed for urban expansion in the coming decades. These estimates are given in tables 2.2 and 2.3 below. Table 2.2 displays the projected urbanized areas of cities in Belize from 2000 to 2040. Table 2.3 displays the projected amount of land needed for urban expansion in every decade, from 2000-2010 to 2030-2040.

Table 2.2: Urbanized Area Projections for Cities and Towns in Belize, 2000-2040

Cities	Urbanized Area Projections (hectares)									
	2000	% of Total	2010	% of Total	2020	% of Total	2030	% of Total	2040	% of Total
Coastal Cities & Towns	2,495	51.3	3,279	45.7	4,122	42.6	5,000	40.7	5,860	39.5
Belize City	1,244	25.6	1,498	20.9	1,772	18.3	2,056	16.8	2,335	15.8
Corozal	563	11.6	700	9.7	847	8.8	1,000	8.1	1,150	7.8
Dandriga	294	6.1	393	5.5	499	5.2	610	5.0	718	4.8
San Pedro	214	4.4	424	5.9	650	6.7	885	7.2	1,115	7.5
Punta Gorda	179	3.7	264	3.7	355	3.7	449	3.7	542	3.7
Inland Cities & Towns	2,367	48.7	3,903	54.3	5,555	57.4	7,273	59.3	8,959	60.5
Orange Walk	734	15.1	1,062	14.8	1,416	14.6	1,784	14.5	2,144	14.5
San Ignacio/Santa Elena	733	15.1	1,208	16.8	1,720	17.8	2,252	18.4	2,774	18.7
Banque Viejo	292	6.0	464	6.5	651	6.7	844	6.9	1,034	7.0
Belmopan	609	12.5	1,167	16.3	1,768	18.3	2,393	19.5	3,006	20.3
Total Urban Area	4,862	100.0	7,181	100.0	9,677	100.0	12,273	100.0	14,819	100.0

It is interesting to note that because of the lower densities in inland cities and towns, they now take up almost half of the urbanized area in Belize in 2000, even though they contained only one-third of the urban population. Their share of the total urbanized area in Belize is now scheduled to increase to more than a half, and up to 60 percent of the total by 2040.

Table 2.3: Projected Per-Decade Increases in the Urbanized Areas of Cities and Towns in Belize, 2000-2040

Cities	Projected Additions to Urbanized Areas per Decade (hectares)							
	2000-2100	% of Total	2010-2020	% of Total	2020-2030	% of Total	2030-2040	% of Total
Coastal Cities & Towns	784	33.8	844	33.8	877	33.8	860	33.8
Belize City	254	11.0	274	11.0	285	11.0	279	11.0
Corozal	137	5.9	147	5.9	153	5.9	150	5.9
Dandriga	99	4.3	106	4.3	111	4.3	108	4.3
San Pedro	210	9.1	226	9.0	235	9.1	230	9.0
Punta Gorda	84	3.6	91	3.6	94	3.6	93	3.6
Inland Cities & Towns	1,535	66.2	1,652	66.2	1,718	66.2	1,685	66.2
Orange Walk	329	14.2	354	14.2	368	14.2	361	14.2
San Ignacio/Santa Elena	476	20.5	512	20.5	532	20.5	522	20.5
Banque Viejo	173	7.5	186	7.5	194	7.5	190	7.5
Belmopan	558	24.1	601	24.1	625	24.1	613	24.1
Total Urban Population	2,319	100.0	2,496	100.0	2,596	100.0	2,546	100.0

When we examine the projected additions to the urbanized areas of cities and towns in Belize, we can see that, given our assumptions, the projected increases in the areas of inland cities and towns is expected to be double those of coastal cities and towns. More specifically, the area added to Belmopan will be roughly double the area added to Belize City. Belmopan still has a much smaller population but its population is growing faster and its density is very low. While the urbanized area of Belize can be expected to double between 2000 and 2040, that of Belmopan can be expected to increase five-fold. On average, as table 2.2 shows, cities and towns in Belize will

triple their urbanized areas between 2000 and 2040. It is imperative that urban land use plans as well as national land use plans allow sufficient room for this projected expansion. Failure to plan for this expansion is likely to create land supply bottlenecks that will result in higher-than-necessary land prices, and consequently in decreased housing affordability.

2. Dwelling Units, Overcrowding, and the Volume of Housing Production:

Effective housing policy must necessarily focus on the housing sector as a whole before it narrows its focus to what government itself needs to do to ensure that everyone is decently housed. Unfortunately, all too often governments narrow their focus too quickly to their own limited sphere of activity without a thorough understanding of conditions or modes of operation in the housing sector as a whole. Given that in *all* countries (with the single exception of Singapore), governments play only a very limited role in housing provision while most housing is provided by the formal or informal private sector or by the civic sector, it is imperative that government housing policy be responsive to the conditions and modes of operation in the sector at large, a sector that operates largely outside the realm of government housing programs. And to understand the housing sector at large, we must necessarily focus on its most basic *quantitative* parameters: How many dwelling units are there in the cities and rural areas of the country? How many units need to be built in a typical year? What share of dwelling units in Belize are single-family homes? Are enough dwelling units being built in the country? Are dwelling units overcrowded and are they becoming more or less overcrowded over time?

Our earlier calculations of the populations and household sizes in the cities and rural areas of Belize in different periods made possible the estimation and projection of the number of dwelling units in urban and rural areas in each decade, from 1991 to 2050. The estimation and projection of housing demand was carried out before the results of the 2010 census data became available, using the Census data up to 2000 and the U.N. Population Projection. These estimates and projections are given in tables 2.4 and 2.5 below. It should be noted in examining these tables that the census data obtained from the Statistical Institute of Belize does not distinguish between households and dwelling units. This made it impossible to calculate the vacancy rate in the residential sector, for example, because no data on unoccupied dwelling units were available. It is important to emphasize the importance of data collection in order to estimate housing demand. The Government should make an effort to start collecting this information so that accurate calculations on housing deficits can be estimated.

In the absence on data on dwelling units, we must assume that the number of dwelling units exactly equals the number of households and that each household occupies one dwelling unit. Alternatively, we can assume that all the dwellers of a particular housing unit were identified as a single household regardless of the family relationships among them.

Tables 2.4 and 2.5 are useful for understanding the basic orders of magnitude of the housing sector in Belize. In the year 2000, for example, there were some 53,885 dwelling units in Belize divided approximately equally among urban areas (27,393) and rural areas (26,490). Some two-thirds of the urban units (19,068) were in coastal cities and towns and one-third (8,325) in inland cities and towns. Some three-fifths of the rural units (15,644) were in coastal districts and some two-fifths (10,846) in inland districts.

Table 2.4: Dwelling Units in Cities and Towns in Belize, 1991-2050

Cities	Urban Dwelling Unit Estimates and Projections						
	1991	2000	2010	2020	2030	2040	2050
Coastal Cities & Towns	15,619	19,068	24,751	30,969	37,551	44,140	50,243
Belize City	11,064	12,741	15,499	18,513	21,701	24,894	27,853
Corozal	1,695	1,950	2,447	2,991	3,567	4,143	4,677
Dandriga	1,585	2,197	2,965	3,805	4,694	5,585	6,409
San Pedro	464	1,169	2,339	3,622	4,982	6,343	7,601
Punta Gorda	811	1,011	1,501	2,038	2,607	3,176	3,703
Inland Cities & Towns	5,994	8,325	13,775	19,852	26,407	33,097	39,430
Orange Walk	2,276	3,008	4,443	6,042	7,765	9,525	11,191
San Ignacio/Santa Elena	2,069	2,663	4,479	6,505	8,690	10,920	13,031
Banque Viejo	827	1,022	1,661	2,373	3,141	3,926	4,668
Belmopan	822	1,633	3,192	4,932	6,810	8,727	10,540
Total Dwelling Units	21,613	27,393	38,526	50,821	63,957	77,236	89,673

Table 2.5: Dwelling Units in the Rural Areas of Belize, 1991-2050

Districts	Rural Dwelling Unit Estimates and Projections						
	1991	2000	2010	2020	2030	2040	2050
Coastal Districts	11,844	15,644	18,192	19,243	19,186	18,114	16,508
Belize	2,714	3,544	4,021	4,223	4,219	4,026	3,734
Corozal	3,819	4,885	5,554	5,837	5,830	5,558	5,147
Stann Creek	2,697	3,713	4,421	4,711	4,688	4,377	3,915
Toledo	2,664	3,520	4,195	4,472	4,449	4,152	3,712
Inland Districts	6,746	10,846	12,704	13,469	13,420	12,626	11,440
Orange Walk	3,189	5,048	5,890	6,238	6,217	5,858	5,322
Cayo	3,557	5,803	6,814	7,231	7,203	6,768	6,118
Total Rural Population	18,587	26,490	30,896	32,712	32,606	30,740	27,947

It is easier to understand the magnitude of the housing sector in Belize by estimating the average number of dwelling units that are added to the housing stock in a typical year in any given decade. These estimates are given in tables 2.6 and 2.8 below.

Several features of this table 2.6 merit our attention. First, the annual net additions to the urban housing stock at present are of the order of 1,100-1,200 units per year, almost double the annual additions in the last decade of the twentieth century. This is important to know. Why? Crude informal estimates suggest that the private sector now builds up to 3,000 units per annum in a typical year, and definitely more than 1,200 units per annum, mostly in urban areas. The election platform of the United Democratic Party, *Imagine the Possibilities* (UDP 2008) pledged the government to “endow a new government housing programme and build 1,000 quality, affordable houses annually countrywide”, presumably in urban areas, as well as to “give immediate title to house lots and small agricultural plots to first time applicants” in rural areas. One thousand housing units a year would amount to some 83-91 percent of the total net additions to the urban housing stock in a typical year, and will be provided in addition to the units built by the private sector. This is a clearly excessive goal, given that upper-income, upper-middle income, and some middle-income families do not require government assistance in housing and can fend for

themselves, and that most housing is now being built by the formal (and, to a lesser extent, by the informal) private sector without government involvement at all. In other words, even if government housing assistance focused on the direct provision of land-and-house packages — a questionable assumption as we shall see later — a government housing policy focused on helping the urban poor in Belize obtain housing need not build 1,000 housing units per annum.

Table 2.6: Annual Net Additions to the Urban Housing Stock in Belize by Decade, 1991-2050.

Cities	Average Annual Net Increase in Urban Dwelling Units					
	1991-2000	2000-2010	2010-2020	2020-2030	2030-2040	2040-2050
Coastal Cities & Towns	383	568	622	658	659	610
Belize City	186	276	301	319	319	296
Corozal	28	50	54	58	58	53
Dandriga	68	77	84	89	89	82
San Pedro	78	117	128	136	136	126
Punta Gorda	22	49	54	57	57	53
Inland Cities & Towns	259	545	608	655	669	633
Orange Walk	81	144	160	172	176	167
San Ignacio/Santa Elena	66	182	203	218	223	211
Banque Viejo	22	64	71	77	78	74
Belmopan	90	156	174	188	192	181
Total Dwelling Units	642	1,113	1,230	1,314	1,328	1,244

Second, given the distribution of the new additions to the housing stock among cities and towns in Belize, we can obtain from table 2.6 a sense of the relevant number and size of new residential subdivisions that are aimed at providing minimally-serviced lots, fully-serviced lots, serviced lots with a foundation slab, or serviced lots with a foundation slab and a starter housing unit for below-median-income households. If such plots were to be made accessible to *all* below-median income families — a very generous assumption — they would be available to *half* the newly-formed households of every city and town. Let us assume for the moment that not all newly-formed below-income households would opt to obtain a plot in such subdivisions, but that other below-income households seeking a fresh start would replace them. Let us assume that government can effectively restrict such plots to below-median income households. Let us also assume that to avoid concentrating low-income families in large homogeneous neighborhoods, it would make sense to plan for several land subdivisions in every city and town, each once containing 100 plots or less (except in the case of Belize City), and all together containing a five-year supply of plots.

The results of these assumptions are displayed in table 2.7 below. The table was constructed from the data given in table 2.6. In the coming decade, the net annual additions to the housing stock in Corozal Town, for example, amount to 54 units. 27 of these units are needed to house below-median income households. Land subdivisions projects that would contain a five-year supply of plots would need to have $27 \cdot 5 = 135$ plots. One project that would contain 135 plots would concentrate too many low-income families in one neighborhood. Corozal town will thus need two land subdivision projects, each containing some 68 plots, to provide sufficient plots for below-median income households for the next five years. Similarly, Belize City will need five projects of some 151 plots each; Dandriga will need two projects of some 70 plots each; San Pedro will need four projects of some 80 plots each; and so on. According to table 2.7, a total of 27 medium-

size land subdivision projects, with a range of 68-151 plots in each project and an average of 98 plots per project, are needed to supply house plots for all below-median households in Belize in the coming five years. Table 2.7 lays the foundation for a housing policy focused on land provision, clearly a promising land policy in the case of Belize where, as we noted earlier, land is not in short supply. The actual number and sizes of these projects may need to change depending on the assumptions underlying them: they would have to be increased if plots were provided for above-median income households, for households that now share a dwelling unit (e.g. married couples who still live with their parents), for households displaced by natural disasters, or for households who were resettled from other locations for one reason or another.

Table 2.7: Number and Size of Urban Land Subdivision Projects Required to Supply Plots to All Newly-formed Below-Median Income Households in Belize, 2010-2015.

Cities and Towns (C&T)	Net Annual Additions to the Stock	Below-Median Income Annual Additions	Five-Year Supply of Additions to Stock					
			In One Land Subdivision Project	In Two Land Subdivision Projects	In Three Land Subdivision Projects	In Four Land Subdivision Projects	In Five Land Subdivision Projects	
Coastal C&T								
Belize City	236 301	151	753	376	251	188	151	
Corozal	54	27	135	68	45	34	27	
Dandriga	84	42	210	105	70	53	42	
San Pedro	128	64	320	160	107	80	64	
Punta Gorda	54	27	135	68	45	34	27	
Inland C&T								
Orange Walk	160	80	400	200	133	100	80	
San Ig./Sta El	203	102	508	254	169	127	102	
Banque Viejo	71	36	178	89	59	44	36	
Belmopan	174	87	435	218	145	109	87	

Table 2.8 below focuses attention on the number of units that need to be added annually to the housing stock in the rural areas of Belize. In the 2010-2020 decade, some 182 dwelling units need to be added to the stock annually, and this number is scheduled to become negative in the following decade. Again, we can calculate the number and amount of land subdivision projects in rural areas that included agricultural land, as promised in the UDP's election platform.

Table 2.9 below provides data on the number and size of land subdivision projects in rural areas that are needed to provide a five-year supply of agricultural land plots that include a house plot to all below-median income newly-formed rural households in each district in Belize. As the table shows, one 50-unit land subdivision project in the rural area of Belize district will be adequate to supply agricultural and house plots for all newly-formed below-median income households in the district in the coming five years. Similarly, three projects with 35 plots in each will be required in the Cayo district. Altogether, 12 rural land subdivision projects with an average number of 38 plots in each project will be required to meet the new demands for plots in the rural areas of Belize in the coming five years.

Table 2.8: Annual Net Additions to the Rural Housing Stock in Belize by Decade, 1991-2050.

Districts	Average Annual Net Increase in Rural Dwelling Units					
	1991-2000	2000-2010	2010-2020	2020-2030	2030-2040	2040-2050
Coastal Districts	422	255	105	-6	-107	-161
Belize	92	48	20	0	-19	-29
Corozal	118	67	28	-1	-27	-41
Stann Creek	113	71	29	-2	-31	-46
Toledo	95	68	28	-2	-30	-44
Inland Districts	456	186	77	-5	-79	-119
Orange Walk	207	84	35	-2	-36	-54
Cayo	250	101	42	-3	-44	-65
Total Rural Dwelling Units	878	441	182	-11	-187	-279

Table 2.9: Number and Size of Rural Land Subdivision Projects Required to Supply Agricultural Plots to All Newly-formed Below-Median Income Households in Belize, 2010-2015.

Districts	Net Annual Additions to the Stock	Below-Median Income Annual Additions	Five-Year Supply of Additions to Stock		
			In One Land Subdivision Project	In Two Land Subdivision Projects	In Three Land Subdivision Projects
Coastal Districts					
Belize	20	10	50	25	17
Corozal	28	14	70	35	23
Stann Creek	29	15	73	36	24
Toledo	28	14	70	35	23
Inland Districts					
Orange Walk	35	18	88	44	29
Cayo	42	21	105	53	35

If government housing policy is to be tailored to the demand for housing in Belize, then it must be acquainted with the structure of this demand: What share of dwelling units in Belize are single-family homes? What share of dwelling units is in flats and apartments or other forms of housing? What share of single-family homes are townhouses or shophouses (residences above shops owned by residents)? Table 2.10 below provided answers to several of these questions from the last two censuses.

Several numbers in this table merits our attention. If we consider that 12.1 percent of households occupied a part of a house in 1991 and an additional 9 percent lived in duplex houses, then we can say that 93.4 percent of urban households lived in single-family dwellings or duplexes in 1991. This percentage increased to 95.1 in 2000. Similar percentages obtained in rural areas: 97 percent in 1991 and 96 percent in 2000. In comparison, less than 5 percent of the population lived in flats or barracks. There is no question, therefore, that houses on individual plots of land—whether in the form of single-family homes, duplexes or shophouses—are the main form of housing in Belize. More particularly, more than 80 percent of urban families and more than 90

percent of rural families lived in single-family homes in the year 2000. We can therefore conclude that the bulk of demand for housing in the future will be in single-family homes. That said, there is some demand for shophouses and flats, and, as we noted before, itinerant workers often prefer to live in small rooms in apartment buildings, paying as little as possible for housing.

Table 2.10: Types of Dwellings in Urban and Rural Belize, 1991 and 2000.

Type of Dwelling	1991			2,000		
	Urban	Rural	Total	Urban	Rural	Total
Single-family Dwelling	14,320	17,344	31,664	20,930	23,935	44,865
<i>Percent</i>	74.3%	93.6%	83.8%	81.3%	92.2%	86.8%
Single-family house	13,664	17,068	30,732	20,135	23,355	43,490
<i>Percent</i>	70.9%	92.1%	81.3%	78.2%	90.0%	84.1%
Business & Dwelling	656	276	932	795	580	1,375
<i>Percent</i>	3.4%	1.5%	2.5%	3.1%	2.2%	2.7%
Multi-family Dwelling	4,942	1,183	6,125	4,823	2,015	6,838
<i>Percent</i>	25.7%	6.4%	16.2%	18.7%	7.8%	13.2%
Part of house	2,332	654	2,986	1,878	857	2,735
<i>Percent</i>	12.1%	3.5%	7.9%	7.3%	3.3%	5.3%
Flat	800	92	892	1,176	236	1,412
<i>Percent</i>	4.2%	0.5%	2.4%	4.6%	0.9%	2.7%
Duplex	1,735	263	1,998	1,674	367	2,041
<i>Percent</i>	9.0%	1.4%	5.3%	6.5%	1.4%	3.9%
Barracks	75	174	249	95	555	650
<i>Percent</i>	0.4%	0.9%	0.7%	0.4%	2.1%	1.3%
Other/n.a.	59	97	156	156	86	242
Total	19,321	18,624	37,945	25,909	26,036	51,945
Net Total	19,262	18,527	37,789	25,753	25,950	51,703

Table 2.10 confirms our earlier discussion: the demand for housing in Belize is likely to be concentrated in subdivisions of single-family homes. Most of these homes will be occupied by their owners; and some will be leased out, in part or as a whole, to renting families. It stands to reason, therefore, that residential subdivisions targeted at below-median-income households should be composed largely of plots for single-family homes.

