



# Project Completion Report

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## PCR

***Project Name: Low Income Settlement 2***

***Country: Guyana***

***Sector/Subsector: Urban Development and Housing***

***Original Project Team: Ophélie Chevalier, Project Team Leader (IFD/FMM); Xavier Grau (WSA/CGY); Juan Carlos Lazo (PDP/CGY); Roy Parahoo (PDP/CGY) Carolina Piedrafita (ICF/FMM); Mauricio Silva (IFD/FMM); Peter Sollis (VPC/GCM); Rosina de Souza (LEG/SGO); Derise Williams (CCB/CGY); and Heidi Fishpaw (ICF/FMM)***

***Project Number: GY-L1019***

***Loan Number: 2102/BL-GY***

***CRG Date:***

***Final Approval Date of PCR:***

***PCR Team: Ophélie Chevalier, Project Team Leader (IFD/FMM); Laura Aguilera (IFD/FMM), Naveen Jainauth-Umrao (FMP/CGY); Emilie Chapuis (FMP/CGY); Leticia Ramjag (CCB/CGY); and Susana Roman-Sanchez (IFD/FMM)***

Version 1.1 (July 25, 2006)

## Acronyms and Abbreviations

CH&PA	Central Housing and Planning Authority of Guyana
GCI-9	Ninth General Capital Increase
IDB	Inter-American Development Bank
MIS	Management Information System
PMI	Program Management Institute
SIGUS	Special Interest Group in Urban Settlement

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## I. BASIC INFORMATION

BASIC DATA (AMOUNTS IN US\$)		
<b>PROJECT NO: GY-L1019</b>		<b>TITLE: Second Low Income Settlement Program</b>
<b>Borrower: Cooperative Republic of Guyana</b>		<b>Date of Board Approval: 17 December 2008</b>
<b>Executing Agency (EA): Central Housing Planning Authority</b>		<b>Date of Loan Contract Effectiveness: 17 April 2009</b>
<b>Loan(s): 2102/BL-GY</b>		<b>Date of Eligibility for First Disbursement: 1 July 2009</b>
<b>Sector: DU-VIV</b>		<b>Months in Execution</b>
<b>Lending Instrument: Investment</b>		* from Approval:
		* from Contract Effectiveness:
		<b>Disbursement Periods</b>
		<b>Original Date of Final Disbursement: 17 April 2014</b>
		<b>Current Date of Final Disbursement: 7 August 2015</b>
		<b>Cumulative Extension (Months):15 months</b>
		<b>Special Extensions (Months):</b>
		<b>Loan Amount(s)</b>
		* Original Amount: 27,900,000
		* Current Amount: 27,900,000
		* Pari Passu (if applicable):
<b>Poverty Targeted Investment (PTI): Yes</b>		<b>Disbursements</b>
<b>Social Equity (SEQ): Yes</b>		* Amount to date: 100 (%)
<b>Environmental Classification: B</b>		<b>Total Project Cost (Original Estimate):27,900,000</b>
		<b>Redirectioning</b>
		<b>Has this Project?</b>
		Received funds from another Project [N]
		Sent funds to another Project [N]
		N/A [ ]
	<b>To/From Project Number</b>	<b>From Sub-Loan Number</b>
		<b>Amount</b>
* Current amount (adjusted for redirectioning):		
<b>On Alert Status</b>		
Is project currently designated "on alert" by PAIS: No		
If yes then why is the project on alert (DO , IP Ratings and/or relevant PAIS indicators):		
Comments on relevance of "on alert" status for this project (if applicable):		

Summary Performance Classifications				
DO	<input checked="" type="checkbox"/> Highly Probable (HP)	<input type="checkbox"/> Probable (P)	<input type="checkbox"/> Low Probability (LP)	<input type="checkbox"/> Improbable (I)
IP	<input type="checkbox"/> Highly Satisfactory (HS)	<input checked="" type="checkbox"/> Satisfactory (S)	<input type="checkbox"/> Unsatisfactory (US)	<input type="checkbox"/> Very Unsatisfactory (VU)
SU	<input type="checkbox"/> Highly Probable (HP)	<input checked="" type="checkbox"/> Probable (P)	<input type="checkbox"/> Low Probability (LP)	<input type="checkbox"/> Improbable (I)

