

Rapid Impact Assessment of Financial and Economic Crisis on Poverty and Vulnerability in Belize and Dangriga



The Millennium Development Goals

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Foreword

As the economies of developing countries are grappling with recession, the most vulnerable populations are the first to fall victims to this crisis. The impact of the Financial and Economic Crises (FEC) on poor and vulnerable populations in developing countries have resulted in rising unemployment and reduced household incomes. Additionally, households struggle to meet basic needs and adopt coping mechanisms such as reducing consumption of food and other essentials with consequences for health and children's school participation among others. Notably the FEC has pushed many developing countries to contract investments in social spending, particularly on essential services such as primary health care, education and transport as governments revenues dip significantly. The FEC can endanger the achievement of national development objectives including the Millennium Development Goals and can cause a partial reversal of previous gains.

This Report highlights that there are distinct aspects of urban poverty that need to be addressed to reduce regional disparities in MDG achievement. Essentially, the Rapid Impact Assessment found that urban communities, specifically those in Dangriga and Belize City were affected by the crises. These communities were able to articulate the extent of poverty and vulnerability experienced through a participatory poverty assessment that was implemented to enrich the impact assessment process. In many instances, the crises exacerbated the vulnerability and poverty experience by many households.

This Report is another instrument used to track and monitor progress toward MDG achievement in Belize specifically at the urban level. It is expected that the report will be used as a tool for awareness raising, advocacy, alliance building and renewal of national commitment for poverty reduction. This report further demonstrates the need to continue to prioritize social and human development and to keep the MDGs on the national agenda in Belize.

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Abbreviations

BEST	Belize Enterprise for Sustainable Technology
BTL	Belize TeleMedia Limited
CARICOM	Caribbean Community
CPA	Country Poverty Assessment
ED	Enumeration District
FEC	Financial and Economic Crises
GDP	Gross Domestic Product
HIV/AIDS	Human Immunodeficiency virus/Acquired immune deficiency syndrome
ILO	International Labour Organization
IMF	International Monetary Fund
KHMH	Karl Heusner Memorial Hospital
LFS	Labour Force Survey
LSMS	Living Standards Measurement Survey
MDG	Millennium Development Goal
NGO	Non-Government Organization
PPA	Participatory Poverty Assessment
PTTF	Poverty Thematic Trust Fund
SISB	Single Information System of Beneficiaries
SBR	Single Beneficiary Registry
SSB	Social Security Board
TOR	Terms of Reference
UNDP	United Nations Development Program
US	United States
YWCA	Young Women's Christian Association

1. Introduction and Summary Conclusions

This study is a rapid assessment of the impact of the financial and economic crises (FEC) on poverty and vulnerability in key communities in Belize City and Dangriga Town. It was undertaken in accordance with terms of reference (TOR) at Annex 1 of this report and was executed through a combination of research, data analysis and targeted interviews. The main objectives of the framework for the analysis are to:

1. Provide evidence-based analysis of the impact of the FEC on vulnerable populations in order to inform national social policy development and short and medium term interventions that can mitigate impact on the groups affected;¹ and
2. Develop an advocacy tool demonstrating the need to continue prioritization of social and human development, and to keep the MDGs on the national agenda.

¹ Global Crisis Solutions (nd, p.2) defines vulnerability as- "...a set of prevailing or consequential conditions, which adversely affect the community's ability to prevent, mitigate, prepare for or respond to hazard events. These long-term factors, weaknesses or constraints affect a household's, community's or society's ability (or inability) to absorb losses after disasters and to recover from the damage. Vulnerability precedes the disaster event and contributes to their severity, impedes disaster response, and may continue long after a disaster has struck."

Another useful definition is vulnerability as "the characteristics of a person or group and their situation that influence their capacity to anticipate, cope with, resist and recover from the impact of a natural hazard (At Risk, Wisner et al., 2004: 11)."

The TOR further called for the analysis of the impacts to be qualitative and quantitative in scope and to incorporate the results of a set of participatory poverty assessments conducted earlier by the Belize Enterprise for Sustainable Technology (BEST) in a number of communities in Belize City and Dangriga.² It stipulated the following areas of focus for the analysis of impact in these communities:

- a. Economy
- b. Employment and living standards
- c. Housing
- d. Social welfare assistance
- e. Demographic and migration trends
- f. Local governance
- g. Environment (particularly disaster reduction)

Consistent with the TOR, the research and analysis focused on the conditions prevailing for residents of these communities. These were supplemented with the results of a separate participatory assessment conducted for the Country Poverty Assessment (CPA) and undertaken mainly through transect walks and community consultations.

All activities outlined in the TOR are necessary to meet the objectives of the study, however particular emphasis was placed on the three, listed below:

1. Establishment of a direct link between the current situation of poverty and vulnerability and the

² The Belize City communities were (a) Yarborough, (b) Port Loyola (mainly around the Jane Usher Boulevard), (c) Pickstock, (d) St. Martin De Porres and (e) Belama Phases III and IV. The Dangriga communities are (a) Wageirale/Benguche and (b) Back-a-town.

achievement of the eight MDGs in key communities in Belize City and Dangriga Town;

2. Identification of the negative impact and challenges posed by the economic crisis specifically in terms of poverty and social vulnerability issues; and
3. Suggestion of policy alternatives as responses to mitigate the negative impact of the crisis.

Tasks 1 and 2 were especially important for focusing on the quantitative aspects of the study.

This report involved the use of macroeconomic indicators to demonstrate that (1) the FEC in fact did have an impact on Belize; that (2) the impact would filter to the community level. The second stage comprised of using the results of a participatory poverty assessment undertaken previously to determine (3) the MDGs for which achievement at the level of the same communities would be most affected by the FEC impact and (4) the extent to which the participants' perception of impacts are evident in administrative surveys and, where possible, administrative data. In addition, a stock take was done of the current policies and priorities aimed at strengthening the social protection system to ensure that the needs of the most vulnerable are met. The results of these analyses together were used to inform the recommendations on policies and programs with a view toward improving the capacity to withstand shocks on the part of those who are most vulnerable. The recommendations are also advised by the MDG acceleration framework and are aimed in part at localizing MDG achievement efforts.

Chapter 2 of this report describes the key macroeconomic factors and related transmission channels through which Belize was affected by the financial and economic crisis, and describes economic trends. It shows that the crisis impacted Belize mainly through the commodity export and tourism sectors and that foreign direct investment and remittances have also been affected. There was also a shift to higher levels of private sector domestic credit during the crisis period which suggests a contraction in trade credits. The chapter also describes the social protection system and recent priorities, showing an emphasis being placed on improving children's participation in school and health care service, and on improving efficiency through a single information beneficiary registry that would reduce duplication and help to better target those most in need.

Chapter 3 describes those results of the participatory poverty assessment which have key implications for any of MDGs 1 through 8. The chapter also presents statistical analysis of the labour force and living standards measurement data for the focus communities in Belize City and Dangriga aimed at providing evidence that supports or counters the perception of the PPA participants. In the main the perceptions appear to hold true, and the chapter shows that the FEC is likely to detract from achievement of MDG 1 (through lowered income levels), MDG 2 (through children's disrupted participation in school), MDG 3 (through increase in domestic violence), MDG 6 (through reduced nutrition, deferring health care spending and risky sexual behaviours) and MDG 7 (through the state of housing and habitat which are exposed to natural hazards).

Chapter 4 incorporates recommendations for effective responses and social protection measures that would mitigate the impacts of crises and support MDG achievement from the position of those within vulnerable urban communities. The recommendations are aimed at improving income earning potential and children's participation in schools and health clinics, as well as living conditions. This latter is important to reducing slum conditions and improving resilience against natural hazards so as to avoid disastrous outcomes.

2. Macroeconomic and Social Protection Context

A. Macroeconomic Evidence of Financial and Economic Crises

Belize is an open economy with strong linkages to the international goods and finance markets. Consequently, changes in the external environment have an almost immediate and direct impact on the national economy. The series of participatory poverty assessments in communities in Belize City and Dangriga and analysis of macroeconomic data show the channels through which the external changes are transmitted to the local economy. These are mainly through (1) goods and services exports, (2) credit to the agriculture and commercial fishing sectors, (3) direct foreign investment, (4) official grant receipts and (5) inward remittances.³

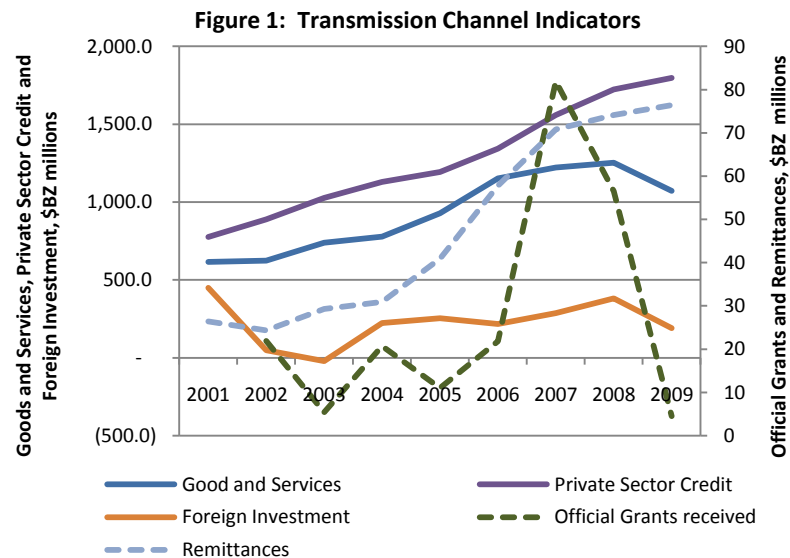
The importance of these channels and their likely impact on the domestic economy is evident when, their weights in terms of GDP and their trend over the 2001 to 2009 period are considered (see figure 1). Where the trends are concerned, exports of goods and services and inflows of official grants and foreign direct investment declined

³ The mechanics of transmission channels are explored in Thomas (2009) and Nissanke and Thorbecke (2005).

with the period during which the food, energy and financial crises occurred.⁴

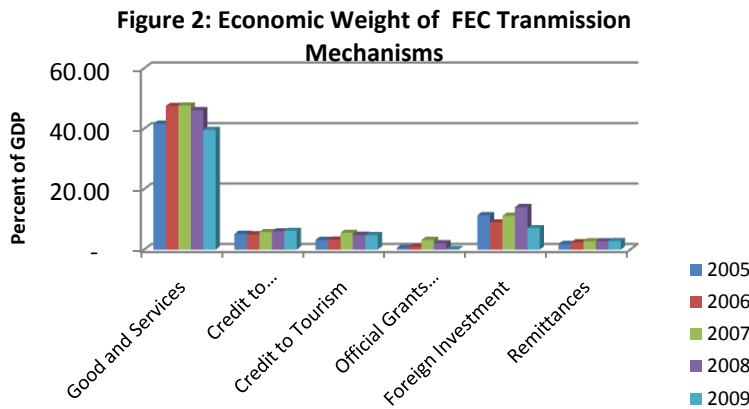
Where the weights are concerned, goods and services exports, which typically exceed 30% of GDP, expanded to almost 50% in 2007 then declined thereafter (see figure 2). The expansion reflects a boom in cruise tourism whilst the decline followed the financial crisis which started in 2008.

Transmission channels explored as important in the Caribbean context by Thomas (2009, p. 20) include trade credits.



Since data on trade credits for Belize is virtually non-existent, commercial bank loans to the agriculture and commercial fishing sector were instead examined.⁵ This was done with the expectation that where trade credits contracted, exporters would turn to the domestic market for alternate

⁴ Belize depends heavily on commodities (mainly sugar, citrus, bananas and marine products) and tourism services. Since 2007 also exports of petroleum has been significant.



financing. This analysis in fact shows a decline in credit to agriculture and commercial fishing in 2005 and 2006, followed by sharp increases to levels past that of 2001 over the 2007 to 2009 period. Interestingly, there were erratic changes in export of goods over 2005 to 2009 period. These trends suggest- increasing reliance on domestic resources to offset the effects of the economic decline.

Foreign direct investment is significant and shows a marked decline in 2009. On the other hand, official grants and remittances received both carry a very small weight in terms of GDP. Notwithstanding, remittances are recognized as an essential resource for those who are most vulnerable. This is particularly important in light of the fact that the poor and vulnerable have far less access to formal credit, so that remittances would outweigh private credit in their arsenal of financing options.