Is there a housing deficit in Belize? In general, the quantitative housing deficit should refer only to households requiring settlement in *new* dwelling units, excluding houses that now occupy a plot of land and that can be improved, extended or rebuilt without requiring resettlement. It should include (a) all homeless households; (b) all households sharing a dwelling unit; and (c) the share of households in flood-prone areas and in areas in serious danger of mudslides that cannot be protected with public works (e.g. by drainage canals, levies, or retaining walls). Unfortunately, no data that would provide an order of magnitude for any of these categories was forthcoming. We do note that there is virtually no homelessness in Belize. But we have no data on doubled-up households or on the number of households subjected to unacceptable environmental risk that are in need of resettlement. In the absence of such data, we cannot really estimate the housing deficit in Belize with any degree of accuracy. cursory observation suggests that while everyone is housed, there may be a substantial number of doubled-up households that need new housing.

Are dwelling units overcrowded and are they becoming more or less overcrowded over time? Tables 2.11 and 2.12 present census data calculated from 1991 and 2000 that shed light on this question.

Table 2.11: Persons per Dwelling, Bedrooms per Dwelling and Persons per Bedroom in Belize, 1991 and 2000

Category	Persons per Dwelling		Bedrooms per Dwelling		Persons per Bedroom	
	1991	2000	1991	2000	1991	2000
Urban	4.16	4.18	2.15	2.30	1.94	1.81
Rural	5.35	4.74	2.22	2.29	2.41	2.07
Total	4.71	4.46	2.18	2.30	2.16	1.94

Table 2.11 shows that the average number of persons per dwelling unit declined in both urban and rural areas between 1991 and 2000. At the same time, dwelling units became larger, and the average number of bedrooms per dwelling unit increased during this period. As a result, dwelling units in Belize, in both urban and rural areas became less overcrowded: the average number of persons per bedrooms in urban areas declined from 1.94 to 1.81; in rural areas it declined even more rapidly, from 2.41 to 2.07.

Table 2.12 shows the distribution of dwelling units in the urban and rural areas of Belize by their number of bedrooms. It shows that 2-bedroom houses are still the most prevalent form of housing in the urban areas of Belize: they formed 39 percent of the total in both 1991 and 2000. The share of 3-bedroom units increased from 25 percent of the total in 1991 to 30 percent of the total in 2000. As a result, the number of bedrooms offered by 3-bedroom units surpassed the number of bedrooms offered in 2-bedroom units. Most of the bedrooms in urban areas, 37 percent of the total, were offered in 3-bedroom units in 2000. 32 percent were offered in 2-bedroom units, 8 percent in 1-bedroom units, 15 percent in 4-bedroom units, and the rest, 9 percent of the total, in larger units.

If we assume, as casual observations and inquiries suggest, that in Belize a typical 2-bedroom unit is 500 square feet (50m²) in area, and a 3-bedroom unit is 750 square feet (75m²) in area, we can conclude from table 2.11 that in 2000, there were 12m² of floor area per person in urban areas. This number is not very different from those of neighboring countries: There were 10.4m² of floor area per person in Tegucigalpa, 14m² in Santo Domingo, 16m² in Panama City, 8m² in Guatemala City, and an average of 16m² in Latin America and the Caribbean as a whole [Angel, various reports 2000-2002].

Table 2.12: The Distribution of Dwelling Unit Sizes in Urban and Rural Belize, 1991 and 2000

Bedrooms Per Unit	Number of Dwelling Units			Number of Bedrooms		
	Urban	Rural	Total	Urban	Rural	Total
1991						
1	4,417	7,405	11,822	4,417	7,405	11,822
2	7,454	5,763	13,217	14,907	11,526	26,433
3	4,790	2,807	7,597	14,369	8,421	22,790
4	1,561	1,175	2,736	6,242	4,700	10,942
5	510	531	1,041	2,548	2,655	5,203
6	254	351	605	1,521	2,106	3,627
7	189	304	493	1,323	2,128	3,451
8	148	288	436	1,184	2,304	3,488
Total	19,320	18,624	37,944	46,510	41,245	87,755
2000						
1	4,738	7,456	12,194	4,738	7,456	12,194
2	9,986	8,951	18,937	19,973	17,902	37,874
3	7,885	5,025	12,910	23,656	15,074	38,730
4	2,305	3,282	5,574	9,221	13,129	22,298
5	624	925	1,530	3,118	4,627	7,648
6	214	267	489	1,284	1,600	2,935
7	111	95	223	775	662	1,562
8	45	36	87	361	288	697
Total	25,909	26,036	51,945	63,127	60,737	123,939

Unfortunately, we do not have data on overcrowding in individual dwelling units. Still, we can assume that there is still considerable overcrowding in Belize: houses, on average, do not yet have enough bedrooms to insure adequate privacy, to allow students to study quietly, to allow for the separation of adults and children, and for the separation of boys and girls after puberty. In general, it is not true that larger dwelling units house larger families: Larger houses typically house high-income families that are smaller in size than low-income families. It is reasonable to assume, therefore, that overcrowding is particularly acute in the smallest house categories, namely in one-bedroom and two-bedroom dwelling units. In 2000, there were 12,194 one-bedroom units and 26,433 two-bedroom units in Belize, in both urban and rural areas. A five-year program to add one additional bedroom to *half* of these units — the half that can be shown to be overcrowded — will require the construction of some 4,000 bedrooms per year throughout the country. This construction can be undertaken and managed by the homeowners themselves, with a combination of small grants, technical support, and micro-loans. There is no doubt that such a program will contribute to any anti-poverty strategy: overcrowding has been recognized as one of the most basic components of poverty. The large lots common in Belize contain plenty of area for room additions, and construction can be highly simplified when it can take place on the ground floor.

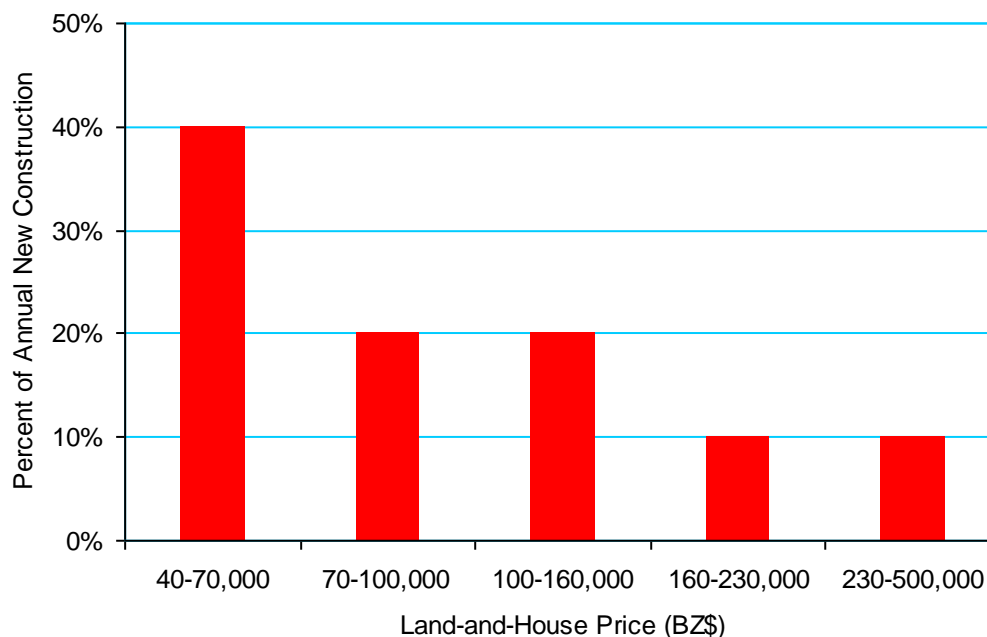
3. House Prices, Rents, and Affordability:

In the time available, it was not possible to obtain an overview of house prices and rents in the cities and towns of Belize, and in this section we can only provide a preliminary and incomplete assessment that should be a subject of further study.

House prices in cities and towns in Belize vary by location and size. Houses are cheaper to build inland, where raw land and the servicing of land with infrastructure are cheaper than in coastal cities. Construction costs are cheaper on the mainland than on the cayes and islands, where all materials have to be transported by boat. Prices also vary with the quality of construction. They also vary between new and existing homes, and between developer-built and self-built homes.

Crude informal estimates suggest that the private sector constructs up to 3,000 new homes, mostly in the cities and towns, in a typical year. The crude price distribution of these units is given in figure 2.4 below.

Figure 2.4: The price distribution of new homes in cities and towns in Belize, 2009



These units include units built for and purchased by foreigners as vacation homes. A plurality of house-and-land packages are sold for BZ\$40,000-70,000. And there are developer-built and financed projects, in Banque Viejo for example, that offer a land-and-house package for BZ\$40,000. The raw land price for a plot in this project is BZ\$10,000 and improvements add BZ\$1,200 to the price. A house of some 36m² (360 square feet) is constructed on the plot, at a cost of BZ\$800 per m² (BZ\$80 per square foot).

What percentage of the households in the cities and towns in Belize can afford to buy a BZ\$ 40,000 land-and-house package? We can calculate this percentage from the urban income distribution in table 1.11, by making three assumptions: (1) that the household can pay a 20 percent down payment; (2) that the household can pay up to 30 percent of its monthly income for housing; (3) that the household can get a mortgage loan at 13 percent per annum for a 20 year period. More generally, we can calculate the average income of every income decile in both the

urban and the rural areas of Belize, and then estimate the value of a house-and-land package that is affordable by households in each income decile. If we assume, in addition to the three assumptions listed above that the plot price (raw land plus infrastructure services) constitutes 20 percent of the total land-and-house price, we can also estimate the values of plots that are affordable by each income decile. The results of these calculations are given in tables 2.13 and 2.14 below.

Table 2.13: House and land affordability for urban income deciles, 2007

Decile	Average Annual Household Income	Average Monthly Household Income	Mortgage payments at 30 percent of income	Present Value of Mortgage Payments	Value of House with 20 percent Down Payment.	Value of Plot at 20 percent of House Value
1 st	3,960	330	99	8,542	10,677	2,135
2 nd	9,360	780	234	20,189	25,237	5,047
3 rd	12,960	1,080	324	27,955	34,943	6,989
4 th	16,920	1,410	423	36,496	45,620	9,124
5 th	20,880	1,740	522	45,038	56,298	11,260
6 th	26,640	2,220	666	57,462	71,828	14,366
7 th	35,760	2,980	894	77,134	96,418	19,284
8 th	47,280	3,940	1,182	101,983	127,478	25,496
9 th	61,260	5,105	1,532	132,138	165,172	33,034
10 th	102,480	8,540	2,562	221,049	276,311	55,262

Table 2.13 shows that with the above assumptions, households in the lowest three income deciles in cities and towns in Belize *could not* afford even a BZ\$40,000 land-and-house package, the lowest-price land-and-house package currently on the market. It also shows that half the households could not pay for a BZ\$15,000 plot of land in urban areas. Still, half the households in urban areas can afford land-and-house packages valued at more than BZ\$70,000. And the plurality of house-and-land packages produced for BZ\$40-70,000 currently on the market are probably sold to households in the 4th, 5th, 6th, and 7th income deciles.

The same is true for land plots for sale in the cities and towns of Belize. In Belize City, for example, typical plot prices in commercial land subdivisions now range from BZ\$100,000 and more on the attractive Northern shore, to BZ\$25,000-30,000 in several parts of the city, to BZ\$20,000 plots sold by Vista del Mar, to BZ\$15,000 on the less attractive South Side, and to BZ\$10,000 on the outer Western periphery of the city. Residential plots may be cheaper in other, smaller towns, but no data for other towns were available at the time of writing. Again, residential plots for BZ\$10,000 or more are affordable by the 4th, 5th, 6th, and 7th income deciles.

It appears, therefore, that the formal private sector can provide land-and-house packages or serviced land plots in urban areas to two-thirds or more of the urban households in the country. With the expansion of credit, increased efficiency, increased competition among lenders as well as among builders, and technological improvements in construction, this share can be significantly increased.

The problem of affordability for the lowest three deciles of the household income distribution remains acute. These households will continue to resort to living in small dwelling units, in sub-standard units, and in gradually-built units, and may benefit from government housing subsidies in the form of subsidized plots or small home improvement grants and loans that will allow them

to build their homes over time. There is no doubt, therefore, that government housing assistance must be sharply focused on the lowest third of the household income distribution in urban areas.

There is another channel for obtaining residential land plots in Belize at affordable prices for all income households: elected politicians in Belize carry out their own 'political' subdivision of National lands and allocate residential plots among their constituents. The price of land in these subdivisions is determined by the Land Department and is typically quite low. Residents then pay for the land in installments and obtain title when they complete their payments. The San Mateo subdivision in San Pedro is one such 'political' subdivision. People pay BZ\$50 per year for leasing the land until they have the money to purchase it at some BZ\$2,500-3,000 per plot, a price that is clearly affordable by all income groups. Prices for regularized squatter settlements on national land that were transformed into 'political' subdivisions may be higher but still affordable: BZ\$7,000-15,000 on the south side of Belize City for example. Subdividing new national lands requires identifying national lands that have not yet been surveyed and allocated, leased, sold, reserved for public use, or declared to be natural reserves. Not all 31 electoral districts in the country have such lands, and not all of the 31 elected representatives can engage in the 'political' subdivision of lands for residential use, but those who can typically do as this appears to be an effective and low-cost way to grant favors to constituents.

Poor people in cities in Belize can obtain land in one of three ways: by purchasing it on the private market and paying in installments, by obtaining a plot in a 'political' subdivision, or by squatting on public or private lands. Squatting is not a prominent way of obtaining a plot of land in Belize, and it is much less common than in other countries in the region. According to the Census, only 0.3 percent of urban households and 1.1 percent of rural households were squatters in 1991 and these percentages changed to 0.4 and 0.5 respectively in 2000. Needless to say, these percentages are very low by regional standards. To take one example, according to a recent study (ILD, 2001), some 46 percent of all residential properties in Tegucigalpa, the capital of neighboring Honduras, were obtained through illegal land invasion. We were also able to observe that most squatters in Belize were immigrant households; very few native Belizeans were found to be living in squatter settlements. The few squatter settlements in Belize are typically transformed over time into 'political' subdivisions, as politicians act to have the government lease the occupied national land to squatters or to purchase the land from private landowners and lease it to the people in a hire/purchase arrangement.

Table 2.14 estimates house-and-land affordability for income deciles in the rural areas of Belize. Here the situation is clearly a lot worse. None but the households in the highest income decile in rural areas can afford the most minimal land-and-house package offered in cities and towns by the formal private sector. Unfortunately, there is not much to be added here because we do not have any information on construction costs and prices of houses in rural areas. Land prices there are, no doubt, lower. But more information is needed to calculate levels of housing affordability in rural areas.

Table 2.14: House and land affordability for rural income deciles, 2007

Decile	Average Annual Household Income	Average Monthly Household Income	Mortgage payments at 30 percent of income	Present Value of Mortgage Payments	Value of House with 20 percent Down Payment.	Value of Plot at 20 percent of House Value
1 st	3,240	270	81	6,989	8,736	1,747
2 nd	7,200	600	180	15,530	19,413	3,883
3 rd	8,640	720	216	18,636	23,296	4,659
4 th	10,860	905	272	23,425	29,281	5,856
5 th	14,100	1,175	353	30,414	38,017	7,603
6 th	17,640	1,470	441	38,049	47,562	9,512
7 th	22,080	1,840	552	47,626	59,533	11,907
8 th	28,200	2,350	705	60,827	76,034	15,207
9 th	39,240	3,270	981	84,640	105,801	21,160
10 th	82,140	6,845	2,054	177,176	221,469	44,294

The same goes for rents. There is little systematic information on rents, but almost half of the households in cities and towns rent their dwellings. Again, if rental payments formed 30 percent of monthly household incomes, then households in the bottom two deciles of the urban income distribution could not afford to pay more than BZ\$250 per month for rent. Some poor people in Belize City do pay \$150-200BZ per month to rent a two-bedroom house some 480 square feet in area (48m²), which suggests that rents in the city may be affordable.

Foreign construction laborers, for example, have a serious rental problem: they want to spend the minimum possible on housing and send as much as possible in remittances back home. Some landlords in San Pedro, for example, rent rooms to these laborers, a 12-by-12 foot room for 4 people at BZ\$300-500BZ per month. A landlord known as ‘Jumbo’ in San Pedro has a 3-story building with 24 such rooms and an overflowing septic tank and charges \$500BZ per month for a room. These laborers get \$800-900 per month as a starting salary. They pay for housing, as well as for water (\$25-30BZ per month) and electricity (\$50-60BZ per month). They can afford to rent rooms only by sharing them.

To conclude this section, we note that even though construction costs in Belize are not low, housing in the formal housing market is affordable to large segments of the urban population. Housing assistance must necessarily focus on the lowest three deciles of the urban household income distribution that are typically excluded from this market.

4. The Quality of Housing:

Can we speak of a *qualitative* housing deficit in Belize? In general, there is no precise way of calculating a qualitative housing deficit because it is not a number. The housing stock has certain quality characteristics, and we can only speak with confidence about the presence or absence of a certain characteristic—e.g. a piped water supply or an earthen floor—in part of the stock. There is no reason to write off houses as part of an imaginary qualitative deficit because of the absence of one or more desirable quality characteristics. At the very least, the plot on which they are

situated, the road access to the plot, the available services, the social capital in the community, the yard and garden, and the shelter provided by the structure itself must all have some value.

The Statistical Institute of Belize collects census data on a number of quality attributes of the housing stock: the materials of the exterior walls, the roofs and the floors of houses; and the type of water supply, sewerage, and electricity available. By examining these attributes and the changes in their presence over time, we may gain some insight regarding the overall quality of the housing stock and the choice of an appropriate strategy for upgrading that quality.