## II. THE PROJECT

### a. Project Context

The Second Low Income Settlement Program was requested by the Government of Guyana as a follow up to the First Low Income Settlement Program (1044/SF-GY, GY-0052) of US\$26.4 million.<sup>1</sup> This previous program accompanied the land divestiture process that Guyana initiated in 1992. The program benefited about 19,000 households over its seven years of execution, focusing on low-income households. The program adopted a targeting system based on a proxy means test to applicants. The main shortcoming of the program was the limited level of occupancy (**by program's end** only 50% of the allocated lots were occupied).

At the time of designing the Second Low Income Settlement Program (the Program), there were pressing housing needs to be met: (i) there was a quantitative deficit of 19,400 homes for the low-income population (i.e., households that earn less than US\$300 per month) and (ii) the demand for quality housing was still unmet as an **estimated 52,000 units of the country's housing stock were over 30 years old and not** properly maintained. The supply of housing was not growing fast enough; since the year 2000, approximately 15,000 housing units had been provided to low-income households, mainly by self-construction and non-governmental organizations, or NGOs. At this rate, it was calculated that it would take at least 10 years to solve the current housing deficit for the low-income population.

During Program design, the Government raised concerns over housing affordability: (i) costs of sanitary solutions for low income households; (ii) lack of access to housing opportunities through a self-build process; and (iii) the need to support workforce housing in the communities. In addition, the Government wished to further the 2005 Poverty Reduction Strategy Paper goals in increasing the coverage of programs for the most vulnerable, including the Amerindians who exhibit the highest poverty rate in the country. The Guyana National Development Strategy 2001-2010 laid out goals for the housing sector: (i) to expand the supply of housing more rapidly; (ii) to make housing as affordable as possible; and (iii) to provide improved access to housing for poor families.

For these reasons, and following the Bank's Country and Sector Strategies in place, the Program focused on addressing issues of affordability and accessibility to housing for the low-income population. Program strategy was to propose a more comprehensive urbanization process in the country, by: (i) improving the site and services infrastructure package, for each intervention (including septic tanks in the design of new sites and improving coordination with the providers of water and electricity); and (ii) incorporating a basic core house into the subsidy to provide a housing solution to the poorest. Additionally, the Program included three pilots in the form of a subsidy to test specific aspects of affordability, considering the Guyanese context. The pilots were: (i) housing improvement, characterized by a process-based approach often limited by the lack of access to quality materials; (ii) partnership with professional groups, defined as sites and services to solidarity groups who will build homes on sites developed by CH&PA;

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<sup>1</sup> Approved in November 1999 and closed in December 2007.

and (iii) housing for the hinterland, characterized by limited and costly access to services and materials.

Program strategy did not change during the time of execution and received the full support of the Government.

## **b. Project Description**

### **i. Development Objective**

The main objective of the Program was to improve the quality of life of low-income families through better access to housing. The objective remained constant during Program execution. The Program understood access to housing as the allocation of house lots to low income families, their occupation and dwelling that at least meet the following standards: core house, 312 sq. ft. with septic tank, water, power connections, and located on land with road access.

### **ii. Components**

**Component 1. Development of new sites with services, consolidation existing housing scheme, and squatter areas upgrade.** This component covered the costs of design, construction, and supervision of construction to: (i) develop new sites with services; (ii) consolidate the existing housing schemes; and (iii) upgrade squatter areas.

**(i) New sites with services development.** This included new land subdivision of housing lots with connection to basic infrastructure (streets, sanitation, power, water and drainage); services (storm drains and road maintenance); community facilities (as defined in the community development plans); and the initial financing of street lightning in the lots. The Program included financing for a package of technical assistance and materials so that the beneficiaries would be able to build septic tanks in their lots. Program design planned for the financing of 3,766 serviced lots on eight sites in six regions. The actual financing resulted in 4,084 serviced lots on seven sites in four regions.