The changes resulting from external shocks that are evident at the macro-level of the domestic economy also transmit to communities, particularly through the labour market. For the economically disadvantaged segment of the population who

are the primary focus of this analysis, those sectors which employ the poor are important. These include the agriculture and tourism sectors which were largely affected by the FEC (see figure 3). The mining sector (reflecting the still relatively new oil industry) and the informal sector are also

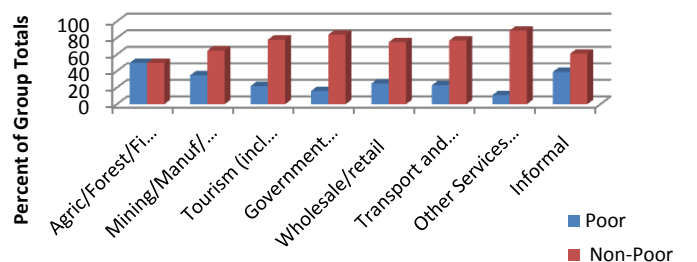
significant areas of employment for this population segment.

B. Social Protection Strategies and Priorities

i. *The Institutional Arrangements for Social Protection in Belize*

The TOR required suggestion of policy responses to mitigate the negative impacts of the crisis and this in turn requires an examination of the current risk management practices and priorities. Effective risk management is vital to ensure that external shocks do not cause significant socioeconomic setbacks and there are a number of agencies fulfilling this vital function in Belize. These mainly deliver social protection services and operate relatively independent of each other.⁶ Not all needs are provided for and it is generally accepted that less than 100% of those most

Figure 3: Employment by Industry per 2009 Poverty Assessment



in need are covered.

The main agencies along with their respective roles and target communities are described below.

Social Security Board: The Social Security Board administers the contributory fund that provides protection for employed and self-employed persons. This system provides for coverage of maternity and illness benefits, and for a social security pension benefit to be paid at the formal age of retirement (at age 65 versus pension being paid at age 55 on retirement from the public service). It also provides a limited non-contributory pension to the elderly based on means testing. In terms of addressing vulnerabilities, the system's main drawback is that there is no coverage of the informal sector, although there is now a provision for non-contributory pension payments to retirement aged men and women who have no means of income.

Ministry of Finance: The Ministry provides part financing for the national health insurance system and pays non-contributory pensions out of recurrent expenditure. There is also ad-hoc financing of major medical expenses provided to public servants in the event of trauma. In addition, the Ministry's fiscal policy and debt management functions are important for maintaining a stable macroeconomic environment and are therefore key components of risk management.

Ministry of Health: The Ministry of Health part finances the National Health Insurance, carries the full operating cost of government run health care facilities and provides a subsidy to the quasi-public Karl Heusner Memorial Hospital (KMH). Health care services are delivered at the main referral hospital, at three regional

hospitals (Northern in Orange Walk, Central in Belmopan and Southern in Dangriga) and at a number of polyclinics (such as the Matron Roberts and Cleopatra White Health Centers). Primary care services at the polyclinics and the regional hospitals are provided virtually free of cost, whilst prices for the KMH services are set below market levels.

National Health Insurance Service Providers: These providers are private sector organizations (and at least one government institution) that provide health care services to those who qualify, based on income and other criteria, for national health insurance in the limited geographic areas where these services are provided (Southside Belize City, Dangriga and Toledo).

Ministry of Human Development: The Ministry of Human Development provides welfare support through its Human Development Department to children, youth and families at risk and to the elderly and the homeless. The support includes a very modest cash transfer which is provided for a small pool of elderly persons who do not have reliable income or pension.

Ministry of Education: Through the Ministry of Education, Government provides financing of some 70% of operating costs for non-government schools and 100% for government schools. Financing is paid in the form of teachers' salaries for grant-aided primary and secondary (non-government) schools and full operating cost of government schools. There is also tuition grants provided to secondary school students through direct transfers and to second year students enrolled in two-year tertiary degree programs. These are carried out through

direct transfers to each school on the basis of enrolment levels. The ministry also offers a \$300 grant to primary school students based on need, and a number of scholarships for tertiary education to universities within and outside of Belize.

Ministry of Labour: The Ministry of Labour has embarked on a Decent Work Country Program adopted in June 2009 with tripartite endorsement by Government, the Chamber of Commerce and Industry and the National Trade Union Congress of Belize. The four strategic objectives that directly respond to current social challenges and are vital for fulfilling the MDGs and reducing poverty are⁷:

- a. Promoting and realizing standards and fundamental principles and rights at work;
- b. Creating greater opportunities for women and men to secure decent employment and incomes;
- c. Enhancing the coverage and effectiveness of social protection for all; and
- d. Strengthening of tripartite arrangements and social dialogue.

The Social Investment Fund: The Social Investment Fund is one of main the channels for community development initiatives. The SIF's portfolio of projects includes rural water systems and retrofitting of schools and community centres.

⁷ This follows the Tripartite Declaration and Plan of Action for realizing the Decent Work Agenda in the Caribbean (see Tripartite Declaration and Plan of Action for Decent Work in the Caribbean. Barbados, 12 October 2006).

The Ministry of Natural Resources and the Department of the Environment: This Ministry develops policies, measures, incentives and disincentives to encourage sustainable land and biodiversity management. In addition to regulations, the measures include stakeholder involvement in co-management of protected areas and through community monitoring.

ii. Current Social Policy Priorities

Given the autonomy of the agencies and lack of interconnectedness of the systems, there is significant scope for double dipping, in terms of clients accessing several measures. There are attempts at targeting, but it is generally recognized that those who are most vulnerable are still not the main beneficiaries receiving support. A number of programs being undertaken currently are aimed at addressing deficiencies; so that the vulnerable and under-resourced population receive the bulk of the support provided. These initiatives are concentrated in the education and social service areas.

Strengthening the Social Protection System

- The key social protection agency, the Ministry of Human Development and Social Transformation, is currently undertaking initiatives aimed at improving its operational effectiveness. These include (a) an assessment of the Ministry's organizational capacity (b) an assessment of the Ministry's programs and operating procedures and (c) an assessment of its information technology resources to strengthen its planning and targeting capacities. Assessment of

these three components aims to facilitate performance improvement measures that will help to serve clients better.

- In addition to the diagnostics indicated, the Ministry is also undertaking an assessment to strengthen knowledge and awareness of the conditions of current and potential clients and the challenges they face. This assessment would provide and opportunity to improve ways of adequately meeting needs.

Improving Public Assistance Coverage

- The public and social assistance programs executed through the Department of Human Services have been upgraded to facilitate improvement in the level of benefits paid to individuals and families. Another key measure aimed at improving social protection is the newly introduced provision under the social assistance program to provide a package of basic food item worth \$25.00 at half price. This measure will be piloted in the South Side of Belize City for one year beginning in October 2010. A review and evaluation is set for January 2011 to look at food type and needs, cultural and other factors, which may affect the program and subsequently influence the budget process.
- The last poverty assessment indicated that a person can survive off BZ\$35.00 per week. To qualify for the assistance, vulnerable households on the south side of Belize City will be assessed to

determine whether total income amount to less than the \$35.00 weekly per person per household.

- In addition, the Ministry is developing a 'Conditional Cash Transfer' program for the indigent. The necessary background and prerequisites for implementation are currently underway prior to the introduction of the pilot.
- The Government of Belize with assistance from the Inter-American Development Bank under its Social Policy Support Program has begun the process of setting up a Single Beneficiary Registry (SBR). The main objectives are to design plans for the establishment of a Single Information System for Beneficiaries (SISB) and to implement the plans by conducting surveys in the Stann Creek and Toledo Districts. The project is still in its embryonic stage and is currently working on the structure and direction for project take.
- The introduction of new programs for assistance in the form of financing or goods is the easiest, quickest way to alleviate immediate suffering. Striking a balance between providing short term assistance and longer term sustainable development programs, to eventually relieve some of the public burden is critical⁸.

• ⁸ Interview with A. Pennil Director Department of Human Development October, 2010

Improving Education Access and Equity

- Establishment of a Teacher Education Board is proposed and under consultation. This measure aims at enabling improved quality in teaching delivery and increased effectiveness management of the teaching corps.
- Formulation of amendments to the school financing mechanism for secondary schools is also underway. These measures are intended to support expanded access to secondary education from the current situation where 2 out of 5 persons of the relevant age cohort attend secondary school. When tuition grants were first initiated they were based on the then current disparate levels of tuition fees rather than a formula that would have accounted, inter-alia, for the cost of education delivery. The absence of a formula served to reinforce the existing inequities.

3. Community Level Evidence of Financial and Economic Crises and Impacts

A. Participatory Poverty Assessments Results and MDG Linkages

The PPAs show the main underlying conditions and risks prevalent in the focus communities to be the environmental conditions of their living habitat and the social risks posed by predatory behaviours on the part of adults outside the home who pull at the youths to engage in illegal activity. This refers especially to drug dealers and gang leaders who consistently attempt to recruit the children from within these communities. Notably, these risks preceded the onset of the financial and economic crisis, but appear to have become more intense after its onset.

Given the objective of contributing to advocacy for and prioritization of the MDGs, analysis and reporting on the issues above was targeted toward identifying implications of the FEC impact for Belize's chance of achieving the MDGs and on formulating mitigation measures that contribute to improvement in that regard. The PPA reports showed that changes and responses to the crises within the communities manifest especially in areas related to primary and secondary education (MDG 2), poverty (MDG 1) and vulnerability and health (MDG 6). There is also significant impact on women and children in the form of domestic violence which impedes gender equity (MDG 3) and in turn affects education (MDG 2) and health (MDG 4), and by extension poverty (MDG 1).

There is also indication of over-crowding of homes which would classify them as slums; moreover, many of the houses are observed to appear poorly constructed—highly susceptible to wind and water damage and not adequate for shelter during tropical disturbances.

The main ways in which the crisis appears to directly affect chances for MDG achievement at the community level and to have increased vulnerability are set out below. The implications for poverty eradication are organized per relevant MDG and respective targets. A snapshot of the issues and the MDGs impacted can be found at Annex 4.

i. Poverty Reduction

Number of persons living below the poverty line

- Participants all indicate that they are experiencing a decline in real income and therefore living “hand to mouth”, i.e. at subsistence levels.

Proportion of people suffering from hunger

- The participants indicate that other family members provide for them, and that they opt for cheaper food. This situation suggests declines in the nutritional value and/or level of calorie intake. This could result in undernourishment and malnutrition, which could in turn lead to higher susceptibility to communicable diseases and risks of non-communicable diseases such as diabetes, heart diseases and kidney distress.

ii. Universal Education

Ratios of girls to boys in primary education

- Some participants indicate that children are 'kept back' from school (at the primary level) because of a lack of clothes, shoes and/or other resources. *While mention was made of this coping strategy in several of the UNDP commissioned PPAs, the number of respondents indicating this as a measure in the CPA community meetings and transect walks was minimal.*
- Parents indicate that they are finding it increasingly difficult to find the lump sums needed to finance the transition from primary to secondary levels.
- Participants assert that over the recent years, there been an increase in trafficking of young girls by their parents.
- Participants recount incidences of child abuse and indicate an increase in levels. *While this is not an MDG indicator, it no doubt affects school performance and therefore poses a risk to the achievement of MDG 2.*

iii. Gender Equality and Women Empowerment

- Participants assert knowledge of increase incidences of domestic violence against women. This can directly undermine achievement of gender equity indicator for reducing incidence of domestic violence per agreed targets for the Caribbean.

Share of women in wage employment in the non-agricultural sector

- There is a perception by the female participants that the differential between men and women's wages has been increasing in recent years.

iv. Reducing HIV/AIDS, Tuberculosis, Malaria and other diseases

Condom use at last high risk sex

- PPA participants indicate an observed increase in levels of prostitution. If one infers that, as has been confirmed in other Caribbean countries, a significant proportion of these encounters are without the protection of condoms, a further deduction can be that *they can lead to higher health risks for contracting HIV/AIDS and other sexually transmitted diseases.*
- Another response to the recent declines in employment and income levels indicated by participants is postponement in seeking healthcare in order to reduce expenditures.