Table 2.15: Type of Material for Roofing in Belize, 2000

Type of Material for Roofing	2,000		
	Urban	Rural	Total
Sheet Metal	22,681	18,936	41,617
<i>Percent</i>	88.2%	73.3%	80.8%
Shingle	128	76	204
<i>Percent</i>	0.5%	0.3%	0.4%
Rubber	96	1,147	1,243
<i>Percent</i>	0.4%	4.4%	2.4%
Concrete	2,658	1,639	4,297
<i>Percent</i>	10.3%	6.3%	8.3%
Thatch	64	3,924	3,988
<i>Percent</i>	0.2%	15.2%	7.7%
Asbestos	84	99	183
<i>Percent</i>	0.3%	0.4%	0.4%
Other/n.a.	198	215	413
Total	25,909	26,036	51,945
Net total	25,711	25,821	51,532

Tables 2.15 and 2.16 summarize the key measures of housing quality in Belize for which selected data exist for 1991 and 2000. Table 1.16 shows the data for the type of roofing material in 2000. Like in many other countries in the Caribbean region, most roofs continue to be constructed from sheet metal: 88 percent of all roofs in urban areas are still made of sheet metal while 10 percent are made of concrete. Sheet metal roofs are culturally acceptable in Belize. They are cheap and easily repairable. When they decay and rust, they leak; heavy rain falling on them creates a racket; and they tend to fly away in strong tropical storms unless properly secured. It is clear that sheet metal roofs are still an appropriate technology in both urban and rural Belize and there is no particular reason to suspect that they are of inferior or sub-standard quality and need to be replaced by other forms of roofing.

Table 2.16 shows the materials used for walls in 1991 and 2000 in urban and rural areas. As noted earlier, there has been a rapid shift away from wooden construction to masonry construction in urban areas: the percentage of dwelling units with masonry construction in urban areas increased from 33 percent in 1991 to 53 percent in 2000. In fact, we can say with some confidence that practically all new homes built in urban areas in Belize between 1991 and 2000 were of masonry construction. It is difficult to say outright that masonry construction is of higher or lower quality than wood construction, so the data does not tell us whether the quality of houses has improved in the 1990s. On the face of it, one would suspect that masonry construction is more solid than wood construction. But there have been several instances in Belize where masonry homes collapsed and were abandoned because of faulty foundations. On the whole, we

may conclude that most houses in Belize are made of good and solid wall materials, be they wood or masonry. Yet the observed quality of construction and the maintenance and repair of older structures do leave something to be desired.

Table 2.16: Type of Material for Walls, 1991 and 2000

Type of Material for Wall	1991			2,000		
	Urban	Rural	Total	Urban	Rural	Total
Wood						
(number)	11,628	11,455	23,083	10,338	12,585	22,923
Percent	61.5%	73.9%	67.1%	42.5%	57.7%	49.7%
Masonry						
(number)	6,169	3,331	9,500	12,859	8,094	20,953
Percent	32.6%	21.5%	27.6%	52.9%	37.1%	45.4%
Masonry & Wood						
(number)	1,103	717	1,820	1,101	1,130	2,231
Percent	5.8%	4.6%	5.3%	4.5%	5.2%	4.8%
Other/n.a.	421	3,121	3,542	1,611	4,227	5,838
Total	19,321	18,624	37,945	25,909	26,036	51,945
Net Total	18,900	15,503	34,403	24,298	21,809	46,107

The quality of housing in Belize cannot be evaluated simply on the basis of the materials from which houses are built or from inspecting the quality of construction or of building maintenance: it is also a function of the basic services available in these houses. When we look at the availability of water, toilet facilities and electricity, the quality of houses in Belize reveals a more serious picture emerges. Table 2.17 shows that urban water supply in residential areas, for example, has been in serious decline: Between 1991 and 2000 the percentage of urban households that had water piped into their dwellings declined from 60 to 41 percent; piping into yards declined from 28 to 13 percent; and the use of water from vats, drums, wells, or bottles increased from 18 to 47 percent. That said, in contrast to deteriorating conditions in urban areas, the share of rural households with piped water increased during this period, from 32 percent to 49 percent.

Table 2.17: Residential Water Source, 1991-2000

Residential Water Source	1991			2,000		
	Urban	Rural	Total	Urban	Rural	Total
Piped into Dwelling						
(number)	9,930	2,002	11,932	10,327	5,221	15,548
Percent	53.7%	17.4%	39.8%	40.8%	23.7%	32.8%
Vat/Drum/Well/Purified Water						
(number)	3,393	7,787	11,180	11,792	11,165	22,957
Percent	18.3%	67.7%	37.3%	46.5%	50.8%	48.5%
Piped into Yard						
(number)	5,168	1,709	6,877	3,216	5,612	8,828
Percent	27.9%	14.9%	22.9%	12.7%	25.5%	18.7%
Other/n.a.	830	7,126	7,956	574	4,038	4,612
Total	19,321	18,624	37,945	25,910	26,036	51,945
Net Total	18,491	11,498	29,989	25,336	21,998	47,333

Residential sewerage networks are also in decline, as shown in table 2.18. Indeed, the share of urban households using indoor water closets increased from 69 to 81 percent between 1991 and 2000, while the share of those using pit latrines declined from 31 to 19 percent during this period. Still, the share of water closets connected to the urban sewer network declined from 38 to 32 percent while the share of those using septic tanks increased from 31 to 49 percent. Needless to say, the use of septic tanks in dense settlements in urban areas is inappropriate: they tend to

pollute the ground water around them. There is no doubt that piped sewerage networks are not catching up with urban expansion, and the same is true of drainage networks in coastal cities. They are inadequate for draining residential areas, especially during tropical storms, and the meager drainage canals that are available are clogged and inadequately maintained.

Table 2.18: Type of Toilet Facilities

Type of Toilet Facilities	1991			2,000		
	Urban	Rural	Total	Urban	Rural	Total
Water Closet	11,263	1,961	13,224	19,992	5,908	25,900
<i>Percent</i>	69.1%	12.0%	40.5%	81.2%	24.5%	53.1%
W.C. Linked to Sewerage System	6,141	0	6,141	7,851	0	7,851
<i>Percent</i>	37.7%	0.0%	18.8%	31.9%	0.0%	16.1%
W.C. linked to Septic Tank	5,122	1,961	7,083	12,141	5,908	18,049
<i>Percent</i>	31.4%	12.0%	21.7%	49.3%	24.5%	37.0%
Pit Latrine	5,041	14,413	19,454	4,614	18,250	22,864
<i>Percent</i>	30.9%	88.0%	59.5%	18.8%	75.5%	46.9%
Ventilated Pit Latrine				2,090	8,277	10,367
<i>Percent</i>				8.5%	34.3%	21.3%
Non-ventilated Pit Latrine				2,524	9,973	12,497
<i>Percent</i>				10.3%	41.3%	25.6%
Other/n.a.	3,017	2,250	5,267	1,303	1,878	3,181
Total	19,321	18,624	37,945	25,909	26,036	51,945
Net Total	16,304	16,374	32,678	24,606	24,158	48,764

According to the censuses of 1991 and 2000, residential areas are well served by electricity and access to electricity is on the increase. As table 2.19 shows, 95 percent of urban households had access to electricity in 1991 and that percentage increased to 97 in 2000. The access of rural households to electricity increased from 41 percent in 1991 to 71 percent in 2000.

Table 2.19: Type of Lighting, 1991 and 2000

Type of Lighting	1991			2,000		
	Urban	Rural	Total	Urban	Rural	Total
Electricity	18,142	7,408	25,550	24,713	17,704	42,417
<i>Percent</i>	95.2%	40.9%	68.7%	97.2%	71.1%	84.3%
Public electricity				24,605	16,418	41,023
<i>Percent</i>				96.8%	65.9%	81.5%
Private Generator				108	1,286	1,394
<i>Percent</i>				0.4%	5.2%	2.8%
Gas or Kerosene	914	10,700	11,614	715	7,212	7,927
<i>Percent</i>	4.8%	59.1%	31.3%	2.8%	28.9%	15.7%
Gas Lamp	56	491	547	143	925	1,068
<i>Percent</i>	0.3%	2.7%	1.5%	0.6%	3.7%	2.1%
Kerosene Lamp	858	10,209	11,067	572	6,287	6,859
<i>Percent</i>	4.5%	56.4%	29.8%	2.2%	25.2%	13.6%
Other/n.a.	264	516	780	481	1,120	1,601
Total	20,235	29,326	49,559	26,625	33,249	59,873
Net Total	19,056	18,108	37,164	25,428	24,916	50,344

To conclude, can we say that the quality of housing in Belize is improving over time? The preliminary answer is that it is quite stagnant. Surely, the use of masonry construction for walls is on the increase, while the use of metal sheet for roofs remains prevalent. Houses are solid and built of good materials and, on the whole, there are very few shanties (the share of squatter homes in both urban and rural areas in Belize was of the order of 0.5 percent). Casual observations do suggest that the quality of construction of typical low-cost masonry homes is mediocre and that maintenance levels are rather low. There are exceptions, of course: The Rosario family (not their real name) bought a Government-provided house on the North side of Belize City in 1989. It was a 3-bedroom prefabricated one-story house imported from Venezuela, 30-by-25-feet in area, on an unfilled plot of 50-by-100 feet. They filled the land over time. They just finished putting in a 13-by-30 feet addition of good quality masonry construction that cost them some BZ\$30,000 (BZ\$77 per square foot), not a high cost by local standards.

Gradual construction, starting with a small structure made of temporary materials and then improving it over time and adding rooms to it, is practiced in Belize, but not on a large scale: Luisa Noble from Northern Belize and her Honduran husband Francisco Guillen bought a plot on the periphery of Belize City in early 2008 for BZ\$10,000. They already paid the landowner BZ\$6,500 and are now paying BZ\$300 a month in installments. In June 2008, they built a new house on their plot, a little 12-by-16 foot box propped on wooden columns with an open kitchen underneath surrounded by a blue plastic sheet. The materials for the house—hardwood, concrete ³/₈-inch-thick sheets of *Plycem* for walls, and zinc sheets on the roof—cost \$4,000BZ and labor, excluding Francisco's, cost an additional \$1,500BZ. That amounts to some \$29BZ (US\$14.5) per square foot for a temporary shelter of mediocre quality. They have plans for a solid house on the plot and they are not moving anywhere. In the meantime, they will double the size of their present abode and make room under the extension for their little car. They sell hotdogs in the city and make \$600BZ in a typical week. Before coming here they rented a 2-bedroom place in the city for \$300BZ per month.

While generalizations based on these casual observations cannot and should not be offered at the present time given the paucity of evidence, it does not appear that there is a developed home-building culture in Belize, that average Belizeans place a high value on investing and working on their homes, or that they place a heavy emphasis in keeping their homes in good order: A mid-level Government official volunteered that he dared not paint his house for fear that his low property tax level would be increased. This suggests that in addition to housing being a relatively low expenditure priority, there may also be regulatory disincentives to investment in house improvements. At the same time, as we shall see later, there are good indications that micro-loans and grants for home improvement are in high demand and that there is an interest in home improvement. There are also indications that gradual construction, starting with a small shack and improving it over time into a fully-fledged house is practiced largely by immigrant families from neighboring countries and to a much lesser extent by local Belizeans.

In addition to the typically mediocre quality of house construction, maintenance, and repair in Belize we must also conclude that residential infrastructure does not appear to be keeping up with demand: piped water and piped sewerage service levels are in decline, and storm drainage is either lacking or inadequate. On the whole, quality improvements to the housing stock in Belize must focus, first and foremost, on improving residential infrastructure; and second on enabling and empowering people to improve the quality of their houses by themselves. House improvements and extensions to reduce overcrowding or to start small home-based businesses can be accelerated through improved tenure, through micro-loans, through small and well-targeted house-improvement subsidies, and through technical assistance where necessary. What

is clear is that housing policy in Belize should respect the quality and the value of the existing housing stock and focus on its improvement, rather than writing it off and calling for its replacement with new construction.

5. Tenure:

What is the share of households in Belize that now own their homes and is this percentage growing? There is no doubt that higher levels of home ownership encourage families to direct their labor and savings towards housing and to keep their homes and neighborhoods in better shape. There is also no doubt that home ownership provides an important financial asset to households, usually their most important asset, and that it increases their financial security and their ability to withstand financial shocks.

Table 2.20 below provides data on the share of households in Belize that owned their homes in 1991 and 2000. Some 57 percent of urban households owned their homes in 1991 and this percentage decreased to 53 percent by 2000. These percentages are not high by regional standards but are very close to the global standard: In Tegucigalpa, for example, homeownership levels amounted to 79 percent; in Panama City to 77 percent; in Guatemala City 61 percent; and in Santo Domingo to 60 percent. The average share of households who owned their homes in Latin America and the Caribbean is of the order of 65 percent and in the world at large it is of the order of 55 percent.[Angel, various reports 2000-2002] The decline in levels of home ownership in the 1990s in both urban and rural areas may be a cause for worry.

Table 2.20: Housing Tenure in Belize, 1991-2000

Type of Ownership/ Tenure	1991			2,000		
	Urban	Rural	Total	Urban	Rural	Total
Own	11,027	14,203	25,230	13,817	18,922	32,739
<i>Percent</i>	<i>57.2%</i>	<i>76.7%</i>	<i>66.8%</i>	<i>53.8%</i>	<i>73.1%</i>	<i>63.5%</i>
Own/Hire Purchase	10,972	14,001	24,973	13,726	18,793	32,519
<i>Percent</i>	<i>56.9%</i>	<i>75.6%</i>	<i>66.1%</i>	<i>53.4%</i>	<i>72.6%</i>	<i>63.0%</i>
Squat	55	202	257	91	129	220
<i>Percent</i>	<i>0.3%</i>	<i>1.1%</i>	<i>0.7%</i>	<i>0.4%</i>	<i>0.5%</i>	<i>0.4%</i>
Rent	8,240	4,309	12,549	11,885	6,958	18,843
<i>Percent</i>	<i>42.8%</i>	<i>23.3%</i>	<i>33.2%</i>	<i>46.2%</i>	<i>26.9%</i>	<i>36.5%</i>
Rent Private	6,516	1,144	7,660	8,389	1,935	10,324
<i>Percent</i>	<i>33.8%</i>	<i>6.2%</i>	<i>20.3%</i>	<i>32.6%</i>	<i>7.5%</i>	<i>20.0%</i>
Rent Government	431	202	633	603	234	837
<i>Percent</i>	<i>2.2%</i>	<i>1.1%</i>	<i>1.7%</i>	<i>2.3%</i>	<i>0.9%</i>	<i>1.6%</i>
Lease	137	253	390	369	960	1,329
<i>Percent</i>	<i>0.7%</i>	<i>1.4%</i>	<i>1.0%</i>	<i>1.4%</i>	<i>3.7%</i>	<i>2.6%</i>
Rent-free	1,156	2,710	3,866	2,524	3,829	6,353
<i>Percent</i>	<i>6.0%</i>	<i>14.6%</i>	<i>10.2%</i>	<i>9.8%</i>	<i>14.8%</i>	<i>12.3%</i>
Other/n.a.	53	112	165	207	156	363
Total	19,321	18,624	37,945	25,909	26,036	51,945
Net Total	19,268	18,512	37,780	25,702	25,880	51,582

As table 2.20 shows, one-third of urban households in Belize rent their accommodations from private landlords and only a meager share, some 2 percent, live in rented public housing. This suggests that there is a thriving private rental market in the cities in Belize, and that housing policy must address this market, and there are indications that there is a strong demand for low-cost rentals in urban areas. This suggests that housing policy in Belize cannot be limited to supporting owner-occupancy in one form or another. It must also address conditions in the rental market, seek to address problems in the rental market, and ensure that it continues to thrive.

Finally, table 1.21 shows that only a meager percentage of households in Belize live in squatter settlements: less than 0.5 percent of households in both urban and rural areas were identified as squatters in the 2000 census. This is extremely low by regional standards: squatters form some 46 percent of all households in Tegucigalpa, 40 percent in Santo Domingo, 29 in Guatemala City, and some 25 percent in cities in Latin America and the Caribbean as a whole. Indeed, squatting does not appear to be a serious problem in Belize, and squatters appear to be easily accommodated.

The *Belama IV* squatter settlement, to take one example, is located at the Northern edge of Belize City. It contains a hundred or more houses of varying quality on large lots. Brenda Canata has been living in a shack she built there for some eight years. She complains that property titles were often promised but are yet to be given. The place floods, she says, even though it is on landfill. There is a new all-weather laterite road by her house, built in May of 2009 by the new Ministry of Work, “Boots” Martinez. There is also a new public water tap at the end of the road built at that time. Rumor has it that local politicians came in and offered citizenship before the last election (February 2008) in exchange for votes. Politicians often do regularize squatter settlements, offering infrastructure services, citizenship, and land titles in exchange for votes. Squatters typically get a lease for the land and pay some \$50BZ per month for five years after which they can buy the land from the Land Department for its assessed value. If they don’t have the money to buy, they can usually continue to lease the land, and sometimes politicians find money for them to buy the land.

Casual observations confirmed by locals suggest that the only people who are squatting and building shanties in Belize are immigrants from nearby countries—El Salvador, Honduras, Nicaragua, or Guatemala—that don’t have much choice and are used to gradual construction back home. “The Belizeans are not brave enough or desperate enough”, says a government official. The small numbers of squatters in Belize suggest that housing policy in Belize must focus on different priorities than those of neighboring countries, where housing policies must attend to a host of issues that arise when a large share of the urban population inhabits squatter settlements.

* * *

This concludes the discussion of the conditions in the housing sector in Belize. The next part of this paper will focus on the response of the Government of Belize to housing conditions in the country through an examination of the status of housing policy.

III. The Housing Policy Environment

An Overview of the Housing Policy Environment in Belize:

The Constitution of Belize, promulgated in 1981, does not recognize the right of Belizeans to a decent home. It has refrained from committing the State to *protecting* the right to housing of all its citizens, or from *guaranteeing* the right to housing through the expenditure of public resources. In fact, the Constitution does not refer to housing at all. That said, the Government of Belize — whether through its various ministries and agencies or through its elected politicians — has long been actively engaged in housing, whether through the allocation of residential land, through the construction and allocation of homes, through the construction and management of rental housing, through the provision of mortgage loans, and through the provision of grants for home improvement.

While it cannot be said that the Government's interventions in the housing sector were guided by housing policies enshrined into law, governing parties have typically come into power with an election platform that outlined their intentions to act decisively to improve housing conditions in the country. For example: The People's United Party (PUP) promised to build 10,000 houses during its 1998-2003 term; in its 2003 election manifesto it committed itself to assist every Belizean family that needs land to build a house, or start a business or a farm, by providing 30,000 lots during 2003-2008 to first-time owners [Development Solutions, 2004, 70]; the United Democratic Party (UDP) that came into power in 2008 promised to build 1,000 houses annually, to give immediate title to house lots for first-time applicants, and to provide mortgage finance at lower mortgage rates "to recreate a home ownership society".