**(ii) Consolidation of existing housing schemes.** It consisted of on-site investments to complete or rehabilitate infrastructure and services to existing sites. Program design planned for the financing of 4,900 lots on eight sites in four regions.

The actual financing resulted in 4,383 serviced lots on seven sites in five regions. Out of those 4,355 lots, 157 did receive a septic tank.

**(iii) Squatter areas upgrade.** This included improving the physical conditions (such as widening and paving street access where possible, drainage, septic tanks and water distribution), and supporting the process of land titling in those areas. It also included community development planning to help residents get organized and participate in the design and implementation of the investments. The Program provided the initial financing for street lighting in the lots where the capacity for local maintenance was identified. Program design planned for the financing of 1,350 lots on five sites in three

regions. The actual financing resulted in 973 serviced lots sites on four sites in two regions. Out of those 973 lots, 128 did receive a septic tank.

This component planned for two additional activities. First, there were US\$2 million of off-site investments (such as new bore holes, transmission upgrades, and leak reductions, as needed) to guarantee water supply to the new sites as well as to the existing housing schemes. Actual off-site investments resulted in 14 sites served.

Second, a pilot of 400 core houses, defined as 312 sq. ft., with a sanitary block (septic tank, toilet, shower, and a multi-purpose sink), concrete block for the outer walls, floor in concrete slab, basic doors, windows, electrical wiring, and water connections. Actual investments resulted in 400 core houses.

The core houses pilot benefited from two activities that were add-ons to the original design as Program was implemented. First, five Guyanese officials from CH&PA visited El Salvador from June 14 to 19, 2010 to review the experience of incremental processes in the country and to discuss their latest proposal for a core house. Second, CH&PA organized an exhibit at the national level where models of core houses were discussed with builders and contractors and showed to potential beneficiaries.

**Component 2: Implementation of pilots to attend issues of affordability and sustainability.** This component financed three pilots to create instruments and lay the groundwork for affordable housing solutions. Pilots included: (i) subsidies to support housing improvement; (ii) serviced lots for partnerships with professional groups; and (iii) subsidies to provide housing solutions to households located in the hinterland, with limited access to services.

**(i) Housing improvement.** The objective of this pilot was to help households improve an existing core house (new roof, floor or room additions). Program planned for a package of grant and technical assistance for 400 families at US\$1,000 per family. Actual investments resulted in 400 housing improvement subsidies.

**(ii) Partnership with professional groups.** The objective was to address the shortage of affordable homes for specific professional groups, such as teachers and nurses. This pilot was designed as the Program was implemented. Recht-Door-Zee Phase II was identified for development of 200 serviced lots to be allocated to teachers, nurses and police officers, on the basis of partnerships established with the Guyana Teachers' Union, the Guyana Nurses Association and the Guyana Police Force. The Associations were charged with the responsibility of identifying interested members and referring them to CH&PA for determination of their eligibility. CH&PA partnered with Republic Bank and the Guyana Bank for Trade and Industry. The banks provided the financing for construction of the houses and CH&PA processed titles and forwarded same to the banks in accordance with the Partnership Agreements. Republic Bank offered 10% financing. It was executed from 2011 to 2015. Pilot design planned for 200 lots which were allocated to members of the three Associations. Actual allocation was 207.

**(iii) Housing in the hinterland.** The objective of this pilot was to address the housing needs of about eight communities in Regions 1 and 9. This pilot was designed as the Program was implemented. The design of the hinterland pilot took into account the low population density in the hinterland (houses are 200 meters minimum apart); the reliance of the population upon subsistence farming (half of the households lack a stable source of income); and the quality of transitory structures (the indigenous tradition includes building expertise, supported by the presence of local material). As a result, the execution of the hinterland pilot was characterized by: participatory design; self-built approach; the use of local materials; and off-the-grid water and sanitation solutions accompanied by training. It was executed from 2011 to 2015. Pilot design planned for two kinds of subsidy. The full house replacement subsidy (US\$7,000) includes the cost of material and labor for a 20 by 25 ft house with bedrooms and common space, a zinc roof with rainwater collection (pipe and tank), and an improved pit latrine. The roof replacement subsidy (US\$1,500) includes the cost of material for a zinc roof of max 20 by 25 ft with rainwater collection (pipe and tank). Pilot design planned for a total of 200 subsidies. Actual investments resulted in 208 subsidies (122 core houses and 86 roofing units).