Have halted by 2015 and began to reduce the spread of Dengue and Malaria

- Participants assert that incidences of Dengue and Malaria are evident in their communities. This perception is confirmed in part by a spike in the rate of Dengue from 3.7 per 100,000 to 12.1 per 100,000 at the national level between 2006 and 2008, and from 8.9 per 100,000 to 35.2 per 100,000 in Belize City over the same period (Office of Director of Health

Services, Epidemiology Unit, 2007; *ibid*, 2009).

- Participants also point to increases in stress levels. This can lead to increased incidences of stress related diseases, which is consistent with the noted prevalence of non-communicable diseases amongst the top five causes of death in the country.

v. *Environmental Sustainability*

Proportion of urban population living in slums

- Some homes in the areas where participants of the PPAs reside are described as ‘makeshift wooden houses’, and ‘houses and shacks made of substandard material’. In addition to these observations by the facilitators of the PPAs, participants cite observations of increases in over-crowding and the implementation of ‘shifts’ in some homes in order to allow all persons a chance to rest.

vi. *Vulnerability related changes and/or coping strategies*

- Participants acknowledge higher dependence on remittances in recent years.
- The practice of begging is observed as being on the rise. It is interesting to note that participants indicated a perception of begging by women being more readily accepted than begging by men.
- Engagement in illicit and illegal livelihoods activities are increasing (sale of drugs, stealing and gambling).

The changes and strategies adopted point to the areas and types of interventions that should be developed to reduce the impact of the crisis and to support families to re-construct their lives and build resilience against future exogenous shocks.⁹ In the main, they imply a need for stronger social safety net provisions to support improved earning capacity of the least advantaged, ensuring children complete all levels of education and improving housing and habitat conditions. Current and prospective social safety net provisions and recommendations for specific areas of change are explored in later chapters of this report.

B. Statistical Analysis

The results of the PPAs were used as indicators for the empirical investigation of the impacts of the crisis on the same communities using labour force survey (LFS) data. Since the food and energy crises occurred in 2007 and the financial crisis in 2008, data from the 2006 LFS was used to establish a profile of the communities prior to the events. The analysis sought to identify key features of respondents from the same communities from which the PPA participants were drawn. To achieve this, enumeration districts (EDs) which fit within the boundaries used for the PPA were

⁹ An exogenous shock is defined by the International Monetary Fund (IMF) as “a sudden event beyond the control of the authorities that has a significant negative impact on the economy.” In addition to this definition, further understanding can be gleaned from the very definition of exogenous—which Merriam-Webster defines as “introduced from or produced outside an organism or system (<http://www.merriam-webster.com/dictionary/exogenous>, downloaded August 2, 2010).

identified. This could be successfully done for all of the communities *except Belama*, where there was only a single large enumeration district that included relatively affluent neighbourhoods such as the Buttonwood Bay area. This made it impossible to separate data for the Belama Phase III and IV neighbourhoods for which a PPA was conducted.¹⁰ The PPA areas which informed the analyses therefore are those listed below. Maps of these areas, as well as of the Belama community, can be found at Annex 5, whilst frequency tables generated through the statistical analyses can be found at Annexes 6 and 7.

Belize City

1. Port Loyola (mainly around the Jane Usher Boulevard)
2. Yarborough (mainly along the sea front)
3. St. Martin de Porres (an area within the Lake Independence constituency)
4. Pickstock (a portion of the political division)

Dangriga Town

1. Wageirale-Benguche
2. Back-a-Town

¹⁰ It is to be noted too that enumeration districts were reconfigured for the implementation of the 2010 census. Where Belama is concerned, the original large ED is now configured into approximately four new EDs. These allow for separation of the various Belama communities (Phases I, II, III and IV). This reconfiguration will apply to surveys undertaken subsequent to the census only. There was therefore no corrective measure available to allow for inclusion of Belama ED data in most of the analysis for this study.

Once the profile or key features of the 2006 LFS household and individual survey respondents from the areas where PPAs were conducted had been undertaken, analysis of the 2009 LFS data was attempted. This was intended to identify key features of households and individuals from within the same neighbourhoods that PPAs were conducted, as well as differences from the profiles of the 2006 LFS respondents. Due to data limitations, however, it was only possible to identify key features and differences at the household level.

The analysis aimed to verify both the impact on the communities implicit in the macroeconomic analysis and the results of the participatory poverty assessments. To this end, attempts were made to determine the following:

1. Underlying vulnerabilities of the communities;
2. Correlation between income and key variables linked to any of MDGs 1 through 8;
3. Extent of changes in a number of the key variables linked to MDGs related to those conditions where the PPAs indicated changes since the onset of the crisis; and
4. Correlation between income and the variables a) immigrant status, b) dependence on remittances, c) informal sector employment, d) self-employment and e) access to government programs.

Overall, the analysis sought to measure the extent of changes in income and in key variables linked to MDG achievement within the communities since 2006. *This was done in an effort to examine from a*

“baseline” that preceded the onset of the food and energy crises, which both occurred in 2007 and which preceded the financial and economic crisis. The specific questions which drove the query and statistical analysis are set out below.

1. What are the differences in housing, education, the possession of communication and information technology equipment for all participants in the LFS and those living in the areas, which the PPA focused on? What changes are evident in those differences between 2006 and 2009? What is the implication in terms of the impact of the FEC and the increases in energy and food prices?
2. What were the predominant livelihoods occupations in 2006 and 2009 of those persons living in the neighbourhoods that were the focus of the 2010 participatory poverty assessments?
3. Which of the MDGs are most impacted by the disadvantages and survival strategies of the residents of the areas of focus of the PPA?
4. To what extent do LFS results for the 2006 – 2009 years coincide with LSMS/CPA findings of predominance of informal sector in occupations of urban poor?
5. To what extent have the communities accessed government assistance during the period 2006 to 2009?
6. What are the implications of living habitat conditions for the MDGs?
7. What is the change in proportion of persons in the communities born outside of Belize?

8. What is the extent of change in ethnic make-up of respondents in the communities over 2006 to 2009?

i. The 2006 Status

Households in PPA Focus Group Communities in the Belize City

Results of survey questions related to household conditions for those EDs in the communities from which PPA participants were drawn were compared to those for all Belize City EDs. A higher percentage (5.6 percentage points) of the PPA communities either **owned or leased their homes** or **squatted**. Furthermore, there was virtually no difference (0.2 percentage points) between homes that had water closets in the areas where PPAs were conducted and those of all LFS respondents. Notwithstanding, there was a significantly higher percentage (2.8%) of homes with neither water closet or pit latrines in the areas where PPAs were undertaken than in the homes of all Belize City labour LFS respondents combined (0.7%).

The proportion of PPA communities with access to **piped water** was slightly higher (96.5%) than that of the full dataset (95.7%). A lower proportion of the respondents in EDs within the PPA areas indicated use of **standpipe** and **hand pumps**: 2.1% and 51.7% respectively for the PPA communities compared to 2.9% and 63.0% respectively for the total dataset. A slightly higher percentage (23.8) of the households from the focus communities had access to **covered vats and drums**. Interestingly, these households indicated higher levels of access to **purified water** (79.7%) than did all the EDs in the city (74%). Most importantly, however, is that the percentage of these respondents that

indicated purified, bottled water as **their main source of drinking water** was lower (60.8%) than the percentage of all Belize City LFS respondents citing this as their main source (66.9%). A full one quarter (25.9%) of the PPA communities used piped water as their main source of drinking water compared to the proportion of all Belize City LFS respondents (21.3%). Furthermore, a significant 11.9% use covered drum, vat or well as their main source.

Where **telephone lines and computers** are concerned, the proportions with access and possession within the EDs covering the PPA areas were 56.6% and 14.7%, respectively, compared to 61.5% and 26.6% for the full dataset.

Individuals in PPA Focus Group Communities in the Belize City

In terms of **ethnicity**, there were higher proportions of **Creole** and **East Indian** residents of the PPA communities than there were in the full LFS sample, and a significantly lower population of **Mestizos**. There were also slightly lower proportions of **Garifuna** and **Asians**. The difference in the proportion of Maya population in both groups was minimal, and whilst there were marginal proportions of Caucasians and Mennonite in the full dataset, none of these ethnic groups were represented in the PPA communities.

Despite a wide variety of countries of origin represented in the full dataset, only ten were cited by the respondents in the PPA communities as their country of birth. Of the respondents from these communities, 95% were born in Belize. This is a full 7.4 percentage point more than the 87.4% of all Belize City respondents born in Belize. Of

those living in the same communities who were born outside of Belize, 2.6% were born in Central America. By comparison, the proportion of all Belize City respondents who were born in neighbouring Central American countries was 3.6%.

Those from the PPA communities who were **self-employed** or **owned businesses** made up 24.4% of the residents of the same areas whereas 27.0% of respondents in Belize City owned their own businesses. There were slightly more government and private sector employed persons living in the same areas (portions of Port Loyola, Pickstock and Lake Independence) than in all of Belize City. A full 1.9 percentage points less of the respondents from the PPA communities were employed by statutory bodies than were so employed in the city as a whole.

The proportions of those surveyed in the PPA communities who were **employed** in Tourism, Manufacturing and Agriculture were higher than the proportions in the same industries in all of Belize City. Reflecting this, the proportion of residents in these areas who cited **occupations** as Agriculture and Forestry Workers and Plant and Machinery Operators were much higher (23.4% and 17.9%, respectively) than the proportions of all Belize City LFS respondents with the same occupations (2.1% and 6.7%, respectively).

Previous occupations cited by PPA community respondents showed the same degree of differences in these two occupations—Agriculture and Fisheries and Plant and Machine Operators—between the two groups. Interestingly, however, the highest proportions of respondents in both the PPA communities and the full set of Belize City LFS respondents indicated a

desire to shift to the occupation of service workers and shop sales workers and craft and related occupations. A slightly higher proportion of the PPA community respondents wanted to **shift to occupations** in the technicians and associate category and in the agriculture and forestry category than the proportion of respondents for the entire city wishing to do so. Of further interest, a full 2.2 percentage points less of the respondents in the PPA communities were looking to occupations as clerks than that of the entire Belize City.

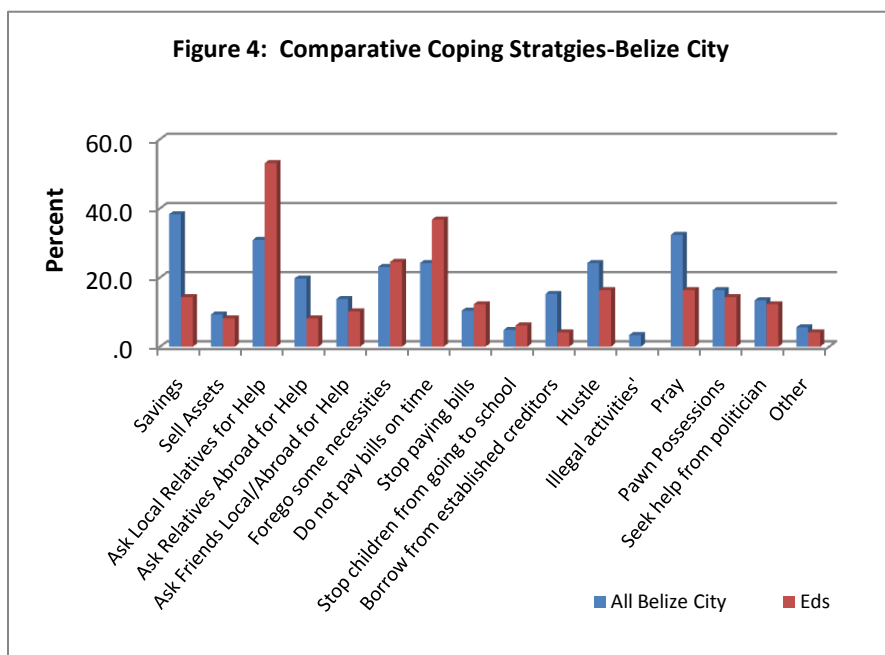
Comparison of the **years of completion of schooling** between the PPA communities' respondents and those for all of Belize City shows that the former group had a higher proportion of those who completed eight years of schooling (primary level), than the latter group, but lower proportions of those completing twelve (high school level), fourteen (Sixth Form/Associates) and Sixteen (University/First Degree). It was important to underscore that the assumption on levels implied by the brackets here do not take account of repetition.