While these can be said to be formal commitments to specific elements of housing policy, there are also elements of housing policy that are not part of election manifestoes or political commitments but are implied by existing laws, by existing practices, and by the existing political culture. For example: There are no official town plans in Belize and residential land subdivision and development proceeds without a well-established set of rules and practices; local politicians, rather than government bureaucrats, can initiate and implement land subdivision and housing projects directly; and land plots and houses provided by public officials are generally considered by recipients to be giveaways with the results that repayment of rents or leases is less than satisfactory and mortgage defaults levels on government-provided houses are very high.

To understand housing policy in Belize, we must therefore examine both its formal and informal elements and both its articulated and implied elements. We must also understand housing policy in a broader context that goes beyond the narrow confines of government housing programs or the official responsibilities of the Ministry of Housing and Urban Development.

The author, in a book titled *Housing Policy Matters: A Global Analysis*, broadens the definition of housing policy as follows:

In the absence of a clear and accepted definition of what constitutes housing policy and who attends to it, we can only speak of the housing policy environment — the set of policies or government interventions that motivate, enable, and constrain housing action. We define the housing policy environment as follows: The *housing policy environment* is the set of government interventions that have a critical and measurable effect on the performance of the housing sector. [Angel, 2000, 11]

To better understand the housing policy environment in Belize and whether present policies and actions on behalf of government officials and elected politicians address the critical problems facing the housing sector in an efficient, equitable, and sustainable manner, we must focus on five critical dimensions of the housing policy environment in the country:

1. The property rights regime;
2. The housing finance regime;
3. Housing subsidies;
4. Residential infrastructure; and
5. The regulatory and institutional regime governing the housing sector.

1. The Property Rights Regime:

One of the key roles that government plays in general — and in the housing sector in particular — is to allocate, adjudicate, register, and manage property rights in land. This is a role that markets cannot play and even the most *laissez-faire* economy relies on government to fulfill this role. How does the Government of Belize manage property rights in land and housing and how does its management of property rights in land and housing affect the performance of the housing sector?

The first, and the most important, aspect of government management of property rights in land in Belize is that some two-thirds of its land is in public ownership. This is quite extraordinary and very different from any other country in the region. While more recent data was not available at the time of writing, in 1991, for example, as table 3.1 below shows, some 63 percent of the land in the country was in public ownership, while 37 percent was in private ownership. There is no question that this allows the government ample room for guiding urban development in general, and housing development in particular, in ways that are not available to other governments.

The second important aspect of government management of property rights in land in Belize is that under the direction of the National Protected Area System (NPAS), some 10,332km² or 45.3 percent of the national territory is protected from development: 8,746km² (38.3 percent) in forest reserves and 1,586km² (7 percent) in marine reserves. In 2000, for example, the system had more than 60 protected areas, including both public and private reserves. The protection of the natural environment in Belize is commendable, and it acts, as well it should, to place limits on development and to guide it away from areas that should be left alone into areas where development is desirable and sustainable. As we shall see later, however, the system has its limitations: for example, it has failed to protect the mangrove forests along the coast where beach development for houses and resorts is at a high premium, even though it is quite clear that mangroves protect the coast during storm surges and limit flood damage.

Table 3.1: Public vs. Private Land Ownership, 1991

Land Ownership	Area (Hectares)	Area (Km ²)	Percent of Total
Public Land	1,445,942	14,459	63
Forest Reserves	619,169	6,192	27
National Parks and Reserves	252,524	2,525	11
Leased Land	229,457	2,295	10
National Land (Unused)	344,792	3,448	15
Private Land	849,435	8,494	37
Private Reserves	91,864	919	4
Private Holdings	757,571	7,576	33
Total Land Area	2,295,377	22,954	100

Source: Smith (1992) reproduced in López and Scoseria (1996, 298)

The third important aspect of the property regime in Belize is that the *National Lands Act* of 1992 allows the grant, lease, and sale of public lands to citizens and permanent residents, be they individuals, firms, or other entities: The minister responsible for lands “may grant leases of national lands on such terms and conditions as he thinks fit” (Article 7); “National lands may be sold at such prices and on such terms and conditions as to improvements and otherwise as the Minister may prescribe on the advice of the Advisory Committee” (Article 13.1); “Except in special cases approved by the Minister, national lands will be disposed of only by way of grants” (*National Land Rules*, Part I, Art. 2); and “[t]own lots and the leases thereof will be disposed of at public auction by the Commissioner of Lands and Surveys or by an officer acting under his direction at an upset price to be fixed by the Minister” (*National Land Rules*, Part I, Art. 24).

As table 3.1 shows, *leased* public land formed 10 percent of the total land area of Belize and 16 percent of all public lands. There is little doubt that these percentages have increased in the 18 years since 1991. In 1992, for example, “almost 34,000 acres of new public lands were leased to the private sector, and 13,000 acres were sold [López and Scoseria, 298]. If we take 1992 as an average year, we can estimate that leased public lands are now double their 1991 value, comprising 20 percent of the total land area of the country; that private land may now comprise 41 percent of total land area; and that public lands now comprise only 59 percent of land area. Moreover, these increases in leased and private lands are roughly equivalent to the total amount of national unused land in table 3.1. It stands to reason that, since much unused national land is inaccessible, new leased and sold lands are now encroaching on protected reserves.

It is of paramount importance, therefore, to focus on the remaining public lands in and around cities and towns, where their proper planning and allocation may determine the future of these settlements. We can now estimate how much land will be needed to the expansion of these settlements, and it is of critical importance that this land be used in an efficient, equitable, and sustainable manner. In fact, since urban settlements are much denser than rural ones, it stands to reason that, where necessary, national reserves be dereserved to enable proper urban expansion. Such deservation, where appropriate, will indeed protect other reserves in the rest of the country from encroachment by concentrating the population in urban settlements. The minister in charge of lands is indeed allowed by law to reserve and dereserve public lands: “All reserves shall be notified in three successive issues of the *Gazette*... All dereservations of reserves shall be notified in three consecutive issues of the *Gazette*...” [*National Lands Act*, Art. 6]

The fourth important aspect of the property rights regime in Belize is that the law of the land is quite tolerant towards the illegal occupation of public lands by squatters, and that there are

established procedures for the regulation of land in squatter occupation. The *Land Adjudication Act* determines that

[A] person is deemed to be in possession of land if he does not acknowledge the title of any other person to that land and by himself, his agent, tenant or servant, actually uses or has used the land to the exclusion of the public [Art. 16.2(a)]; and

[A] person is in open, peaceful and adverse possession of a parcel (other than the foreshore) and has been in such possession by himself or by his predecessors in title for an uninterrupted period of twelve years or more without the permission of any person lawfully entitled to such possession, he shall record that person as the owner of the parcel and declare his title to be provisional [Art. 16.1(a)].

The *National Lands Act* provides minimal penalties for illegal possession of national lands:

Every person who is found in the unlawful occupation of national lands is guilty of an offense and is liable to a fine not exceeding five hundred dollars [Art. 31.1]

Every person who, having been convicted under section 31(1) persists in the unlawful occupation of any national lands, shall be liable to a fine not exceeding one thousand dollars [Art 32]

The *Act* allows for the possibility that the illegal occupier of national land purchase that land, and nowhere in the act is there a mention of the possibility that illegal occupiers will be forcibly evicted from the land.

In conclusion, the property rights regime in Belize can indeed facilitate the formulation and execution of effective housing policy in the years to come. The land resources in the country are ample and the country is sparsely populated. The main problem is that national land resources are being distributed (and sometimes squandered) in an *ad hoc* manner, with no overall plan, without reference to market prices in land, and — most important — without proper transparency and without guaranteed public access to an organized set of public records. This makes the use of public lands for housing and urban development less that efficient, less than equitable, and less than sustainable. There is no question that an effective housing policy must be developed hand-in-hand with an open, transparent, and well-managed set of procedures for the planning, administration, and allocation of public lands.

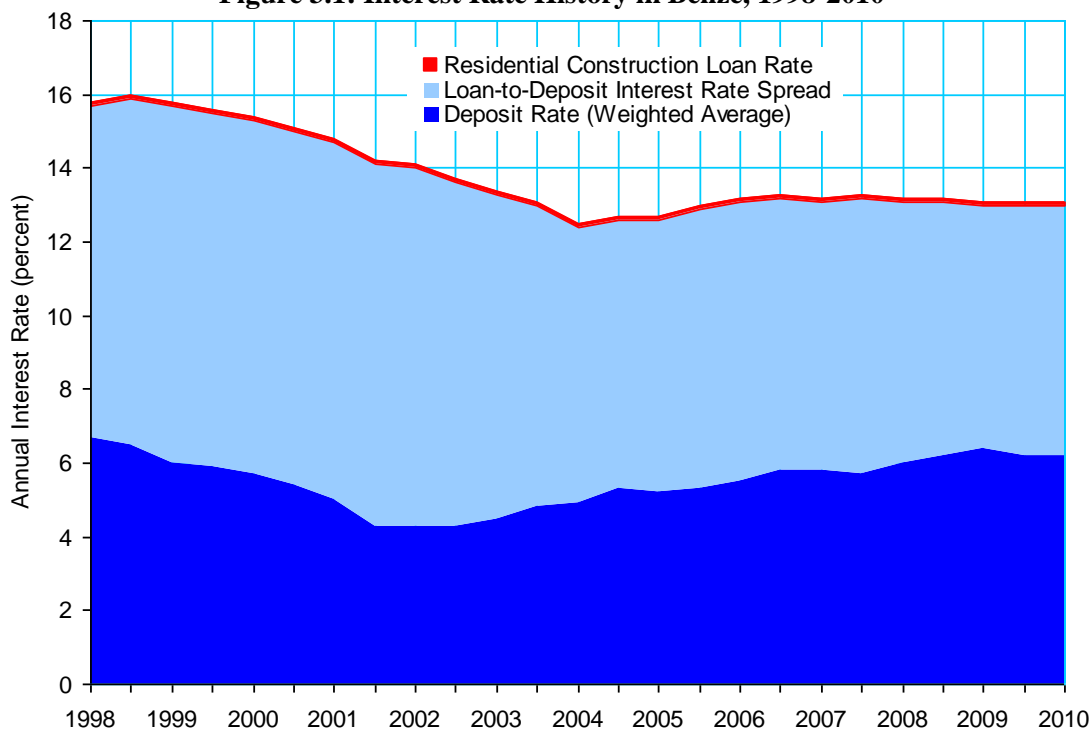
2. The Housing Finance Regime:

Government fiscal policy in Belize and the pegging of the Belize dollar to the U.S. dollar have both kept rates of inflation low. In parallel, good financial policy and especially the good oversight of the financial sector by the Central Bank of Belize in the midst of global financial turmoil have kept commercial banks and credit unions in Belize in a healthy state, allowing them to grow, to expand credit, to remain profitable, and to maintain very low shares of non-performing loans. In both these senses, the housing finance regime in Belize appears to have created the necessary conditions for efficient, equitable and sustainable expansion of mortgage lending by the banking sector. Unfortunately, as we shall see below, the government's own forays into residential mortgage lending have been unmitigated disasters: inefficient, inequitable and certainly not sustainable. We examine these issues in greater detail below.

As table 1.7 showed, inflation in the 2009-2014 period is now expected to remain below 3 percent per annum. This bodes well for the future of mortgage lending. The low rates of inflation have kept mortgage interests low and affordable, as figure 3.1 below shows.⁶ Average mortgage loan fixed-interest rates have remained of the order of 13 percent per annum for some years now, a relatively low rate by regional standards. The overall financial health, stability, and efficiency of the Belize banking sector have also made it possible for the loan-to-deposit spreads in residential lending to remain low as well, contributing to the affordability of residential mortgage loans. These spreads have remained in the range of 7 percent per annum, also a low range by regional standards. The weighted average deposit range in commercial banks in Belize is now of the order of 6 percent per annum, well above the inflation rate. This suggests that deposits remain an attractive form of savings and that they can continue to provide the funds necessary to expand mortgage lending.

The Scotia Bank in Belize City, for example, has a well-developed mortgage lending instrument, usually requiring a 25% down payment but lately decreasing it to 10% with mortgage insurance. The minimum monthly household income required to receive a mortgage loan is BZ\$1,000, which suggests that mortgages are accessible to households in the lowest-income decile of the urban income distribution, but only to median-income rural households (see figure 1.6). This in turn suggests that mortgage lending in Belize is popular and accessible to all urban income groups, rather than restricted to the top fringes of the urban income distribution.

Figure 3.1: Interest Rate History in Belize, 1998-2010



Source: Central Bank of Belize, 2008 Annual Report, 22, 128; and Central Bank of Belize, *Statistical Digest 2007*, table 19, 117-119.

⁶ Unfortunately, the data available from the Central Bank of Belize does not distinguish long-term mortgage loans to households from construction loans to builders and developers. Discussions with commercial bank officials confirm that present mortgage rates are of the order of 13-15 percent per annum.

Not surprisingly, lending policies in commercial banks in Belize have become stricter since the global financial crisis erupted in 2008. In the Scotia Bank, for example, there is a ceiling of a 35% loan-to-income ratio for self-employed income earners and 40% for salaried employees. The current interest rate for loans is 14% for 25 years with 11% promotional rates now on offer. Interest rates are fixed for three years and then adjustable for the next three years. Minimum payment is \$100BZ per month. The maximum loan offered is \$1BZ million, but the average range of loans is \$50-100,000BZ. The number of loans in the bank's portfolio is of the order of 500-1,200. Mortgage loans at the Scotia Bank form some 20% of all bank assets. A bank official estimated that the mortgage portfolio of all commercial banks taken together has some 3-4,000 loans, excluding home equity and home improvement loans. If residential mortgages formed an average of 20 percent of all assets in the commercial banking system, they would have amounted to some BZ\$400 million in 2008, suggesting that the average loan size could be of the order of BZ\$100,000-120,000.

The Scotia Bank in Belize City also issues home improvement loans that are typically of the order of \$25-50,000BZ. The bank has issued some 100-200 such loans, also at a 14% annual rate of interest. The bank also lends for the purchase of residential plots and requires a 30% down payment on such loans. The interest rate on land loans is 15% per annum for 10 years and the bank has issued less than 100 such loans, typically at more than \$25,000BZ per loan. It was not possible to ascertain what percentage of housing loans are delinquent, but the entire portfolio of Scotia Bank in Belize has only 3% delinquent loans, the lowest among all commercial banks.

The low levels of delinquency are surprising considering that Belize does not have a foreclosure law. Banks cannot foreclosure on delinquent mortgages and only have 'power of sale': The Bank can put a house with a delinquent mortgage on public auction and accept the highest offer. The buyers become the new owners and it is up to them to get the former owner to leave. This is not a very efficient way to dispose of housing properties repossessed by the banks in the market: If the property is not vacant before the auction, its value will be lower than its full market value because it is occupied. If it is vacant (and vandalized) its value will also be below its full market value. Still, commercial banks prefer 'power of sale' to foreclosure because they never become owners of foreclosed properties. They would prefer a private sale to an auction, but private sales are not allowed. The Scotia Bank in Belize City has a collections unit that is vigilant and detects problems early. It has a special assistance program for people in real need and can provide assistance for as long as one to two years if necessary, including a one-to-three month moratorium on mortgage payments.

Belize has almost a dozen active credit unions that also provide residential mortgage loans as well as micro loans for house improvements. In December of 2003, for example, the 11 credit unions operating in Belize had 68,509 members, 28 percent of the population of the country at that time and 120 percent of its number of households. The Civil Service Credit Union is one such credit union. It has some 2,000 members. The institution is 63 years old and has only three full-time employees. It gives both mortgage loans and home improvement loans. Repayment is deducted from salary checks. Home improvement loans are given in stages with checks on progress. \$40-100,000BZ mortgage loans are being given now, only to bona fide members, at 1% monthly interest on remaining balance for 15 years. Most mortgages are used for house construction on previously owned land. The mortgage loan portfolio is approximately \$2BZ million for about 40 loans with an average of BZ\$50,000 per loan. Three of these loans are in arrears with legal action in process, but no one has ever been evicted.

The home improvement portfolio of the credit union has a value of about \$500,000BZ for some 100 loans, averaging BZ\$5,000 per loan. Lending is at \$55BZ per month for every \$1,000BZ

borrowed. This implies an annual interest rate of 28 percent, a high rate of interest, but not atypical for micro loans. That said, credit union officials did not seem to be aware that they are charging such a high interest rate on micro loans. The total portfolio of the Civil Service Credit Union is \$6BZ million, so about 40 percent of it is dedicated to housing, twice the percentage estimated for commercial banks by Scotia Bank officials. In 2002-2003, for example, credit unions had a housing portfolio with a total value of BZ\$34.3 million. The most active credit union in the housing sector was the Holy Redeemer Credit Union that had 249 house construction loans and 3,044 home improvement loans on its books, with a total value of BZ\$22.3 million.[Development Solutions Ltd., 2004, table VII, 52] The Civil Service Credit Union, like other credit unions in Belize, is interested in expanding its housing portfolio. It currently has a waiting list for mortgage loans totaling some \$2BZ million. The credit union has borrowed from the Social Security Board in the past and is in the process of applying for another loan from the Social Security Board to expand its housing loan portfolio.

To conclude, both commercial banks and credit unions in Belize are lending actively for housing. Their operations are efficient, equitable, and sustainable. Can the same be said for lending for housing by the public sector? The short answer is no.

Public, as opposed to commercial, housing finance in Belize — mostly in the form of mortgage loans, hire-purchase housing loans, and home improvement loans — has been provided through two main channels: the Housing and Planning Department (HPD) of the Ministry of Housing and Urban Development; and the Development Finance Corporation (DFC).

The Housing and Planning Department is the executive arm of the Ministry of Housing and Urban Development. Its responsibilities in the realm of housing finance include the construction of houses, the issuing of mortgage and home improvement loans, and the collection of mortgage or hire-purchase payments. The operating budget of the department is used mainly for paying its staff, while a small share of its budget is used to maintain public apartments under its auspices. Its capital budget relies on grants from external sources. In the 2000-2004 period, for example, 94 percent of its capital budget (BZ\$ 22.8 million of a total of BZ\$24 million) was in the form of a grant from the government of the Republic of China (Taiwan).

According to its director⁷, the public housing portfolio of the Department is, more or less, in shambles. The portfolio is composed of rental apartments, mobile homes, hire-purchase houses, mortgages on complete houses, and home improvement loans.

There are some 150 rental apartments constructed by the Housing and Planning Department in Belize City, 5-16 years old. These are 2-bedroom apartments with some 500 square feet in living area. Occupants are supposed to pay \$50BZ per month but only 10% are paying. They cannot be evicted because of the expected political fallout: “Most of them can afford to pay,” says the director, “they just don’t want to pay”. The Department performs emergency repairs on these buildings and only 3 units are really dilapidated. It responds to calls for repairs by those that pay rents and ignores others. There is a meager annual budget of \$70,000BZ for repairs.