**Component 3: To strengthen Central Housing and Planning Authority.**

Investments included consulting services and goods for: (i) the finalization of the national housing policy and the preparation of a strategic plan; (ii) training of CH&PA staff to achieve better project cycle management; (iii) management training for CH&PA staff; (iv) the upgrade of the management information system; (v) the creation of a Program evaluation system; and (vi) activities to strengthen CH&PA's regional housing offices. In addition, this component covered the cost of managing the Program.

The draft national housing policy and its strategic plan were presented to Cabinet in 2013.

Professional training was diversified to satisfy the needs of CH&PA staff.

*Table --- showing professional training obtained by CHPA staff under the Program*

<b>Program</b>	<b>No. of Staff</b>
Masters Business Administration	1
Masters of Arts in Applied Community Change	1
Legal Education Certificate	1
Graduate Diploma in Development Studies	1
Graduate Diploma in Urban and Regional Planning	4
Graduate Diploma in Housing and Urban Development	1
ACCA Papers 4 & 5	1
ACCA Papers Level 3 Paper F6	1
ACCA Level 3 Papers 1-5	1
International Program for Development Evaluation Training	3
Microsoft Project 2015	9
Information Technology Examinations	2
Database Server Upgrade Training	2
Certificate in Office Practice	1



Participatory Monitoring and Evaluation	1
Community Based Mapping	2
Certified Accounting Technician	3
Urban and Regional Information System Association	2
Strategic Environmental Assessment	16
Customer Service and Public Relations	32
Monitoring and Evaluation Training	23

The management information system (MIS) upgrade started in July 16, 2012 and was concluded on August 31, 2015. The MIS upgrade saw the installation of various web-based modules which enables users to digitally execute their various functions. These modules allowed for the generation of the necessary letters for customers and reports for staff and management as needed.

The strengthening of CH&PA's regional housing offices was done via the installation of a wide area network, which saw the interconnectivity of Regional Offices in Regions 2, 3, 6, and 10 to the main office in Region 4. This project was done in-house at the CH&PA and was concluded on October, 2012.

### c. Quality -At- Entry Review (if applicable)

#### Quality -At- Entry Review

☐ Highly Satisfactory (HS) - 1      ☒ Fully Satisfactory (S) - 2      ☐ Less than Satisfactory (LS) - 3      ☐ Unsatisfactory (U) - 4

Program design was aligned with the priority to address the needs of the less developed and small countries, as set out by GCI-9 and the social development for growth pillar of the Country Strategy for 2008-2012. During Program execution the objective and components of the Program were aligned with the **first pillar "social inclusion and equality"** of IDB's new Institutional Strategy stated in the Report on the Ninth General Increase in the Resources of the Inter-American Development Bank. The Country Strategy for 2012-2016 was designed to support the goals of the country set forth in the Low Carbon Development Strategy of Guyana. Housing was not present in the Strategy; however, the pilot for the hinterland did fit within the Strategy as the indigenous **Amerindian populations' needs and particularities was** a priority for the agenda of the Bank in Guyana.

This Program was a follow up of the previous Low Income Settlement Program (1044/SF-GY, GY-0052) and benefited from the evaluation that was done to prepare the Project Completion Report. The main findings were that the program benefited about 19,000 households over its seven years of execution, focusing on low-income households. Another result of the previous program was the adoption of a targeting system based on a proxy means test to applicants. However, a key weakness remained. The level of occupancy was limited (only 50% of the allocated lots were occupied), due to the following: (i) the site and services infrastructure package was yet to be completed; (ii) there was limited access to financing for sanitary solution and housing construction; and (iii) stakeholders participated little in the project cycle. Program design benefited from an economic analysis, which helped focus the intervention on issues of affordability.