Finally, examination of **income levels** shows that the lowest 50% of the respondents from the focus group communities earn \$1,079 per month or less whereas the lowest 50% of all Belize City respondents earn \$1,439 per month or less. Also, a

higher proportion of the PPA communities **rely** on **savings** and on spouses, partners and other sources of income than in all of Belize City.

Coping Strategies of PPA Focus Group Communities in Belize City

Coping strategies which were relied on significantly more by those Belize City LFS respondents living in the geographic areas from which PPA participants were drawn than by all respondents were the following:



request for assistance from relatives living in Belize, foregoing necessities, not paying bills on time or ceasing payment of bills (see Figure 4). Of further note is that the proportion of the wider set of respondents that cited savings, praying and hustling as coping strategies was significantly higher than that of the PPA focus areas.

There was virtually no difference between the proportions that relied on selling assets. Of most concern from the perspective of risk to MDG achievement, however, is that

although the difference is small, a higher proportion of those living in the areas from which the PPA respondents were drawn indicated they rely on holding children back from attending school. This is consistent with the findings of a separate PPA conducted by the National Assessment Team as a part of the country poverty assessment process (see Box 1).

It is interesting to note also that whilst a percentage of all Belize City respondents to the 2006 LFS indicated use of illegal activities as a coping mechanism, no respondent from the areas where the PPAs

which limited the analysis. Furthermore, the fit of enumeration district for the Back-A-Town area was not as close as it was with the Belize City EDs to the PPA focus group areas there. In fact the ED which incorporated Back-A-Town also included areas to the East, West and South of the PPA boundary (see map of area South by Havannah River to Salmwood Street, Annex 5). This therefore included more economically affluent areas such as the Front Street.

Some 13 to 25 households in the EDs that covered Wageirale-Benguche and Back-a-Town responded to questions regarding

Box 1: Coping and Children's Education

"...it is noticeable that reasons relating to poverty (e.g. truancy, lack of money/uniform, home duties and work) which overall accounted for 14% of the reasons for missing school were more prevalent (20%) in the lowest quintile, i.e. amongst indigent households. The average number of days missed is around 3, less than one per week. However the PPAs revealed that the need for children to work or undertake home duties is often manifest not in absence from school but in late arrival and sleeping and inattentiveness during classes.

Country Poverty Assessment, section 4.7, p.85

were undertaken did so. This is contrary to the findings of the PPA conducted through the CPA process (see Box 2) and may reflect respondents' reluctance to cite such activity for fear of repercussions. Another point of interest is that the proportion of respondents from the PPA areas that rely on politicians for help is lower than those for all of Belize City.

Households in PPA Focus Group Communities in the Dangriga

The number of household responses for those communities in which the PPAs were conducted in Dangriga was very small,

ownership of houses and land, and sewer system and telephone and internet access. In these cases, as well as that of questions which garnered the smallest number of respondents (of 4 persons) and which are not included in the analysis here, PPA area

Box 2: Coping and Illegal Activities

Across the board, the PPAs showed that some individuals and households were involved in illegal activities as a supplementary means of supporting the meagre income.

Country Poverty Assessment, p. 99

respondents accounted for at least 10% of the total LFS respondents in all of Dangriga Town.

In the main, the responses showed higher percentage of **ownership or lease of houses and land** by those persons living in the two areas that PPAs were conducted than for all Dangriga Town respondents. The number of respondents from these areas that indicated use of pit latrines (8.3%) was lower than that of all Dangriga respondents (15.8%). Unlike the case with PPA areas in Belize City, none of the respondents from the Dangriga PPA focus areas indicated that they had no toilet facilities.

There were no significant differences in the percentages of households with **telephone** installed in their homes between the respondents from the areas in Dangriga from which the PPA participants were drawn and those from all of Dangriga Town. On the other hand, the proportion in the PPA areas with **access to computers** was a full 5.0 percentage points more than that of all Dangriga Town respondents.

A significantly higher proportion of the PPA communities (8.4%) indicated standpipes and covered vats, drums or wells as their **main source of drinking water** compared to the proportion (4.5%) of all Dangriga Town LFS respondents. There were no differences between the proportion citing bottled water as their main source whereas more of all Dangriga Town respondents (66.2%) cited piped water as their main source than the proportion of the PPA communities that did.

Individuals in PPA Focus Group Communities in the Dangriga

The number of respondents in the PPA communities of the Wageirale-Benguiche

and Back-A-Town areas of Dangriga was small, but for the most part totalled more than 10% of the total 2006 LFS respondents living in Dangriga Town. As with the PPA communities in Belize City, the proportion of **Creoles** and **East Indians** the PPA communities in Dangriga Town were higher than the percentage of the entire town. On the other hand, there were slightly higher proportions of **Mestizo** and **Caucasian** respondents in these areas than in all of Dangriga town. A smaller percentage of the respondents in the PPA communities were **born in Belize** than the percentage of the same group in all Dangriga respondents: 86.8% compared to 89.4%.

A significantly lower proportion (14.7%) of the residents in the PPA communities in Dangriga **owned their own businesses** or were **self-employed** than the proportion (30%) of all Dangriga respondents that did. Moreover, there were higher proportions of government employees, and those working at statutory agencies or in the private sector living in the PPA communities than the proportion of all Dangriga respondents.

Those working in transport, financial intermediation, general government services and community, social and personal services made up a higher proportion of LFS respondents from the Wageirale-Benguiche and Back-a-Town areas than in all of Dangriga. The proportions of respondents from the same areas working in other sectors were lower, and except for the citrus industry, there were no respondents working in the primary sectors (agriculture, fishing and mining).

The percentage of residents of the Wageirale-Benguiche areas who completed eight years of schooling was slightly lower

than those in the entire town, and the proportions completing twelve and sixteen years were higher.

Coping Strategies of PPA Focus Group Communities in Dangriga

There were only four respondents to the coping question in the 2006 LFS from the area where the PPAs were conducted. As a result, no analysis was done of coping strategies in Dangriga Town.

ii. The 2009 Status

Households in PPA Focus Group Communities in the Belize City

As in 2006, higher proportions of those who live in the areas from which the PPA participants were drawn indicated through the 2009 LFS that they either owned or leased their **homes** and **lands** compared to all Belize City survey respondents. A slightly higher proportion also indicated their homes had water closets. Compared to 2006, the proportion of respondents with water closets from the areas where the PPAs were undertaken was the same at 2.8%. On the other hand, the proportion of all Belize City respondents with no toilet facility (water closet or pit latrine) was higher (1.3%) than in 2006 (0.7%).

Reflecting the trend across the Caribbean of preference for **cellular** service over fixed lines, the percentage of Belize City household LFS respondents with telephone was lower in 2009 than in 2006. This included those areas where PPAs were conducted. Notwithstanding, the proportion of 2009 respondents with fixed line connections in the PPA communities was lower than that for all respondents. This implies that the overall situation noted

in 2006 where residents of the PPA areas appeared to have less access to communication than those for all Belize City was unchanged.

The percentage of respondents both from all Belize City and the PPA areas with computers in the home increased from 2006 to 2009. Furthermore, whilst the percentage of homes with computers in those areas where PPAs were undertaken was lower than that for all respondents, a smaller difference recorded between the level of access of the two groups in 2009 (7.1 percentage points) than was noted in 2006 (11.9 percentage points).

A significantly lower proportion of the Belize City 2009 LFS respondents cited **pipled water** as their main source of drinking water than in 2006, and a higher proportion indicated their source as purified bottled water. On the other hand, the proportions of the households in areas where PPAs were conducted that cited piped water as the main source in 2009 was almost the same as that for 2006. Reliance on **bottled water** was higher in 2009 than in 2006 for this group also, whilst use of covered **vats**, **drums** and **wells** was significantly lower.

4. Key Risk Management Issues, Identified Changes and Recommended Measures

A. Key Issues and Identified Changes

i. Economy

Whilst income data was not available for analysis from the 2009 LFS, the responses in the PPA sessions as well as the results of the country poverty assessment (CPA) show that the economic situation has become more acute. The CPA results confirm this change over the past decade, but the PPAs conducted by Belize Enterprise for Sustainable Technology suggest that the increased pressure has been more acute over the latter part of the decade. This coincides with the onset of the financial crisis.

ii. Employment and Living Standards

Whilst no data was available for comparison of the 2009 average incomes to those for 2006, the knowledge that average incomes of those persons who live in the PPA focus areas were lower than that for all survey respondents in 2006 is important. This suggests that there is less likelihood that these residents would have a financial buffer against shocks. This impression is reinforced by the fact that use of savings is one of the lowest ranked coping strategies for respondents from the PPA focus areas. It also coincides with PPA participants' description of their own existence as "hand to mouth", or barely at subsistence level.

iii. Self Employment and Entrepreneurship

Although the proportion of 2006 LFS respondents from the PPA focus group

areas was lower than that for all Belize City respondents, the differences were not significant enough to be alarming. In addition, the CPA showed the informal sector as a major source of employment for the poor. These factors together underscore the enabling conditions for self-employment as a critical component for ensuring improved income generating capacities of residents of these areas.

iv. Education

The average years of schooling of 2006 LFS respondents from those areas where PPAs were conducted was lower than the average in all of Belize City. As well, the income levels were also lower suggesting a need for measures toward improving access to education. Moreover, the predominance of average years of schooling of eight years over those of twelve and sixteen suggest that many respondents did not attend high school. When combined with coping strategies of holding children back from school, this suggests the need for specific measures to promote access to **and** participation in secondary schools and beyond.

v. Housing, Water and Sanitation

The higher proportion of house and land ownership amongst PPA areas is notable and may be counter-intuitive. This feature may reflect two factors. The first would be that these areas, with the exception of Belama in Belize City, and Wageirale in Dangriga, are among the earliest settled. A second factor is that land ownership in part represents a risk mitigation strategy. Ownership is often sought by Belizeans in order to ensure that shelter is secured.

vi. Access to Communication and Technology

Whilst levels of access to communication and technology appear to have improved between 2006 and 2009, there is a need for improved income levels that will enable equity in access between those residents of the PPA focus group communities and the rest of the urban population, especially in Belize City.

vii. Susceptibility to Natural Disasters

The ownership status notwithstanding, the housing and habitat conditions described by the PPA facilitators suggest significant need for housing conditions of the PPA focus area residents to be improved in order to mitigate disaster risk and to cope with catastrophic events. The effects of Hurricane Richard on the homes and livelihoods of residents of the Yarborough community, one of the PPA areas, reinforce this need.

viii. Demographic and Migration Trends

It is notable that the proportions of migrants are lower in the areas where the PPAs were undertaken, and that moreover where migrant populations are identified, they are predominantly from neighbouring Central American countries. These features are especially marked in Belize City, whereas there appears to be less distinction in Dangriga Town.

ix. Social Welfare Assistance

The low proportions indicating access to social assistance is notable. Consideration must be taken of the fact also that survey questions may not be couched around use of heavily subsidized services, such as in the areas of health (primary, secondary and

tertiary public sector services are all heavily subsidized) and education. Use of these services constitutes access to social welfare assistance but may not be considered or cited as such by respondents.

x. Local Governance

The responses to questions of whether any assistance has been accessed from politicians suggest that there is little reliance on officials for coping by PPA participants. This result is counterintuitive in light of a widely held belief that the less advantaged are the main clients of weekly clinics of their area representatives. It is believed, moreover, that these visits are often in search of financial assistance to address utility bills, among other things.

xi. Remittances and Social Capital

Whilst remittances was expected to feature strongly as a means of coping for the communities examined, their responses indicate a lower reliance on relatives living abroad and more frequent access domestic support system. This implies that there is still a fair level of social capital which can be factored into solutions for improvement.

B. Measures for Mitigation of FEC Impacts

The key objective of this analysis is the identification of the impact of the FEC on vulnerability and poverty. In this regard the analysis shows lower average income levels and years of schooling in the communities in which the PPAs were conducted than in the rest of the urban areas of Belize City and Dangriga. In addition coping strategies used by the residents of these areas result in loss of nutritional intake and children's time in schools. These pose further threat

to any effort to improve income levels and to health levels. The latter suggest further risk of remaining locked into poverty cycle.

The most pressing needs for mitigation are toward supplementing and supporting permanent increases in income levels.