There are some 244 mobile homes that were sold on a hire-purchase basis to people with plots of land. People bought then on an installment plan for \$16,724BZ in 1989 and only 5% are making their agreed-upon payments of \$125BZ per month. More than half of these mobile homes are dilapidated beyond repair and only about 100 are well maintained. There are some 125 hire-purchase houses on the Department’s books that were originally built for \$20-24,000BZ. Some

⁷ Mr. Noel Harvey, Housing and Planning Officer, Housing and Planning Department, interviewed on 22 June 2009.

of the houses were built for \$12,000BZ in 1978 to be paid for in \$60BZ monthly payments. Only some 30% of beneficiaries are making monthly payments. The Department also collects mortgage payments on some 1,200 homes that it did not build: The Development Finance Corporation transferred 365 loans for social housing to the Department for collection, of which 80% are non-performing. The Social Security Board recently transferred some 767 'Government of Belize mortgages' to the Department, of which 548 (71%) are non-performing, after initially requesting the cabinet to write them off.⁸ Finally, the Department collects payments for some 5,000 home improvement loans that are several years old. And in a period of several weeks just before the last election—from November 2007 to January 2008—the PUP government issued some 6,000 new home improvement loans for which the Department is now responsible. Home improvement loans vary in size between \$1,200BZ and \$8,000BZ and average \$6,500BZ, and some 80 percent of these loans are non-performing.

All in all, 80 percent of those who do pay back their loans regularly without default are public servants or employees of quasi-government statutory authorities: they really have no choice but to pay because the loan repayments deducted from their salaries. The Department has employed a private collection agency to collect on the older 5,000 home improvement loans, with a 20% commission. Newspapers are full of ads offering houses with non-performing loans for sale. "The people who get the houses can't afford the houses and the people who can afford the houses don't want them because they're too small", says the director.

Many reasons have been cited for the high state of arrears of the public mortgage portfolio [Development Solutions, 48]: (1) politicians tell families or at the very least imply that the homes they received were gifts, even though they signed loan agreements with the Department; (2) politicians direct that arrears notices not be sent or not be followed up; (3) plots are not properly registered as collateral for mortgage loans, and home recipients are often able to register the titles in their own names with the Ministry of Natural Resources and the Environment despite being in arrears (some have been known to use their plots as collateral for other loans); (4) loan agreements are weak and incomplete and there is no foreclosure law; and (5) mortgage payments are collected with a passive collection system that does not actively pursue regular payment.

For all intents and purposes, housing loans that are not repaid can be considered as unintended housing grants or housing subsidies, and we shall treat them as such in the following section on housing subsidies. Still, it is important to make a clear distinction between housing loans and housing subsidies: housing loans are meant to be repaid and not to be given away. Housing loans are neutral with respect to the government capital and operating budgets; giveaways are not, they require deductions from the government's budget. And if the government borrows funds, whether domestically or abroad, it expects to use the monthly payments to repay its loans; otherwise it needs to repay its obligations from other sources. In short, any government that engages in mortgage lending in the hope that it can recoup its loans from beneficiaries exposes itself to a high level of risk. For the Belize government to continue to issue mortgage loans in the present climate is unconscionable.

There are other problems with government involvement in the direct issuance of mortgages. First, it typically commits itself to issuing mortgage at below-market rates. This means that it cannot rely on a continued stream of deposits to finance its loans, and that essentially means that sooner or later it runs out of money. Second, and related to the first, it typically issues loans in fits and starts, depending on the political agenda of the government and on the availability of funds,

⁸ Government of Belize, 2009. "Cabinet Confidential Memorandum No. 129 of 2009: Non-Performing Government of Belize Mortgages Managed by the Belize Social Security Board".

usually from abroad, that can be lend out. This essentially means that it enters the mortgage market abruptly and exists abruptly. Third, and related to the second, mortgage loans are typically given in a hurry, to meet some government-imposed deadline. This essentially means that mortgage loans or home improvement loans are given without studying the market to determine what type of housing is needed by whom, without due diligence in ascertaining whether recipients have the resources to pay them back, nor whether the recipients are truly deserving of the loans (e.g. if they already have a house or if their incomes are too high to qualify for a loan). Fourth, and related to all of the previous three, the sudden entry of government agencies into the mortgage market makes it difficult for such agencies to be efficient and effective: knowledge of the residential mortgage market requires experienced staff, suppliers, and supporting services. Finally, government employees administering mortgage programs are not subject to a set of incentives that would keep the operation efficient and profitable.

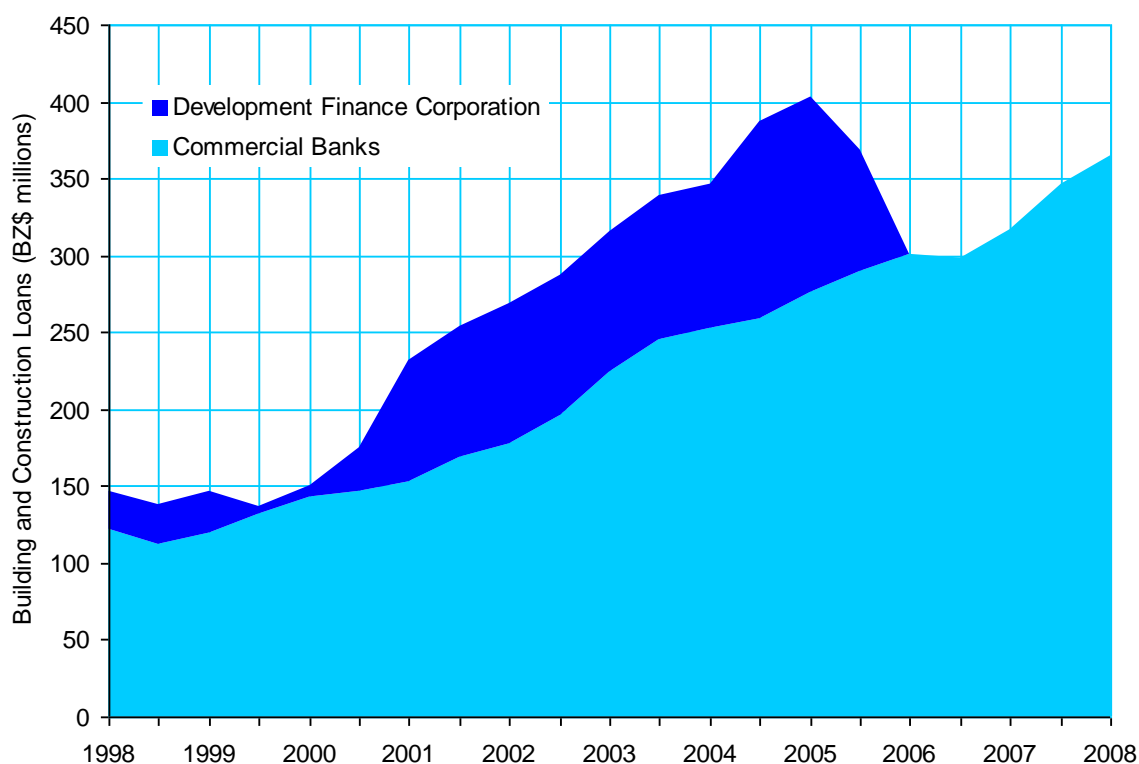
Unfortunately, the high-octane entrance of the Development Finance Corporation (DFC) into the residential construction market after the election victory of the People's United Party (PUP) in 1998 – to make good the promise of the party to build 10,000 new housing units during its 1998-2003 term of office – was beset by all of the problems outlined above. Before 1998, the DFC provided mortgage financing to individual families that built their own homes or to construction financing to developers of housing estates. The average value of its building and construction portfolio between 1978 and 2000 was BZ\$11.6±1.5 million and it reached a maximum of BZ\$27 million in June 2000. In late 2000, it began to expand its portfolio in leaps and bounds, as shown in figure 3.2 below by borrowing money abroad. Its role became one of a speculative developer, financing and building housing for sale in the open market, in addition to providing construction finance to developers and mortgage finance to buyers.

The portfolio of the DFC more than tripled, from BZ\$ 96.4 million to BZ\$ 328 million, between June 2000 and its peak in August 2004, shortly before it had to suspend its lending operations when it ran out of funds. Towards the end of its operations, it found itself giving mortgage loans at 12% and sometimes at 8.5% (to low-income borrowers) and borrowing funds at 11%, quickly exhausting itself.⁹ As table 3.2 below shows, the DFC loan portfolio peaked in December 2004, when it included 4,257 loans for a total value of BZ\$126 million. It never reached the PUP government's goal of constructing 10,000 houses during its 10-year tenure, 1998-2008.

During this period, the DFC, with sovereign government guarantees, managed to issue some BZ\$20-30 million in mortgage-backed securities in international capital markets through the Royal Merchant Bank of Trinidad and Tobago. As we noted earlier, the provision of sovereign guarantees to the DFC has worsened the government's fiscal position, weakened its credit worthiness, and saddled it with a substantial debt that was less than transparent, not being part of its current budget nor of its capital budget. As we saw earlier, much of the DFC mortgage portfolio is now in arrears. There were calls to close it down but it could not be done because of the need to repay international creditors regularly for the securitized loans, so the DFC became a collection agency. During the last few years it had reduced its loan portfolio, as table 3.1 shows, but it was not possible to determine precisely what percentage of the remaining loans are currently non-performing.

⁹ Interview with Renan Gongora, Loan Collections Manager, Development Finance Corporation, 18 June 2009.

Figure 3.2: The volume of building and construction loans in Belize, 1998-2008



Source: Central Bank of Belize, 2008 Annual Report, table A14; and Central Bank of Belize, *Statistical Digest -2007*, table 19, 117-119.

Table 3.2: Number, Value and Size of DFC Mortgage Loans at End of Year, 2003-2008

Year	No. of Loans	Value of Loans (BZ\$ millions)	Average Loan Size
2003	3,665	111.3	30,368
2004	4,257	126.0	29,598
2005	3,681	118.9	32,301
2006	3,242	93.4	28,809
2007	-	-	-
2008	2,360	62.8	26,610

Source: Information obtained from Renan Gongora, Loan Collections Manager, Development Finance Corporation, 6 July 2009 by Anthony Andrews.

In parallel, and without much ado, the volume of building and construction loans in commercial banks has increased steadily, as figure 3.2 clearly demonstrates. In fact, it tripled between 1998 and 2008. This increase did not weaken the commercial banks, it strengthened them, and they are now posed for increasing and consolidating their involvement in the housing sector.

It stands to reason that the Government of Belize should withdraw from lending for residential construction, for mortgages, or for home improvements. It should focus on getting rid of its loan portfolio, disposing of it in as efficient and timely manner as possible. And in the future, it should rely on commercial banks and credit unions to issue and administer housing loans, something that

they are qualified to do and that they have done efficiently, equitably, and in a sustainable manner for many years.

Unfortunately, this does not seem to be the position of the present government. In his budget speech of March 2009, Prime Minister Dean Barrow [Barrow, 2009, 28] declared:

Perhaps more than anything else the DFC was emblematic of all that went so horribly wrong under the PUP. This was our only development institution, with a long history of serving small people – the students, the single mothers, the small farmers, the young entrepreneurs. But its noble mission and proud record was completely upended when it was made into a corrupt vehicle for funneling huge, uncollateralized loans to government cronies. Its bankruptcy thereby became inevitable leaving this huge void for the small and the poor. We swore to revive the DFC. And despite the skepticism as a consequence of the epic scale of the PUP betrayal, we convinced the Caribbean Development Bank to help. I am happy to report the approval of the initial 20 million dollar loan to government for the DFC. Once again the phoenix is free to fly. Surely this is tangible, tactile proof of the difference between the two administrations. It is a monument to UDP rescue and resolve.

A share of the new DFC funds, BZ\$5 million, was promised for housing. Lending for housing will be under new rules¹⁰: a maximum of 35% loan-to-income ratio and a minimum 10% down payment. The money was borrowed at 6% from CDB (not different from current deposit rates at commercial banks) and will be on lent at 14% (the same rate, or slightly higher, than the rates at commercial banks). The focus will be on first-time home buyers with annual household incomes ranging from \$9,600BZ to \$75,000BZ, i.e. households with incomes along the entire urban income distribution except the bottom and top deciles. Loans not less than \$6,000BZ will be issued for home improvements, again not different from those issued by commercial banks and credit unions. What will be the advantage of borrowing from the DFC rather than from a commercial bank? The DFC will have its own valuation and legal departments, and borrowers would save on closing costs. What will save the DFC from another fiasco, like the last one? Most of its board members now come from the private sector, and that will ensure that it is more business oriented. In the light of the painful lessons of the last decade, these answers are hardly reassuring.

3. Housing subsidies:

Understanding the housing subsidies regime sheds light on the housing priorities of the government as they manifest themselves in its fiscal policy. For some, housing subsidies are the most important pillar of housing policy insofar as they reveal to what extent government “puts its money where its mouth is” when it comes to expending resources on its housing priorities. Indeed, the government budget in and of itself is both an explicit and an implicit plan for addressing housing problems in the country.

The approved budget estimates of the Government of Belize for fiscal year 2009/2010, presented by Prime Minister Barrow in March of 2009, and its implications for housing policy, are summarized in table 3.3 below. Several numbers in the table merit consideration. Consider the

¹⁰ Interview with Mr. Renan Gongora, Loan Collections Officer at the Development Finance Corporation (DFC), 18 June 2009.

structure of revenues: First, revenues are estimated to be BZ\$807 millions or 27 percent of GDP, which is close to the regional average for Latin America and the Caribbean. Second, property taxes, one of the most common taxes for raising funds for residential infrastructure and services, amounts to less than one percent of government revenues. Third, income from leases of national lands amounts to BZ\$1.5 million (0.19 percent of total revenue), suggesting that the leasing rates are much lower than market rates, and that revenue collection from leases is less than satisfactory. Fourth, rents of government buildings, which presumably includes rents of hire/purchase public housing, amounts to BZ\$140,000 (0.02 percent of total revenue), also suggesting that rents are much lower than market rates and that rent collection is less than satisfactory. Fifth, income from the sale of national lands amounts to BZ\$3.6 million (0.45 percent of total revenue), suggesting that national lands are sold below market prices. In short, even though land and landed property are the major forms of wealth and the most valuable assets that the country and its citizens have, government income from those assets is meager and unsatisfactory. In an important sense, national land is being squandered instead of being treated as an important national resource.

Consider the structure of government expenditures in table 3.2: First, the approved expenditure estimates exceed revenues by some 6.5 percent, suggested that government expenditures cannot be expected to increase in the near future, and that the housing sector cannot expect a major injection of government funds. Second, the recurrent annual expenditures of the Ministry of Housing and Urban Development amount to 0.26 percent of total expenditures, or 0.32 percent of government recurrent expenditures. This suggests that the Ministry is very small and that its scope of work is rather limited. The ministry has only 22 permanent ('established') staff and some 50 temporary staff, and its staff includes one engineer, but does not include any town planners, architects, urban economists, or urban geographers. Third, the approved capital budget of the Ministry of Housing and Urban Development amounts to BZ\$13.8 million (8.4 percent of the total capital budget). In terms of capital expenditures, therefore, the housing sector is clearly an important priority for the government. As we shall see later, even though capital expenditures on housing are listed as domestic capital, they are strictly dependent on foreign grants. Most of the Ministry's capital budget in the present budget year is for home building and home improvement, to be financed by a grant from the Government of Venezuela.

Table 3.2: Approved Estimates of Central Government Recurrent and Capital Budgets for the Fiscal Year 2009/2010

Budget Category	Approved Estimates	Percent of Total Rev. or Exp.	Percent of GDP
Total Revenues and Grants	807,329,745	100.00	26.60
<i>Recurrent Revenue</i>	<i>751,270,517</i>	<i>93.06</i>	<i>24.75</i>
Taxes on Property	7,706,381	0.95	0.25
Leases of National Lands	1,500,000	0.19	0.05
Rents on Government Buildings	140,000	0.02	0.00
Other Recurrent Revenue	741,924,136	91.90	24.45
<i>Capital Revenue</i>	<i>7,120,451</i>	<i>0.88</i>	<i>0.23</i>
Sale of National Lands	3,600,000	0.45	0.12
Other Capital Revenue	3,520,451	0.44	0.12
<i>Grants</i>	<i>50,459,228</i>	<i>6.25</i>	<i>1.66</i>
Total Expenditures	859,676,761	100.00	28.33
<i>Recurrent Expenditure</i>	<i>689,760,217</i>	<i>80.23</i>	<i>22.73</i>
Ministry of Housing & Urban Develop.	2,232,640	0.26	0.07
Other Recurrent Expenditure	687,527,577	79.98	22.65
<i>Domestic Capital Expenditure</i>	<i>63,379,230</i>	<i>7.37</i>	<i>2.09</i>
Ministry of Housing & Urban Develop.	13,775,000	1.60	0.45
Home Improvement	13,200,000	1.54	0.43
Hurricane Shelters	500,000	0.06	0.02
Other	75,000	0.01	0.00
Urban Roads, Bridges & Drains (MW)	2,000,000	0.23	0.07
<i>Foreign Capital Expenditure</i>	<i>100,078,228</i>	<i>11.64</i>	<i>3.30</i>
Ministry of Housing & Urban Develop.	0	0.00	0.00
Land Titling Project (MNRE)	1,000,000	0.12	0.03
Solid Waste Management (MNRE)	9,900,000	1.15	0.33
Urban Roads, Bridges & Drains (MW)	17,900,000	2.08	0.59
Other	71,278,228	8.29	2.35
<i>Capital Transfer and Net Lending</i>	<i>3,206,266</i>	<i>0.37</i>	<i>0.11</i>
Overall Surplus/Deficit	-52,347,016	-6.48	-1.72
Gross Domestic Product (GDP)	3,035,000,000	-----	100.00

Source: Calculated from information in Barrow, Dean, 2009. "Overcoming the Challenges and Pursuing the Opportunities": Budget Presentation for Fiscal Year 2009/2010".

Finally, there are several capital projects in other ministries that have a direct bearing on the housing sector: (1) a BZ\$1 million project in the Ministry of Natural Resources and Environment focused on providing land titles to homeowners in urban and rural areas; (2) a BZ\$9.9 million project in the same ministry focused on urban solid waste management; and (3) a budget of BZ\$17.9 million in the Ministry of Works focused on roads, bridge and drains in urban areas, most of them in residential areas, and some in the poor residential areas of the Southside of Belize City. These titling and urban infrastructure projects in other ministries comprise 17.6 percent of the total capital budget. We must conclude therefore that as much as 26 percent of the capital budget of the Government of Belize is dedicated to investments in the housing sector, a significant share by all counts.

The government budget sheds light on on-the-books subsidies that involve the housing sector. But these subsidies are not always the only or the most important housing subsidies in the country. In

Belize, there are three types of off-the-books housing subsidies that are often larger and more important than on-the-books subsidies: (1) allocations of national land for residential use at below-market prices; (2) failure to collect mortgage payments that effectively transforms loans into grants; and (3) risky government guarantees for securitized mortgage loans. Then there are additional housing subsidies that do not appear on typical annual government budgets like the present one, the subsidies required for reconstructing houses and residential infrastructure in the wake of hurricanes and tropical storms. The funds for these subsidies typically come from emergency budget allocations or from the emergency funds of international donors.

There are no organized records of the allocation of national land for residential use in urban and rural areas, but in 2003, for example, the Ministry of Natural Resources and the Environment allocated a total of 2,039 plots in urban areas and 3,521 lots in rural areas [Development Solutions Ltd., 2004, 69]. These are surprisingly large numbers, and if correct they exceeded the total average annual demand for new residential lots in that year. Still, it is clear that most of the lands on the periphery of cities and towns in Belize that are needed for urban expansion are already privately owned. There are two important exceptions: Some land in the expansion area of Belmopan is owned by the Reconstruction and Development Corporation (Recondev); and most land in the expansion area of Belize City is designated as a reserve: The Bordon Canal Nature Reserve. Because of the general unavailability of national land on the peripheries of cities and towns, many urban residential subdivisions sponsored by the government or by local politicians required buying land in the open market. Unfortunately, in the absence of expansion plans for cities and towns, plans that are based on precise land ownership maps, it is not possible to determine the availability of national lands for urban expansion in general, and for housing the poor in particular, at the present time.

We have noted the high levels of mortgage default in the previous section. Simple arithmetic would confirm that the implicit failure-to-repay subsidies given to homeowners, to people who improve their homes, and to people who rent public housing, far exceed the on-the-books housing subsidies discussed earlier. We have also noted earlier that the Government of Belize guaranteed the securitization of mortgages by the Development Finance Corporation (DFC), incurring serious losses in the process, losses that were not recorded in either its recurrent or capital budgets. These losses, needless to say, were also a form of housing subsidy.

It is difficult to calculate the amount of housing subsidies given out in the wake of hurricanes and tropical storms. Housing reconstruction and infrastructure repair after storms are slow to materialize and typically extend many years into the future. In a real sense, after an initial surge in emergency reconstruction, rebuilding becomes part and parcel of the regular annual quotas of homebuilding and repair. Moreover, since emergency reconstruction is done under severe time pressure, it is often unplanned and wasteful.

Finally, it is important to note here that practically all the capital investments in the housing sector are financed by foreign funds: home improvements by a grant from Venezuela; titling by a loan from Petrocaribe (a Caribbean oil alliance with Venezuela); solid waste management by a loan from the Inter-American Development Bank (IDB) and a loan from the OPEC Fund for International Development (OFID); and urban roads, bridges and drains from an OPEC loan, a Caribbean Community (Caricom) grant, and a Caribbean Development Bank (CDB) loan. This suggests that international donors have an important say when it comes to government investments in the housing sector, and that their own priorities and their own understanding of Belize's priorities have to be taken into account when grants and loans for investments in the sector are negotiated. Surely, the Government of Belize has the final say when it negotiates for

loans and grants with bilateral and multilateral donors, but it is usually limited in its choices to what these donors are willing to finance.

The dependence of government housing subsidies on foreign funding, the lack of transparency of such subsidies, and their allocation in the absence of either policy or principle become clearly manifest when we focus on the recent scandal surrounding the Venezuelan grant. The facts of the case are difficult to discern and much of it remains undocumented and shrouded in confusion. On the 28th of December 2007, the Government of Venezuela, through its Economic and Social Development Bank (Banco de Desarrollo Económico y Social, or Banded), signed a Non-Reimbursable Economic Assistance Agreement with the Government of Belize for US\$20 million (BZ\$40 million) to be used as follows; US\$19 million for the construction and rehabilitation of houses for low-income families and US\$1 million for the rehabilitation of a sports complex [Coward 2008].

Said Musa, the Prime Minister at the time, informed the people of Belize that a US\$10 million grant, not a US\$20 million grant, was received from Venezuela, failing to disclose the receipt of the remaining \$10 million. That remaining US\$10 million was deposited at the Belize Bank, the largest commercial bank in the country, to make good on a government guarantee signed by him in 2004 to secure a loan given to United Health Services (UHS), a private venture that planned to construct a hospital complex in Belize and later failed.

The disclosed US\$10 million (BZ\$20 million) Venezuelan grant was disposed of in a frenzy of spending on home improvement loans by politicians in the Prime Minister's People's United Party (PUP) in the remaining days before the February 2008 election, which it lost to the opposition, the United Democratic Party (UDP) under the leadership of Dean Barrow. Significantly, these funds were not funneled through the Ministry of Housing and Urban Development, and they do not appear on the revised estimates of its 2008/2009 budget. It appears that they were allocated to local politicians for direct distribution to voters in their districts in advance of the election. In his budget speech in 2009, Prime Minister Barrow estimated that "some \$18 million was spent in the six weeks immediately before the election, and without the approval of the National Assembly as required by the Finance and Audit (Reform) Act"[Barrow, quoted in Ysaguirre, 2008]

According to the director of the Housing and Planning Department, it is possible that some 6,000 households benefited from these allocations, and that they averaged BZ\$3,000. They were given as 'loans', but the agreements on these loans are unclear; whether houses were given as collateral is also unclear, and proper documentation is lacking. The Department is now charged with collecting the payments on these loans and some 80 percent of them appear to be in arrears. How much of the Venezuelan grant was spent where, who were the beneficiaries of that grant, and what home improvements were undertaken with the grant money remains unclear too. No accounting has yet been given on how the money was spent, although the Venezuelan Government has requested it.

The incoming government discovered the missing US\$10 million that were deposited in the Belize Bank shortly after the election. The incoming Prime Minister remarked on the 12th of March 2008:

It is highly immoral and a product of a conspiracy that seemed to have had as its motive two things: to divert this huge sum of money that was the property of the people of Belize once it was gifted by Venezuela, diverted from legitimate and proper and agreed-upon use, diverted so that they, in particular the almighty then

Prime Minister and Minister of Housing, might do with the 10 million US dollars as they saw fit [Bahamas Issues, 2008].

The Honorable Abdulai Osman Contei, the Chief Justice of the Supreme Court of Belize said in his judgment on Claim No. 155 of 2009, in which the former Prime Minister, Said Musa, tried to clear his name by suing the judge that presided over his case, afforded the following opinion:

In my view, the claimant's crime, if a crime it is, was to have kept the people of Belize in the dark about the full amount of the Venezuelan grant and the use of half of it to meet what may be a controversial Government of Belize's loan guarantee to the Belize Bank. Regrettably, however, it is the wont of most governments often to keep their citizens in the dark. [Supreme Court of Belize, 2009, 45].

The Belize Bank refused to release undisclosed the US\$10 million once it was disclosed, contending that the former Prime Minister had a signed agreement with the Bank to have any disputes arising from the government guarantee settled in a United Kingdom international tribunal. The Central Bank of Belize Appeals Board ruled on the 7th of August 2008 that the government directive to the Belize Bank to return the money was valid. The money was returned on the 8th of August 2008 by the president of the Bank, Philip Johnson, who faced arrest if the money was not returned [Novelo, 2008].

The Ministry of Housing made public its plan for the use of the remaining half of the Venezuela grant in a press conference on the 20th of January 2009: BZ\$1.5 was to be spent on the rehabilitation of homes destroyed by Tropical Depression 16, and the remaining BZ\$18.5 million on home improvements and on the construction of new homes in all 31 constituencies. To ensure transparency, the 31 constituencies will be divided into four regions and the allocation of funds in each region will be supervised by an oversight committee that will "oversee the vetting, approving, monitoring, and signing-off of all projects". The funds will be distributed in the form of grants, not loans. There will be an upper limit of BZ\$10,000 for a home improvement grant and BZ\$30,000 for a new home. The household income of home improvement grant beneficiaries is not to exceed BZ\$20,000 per annum, restricting it to the bottom three deciles of the urban income distribution and the bottom half of the rural one. The household income of new home grant beneficiaries is not to exceed BZ\$15,000 per annum, restricting it to the bottom two deciles of the urban income distribution and the bottom three deciles of the rural one [Government of Belize, 2009b].

The current program is well-targeted to the poorer segments of the population of Belize. It promises to be more transparent. If the available grant money was divided equally between home improvement grants and new home grants, and if home improvement grants averaged BZ\$5,000 and new home grants averaged BZ\$25,000, the program could finance a total of 1,850 home improvement grants (an average of 60 per election district), and 370 new homes (an average of 12 per election district), far short of the Government's goal of constructing 1,000 dwelling units per year. It appears that the Government has been under pressure from the Government of Venezuela to complete the disbursement of funds by the end of 2009. This would imply that there was little time available for proper planning, vetting, or approval of grants. It remains to be seen how the funds were spent, and it would greatly increase the credibility of the present government in the donor community if a precise technical report on the use of this grant is issued in the near future, detailing how the funds were used.

Given the commitment of the Government to a poverty reduction strategy, housing subsidies are efficient and well-targeted instruments for (a) increasing the *assets* of the poor (and therefore

their economic security) through titling, as provided in this year's budget; (b) reducing *overcrowding* through a program of constructing adding living space to houses on owned lands, a program that could be made possible by the continued emphasis on and refinement of home improvement loans and grants; and (c) providing for *basic needs*—especially for water, sanitation and storm drainage—through upgrading residential infrastructure in low-income communities, as provided in this year's budget for roads, drains, and bridges. It is therefore essential that the Government of Belize resolve to continue to seek and allocate resources for housing subsidies in the years to come, both as part of its regular budget, as part of its poverty reduction strategy, and in pursuit of external assistance dedicated to housing subsidies.

There is, however, a need to rationalize and systematize the use of housing subsidies in Belize. The housing subsidy regime needs to be transparent enough and flexible enough to provide support for a limited variety of housing programs with a broad reach and a low per-unit cost, targeted at the poor. More specifically, it can be used in combination with savings and loans for: (a) supporting tenure legalization; (b) providing grants for adding rooms to reduce overcrowding in combination with savings and micro-loans; (c) constructing new minimal housing on owned lots; (d) purchasing serviced lots; (e) providing assistance with down payments for obtaining mortgage loans in commercial banks and credit unions; and (f) improving water, sanitation, and drainage services in established communities.

One form of housing subsidy, the allocation of funds for the construction of housing estates by the government, is to be resisted. While home improvement grants are *demand-side* subsidies that are given directly to beneficiaries who can then use them to improve their homes as they see fit, the construction of housing estates is a *supply-side* subsidy. Such a subsidy assumes that public officials understand the housing market, that they understand where people want to live, and that they understand how to construct housing estates efficiently. Unfortunately, this is rarely the case.

This painful lesson has been brought home to the Belize Government in the form of the Mahogany Heights housing estate, a residential 'new town' built with public funds somewhere along the road from Belize City to Belmopan, one mile away from the road. The PUP government bought land there without due diligence and built many scattered houses, only to find out that the land was sold to someone else (the case is still in litigation and no one has title). Planning did not involve serious market research: houses were built on large lots, far away from each other, with few public or commercial facilities and too sparse to form a community. These houses are not in great demand and many of them now stand empty and abandoned.

Surely, it is possible to do better than what was done in Mahogany Heights. Still, it stands to reason that the government of Belize shy away from issuing supply-side subsidies for the direct construction of housing estate by the public sector, and instead limit itself to demand-side subsidies that are aimed directly at beneficiaries. Experience the world over strongly suggest that housing supply is better left to the private sector, to individual households building their own homes, and, on occasion, to the civic sector.

4. Residential infrastructure:

Residential infrastructure affects housing sector performance in two important ways: (a) the availability and quality of infrastructure impinge directly on the quality of houses and neighborhoods, as well as on the economic value of housing assets; (b) infrastructure shortages, especially on the urban fringe, limit the supply of serviced residential land and increase its price,

thereby making housing less affordable for everyone. In addition, acute infrastructure shortages—particularly shortages of water supply and sewerage—are important dimensions of poverty and their alleviation is critical to any poverty reduction strategy. Residential infrastructure upgrading and the timely expansion of infrastructure networks into the urban fringe must therefore form integral parts of housing policy.

As noted in the previous chapter of this study, residential infrastructure in Belize — especially water supply, sewerage and drainage in urban areas — has been deteriorating in recent years. The most visible infrastructure needs in existing urban communities are a regular, reliable and affordable piped water supply and a piped sewerage system, combined with an effective storm drainage system. And while most roads in low-income neighborhoods are still unpaved, road upgrading does appear to be a priority at the present time. Several roads on the South Side of Belize city, a largely poor area, have been improved in recent years as part of the South Side Urban Renewal Project. Between 2000 and 2004, for example, some BZ\$1.2 was expended on the project. Data on intervening years is not available, and although Prime Minister Barrow emphasized the need for a special focus on the project in his March 2009 budget speech, no funds were allocated for it in the current budget. Several gravel residential roads have recently been upgraded into laterite roads in several poor areas on the South Side of Belize City and in the *Belama IV* informal settlement in the northern side of the city. There does not seem to be an inventory of the state of urban roads, nor a multi-year plan for road improvements in residential communities.

In most countries in the region, there appear to be a large number of squatter settlements — unplanned and minimally-serviced communities that are the result of illegal squatting on public and private lands. Infrastructure upgrading in these settlements is often identified as a high priority housing strategy: it acts to alleviate poverty through improved services, to increase the asset value of houses, and to empower poor communities. In contrast to neighboring countries, however, there are relatively few squatter settlements in the cities and towns of Belize.

More common are the subdivisions that are initiated by local politicians or by local entrepreneurs with the support of local politicians. These are very often not prepared adequately before their occupation: land is not filled, roads are not paved, piped water to plots is not provided and neither is piped sewerage or drainage. Residents are then left to fend for themselves or to press municipalities and local politicians for improved services. Sometimes they wait for years. Sometimes some services are provided in some places before elections, and sometimes the promises to provide services are not kept. At any event, there does not seem to be a process in place for ensuring that residential communities are properly served with infrastructure. Communities, on their part, do not seem to be active in improving infrastructure services through their own resources. And as we shall see in the following section, there is no effective regulatory mechanism for ensuring that land subdivisions have a basic complement of services before they are occupied.

An urban upgrading program focusing on creating a reliable water supply and a sewerage/drainage network in existing poorly-serviced communities is indeed a cost-effective strategy for poverty alleviation at this time. Such a system would naturally target communities rather than individual families, and may involve organizing these communities to perform numerous roles, from consultation and design to supervision and mutual-aid construction. Such a program could also benefit from a small per-family subsidy, combined with household savings and micro-credit. Alternatively, investment in a water and drainage system could be financed by a loan to the supplier and paid back by the community through higher water charges for a fixed time period.

The extension of residential infrastructure to new settlement areas on the fringe of cities and towns has a critical influence on the housing sector. The rapidly growing cities and towns in Belize must be allowed to expand at their natural rate of growth, and not be subject to infrastructure bottlenecks—particularly those associated with roads and water supply. The Municipality of Belize City in particular must prepare and approve realistic land use and infrastructure plans—plans that allow for the physical expansion of the city at the needed rate. One such possible plan will be discussed in the following section. The failure to prepare urban expansion plans in the near future and the failure to service newly-urbanized areas with infrastructure in a timely fashion are most likely to create serious land supply bottlenecks, which are likely to increase both land and house prices to levels no longer affordable by the majority of households. With minimal resources, the Government of Belize in conjunction with municipalities can prepare minimal urban expansion plans than at the very least: (1) calculate the amount of land that will be needed for urban expansion in then next 30 years; (2) identify areas for urban expansion; (3) identify areas within projected expansion areas that need to remain free of development and act to protect them; (4) locate the major arterial roads in expansion areas and act to secure the rights-of-way for these roads.

5. The Regulatory and Institutional Regime Governing the Housing Sector:

Despite several improvements during the last decade, Belize does not yet a regulatory and institutional regime that can effectively support a well-functioning housing sector. The regulatory regime governing the housing sector is, at best incomplete: except in the case of Belmopan, there are no town plans guiding urban development in general and urban residential development in particular, and no legislation to mandate them; the rules governing residential land subdivision, enshrined in the *Land Utilization Act*, are quite general and a very broad range of subdivision plans can be approved by the Minister in charge ; there is no building code in the country that has the force of law; and there is no foreclosure law to govern the transfer of residential property in case of mortgage default. In addition, concerns with environmental degradation have led to the passage of several acts, such as the *Environmental Protection Act* and the *Coastal Zone Management Act*, that seek to regulate development in general, and residential development in particular, in ways that could potentially render housing less affordable and less plentiful.

The institutions charged with the design and enforcement of the existing regulations governing the housing sector are weak and under-staffed, and local politicians consider themselves exempt from any and all regulations when they seek to implement residential schemes in their districts. More generally, government officials find it difficult to implement national policy, let alone to initiate plans, programs, and projects, in the face of resistance or non-cooperation from local politicians. As we noted earlier, the Ministry of Housing and Urban Development, for example, is not ‘in charge’ of housing projects initiated by politicians or by the Development Finance Corporation; it often finding itself having to administer abandoned projects or recoup abandoned loans for which it was not initially responsible. The Ministry of Natural Resources and Environment on its part, leases and sells national lands on an *ad hoc* basis without recourse to an officially mandated national land use plan.

Local authorities in Belize are weak and employ few, if any, competent professionals with relevant experience in housing and town planning; they are typically unable to prepare plans to guide the development of cities and towns; and they do not have the legal authority or the staff resources to regulate urban expansion, zoning, land subdivision, or construction. It is safe to say

that most housing regulation takes place at the national level. Indeed, there are several important national laws that have a bearing on the performance of the housing sector. These include:

- The *National Lands Act* (1992): public rights in leased and granted national lands;
- The *Land Utilization Act* (1981, 1991 and 1993): land subdivision regulations;
- The *Housing and Town Planning Act* (1957): slum clearance and public housing schemes;
- The *Belize Building Act* (2003, 2006): the regulation of construction;
- The *Forest Act* (1989): mangrove protection regulations;
- The *Environmental Protection Act* (1992): environmental impact statements and environmental compliance plans;
- The *Disaster Preparedness and Response Act*: delimitation and regulation of specially vulnerable areas; and
- The *Coastal Zone Management Act* (1998): land use planning in coastal areas.

The *National Lands Act* was introduced earlier in this chapter, in the section on the property rights regime. The Act envisions a system for the disposal of national lands by lease or sale, and creates an Advisory Committee to oversee this system. According to Article 7 of the Act, “[t]he Minister may grant leases of national lands on such terms and conditions as he thinks fit”; and according to Article 31.1, “[n]ational lands may be sold at such prices and on such terms and conditions as to improvements and otherwise as the Minister may prescribe on the advice of the Advisory Committee.”