Based on the analysis, measures to support mitigation against the FEC impacts must be focused on supporting communities to cope with shocks and to acquire the means to generate and/or diversify income.

The latter suggests the need for tools to build human capital and financial asset, which are key mitigation strategies.

One of the main measures for addressing families' coping strategy of holding children back would be a conditional cash transfer which is under development, and being piloted to an extent in Belize City. This program will hinge especially on children's attendance in schools and health clinics, and can be one of the single most effective measures undertaken.

Other initiatives that could be implemented to support increase in earning potential include for immediate impact:

- *A funded training program in a viable trade:* For immediate impact, an activity which the residents of the communities are skilled in or can be easily trained for, and which has good market potential, should be identified and built on in terms of economic a training program.
- *A rotating savings credit program used to finance a trade:* Using a value chain approach, financing options for the same activity identified should be established. A rotating-saving-credit arrangement anchored in an institution may be

included. This institution should be a credible and financially sound non-profit or a window at a credit union.

- *Small grant program to provide training and seed funding to women:* Women entrepreneurs from the communities of concern should be supported through training grants and seed funding for a viable economic activity. A viable agency for channeling such funds and for coordinating the training could be the Young Women's Christian Association (YWCA).
- *Expansion of Small Grants Program at Youth Business Trust and through the Development Finance Corporation* to pilot new and targeted special programs, with the objective of alleviating the difficulties in 'poorer' communities. This would enable the youths and aspiring entrepreneurs to access startup funds for businesses to become self-sufficient.
- *Pool procurement:* Existing artisanship and other micro-credit operations can benefit from pooling procurement requests to reduce cost. To ensure adequate levels of trust and continuity, a non-profit institution could anchor the procurement process.
- *Community Housing Improvement Program:* A variation of the Habitat for Humanity approach should be developed for areas where improvement in housing conditions needs are most acute. This measure is one of the most urgent in terms of mitigation against disaster risk.

Toward medium-long term impact and systemic improvement in income and living conditions:

- *Business Incubators*: This initiative could include identification of funding for national business incubators for small and medium enterprise exporters. Care would have to be taken to ensure that the measures of the incubator promote graduation within a specific period and that the beneficiaries are aware of, agree to and comply with requirements for disclosing business plans and progress with mentors and for receiving and applying recommendations for improvement of plans and plan compliance as they progress. Another avenue could be the promotion of use of an international incubator that is established to support transnational business. This could be a measure aimed at more established businesses, however, and the returns in terms of additional employment generated in Belize may have less impact.

Finally, there is a pressing need to build social capital and strengthen organizations that can work at the community levels, such as non-government organizations (NGOs) and community groups. The reliance of the respondents on local residents and to a lesser extent on politicians for help in terms of coping suggests that their support base must be easily accessible and trusted. Developing or strengthening community level organs that can collaborate in areas such as housing improvement and skills training may be one of the single most important measure, aside from the ongoing

effort to establish a conditional cash transfer program and SISB. In light of the pull on the youth indicated through the PPA, however, these programs will need to be injected with conflict resolution components.

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Annex 1: Approach to the Analysis

The approach used to meet the objectives and outputs set out in the TOR are described below.

1. Determination of the four transmission channels through which the FEC had the most significant impact on Belize: The sources of data and analysis include:
 - a. Central Bank of Belize Annual Reports - macroeconomic analysis, balance of payments statistics and trends, monetary aggregate trends, fiscal and public sector debt trends
 - b. Statistical Institute of Belize - labour force statistics, domestic production and prices, international merchandise trade, living standards measurement
 - c. Reports - country poverty assessments and participatory poverty assessment
2. Establishment of links through which the macro-level impacts directly affect social and economic conditions at the community level: To meet the TOR requirement of ensuring that the recommended measures to redress the support MDG achievement, this step includes identification of the specific MDGs affected.
3. Examination of community level changes that can be attributed to the FEC based on the country poverty and participatory poverty assessments. The communities used to identify the changes are those for which participatory poverty assessments were undertaken through initiative of the Ministry of Economic Development and the United Nations Development Program. The communities are-
4. Research and analysis of data and information to identify and measure trends in indicators which show extent of socioeconomic vulnerability and FEC impact at the community level: Sources would include:
 - a. Living standards survey and/or labour force surveys;
 - b. Household survey;
 - c. Information and/or interviews from key social sector ministries
 - i. Ministry of Human Development - Statistics and historical data on supply of and demand for financial support to families in need; and
 - ii. Ministry of Education - Education Statistics for schools located in key urban areas.
5. An Examination of the relevant policies and programs that influence conditions at the micro / community level and of communities' access to resources and assets.
6. An Assessment of institutional frameworks of agencies with strong links to the communities to determine the extent to which they are able to help communities respond to the FEC impact. Such agencies will include:
 - a. Local Government (city and town councils)
 - b. Government and NGO operated health and education facilities.
 - c. Financial intermediation and technical support agencies (this group would include Credit Unions and NGOs).

7. Assessment of adequacy of policies, programs and levels of community access in terms of responsiveness to external shocks, and particularly to the changes attributable to the FEC.
8. Identification of areas where responses have been less than optimal and/or where significant improvements can be realized, particularly toward improving MDG achievement efforts and thereby ameliorating levels of vulnerability and poverty.
9. Formulation of report on key macro and micro level trends, measures and responses to the FEC impact in terms of and affecting-
 - a. Employment and living standards
 - b. Housing, social welfare assistance
 - c. Demographic and migration trends
 - d. Local governance
 - e. Environmental management, particularly disaster risk reduction

Annex 2: Key Concepts

Effectively identifying the FEC impact on poverty and vulnerability of communities in Belize City and Dangriga requires a clear understanding of a number of key concepts. This understanding in turn informs the determination of conditions and indicators that will demonstrate the impact of the FEC at the national level and its link to community level changes. More specifically, clear concepts help to focus the research in such a way that the required evidence of the FEC impact on poverty and vulnerability can be unearthed. It also helps to formulate the effective policy and response measures for mitigation.

The most important terms for the execution of this study were (a) exogenous shocks, (b) transmission channels, (c) poverty, (d) vulnerability and (e) social protection. The definitions of these concepts as applied and/or adhered to in this study are described in the remainder of this Section.

A. Exogenous Shocks and Transmission Channels

Whilst Varangis et al assert that defining a shock is a matter of judgment; there is general recognition of the recent financial and economic crisis as a shock - given the global nature of the event and evidence of its impacts. For Belize, as well as other small economies whose commodity and financial markets do not influence global trends, the circumstances leading up to, as well as the crisis itself, were beyond its control and certainly exogenous.

B. Poverty and Vulnerability

The concepts of poverty and vulnerability are critical to the objectives of this assessment. In Belize, as in the rest of the Caribbean, poverty is measured on the basis of the minimum daily caloric intake of 2,400 per person as recommended by the Caribbean Food and Nutrition Institute. This recommended minimum is factored into the calculation of an indigence and poverty line for individuals and households. The indigence line is the cost of a basket of food that would yield the required daily caloric intake. This then taken as 40% of the poverty line, with the other 60% consisting of the cost of non-food essentials. In the past two country poverty assessments for Belize (2002 and 2009), the cost of the baskets comprising the daily caloric intake, and by extension the indigence and poverty lines, have been estimated for each of the six administrative districts. *It is important to note that in determining whether individuals and households consumption meets or exceeds the recommended daily minimum caloric intake, consumption of home grown foods is taken into account.* On the other hand, the data analysis for this study takes only the income reported by the survey respondent into account.

The concept of vulnerability is also essential for framing the enquiry of this study. Global Crisis Solutions (nd, p.2) defines vulnerability as-

“...a set of prevailing or consequential conditions, which adversely affect the community's ability to prevent, mitigate, prepare for or respond to hazard events. These long-term factors, weaknesses or constraints affect a household's, community's or society's ability (or inability) to absorb losses after disasters and to recover from the

damage. Vulnerability precedes the disaster event and contributes to their severity, impedes disaster response, and may continue long after a disaster has struck.”

Another useful definition is vulnerability as “the characteristics of a person or group and their situation that influence their capacity to anticipate, cope with, resist and recover from the impact of a natural hazard (*At Risk*, Wisner et al., 2004: 11).” The literature on vulnerability stems mainly from natural disaster and mitigation literature, and focuses on the exposure and risks to structures, systems and persons in the face of a natural hazard. There is small pool of literature on vulnerability to exogenous shocks, such as the financial and economic crises. Notwithstanding, the fundamental issues of readiness and ability to mitigate, cope with and recover from an exogenous shock remain the same.

C. Social Protection

The ability to withstand external shocks such as the financial and economic crises of 2006/07-2008/09 hinges on risk management systems and measures. These are often enshrined in a social protection system. Holzman and Jorgenson define social protection as “public interventions to (1) assist individuals, households, and communities to better manage risk and (2) provide support to the critically poor” (2000, p. 3). This definition of social safety builds on a social risk management framework which recognizes all households and individuals as being vulnerable to both natural and man-made risks. This latter includes economic downturns or recessions. The authors further indicate that, given this definition and the underlying framework, social safety provisions are, inter-alia:

- A safety net as well as a springboard for the poor;
- A type of investment in human capital formation, rather than a cost; and
- A focus on the causes of poverty, rather than the symptoms.

Building on Holzman and Jorgenson’s definition, the World Bank’s Poverty Reduction Strategy Sourcebook describes measures to design an effective social protection program (draft, n.d.). Importantly, the identification of structural and transitory vulnerabilities is essential for the design of an effective program. A set of structural and transitory vulnerabilities identified can be found at Box 1 overleaf. The indicated impacts of the FEC arising from the PPAs and reinforced by the statistical analysis were assessed to determine which of the two groups they fit so that the best recommendation could be made for interventions as required by the TOR.

Box 1: Sources of Vulnerability and Risk Relevant to Social Protection

Structural vulnerabilities

- High levels of poverty, large numbers of extreme poor, and high levels of inequality
- Lack of access to basic services
- Seasonality of employment, income, or consumption needs
- High levels of lawlessness and crime
- Geographic, gender, or ethnic concentration of the poor
- Poor macroeconomic, labor, and social policies
- Low asset levels and lack of asset portfolio diversification
- Low skill levels of labor force
- Structural unemployment (for example, for youth, graduates, or women)
- Limited social and family networks or limited flow of information
- High levels of child labor
- Permanent physical or mental disability

Transitory vulnerabilities

- Natural or weather-related, for example, earthquakes, floods, droughts, hurricanes, or pests
- Economic downturn or crisis, for example, recession, transition, inflation, wage arrears, changes in taxation or spending, decline in production in sectors from which workers are immobile, job loss
- War, conflict, and violence (national, regional, or individual)
- Illness or injury, for example, individual illness, epidemics, or temporary physical or mental disability
- Life cycle events, for example, effects on household income of old age, death of a household member, widowhood or family breakup, or multiple births

Taken from Table 17.1, p. 168 of
Poverty Reduction Strategy Sourcebook

D. Macroeconomic and Transmission Indicators

These impacts occur through transmission channels, such as those described by Thomas (2009) and Nissanke and Thorbeke (2005), selectively described below.