It is important to note that according to Article 29.1 of the Act, the Government reserves the right “to lay out, declare open and make for permanent or temporary use public roads over any lands granted or leased under this Act.” This essentially implies that lands that are granted or leased are subject to government planning, and that government can require that areas for roads, public open spaces, or public facilities be made available on such lands. Moreover, the taking of any lands for public use from lands that are granted or leased can take place at any time before or after they have been granted or leased without the payment of compensation. This is made clear in Article 6.2 of the law, which states that “[t]he Minister shall also have power to alter, vary or add to the ordinary terms and stipulations upon which any grant, lease or licence is made, should it be considered expedient to do so in any special instance”. The Act thus makes possible for government to obtain land previously leased or granted for public use, especially for roads, without remuneration and without a time limit. It is important to remember, therefore, that even though national lands can be leased or granted, the public retains certain rights to enter such lands and to require that certain portions of such lands be reverted back for public use. This suggests that the *ownership history* of plots of land that were originally leased or granted by Government needs to be properly recorded in the national land registry, so as to keep a proper record of community rights in what is now considered private property.

The *Land Utilization Act* created a Land Subdivision and Utilization Authority that is empowered to regulate residential land subdivision. For the better utilization of lands, Article 19.1 empowers the Minister in charge to issue regulations —

- (a) to demarcate areas, water catchment areas or watersheds and prohibiting the clearing of any vegetation within those areas;

- (b) to provide for such other measures as may be required to prevent soil erosion;
- (c) [to restrict] the construction of buildings within stipulated distances from the middle line of any road or street;
- (d) to demarcate specific areas as special development areas and to stipulate the type of development that will be permitted within those areas; [and]
- (e) [to prevent] the clearing of any forest or the felling of any trees.

This article is the only one in the Act that refers to the regulation of land use, and it clearly falls short from requiring the Minister to *mandate* the preparation, implementation, and enforcement of local town plans, let alone national land use plans. Non-compliance with land use regulation is generally tolerated: Developers in breach of these regulations may be given a fine not to exceed five hundred dollars (Article 19.2). Article 14 of the act requires that an applicant for a land subdivision permit with the Ministry in charge “shall not sell, lease, give or in any other manner alienate any part of the land which is to be subdivided until he has received the final approval of the Minister thereto,” but that is rarely the case in practice. Local politicians, for example, engage in land subdivision directly and tend to bypass the authority or ignore it.

Rules for land subdivision in Belize started in the late 1980s or early 1990s. According to a planner at the Authority, current rules specify a minimum lot size of 4,000 square feet (400m²). The required minimum road width in residential subdivisions on the mainland is 40 feet. In all subdivisions with 20 or more plots, one plot must be left as open space, a regulation that is apparently not followed. Private sub-dividers of land cannot be forced to provide infrastructure, except for all-weather laterite roads. Sometimes they are required to provide water and electricity as well, but compliance is inconsistent. It is not clear at all what share of land subdivision developers in Belize apply to the Authority for permits or abide by its regulations, but planners in the Authority are optimistic that planning and the regulation of land use are on the rise.

The *Housing and Town Planning Act* established a Central Planning and Housing Authority and empowered it to engage in traditional slum clearance and in the creation of new housing schemes through the acquisition and development of land. This Act did not empower municipalities and local authorities to engage in town planning, nor did it mandate the creation of town plans by the Authority. In fact, there is no traditional town planning act in Belize, an act that sets out the duties and responsibilities of governmental authorities to undertake urban planning. Planning schemes have apparently been prepared for Corozal Town and Dandriga Town, but only enforced in Corozal [Development Solutions, 2004, 57].

The Authority, needless to say, does not engage in slum clearance very frequently, nor does it initiate housing schemes, a role that has been captured over the years by local politicians. In fact, article 14.1 of the Act states that “[t]he Central Authority may consider the needs of Belize with respect to the provision of housing accommodation in any particular area, and as often as occasion arises, or after notice has been given to the Central Authority by the Minister and within such period as is specified in the notice, to cause the area to be defined on a plan and to prepare and submit to the Minister a scheme hereinafter referred to as a Housing Scheme.” And this is very much what local politicians in Belize occasionally do, with little or no reference to the Central Planning and Housing Authority.

As we shall see later, the vacuum created by the absence of urban planning in Belize has enabled other ministries and authorities to engage in land use planning to fill that void. These ministries and authorities point an accusing finger at unregulated development, particularly in coastal areas, stress its harmful effects on sensitive natural habitats, and seek to regulate development so as to

limit the damage to Belize's natural resource endowments. The danger in relegating land use planning to ministries and authorities with agendas that, though there is much to commend them, may be characterized as *non-urban* agendas poses a risk: affordable and plentiful housing that requires access to affordable, accessible, well-serviced and plentiful land on the periphery of cities and towns may be compromised.

The *Belize Building Act* grew out of the earlier Belize City Building Act of 1963 that governed construction in Belize City by its City Council. The new act empowered a Central Building Authority to regulate the construction of buildings in the country (in collaboration with town and village councils) in the interests of health and safety. The Authority has the dual role of issuing building codes and monitoring construction throughout the country to ensure compliance with the codes. The codes are to regulate the preparation of building plans, the use of building materials, the design of building elements, and the methods of construction. The Act requires, for example, that all building plans be signed by registered architects or engineers. It is quite sparse in articulating specific building regulations. It does specify, for example, that buildings shall be at least 10 feet away from lot lines and that they should not cover more than two-thirds of the lot area, but it does not specify much more. It is quite detailed and at the same time haphazard in describing appropriate construction methods. It is safe to say that Belize does not have a comprehensive building code. That said, a National Technical Sub-Committee (NTSC) was officially formed early in 2009 to prepare a comprehensive building code for the Authority to implement, as part of a Regional Building Standards (RBS) project sponsored by the CARICOM Regional Organization for Quality and Standards (CROQS) and supported by the Caribbean Development Bank.

The Central Building Authority had only three staff members, a director and two building and construction inspectors, and a governing board. In the interim period before adopting a comprehensive building code, its inspectors are consulting the International Building Code in their inspections. A critic of the Act observes that the International Building Code does not mandate that plans be signed by architects and engineers as long as they conform to the code. He quotes the code: "The purpose of this code is not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefited by the terms of this code." He also points out that it is not possible for the Authority to inspect construction throughout the country with its meager staff [Monschein, 2007].

One of the glaring absences in the laws reviewed so far is the lack of any mandate for land use planning and zoning in urban areas, and the consequent absence of land use plans in all municipal areas save that of Belmopan. This essentially means that there are no restrictions on the conversion of land from rural to urban use on the fringe of cities, and no effective restrictions on building anywhere, be it on the outer periphery of inland cities and towns, along the coast, or on the cayes. The conversion of land for urban use be it for residential, commercial, industrial, cultural or tourism purposes is therefore not regulated. It should come as no surprise, therefore, that there is a set of environmental laws in Belize that aim at regulating urban development in one way or another. As we shall see later, these laws can place restrictions on the conversion of land to urban use without considering the particular requirements of urban land use, say the demand for high levels of internal accessibility and contiguity. And the set of all existing laws, taken together, do not mandate the creation and implementation of a national land use plan that allows for deliberate and continuous urban and agricultural expansion while providing an adequate protection of the country's valuable natural resources.

Four environmental laws that have a bearing on the performance of the housing sector are discussed below:

The *Forest Act* regulates the clearance of mangrove forests in coastal areas. Mangrove forests along the coast protect the coast from tropical storms, and mangrove swamps act as receptacles of flood waters when rivers rise or when settlements are swamped by storm surges. This has not prevented the massive clearance of mangrove forests, particularly along the country's beaches, where easy access and unobstructed views of the sea are highly desirable. The regulations provided under the Act are administered by the Forest Department: "Only forest officers may undertake enforcement, though other statutory permitting agencies are supposed to refer applications that may entail mangrove clearance to the Department. They prohibit any alteration, including cutting and defoliation, but allow selective trimming on any land with a permit. Dredging or filling, licensed through the Geology and Petroleum Department, can only be authorised in exceptional circumstances. Important provisions on approval relate to proximity of coastal and reef areas known to be of high ecological value, and also, existing or proposed plans such as barrier reef regional management and development plans." [Coastal Zone Management Authority and Institute, n.d. 37.]

Mangrove protection is implemented on a case-by-case basis, and there is no national plan that seeks to provide different levels of protection to the remaining mangrove forests, a plan forbidding any development in some mangrove forests, allowing restricted development in others, and freeing others to be fully developed. It is clear that effective mangrove protection must be coordinated and integrated with national infrastructure plans, with urban expansion plans, with agricultural development plans. The Coastal Zone Management Authority and Institute, to be discussed below, has proposed preparing zoning guidelines for mangrove forests, "revising the regulations, to take account of statutory requirements that derive from the proposed mangrove policy guideline.... Strengthening, through the proposed formalization of inter-agency monitoring and collaboration, the capacity to anticipate, detect, report and act on infringements of the mangrove regulations.... Increasing fines for infringement of regulations." [Coastal Zone Management Authority and Institute, n.d. 38]

The *Disaster Preparedness and Response Act* empowers the Prime Minister to designate 'specially vulnerable areas' in which there are restrictions on development, following a recommendation by the National Coordinator as well as public consultations. Development is not strictly prohibited in such areas, but a 'precautionary plan' for such an area may include: "(a) strategies, policies and standards for development and for maintenance of structures in the specially vulnerable area or any such proposed area; (b) standards for environmental impact assessment for contemplated development in the specially vulnerable area; (c) provisions designating any part of the specially vulnerable area as a prohibited area for navigation or for the purpose of removing vegetation, sand, stones, shingle or gravel" (Article 16.1).

There is no mandate in the Act for identifying specially vulnerable areas throughout the country in a national plan, and there are no criteria in the Act for identifying them. The Act does not subject any and all development to approval by the Prime Minister or by the Minister responsible for implementing the Act, unless such development falls within a previously-designated 'specially vulnerable area'. The Act does make it possible, however, for the Prime Minister and the Minister responsible for implementing the Act to designate any area as a 'specially vulnerable area' at any time, so as to block any development plans in any area deemed vulnerable.

The *Environmental Protection Act* requires all applications for projects that may have an environmental impact to inquire at the Ministry of Natural Resources and Environment whether an environment impact assessment is required, and, if so, to prepare and submit such a statement for examination and approval. Article 20.1 of the Act states that "[a]ny person intending to undertake any project, programme or activity which may significantly affect the environment

shall cause an environmental impact assessment to be carried out by a suitably qualified person, and shall submit the same to the Department for evaluation and recommendations”. Article 21 empowers the Minister in charge of implementing the Act to “make regulations prescribing the types of projects, programmes or activities for which an environmental impact assessment is required and prescribing the procedures, contents, guidelines and other matters relevant to such an assessment. Applications that may require environmental impact statements include applications for all building in coastal areas; for buildings in ecologically sensitive areas (swamps, marches, and mangrove forests); for building in offshore islands; and for building necessitating drainage or clearing of large areas of vegetation.

The Act was supplemented by two sets of Environmental Impact Assessment Regulations, *Statutory Instrument No. 107* of 1995 and *Statutory Instrument 24* of 2007, that elaborated on the Act. These regulations set out the types of projects where an environment impact assessment is always required (Schedule I) and the types of projects where an assessment or only a limited environmental study *may* be required (Schedule II), but do not exclude any projects *a priori* from requiring an assessment or a limited environmental study.

Several housing or housing-related projects fall under Schedule I: (1) large scale housing developments or a subdivision on the mainland involving the proposed construction of more than 300 houses; (2) housing developments of more than 50 houses on the cayes or islands; (3) the construction of new townships; and (4) dredging for land reclamation and/or creation of projects utilizing a volume of material of more than 50,000 cubic yards along the coast, cayes, and ecologically sensitive waterways. Several housing or housing related projects fall under Schedule II: (1) large scale housing development or subdivisions involving the proposed construction of more than 100 houses but less than 300 houses; (2) housing developments, subdivisions... or any other type of development that could effect established biological corridors; and (3) any urban development project of less than 300 acres. These regulations, as noted earlier, do not preclude any housing project from requiring some form of environmental clearance, but they do suggest that small residential subdivisions in coastal cities and even larger ones in inland cities and towns may not require a full-fledged environmental impact assessment.

The *Coastal Zone Management Act* is the only Act that mandates the formulation of a national land use plan pertaining to the coastal zone of Belize and requires its passage by the House of Representatives, giving it the force of law. Article 23.1 of the act states that “[t]he Chief Executive Officer shall, not later than three years after the appointed date, submit to the Board a comprehensive Coastal Zone Management Plan (hereinafter referred to as “the Plan”). The Plan shall include: (a) guidelines to be used in determining the suitability of particular development activities in the coastal zone; (b) guidelines for the general monitoring of the coastal zone, including its biological species, communities and habitats; (c) proposals, including existing proposals from Government agencies, relating to the coastal zone which deal with the following subjects: (i) land use, etc.” Article 25.2 requires the plan to be prepared in consultation “with all affected governmental agencies, statutory bodies, nongovernmental organizations and the private sector”. Article 25.6 requires the Minister to “table the Plan in the House of Representatives for approval by the House by affirmative resolution”. The plan is to be revised every four years, implemented by all government and non-government agencies responsible for aspects of the plan, and monitored by the Coastal Zone Management Authority and Institute established by the Act. Needless to say, plans for the expansion of cities and towns, specifying the areas needed for urbanization in general and residential development in particular, as yet non-existent, are to be an integral part of the Coastal Zone Management Plan. In the absence of such plans, undue

restrictions on future urban development may pose serious risks to the creation and consolidation of a well-functioning housing sector in the country.

It is important to conclude this cursory survey of the regulatory regime governing the housing sector in Belize by noting that the permit system in Belize is quite efficient and does not involve unnecessary red tape. An international annual survey that documents the ease or difficulty of doing business in all countries [World Bank, 2009b] ranked Belize as the 2nd in the world in the ease of obtaining construction permits in 2010 (!). The survey estimates the number of procedures, the time, and the costs of building a warehouse, “including obtaining necessary licenses and permits, completing required notifications and inspections, and obtaining utility connections.” In Belize, the number of procedures amounted to 11, compared with 16.7 for Latin America and the Caribbean (LAC) and 15.1 for countries in the Organization for Economic Cooperation and Development (OECD). The time required amounted to 66 days, compared with 225 days in LAC and 157 in the OECD. The cost, as a percentage of national income per capita, amounted to 17.6 percent in Belize, in comparison with 211 percent in LAC and 56.1 percent in OECD.

Finally, to conclude this section we briefly review the institutional regime governing the housing sector. As noted earlier, the Ministry of Housing and Urban Development is the key government ministry in charge of housing and urban development. Its official responsibilities include building codes, housing, rent restrictions, town planning, urban development, urban renewal, and zoning [see Government of Belize, 2009a]. Yet, as we noted earlier, its staff is very small, and its technical staff practically non-existent. Its ability to perform its official responsibilities is therefore extremely limited, with the result that there are no official building codes; that the ministry does not always manage the government housing programs; that there are no plans for urban development; and that there are no enforceable zoning regulations to speak of.

It is also important to note here that there is another ministry, the Ministry of Natural Resources and the Environment, with substantial responsibilities in the housing sector, the most important of which are the leasing and sale of national lands; the regulation of land subdivision; the approval of environmental impact assessments; and the creation and implementation of the land use plan for coastal zone management. Another ministry with important responsibilities affecting the housing sector is the Ministry of Works which has a significant in the provision of urban and residential infrastructure.

To conclude this chapter, we highlight some of its findings: Over the years, like other governments in the region, the Government of Belize built and financed a relatively small number of dwellings in comparison with housing needs, many of them in sub-standard housing estates that are now in various states of abandonment and disrepair. It did not concern itself with regulating or relying on other actors in the sector, and it did not insist on the formulation and execution of a well-thought-out housing policy. And like many other governments in the region, the allocation of construction contracts, mortgage loans, and completed dwelling units was often politicized, mortgages were typically granted at below-market interest rates, rents remained unpaid, and defaults soared.

It is fair to say that the culture underlying Belizean housing policy to-date can be characterized as both over-paternalistic and *ad hoc*, where politicians are used to giving away residential plots, rental dwellings, homes, mortgages, and home improvement grants with little or no oversight, with little or no participation of beneficiaries in construction or in monetary contribution, with little or no expectation of repayment of rents or mortgages, with little or no transparency in the allocation of contracts, with little or no involvement of communities or civic sector organizations

in program design and execution, with little or no scrutiny of construction quality and its resistance to tropical storm damage, with little or no overall town planning framework, with little or no overview of the operations of the housing sector as a whole, and with little or no appropriate targeting of assistance to deserving beneficiaries.

The give-away culture that characterizes housing policy in Belize depends, first and foremost, on the availability of funds. And most of the funds available for housing, as we have seen, are not part of the regular annual budget of the Government. This essentially means that allocations for housing are irregular and vary wildly from year to year, as they depend to a large extent on international capital grants and loans: When international capital grants and loans are available, housing allocations increase precipitously, only to shrink when funds are exhausted. The future pursuit of *loans* for housing from bilateral or multilateral sources, given the high level of indebtedness now facing the country, should be strongly resisted, unless and until there are strong assurances that such loans can be properly repaid.

As we have noted, the government ministry in charge of housing and urban development is weak, under-staffed and under-budgeted, with two detrimental results: First, politicians take housing development into their hands, ignoring the ministry or proceeding without it and then passing on troubled assets for it to manage. Second, the absence of urban planning (of which housing is a key component) leaves a planning vacuum which is then filled by other ministries with agendas that may or may not give proper due to the most important priorities in housing and urban development — the organized expansion of urban areas in ways that ensure that there are adequate serviced lands for residential development and that those lands remain affordable by those who require them. There is no reason to believe that a Coastal Zone Development Plan, for example, will give due attention to the housing and urban agenda, if there are no housing and urban plans in existence, and if no resources are directed to the formulation and championing of such plans.

The absence of expansion plans for the cities and towns in Belize becomes clear when we examine the situation of Belize City at the present time. Belize City is situated on a Peninsula at the mouth of the Belize River and can only expand westwards, as can be seen in figure 3.3 below. Several features of this figure merit our attention. First, the figure shows the structure of land ownership in the undeveloped areas on the fringe of the city. The land ownership pattern is abstracted from a map prepared for this study by the Land Information Centre at the Ministry of Natural Resources and the Environment. The two largest undeveloped areas in the map are the Bordon Canal Nature Reserve and the large privately-owned estate on the Northwest, on the way to the International Airport. There are several areas that are already divided into residential plots (shown in red), and private lands are already carving into the edges of the Reserve on the Southwest.

Second, the Bordon Canal Nature Reserve blocks all contiguous urban development to the West, forcing the city to develop along two thin strips, one along the Northern Highway and one along the Western Highway. This pattern of urban development is extremely inefficient: it puts extra pressure on coastal areas; it creates bottlenecks along the main roads; it elongates commutes, as well as infrastructure lines; and it fragments both the urban areas and the surrounding countryside. The Reserve thus fails to act as a green belt that can block the expansion of the city, but simply forces new development to occur at greater distances away from the city center, skipping the Reserve, and fragmenting more of the countryside further away from the city. The mango forest in the reserve, because it is inland rather than coastal, fails to protect the city from storm surges, but does provide a drainage basin in times of flood. It should indeed continue to form a drainage basin for the, while part of the Reserve could be degazetted to allow for the efficient expansion of the city westwards.

A preliminary sketch plan for degazetting part of the Bordon Canal Nature Reserve to allow for the efficient and sustainable expansion of Belize City is shown in figure 3.4 below. Several features of this plan merit our attention. First, and most important, it designates sufficient areas for the expansion of the city in the coming 30 years. Second, it proposes laying out a grid of arterial roads, spaced at roughly one to one-and-a-half kilometers intervals. The rationale for this grid is elaborated upon in the author's recent article titled "An Arterial Grid of Dirt Roads" (Angel, 2008) and will not be repeated here.

Figure 3.3: Land use and property ownership in Belize City and Environs, 2009

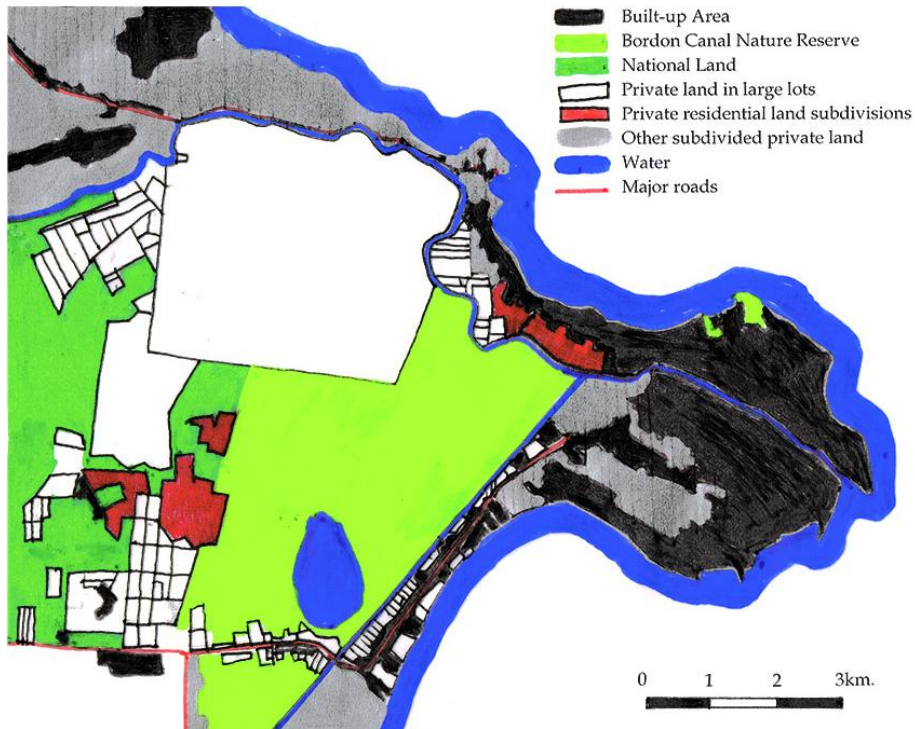
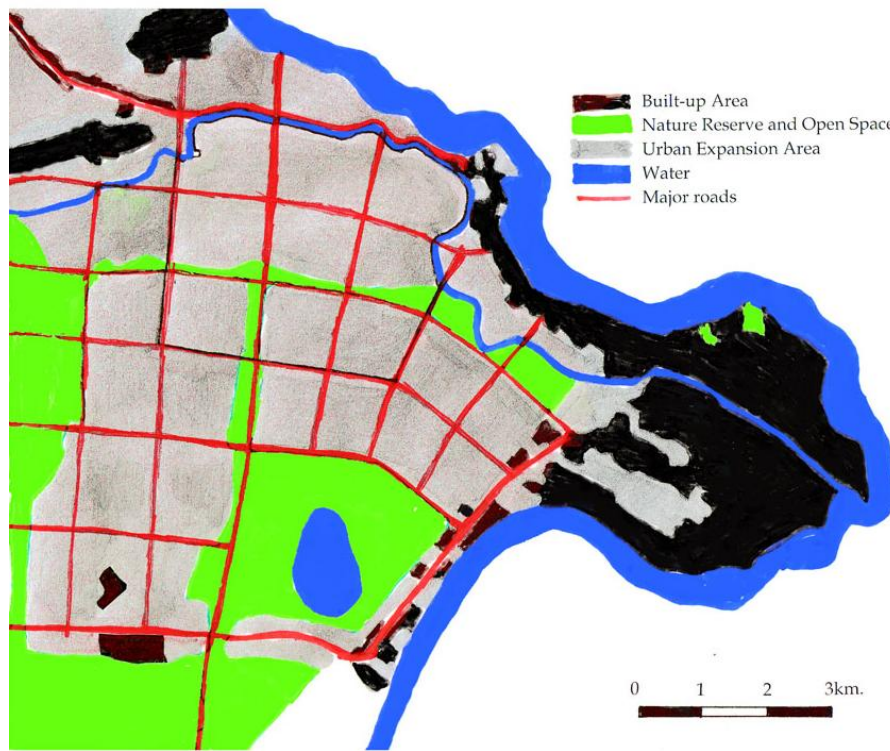


Figure 3.4: Schematic urban expansion plan for Belize City, 2010-2050



In essence, this grid decongests the Northern and Western Highways, provides an efficient network of arterial roads that can carry public transport into the city's suburbs, and facilitates the future planning of the city. Third, this sketch plan provides for an articulated system of public open spaces, some of which can be left in their natural state and some of which can gradually be transformed into public parks.

Fourth, the public rights-of-way for the roads and the open spaces can be obtained free of charge in all lands that were originally national lands and were leased or sold to private individuals, in line with the provisions of the National Lands Act discussed earlier. Fifth, this sketch plan does not prescribe the land use of each individual land parcel in the expansion area, but simply designates the areas required for *urban* expansion and differentiates them from areas that can remain free of urban use. The location of specific urban land uses and urban local loads can surely be decided upon later.

Finally, this expansion plan — as well as the expansion plans of all cities and towns in the country — is precisely what is needed now to inform the national land use plan. In all probability, the preparation of a national land use plan or a coastal land use plan without these urban expansion plans will turn the national plan into a futile exercise. In all likelihood, it will fail to block urban expansion, scattering it rather than consolidating it as this sketch plan seeks to do. Surely, this sketch plan should not be perceived of as a specific proposal, but rather as the type of plan and the kind of detail it needs at the present time.

This concludes our discussion of the housing policy environment in Belize. The next and final section of this report will explore the implication of the preceding chapters for the formulation of

a set of guidelines for a realistic, effective, efficient, equitable and sustainable housing policy for Belize in the years to come.

* * *

IV. Guidelines for Action

The information and analysis presented in the three preceding chapters of this report provide a solid conceptual framework and strong evidence for the formulation of a new housing policy for Belize. This final chapter does not seek to summarize all the conclusions of the previous discussion, but to outline in bold strokes the key guidelines for an effective housing policy, a policy that could and should be implemented at the present time.

There are five general guidelines for the conduct of housing policy that should inform all government action in the housing sector. In addition, there are ten more guidelines that should inform specific actions on housing at the present time, and that together form a comprehensive housing program that can be effectively undertaken by the present government so as to solidify and make good its housing vision.

The five general guidelines are:

Guideline 1: Engaging the housing sector as a whole

The thrust of the Government's housing policy must be expanded from one where the Government engages directly in the design, construction, management, and financing of limited amounts of housing and related residential infrastructure to where other actors in the sector — private companies, commercial banks and credit unions, civil sector organizations, communities, and individual households — play key roles in advancing the Government's housing agenda, while the Government plays the key role in *enabling* the housing sector to function in an efficient, equitable and sustainable manner. Government use of intermediaries in the implementation of its housing agenda is the key to an effective housing policy.

Guideline 2: A two-pronged housing strategy

Housing policy must strike a balance between improving and upgrading the existing housing stock, and the creation of new residential land and housing to meet emerging housing needs. The two key housing initiatives required to upgrade the existing stock are (a) measures to improve residential infrastructure (especially piped water supply, drainage, and all-weather roads) and (b) measures to expand existing homes to reduce overcrowding. The two key actions required to create new stock are (a) the preparation of lands for the expansion of cities and towns and the development of affordable residential subdivisions within these lands; and (b) enabling and empowering commercial banks and credit unions to expand mortgage credit and micro-loans for housing.

Guideline 3: Policy focus on cities and towns rather than on rural areas

The bulk of future population growth in the country will be in cities and towns, and therefore the focus of housing policy must necessarily be on cities and towns. Housing policy in urban areas must focus on ensuring that there is sufficient land for urban expansion and that land subdivisions to meet emerging needs remain affordable and plentiful. Land policy in rural areas must necessarily focus on productive land for agriculture and farming rather than on land for housing schemes. In both urban and rural areas, government attention should be focused on the gradual improvement of homes using grants and loans.

Guideline 4: Balanced development of inland vs. coastal cities and towns

Inland cities are growing faster than coastal ones, moving the urban population distribution towards a balance between inland and coastal cities and towns. Cities in both have their attractions: lands in inland cities is more plentiful and cheaper to develop and these cities are better protected from tropical storms, while land in coastal cities is more restricted and more expensive to develop and these cities are more attractive to tourism and to seaside activities. Housing policy should remain neutral between inland and coastal cities, not favoring one or the other, but acknowledging that urban expansion in the coastal zone must go hand-in-hand with plans to protect coastal areas and is likely to be more costly and more restricted.

Guideline 5: Balanced development of owned vs. rented housing

Home ownership rates, particularly in the cities and towns of Belize, are low by regional standards, and there should be a thrust to provide home ownership titles wherever possible. That said, there is no need to push households with unsteady incomes, for example, into home ownership if it entails assuming mortgage debts that they may not be able to sustain. There is, at the same time, a need to encourage the construction of rental housing to meet the needs of households that do not need own their homes for one reason or another. Rent control legislation that militates against the construction of rental housing should be revisited with a view to removing disincentives for building rental housing.

Given the context of the housing sector in Belize, the conditions prevailing in the sector and the housing policy environment in the country, there are ten guidelines that must inform specific government actions on housing, and that together form an efficient, equitable and sustainable housing program that can be effectively undertaken by the Government of Belize at the present time. They are:

Guideline 6: Government exit from all lending for housing

Both the high level of indebtedness of the Government and its dismal experience in providing loans at subsidized interest rates, in the selection of beneficiaries for loans, in issuing proper loan documents, and in collecting loan repayments strongly militate against any further direct government involvement in issuing housing loans, be it through the Development Finance Corporation (DFC) or through the Housing and Planning Department. Commercial banks and credit unions have an established record in providing such loans at affordable interest rates and their efforts should be expanded. Both mortgage and home improvement loans should be restricted to these venues, and serious efforts should be made to get rid of the Government's loan portfolio.

Guideline 7: The judicious use of limited capital grants for housing

The expected stagnation in GDP growth in the coming few years and the need to conduct a stringent fiscal policy so as to reduce the current deficit must necessarily limit both private and public housing investment in the coming years. The housing sector cannot be expected to improve rapidly given the present economic climate and expectations for rapid improvements should be checked. Government recurrent budgets for housing should not be expected to increase. And government should actively pursue foreign grants, rather than loans, and use these foreign grants judiciously in a limited and well-thought-out housing program.

Guideline 8: Improving and upgrading residential infrastructure

There are relatively few squatters in Belize and there is a titling program for assisting them in obtaining tenure. There is no need for a specific infrastructure upgrading program in squatter settlements. There are many residential subdivisions, however, that need serious infrastructure improvements. Key improvements are piped water supply, storm drainage, and all-weather roads. Improved drainage, within an integrated urban drainage system, is a key housing strategy for mitigating the damage from hurricanes and storm surges. A renewed emphasis on drainage investments, involving dredging, land fill, and the creation and maintenance of a connected system of urban canals should be a key thrust of an effective housing strategy.

Guideline 9: Home improvement grants and loans to reduce overcrowding

Overcrowding is a key dimension of poverty. There is still substantial overcrowding in Belize and the reduction of overcrowding must be a key element of the country's poverty reduction strategy. Overcrowded houses should be identified using new census information, and assistance to overcrowded households with home improvement grants (coupled with micro-loans provided by commercial banks and credit unions) must become the highest priority in the government housing budget. Households should be identified, approved for assistance, and helped in formulating plans for expanding their homes by adding at least one bedroom. The number of bedrooms added to crowded homes should be a key measure of success of the Government's housing policy.

Guideline 10: A mandate for the preparation of land use plans for cities and towns

A new Town Planning Act, mandating the preparation of land use plans with a 30-year planning horizon for all cities and towns, within the overall context of a national land use plan, is the highest legislative priority on housing and urban development at the present time. These plans must be urgently prepared. They must include sufficient areas that are designated for urban use in the next 30 years, without necessarily deciding on particular uses. The expansion areas must be designed with a view of serving them with arterial roads, and for protecting sensitive natural habitats from urban development. The plans must be designed with a view of putting national lands within their areas to the highest and best use.

Guideline 11: The judicious use of national lands within the expansion areas of cities

National lands that can be used for urban expansion are the key resource for the creation of affordable housing and should therefore be used judiciously. Land ownership maps within the expansion areas of cities and towns should be prepared with assistance of the Land Information Center, and all national lands in public ownership, under lease, or in private ownership should be identified. Future leasing and sale of national lands should be at market prices, and the public right to use parts of leased and sold lands as rights-of-way for roads and canals, for open space, or for other public facilities should be clearly protected.

Guideline 12: Residential subdivisions on national lands

The best way to provide assistance for new housing to as many low-income households as possible is a year-by-year program for the creation of small land subdivisions in all cities and towns. To the extent that national lands are available within the expansion areas of cities and towns, they could and should be used for that purpose. When national lands are not available, the

possibility of exchanging available national lands for private lands within expansion areas that could be used to house low-income households should be explored. Again, national lands should be leased or sold at market prices. Income from sales could be used, where appropriate, to subsidize plots for low-income beneficiaries.

Guideline 13: Residential development at higher densities

Densities in the cities and towns are very low by regional standards, because residential plot sizes are very high. There should be a market study of the demand for smaller plots, particular by low-income households and immigrant households. Guidelines for the development of land subdivisions are incomplete and not enforced, and existing guidelines do not take into account the need for affordable residential subdivisions for social housing. New rules for residential subdivisions should be drafted and implemented by the Land Utilization Authority, allowing for special provisions for smaller plots in social housing schemes. Rules for exempting small residential subdivisions from mandated environmental impact assessments should also be formulated.

Guideline 14: The reduction of residential construction costs

Residential construction costs appear to be high by regional standards, and the reduction of residential construction costs must now be actively explored. A detailed regional study of comparative residential construction costs should be conducted, and different means of reducing costs, while not compromising health and safety, should be explored. Based on this study, a well-financed and well-advertised competition among building teams (architect + engineer + developer + builder) involving both local and international teams should be undertaken. Each team will be invited to build a house in a pilot residential subdivision, and the winning team will be offered a contact to build an entire residential community.

Guideline 15: A building code that emphasizes affordability

The need for a comprehensive building code is now recognized. A National Technical Sub-Committee (NTSC) was officially formed early in 2009 to prepare it, and this sub-committee should be encouraged to complete its work in a timely fashion. The committee should be special attention to the affordability of its recommendations; to making sure that making buildings safe and secure does not impose unnecessary costs on low-income families. Cheap ways of securing houses from damage by tropical storms should be given priority attention in the code. The Central Building Authority must have sufficient personnel to enforce the code, and a national education campaign aimed at house builders in both the formal and informal sector must accompany the introduction of the new code.

It should be noted in conclusion that while these guidelines provide important support and detail to several elements in the government's proposed housing program, outlined in its election manifesto of 2008 titled "Imagine the Possibilities...", they do vary from this program in several important details. Prime Minister Dean Borrows and the United Democratic Party (UDP) who came into power in a landslide election victory in February 2008 promised to make housing a key component of the Government's new development strategy. The UDP has pledged "to ensure access to quality and affordable housing by all" and this is indeed the central thrust of the guidelines outlined here. It has also pledged to lower mortgage interest rates, and it has indeed kept mortgage interests low by its anti-inflation fiscal policy and by its successful regulation of commercial banks during the financial crisis of 2008. There is no reason, however, to provide

government mortgage loans at lower mortgage interest rates, a policy that has proved unsustainable in many countries in the region. Indeed, this report recommends ending government lending in the housing sector, while enabling commercial banks and credit unions to expand their lending for housing.

The UDP wants to move further into a “home ownership society”, and given the low home ownership rates in the country this goal makes good sense. Much can be accomplished by providing titles to households now occupying residential plots without proper documentation. That said, there is a need for a balanced housing policy that gives adequate attention to both owned and rented housing.

The UDP also promised to finance and build 1,000 affordable housing units every year, and later elaborated on this promise by planning to build new homes in new residential subdivisions in all 31 election districts, financed by the Venezuelan grant. As we noted, the Venezuelan grant will not have nearly enough funds for building a total of 1,000 dwelling units, let alone 1,000 units every year. This report stresses the present shortage of funds and the high level of indebtedness of the government and recommends against the financing and construction of new homes by the government. Instead, it recommends enabling and empowering other actors in the sector — commercial banks, private developers, and civic sector organizations — to engage in the provision of such housing, while removing the public sector from the direct supply of new housing altogether. In this line, the UDP promised to subsidize the formation of building cooperatives, exactly the type of civic sector organizations that can and should undertake housing construction and finance.

The UDP also promised “to give immediate title to house lots”, and the current titling program for which funds were allocated by the government in its current budget is an important step in this direction, clearly an effective and equitable housing strategy. The UDP promised to regulate land use, land subdivision and building construction and many of the guidelines in this report elaborate on these important promises and give them the necessary details they need to become a reality. In particular, the guidelines call for the passage of a new Town Planning Act that will mandate the planning for urban expansion in all cities and towns in Belize in the broader context of preparing an effective national land use plan.

The new UDP government is posed to improve conditions in the housing sector in Belize by following through on its election platform, hopefully with the elaborations and modification provided in this report. There is no doubt that the foundations have been laid for an efficient, equitable and sustainable housing policy in Belize. What remains is to give it the concreteness it needs to become a reality. It is our hope that this report will assist in this endeavor by providing the Government of Belize the conceptual framework, the evidence, and the practical details it needs to transform its housing vision into real and lasting benefits for its people.

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