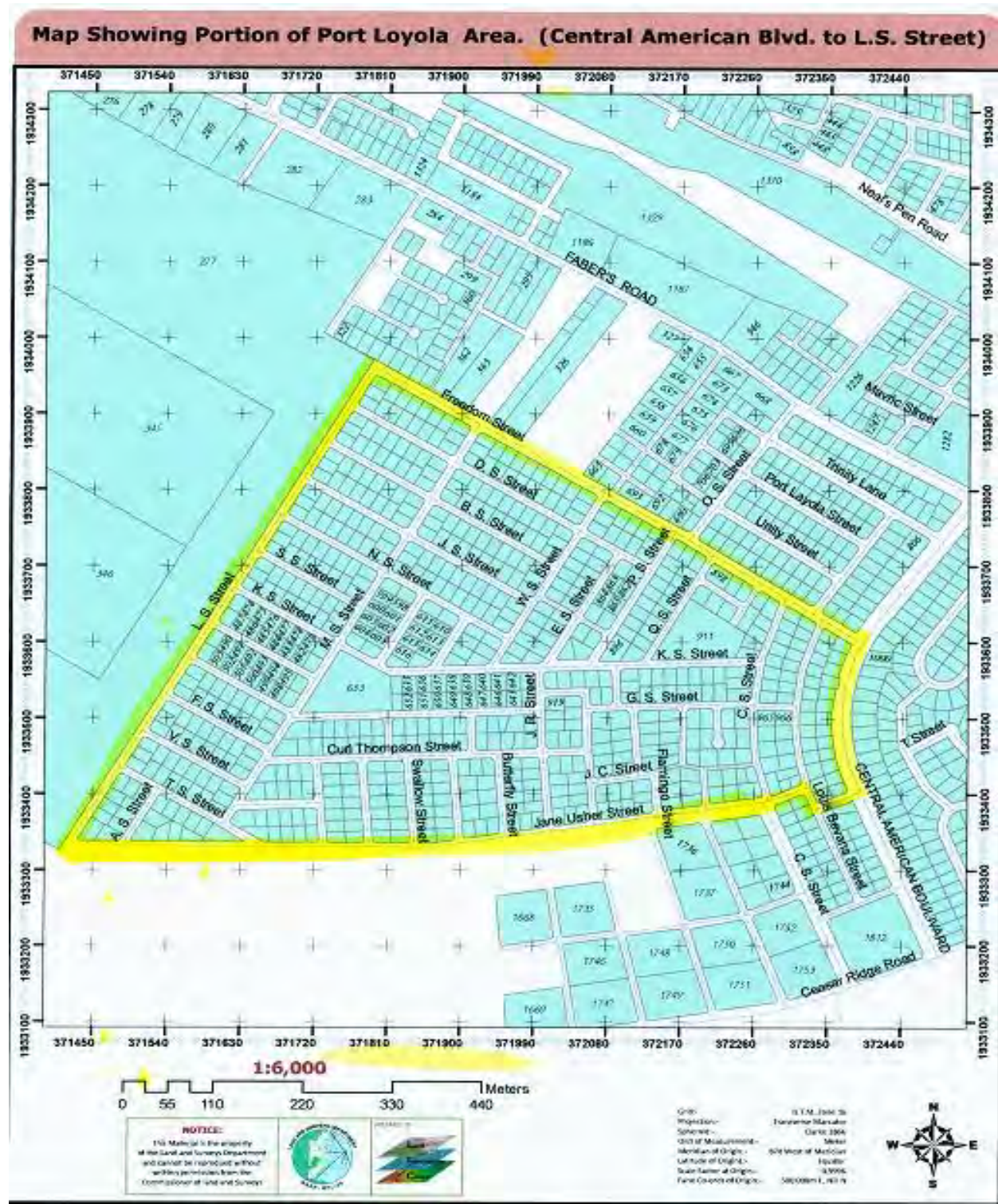
1. *Exports of Goods and Services*: Recession in the developing countries to which Belize exports goods and services led to a decline in demand and therefore a fall in earnings from abroad. This was most evident for export of tourism services, which declined by 11.3% in 2009 from 2007 levels.
2. *Terms of Trade*: A direct result of the recession is increase in the price of imports resulting especially from higher production costs, which combined with the decline in export volumes means worsening terms of trade.
3. *Exchange Rate*: With a fixed exchange rate regime, an increase in demand for foreign currency arising from higher import prices coupled with a fall in supply resulting from declining exports leads to increased pressure on the exchange rate peg
4. *Trade Credit*: There is much anecdotal evidence across the Caribbean and in Belize to suggest that, from both US-based and national/regional banks, export credit contracted significantly. This would have had the effect of further contracting economic activity.
5. *Official Development Assistance*: Inflows of official development funds, particularly on a bilateral basis, would have been constrained or reduced because of real or anticipated declines in fiscal revenues in developed countries.
6. *Foreign Direct Investment*: A recessionary climate and credit crunch would have led directly to decisions of private sector agencies not to expand businesses and therefore reduce inflows of foreign direct investment.
7. *Remittances*: For most Latin American and Caribbean countries remittances from emigrants declined, reflecting the labour market conditions in their host countries.
8. *Migratory Labour*: Slowdowns in economic activity may have led to a reduction in the demand for migrant labor, in Belize. The extent to which this would have affected the national economy needs to be determined.
9. *Financial Contagion*: The pressure on financial institutions in developed economies led to the collapse of at least two regional financial institutions. The extent to which these companies had interests in Belize and the effects on the national economy would have to be determined.
10. *Informal Economic Activity*: An increase in unemployment rate and the cost of living lends to higher activity on the informal and/or illicit markets. Evidence in these cases would be anecdotal, and would have to be further gathered and/or assessed.

Annex 4: Key Issues Highlighted by Participator Poverty Assessment per Urban Community

PPA Participant Areas	Condition, Change or Response	MDG Area Impacted
Prevailing Conditions and Underlying Risks		
Wageirale-Benguiche	No electricity	MDG 7
	Single Community Water Pump	MDG 7
	Makeshift Wooden Houses (vulnerable to hurricanes)	MDG 7
	Thorough ways meandering around homes (no planning, vulnerability)	MDG 7
Port Loyola	Informal settlements in un-surveyed wetlands	MDG 7
St Martin de Porres	High number of informal settlements in swamp and wetlands	MDG 7
	Houses and shacks made of sub-standard housing material	MDG 7
Changes, Responses and Survival Strategies		
Wageirale	Decline in (receipt) of remittances	MDG 1
	Cheaper food (nutrition and caloric intake compromised)	MDG 1
	Seeking housekeeping jobs (low income)	MDG 1
	Children kept back from primary school because of lack of clothes and shoes	MDG 2
	Increase in domestic violence against women	MDG 3
	Increase in health problems due to stress and poor diet	MDG 6
	Prostitution, including by girls as young as 11 years	MDG 6
Back-A-Town	Hand to mouth existence	MDG 1
	Under-nutrition	MDG 1
	Children out of school for lack of resources	MDG 2
	Teenagers moving in with older men	MDG 2
	Increase in domestic violence	MDG 3
	Prostitution (risky health habits); increase in HIV/AIDS	MDG 6
	Postponing expenditure on health care and basic needs	MDG 6
Yarborough	price increases/cost of living rises	MDG 1
	Gambling	MDG 1
	Drug and alcohol use	N.A.
	Difficulty accumulating resources for cost of transition from primary to secondary school	MDG 2

	Child prostitution	MDG 2/MDG 6
	Increase in level of crime	N.A.
	Youth delinquency	N.A.
Belama Phase IV	Malnutrition	MDG 1
	Cutting back on type and quantity of food	MDG 1
	Children withdrawn from school	MDG 2
	Children under-resourced for school	MDG 2
	Increase in domestic violence	MDG 3
	Women feel exploited in terms of wage differentials	MDG 3
	Increase in Dengue Fever, Malaria and Flu; Malnutrition	MDG 6
	More crime	N.A.
	Building and inhabiting make-shift homes	MDG 7
Pickstock	Increase in cost of living/decline in standard	MDG 1
	Hustling (additional short term jobs)	MDG 1
	Drug use	MDG 1
	Dependence on remittances	MDG 1
	Begging	MDG 1
	Sale of drugs	MDG 1
	Trafficking of young girls	MDG 2
	Physical abuse of children	MDG 3
	Prostitution	MDG 6
Port Loyola	Increase in domestic abuse	MDG 3
	Increase in crime and retaliation practices	N.A.
	Self-imposed curfews	N.A.
St. Martin De Porres	Price increases	MDG 1
	Increase in begging	MDG 1
	Proliferation in gambling	MDG 1
	Homelessness	MDG 1
	Informal credit	MDG 1
	Sale of personal possessions	MDG 1
	Increase in domestic abuse	MDG 3
	Increase in violence against children	MDG 4

Annex 5: Geographic Boundaries and Main Profile of Participatory Poverty Assessment Communities



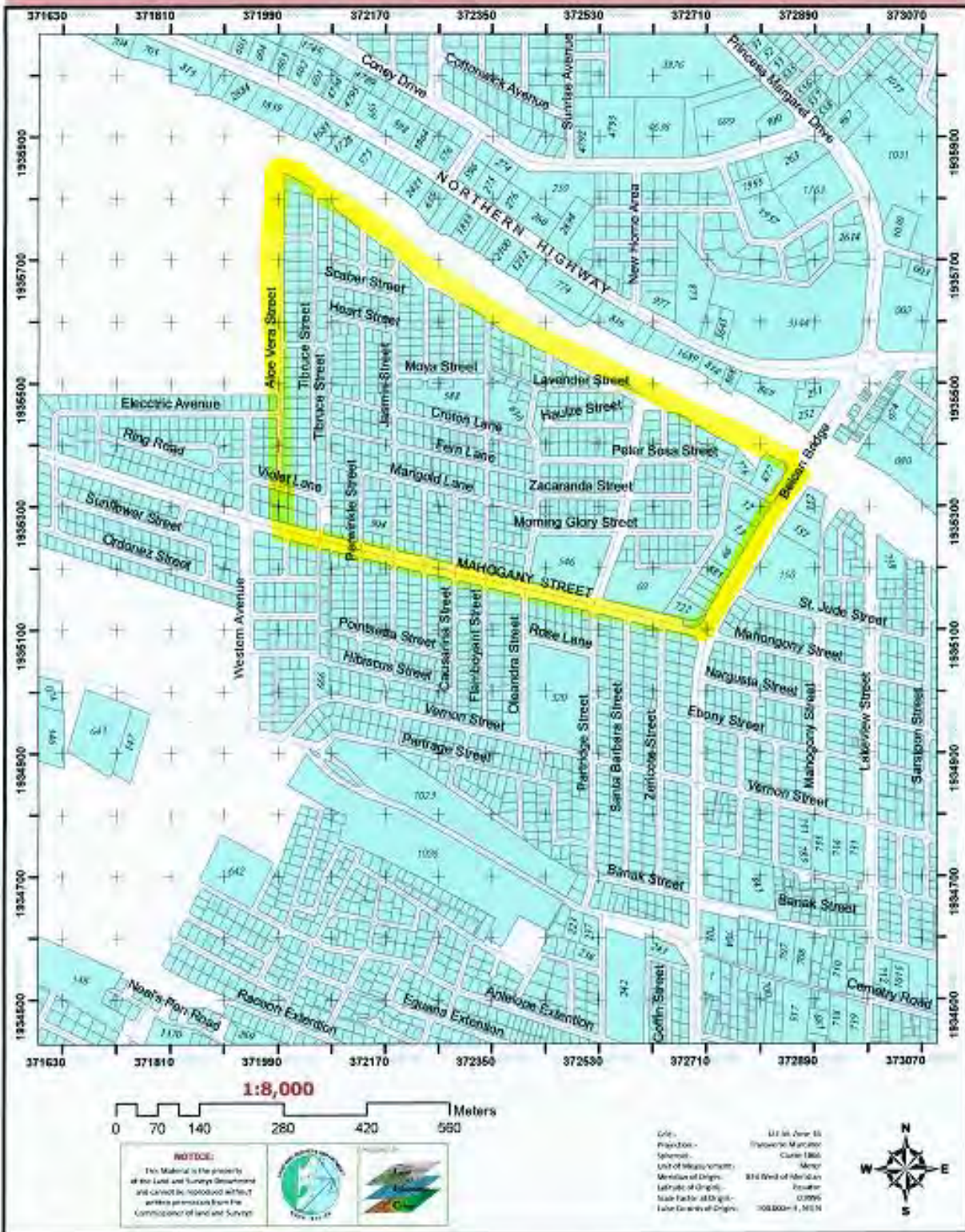
Map Showing Portion of Yarborough Area. (Quenn Charlotte Street to Central American Boulevard)



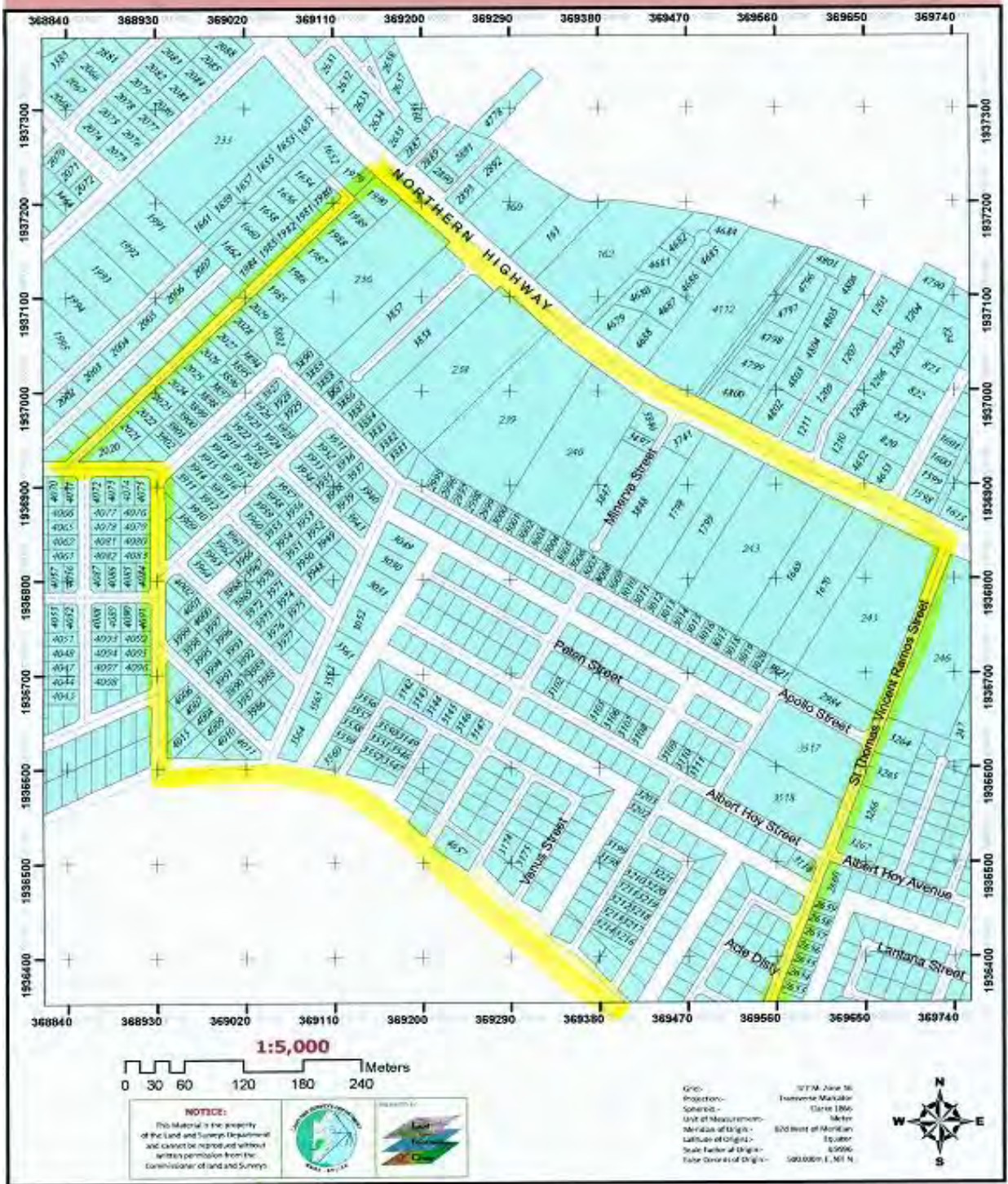
Map Showing Portion of Pickstock Area. (Pickstock Street to Vicotria Street)



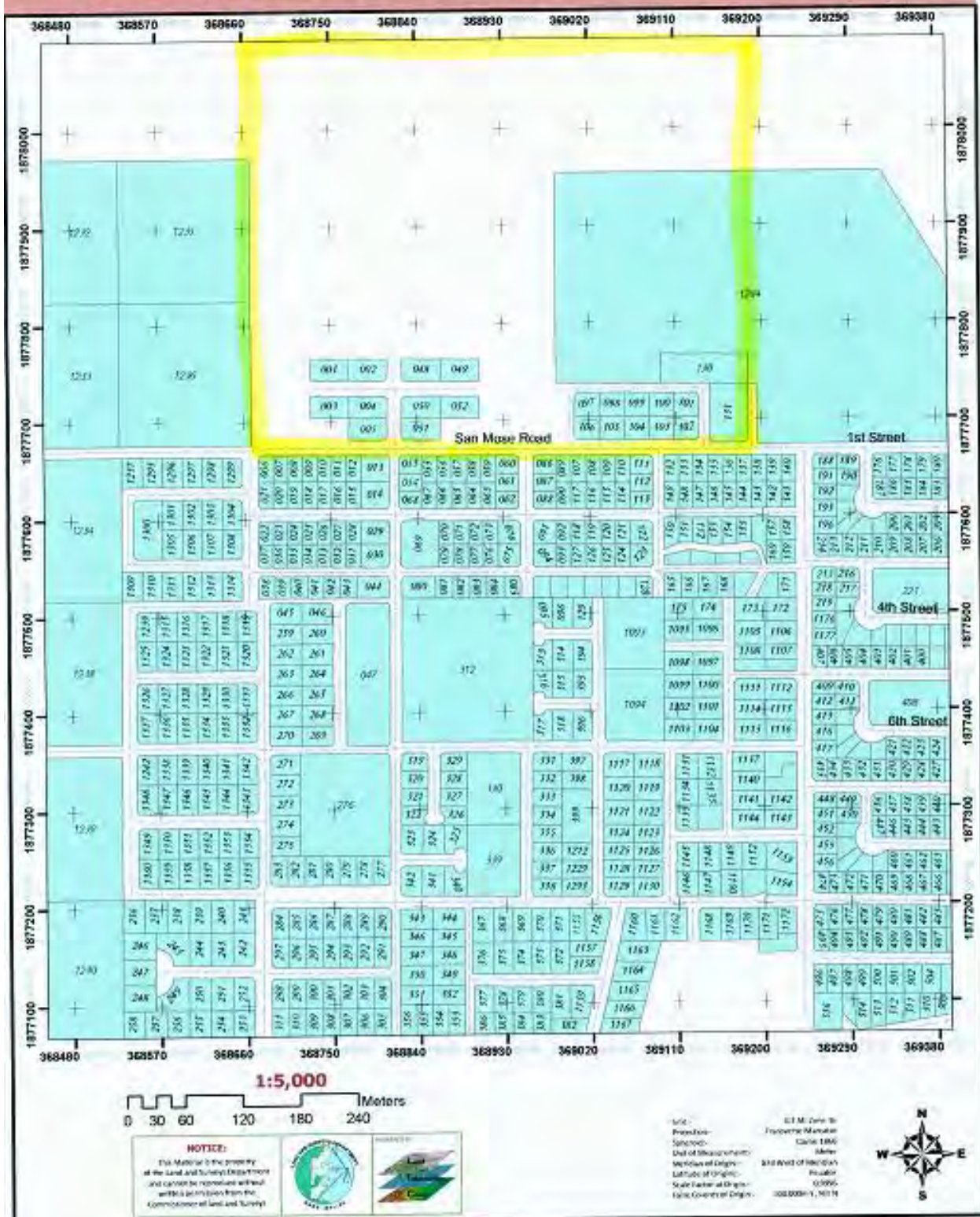
Map Showing Portion of St. Martin De Porres Area. (Mahogany Street to the River)



Map Showing Portion Belama Phase Four. (Thomas Vincent Ramos St. to Monroe Street) from (Northern Hwy to River)



Map Showing Portion Wagirale Community (North and West of Benguche)



Map Showing Portion Dangriga Town. (South by Havana River to Salmwood Street)



LFS 2006 Belize City h1: Does this household own, lease, rent or squat this dwelling?

		Belize City		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1: Own/Hire Purchase	611	57.2	85	59.4
	2: Lease	35	3.3	7	4.9
	3: Rent-Private	330	30.9	36	25.2
	4: Rent-Gov't	28	2.6	7	4.9
	5: Rent-Free	58	5.4	6	4.2
	6. Squat	7	.7	2	1.4
	Total	1,069	100.0	143	100.0
Missing	System	326		44	
Total		1,395		187	

Annex 6: Main Tables - 2006 Labour Force Survey

LFS 2006 Belize City h2: Is this land owned, leased or in some type of occupancy?

		Belize City		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1: Own	548	89.7	69	81.2
	2: Lease	50	8.2	14	16.5
	3: Renting	2	.3		
	5: Squatted	7	1.1	1	1.2
	7: Other	1	.2	1	1.2
	9: DK/NS	3	.5		
	Total	611	100.0	85	100.0
Missing	System	784		102	
Total		1,395		187	

LFS 2006 Belize City h3: What type of toilet facility does this household have?

		Belize City		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1/2. Water Closet	1028.0	96.2	132.0	92.3
	3: Pit latrine-ventilated and elevated	3	.3	3	2.1
	4: Pit latrine-ventilated and not elevated	2	.2	1	.7
	5: Pit latrine-ventilated compost	1	.1		
	6: Pit latrine-not ventilated	2	.2		
	7: Other	24	2.2	3	2.1
	8: None	8	.7	4	2.8
	9: DK/NS	1	.1		
	Total	1,069	100.0	143	100.0
Missing	System	326		44	
Total		1,395		187	

LFS 2006 Belize City h4: What is the main source of lighting for your household?

		Belize City		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1: Electricity from BEL	1048	98.0	140	97.9
	2: Electricity from other public generator	4	.4		
	5: Kerosene Lamp	4	.4		
	6: Other	11	1.0	3	2.1
	7: None	2	.2		
	Total	1,069	100.0	143	100.0
Missing	System	326		44	

Total	1,395	187
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LFS 2006 Belize City h5: What is the main type of fuel used for cooking?

		Belize City		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1: Gas-Butane	1009	94.4	137	95.8
	2: Wood	13	1.2	1	.7
	3: Kerosene oil	5	.5		
	4: Electricity	10	.9	1	.7
	5: Other	1	.1		
	6: None	31	2.9	4	2.8
	Total	1,069	100.0	143	100.0
Missing	System	326		44	
Total		1,395		187	

LFS 2006 Belize City h62: Does this household have a computer?

		Belize City		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Yes	284	26.6	21	14.7
	2. No	784	73.3	122	85.3
	9. DK/NS	1	.1		
	Total	1,069	100.0	143	100.0
Missing	System	326		44	
Total		1,395		187	

LFS 2006 Belize City h8: Main source of drinking water?

		Belize City		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Piped Water	228	21.3	37	25.9
	2. Standpipe	20	1.9	2	1.4
	3. Hand Pump	2	.2		
	4. Covered vat/drum/well	93	8.7	17	11.9
	5. Uncovered drum/vat/well	8	.7		
	6. Purified, bottled water	715	66.9	87	60.8
	9. DK/NS	3	.3		
	Total	1,069	100.0	143	100.0

Missing	System	326	44
Total		1,395	187

LFS 2006 Belize City: Occupation Job Title ISCO MAIN

		Belize City		Select Eds	
		Frequency	Valid Percent	Frequency	Cumulative Percent
Valid	Defense Force	6	.4	1	.5
	Legislators senior officials and managers	123	7.9	6	3.0
	Professionals	121	7.8	8	4.0
	Technicians and associate professionals	143	9.2	16	8.0
	Clerks	193	12.4	21	10.4
	Service workers and shop sales workers	346	22.2	47	23.4
	Agricultural forestry and fishery workers	33	2.1	7	3.5
	Craft and related workers	217	13.9	36	17.9
	Plant and machine operators and assemblers	104	6.7	21	10.4
	Elementary occupations	272	17.4	38	18.9
	Other	3	.2		
	Total	1,561	100.0	201	100.0
Missing	System	1,179		157	
Total		2,740		358	

LFS 2006 Belize City: Years Completed + Attending School

		Belize City		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	0	36	1.3	1	.3
	3	5	.2		
	4	11	.4		
	5	44	1.6	3	.8
	6	38	1.4	8	2.2
	7	117	4.3	17	4.7
	8	764	27.9	132	36.9
	9	163	5.9	25	7.0
	10	240	8.8	29	8.1
	11	213	7.8	21	5.9
	12	594	21.7	74	20.7
	13	85	3.1	15	4.2
	14	242	8.8	16	4.5

15	23	.8	3	.8
16	96	3.5	9	2.5
17	48	1.8	2	.6
99	21	.8	3	.8
Total	2740	100.0	358	100.0

LFS 2006 Belize City: Previous Industry

		Belize City		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	Free Zone	21	4.3	1	1.5
	Bananas	1	.2		
	Forestry logging sawmilling	1	.2		
	Fishing and fish processing	9	1.9	4	5.9
	Mining and quarrying	2	.4	1	1.5
	Manufacturing of food products	14	2.9	1	1.5
	Manufacturing of textiles	18	3.7	1	1.5
	Manufacturing nec	16	3.3	2	2.9
	Electricity gas water	9	1.9	3	4.4
	Construction	12	2.5	3	4.4
	Wholesale retail repair	74	15.2	11	16.2
	Tourism	76	15.6	8	11.8
	Transport nec	31	6.4	4	5.9
	Financial intermediation	12	2.5	1	1.5
	Real estate renting	12	2.5	4	5.9
	General government services	68	14.0	8	11.8
	Com social and personal services	105	21.6	16	23.5
	Other	5	1.0		
	Total	486	100.0	68	100.0
Missing	System	2254		290	
Total		2740		358	

LFS 2006 Dangriga h1: Does this household own, lease, rent, or squat, in this dwelling?

		All Dangriga		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1: Own/Hire Purchase	94	59.9	13	54.2
	2: Lease	15	9.6	5	20.8
	3: Rent-Private	29	18.5	5	20.8
	5: Rent-Free	19	12.1	1	4.2
	Total	157	100.0	24	100.0
Missing	System	53		14	
Total		210		38	

LFS 2006 Dangriga h2: Is this land owned, leased or in some type of occupancy?

		All Dangriga		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1: Own	75	79.8	12	92.3
	2: Lease	17	18.1	1	7.7
	7: Other	1	1.1		
	9: DK/NS	1	1.1		
	Total	94	100.0	13	100.0
Missing	System	116		25	
Total		210		38	

LFS 2006 Dangriga h3: What type of toilet facility does this household have?

		All Dangriga		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1: Water closet linked to sewer	6	3.8	1	4.2
	2: Water closet linked to septic	125	79.6	21	87.5
	Water Closet	131	83	22	92
	3: Pit latrine-ventilated and elevated	9	5.7	2	8.3
	4: Pit latrine-ventilated and not elevated	3	1.9		
	6: Pit latrine-not ventilated	12	7.6		
	8: None	2	1.3		
	Total	157	100.0	24	100.0
Missing	System	53		14	
Total		210		38	

LFS 2006 Dangriga h4: What is the main source of lighting for your household?

		All Dangriga		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1: Electricity from BEL	155	98.7	24	100.0
	6: Other	1	.6		
	9: DK/NS	1	.6		
	Total	157	100.0	24.0	
Missing	System	53		14	
Total		210		38	

LFS 2006 Dangriga h5: What is the main type of fuel used for cooking?

		All Dangriga		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent

Valid	1: Gas-Butane	142	90.4	22	91.7
	2: Wood	5	3.2	2	8.3
	3: Kerosene oil	2	1.3		
	6: None	7	4.5		
	9: DK/NS	1	.6		
	Total	157	100.0	24	100.0
Missing	System	53		14	
Total		210		38	

LFS 2006 Dangriga h62: Does this household have a computer?

		All Dangriga		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Yes	32	20.4	6	25.0
	2. No	124	79.0	17	70.8
	9. DK/NS	1	.6	1	4.2
	Total	157	100.0	24	100.0
Missing	System	53		14	
Total		210		38	

LFS 2006 Dangriga h8: Main source of drinking water?

		All Dangriga		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Piped Water	104	66.2	15	62.5
	2. Standpipe	5	3.2	1	4.2
	4. Covered vat/drum/well	2	1.3	1	4.2
	6. Purified, bottled water	46	29.3	7	29.2
	Total	157	100.0	24	100.0
Missing	System	53		14	
Total		210		38	

LFS 2006 Dangriga: Main means of financial support?

		Frequency	Valid Percent	Frequency	Valid Percent
Valid	Self (Wages/Salaries...)	154	42.7	32	47.8
	Self (Savings/Rents...)	24	6.6	10	14.9
	Parent/Guardian	85	23.5	13	19.4
	Spouse/Partner	57	15.8	6	9.0
	Child/children	30	8.3	3	4.5
	Other	5	1.4	2	3.0
	DK/NS	6	1.7	1	1.5
	Total	361	100.0	67	100.0

Missing	System	694	116
Total		1055	183

LFS 2006 Dangriga: What is your income?

		Frequency	Cumulative Percept	Frequency	Cumulative Percept
Valid	Unpaid Family Worker	6	3.3	1	2.9
	<= \$119	7	7.1	1	5.9
	\$120 - \$239	7	10.9	-	5.9
	\$240 - \$359	7	14.8	1	8.8
	\$360 - \$479	6	18.0	1	11.8
	\$480 - \$599	9	23.0	2	17.6
	\$600 - 719	15	31.1	4	29.4
	\$720 - \$839	14	38.8	4	41.2
	\$840 - \$959	5	41.5	2	47.1
	\$960 - \$1079	11	47.5	1	50.0
	\$1080 - \$1199	4	49.7	1	52.9
	\$1200 - \$1319	9	54.6	1	55.9
	\$1320 - \$1439	5	57.4	-	55.9
	\$1440 - 1559	6	60.7	3	64.7
	\$1560 - \$1679	5	63.4	2	70.6
	\$1680 - \$1799	3	65.0	-	70.6
	\$1800 - \$1919	4	67.2	-	70.6
	\$1920 - \$2039	5	69.9	3	79.4
	\$2040 - \$2159	3	71.6	1	82.4
	\$2160 - \$2279	2	72.7	-	82.4
	\$2400 - \$2519	1	73.2	-	82.4
	\$2640 - \$2759	1	73.8	-	82.4
	\$2880 +	4	76.0	1	85.3
	Seasonal Worker	19	86.3	1	88.2
	DK/NS	25	100.0	4	100.0
	Total	183		34	
Missing	System	872		149	
Total		1055		183	

Annex 7: Main Tables - 2009 Labour Force Survey

LFS 2009 Belize City h1: Does this household own, lease, rent, or squat, in this dwelling?

		District		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Own / Hire-purchase	396	62.1	48	67.6
	2. Lease	7	1.1	1	1.4
	3. Rent - private	170	26.6	14	19.7
	4. Rent - Govt.	7	1.1	1	1.4
	5. Rent - free	57	8.9	7	9.9
	6. Squat	1	.2		
	Total	638	100.0	71	100.0
Missing	System	265		15	
Total		903		86	

LFS 2009 Belize City h2: Is this land owned, leased or in some type of occupancy?

		District		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Owned	358	91.1	44	91.7
	2. Leased	24	6.1	3	6.3
	3. Rented	3	.8		
	4. Permission to work land / Sharecropping	1	.3		
	7. Other (Specify_____)	7	1.8	1	2.1
	Total	393	100.0	48	100.0
Missing	System	510		38	
Total		903		86	

LFS 2009 Belize City h3: What type of toilet facility does this household have?

		District		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Water closet linked to sewer system	243	38.1	19	26.8
	2. Water closet linked to septic tank	358	56.1	48	67.6
	3. Pit latrine, ventilated and elevated	9	1.4	1	1.4
	4. Pit latrine, ventilated and not elevated	12	1.9		
	6. Pit latrine, not ventilated	4	.6	1	1.4
	7. Other (Specify)	2	.3		
	8. None	8	1.3	2	2.8
	9. DK/NS	2	.3		
	Total	638	100.0	71	100.0

Missing	System	265	15
Total		903	86

LFS 2009 Belize City h4: What is the main source of lighting for your household?

		District		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Electricity from BEL	623	98.0	69	97.2
	4. Gas Lamp	1	.2		
	5. Kerosene Lamp	7	1.1	2	2.8
	6. Other (Specify)	4	.6		
	7. None	1	.2		
	Total	636	100.0	71	100.0
Missing	System	267		15	
Total		903		86	

LFS 2009 Belize City H5: What is the main type of fuel used for cooking?

		District		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Gas (Butane)	587	92.4	67	94.4
	2. Wood	16	2.5	1	1.4
	3. Kerosene Oil	2	.3	2	2.8
	4. Electricity	13	2.0		
	6. None	16	2.5	1	1.4
	9. DK/NS	1	.2		
	Total	635	100.0	71	100.0
Missing	System	268		15	
Total		903		86	

LFS 2009 Belize City h6_2: Does this household have a computer?

		District		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Yes	181	29.2	15	22.1
	2. No	437	70.5	53	77.9
	9. DK/NS	2	.3		
	Total	620	100.0	68	100.0
Missing	System	283		18	
Total		903		86	

LFS 2009 Belize City h8: Main source of drinking water?

		District		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Piped Water	92	14.4	18	25.4
	2. Standpipe				
	3. Hand-pump	1	.2		
	4. Covered vat/drum/well	67	10.5	5	7.0
	5. Uncovered vat/drum/well	1	.2		
	6. Purified, bottled water	474	74.4	48	67.6
	8. Other	1	.2		
	9. DK/NS	1	.2		
	Total	637	100.0	71	100.0
Missing	System	266		15	
Total		903		86	

LFS 2009 Belize City H1: Does this household own, rent, or squat, in this dwelling?

		District		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Own / Hire-purchase	396	62.1	48	67.6
	2. Lease	7	1.1	1	1.4
	3. Rent - private	170	26.6	14	19.7
	4. Rent - Govt.	7	1.1	1	1.4
	5. Rent - free	57	8.9	7	9.9
	6. Squat	1	.2		
Total		638	100.0	71	100.0
Missing	System	265		15	
Total		903		86	

LFS 2009 Belize City H2: Is this land owned, leased, or in some other type of occupancy?

		District		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Owned	358	91.1	44	91.7
	2. Leased	24	6.1	3	6.3
	3. Rented	3	.8		
	4. Permission to work land / Sharecropping	1	.3		
	7. Other (Specify _____)	7	1.8	1	2.1
Total		393	100.0	48	100.0
Missing	System	510		38	
Total		903		86	

LFS 2009 Belize City H3: What type of toilet facility does this household have?

		District		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Water closet linked to sewer system	243	38.1	19	26.8
	2. Water closet linked to septic tank	358	56.1	48	67.6
	3. Pit latrine, ventilated and elevated	9	1.4	1	1.4
	4. Pit latrine, ventilated and not elevated	12	1.9		
	6. Pit latrine, not ventilated	4	.6	1	1.4
	7. Other (Specify_____)	2	.3		
	8. None	8	1.3	2	2.8
	9. DK/NS	2	.3		
	Total	638	100.0	71	100.0
Missing	System	265		15	
Total		903		86	

LFS 2009 Belize City H4: What is the main source of lighting for your household?

		District		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Electricity from BEL	623	98.0	69	97.2
	4. Gas Lamp	1	.2		
	5. Kerosene Lamp	7	1.1	2	2.8
	6. Other (Specify_____)	4	.6		
	7. None	1	.2		
	Total	636	100.0	71	100.0
Missing	System	267		15	
Total		903		86	

LFS 2009 Belize City H5: What is the main type of fuel used for cooking?

		District		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Gas (Butane)	587	92.4	67	94.4
	2. Wood	16	2.5	1	1.4
	3. Kerosene Oil	2	.3	2	2.8
	4. Electricity	13	2.0		
	6. None	16	2.5	1	1.4
	9. DK/NS	1	.2		
Total	635	100.0	71	100.0	
Missing	System	268		15	
Total		903		86	

LFS 2009 Belize City H6_2: Does this household have a computer?

		District		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Yes	181	29.2	15	22.1
	2. No	437	70.5	53	77.9
	9. DK/NS	2	.3		
	Total	620	100.0	68	100.0
Missing	System	283		18	
Total		903		86	

LFS 2009 Belize City H8: What is the main source of water for this household?

		District		Select Eds	
		Frequency	Valid Percent	Frequency	Valid Percent
Valid	1. Piped Water	92	14.4	18	25.4
	2. Standpipe				
	3. Hand-pump	1	.2		
	4. Covered vat/drum/well	67	10.5	5	7.0
	5. Uncovered vat/drum/well	1	.2		
	6. Purified, bottled water	474	74.4	48	67.6
	8. Other	1	.2		
	9. DK/NS	1	.2		
		Total	637	100.0	71
Missing	System	266		15	
Total		903		86	

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