A midterm evaluation was carried out in 2011 to review the overall progress of the Program and to advise, make recommendations and agree with CH&PA on technical and implementation adjustments. The evaluation put emphasis on the incremental housing core units, layout designs and community participation. The evaluation was carried out through a participatory workshop. As a result, the remaining of Program execution strengthened up-front pre-planning and programming of site construction, service delivery and plot allocation; included special training for leadership to community development teams to help address occupancy issues; and facilitated the inclusion of a community meeting facility in each site subdivision. In relation to the core house pilot, CH&PA took the suggestions of the evaluation to break up the rigid row of houses into a more community friendly layout, staggering the setback from the front to break the static row. Regarding the home improvement pilot, a guide to help applicants and technical staff work through the choices was developed as a result of the evaluation. The mid-term evaluation praised the one-stop-shop meetings that CH&PA organized in each new project site. The meetings provided the format for explaining the project to families, and helping them to complete applications or discuss their status if they had already been allotted a plot. Representatives from government services, banks, and hardware were invited to provide information.

The hinterland pilot was evaluated at the end of its execution (November 2014). The evaluation was a before and after comparison, using the baseline of 2009. The evaluation looked at changes in inadequate access to water and sanitation, poor quality of housing units, and overcrowding. The results showed that overcrowding was reduced from 100% of the population target to 46% in Region 1 and from 40% of the population target to 0% in Region 9; access to safe water improved from 16% to 100% in both Regions; and the quality of housing units improved from 11% of the population target to 100%.

The incremental process (the sites with services, the core houses pilot, and the house improvement pilot) was evaluated at the end of Program execution (June 2015). The evaluation was carried out by Reinhard Goethert, the Director of SIGUS (Special Interest Group in Urban Settlement) at MIT Architecture. During a one week period, his team surveyed beneficiaries and representatives from government to look at the impact of the Program on three scales: the house, the community, and the city. At the house scale, the evaluation highlighted that female headed households benefited from the pilots (61% of the beneficiaries of the core house subsidy were women and 54% of the beneficiaries of the housing improvement subsidy were women). It was noted that a majority of beneficiaries had already consolidated their core house. At the community level, the evaluation underscored that informal centers have developed, including series of small shops and food stands, which are indicators of potential mini-center. At the city level, Guyana can anticipate a big impact on capital city from the many housing schemes implemented. For instance, the cluster of sites on the west side of the river suggests an additional population of 50,000 habitants in the next years, encouraging further surrounding development.

Program design included a risk assessment. The highlighted risks were: Implementation issues related to the sustainability of the investments. In both stages of design and

maintenance, inter-institutional coordination was key. The design of the Program included a series of actions to improve coordination with service providers, and Neighborhood Democratic Councils (in charge of maintenance), such as criteria for site selection, coordination in the planning phase, and a memorandum of understanding with the various actors and the beneficiaries to provide fully serviced lots. Strengthening of community participation to lead the infrastructure consolidation process was also key to Program sustainability. Program activities include a series of actions for each phase of project development: (i) participation of the community in the assessment of needs in the pre-design phase; and (ii) training and education of community members in maintenance and environmental responsibilities during projects construction. The findings of the Environmental and Social Analysis were addressed with specific activities imbedded within the Program. The fiduciary risks were qualified as high for procurement and medium for financial management. Mitigation measures were planned and included training of CH&PA staff in both matters.

After one year of execution, the Program was selected as a pilot operation for the **introduction of the use of Country System in Bank's portfolio. The experience was successful** and the Integrated Financial Management Accounting System is now being used in other operations.

The loan was approved on December 2008 and was declared eligible on July 2009. The original disbursement date was April 2014. The loan was extended by 16 months, until August 2015 to allow for the electrification of the sites. The electrification for the sites is not a responsibility of the executing unit and although CH&PA did coordinate its investment during Program execution through the Inter-Agency Coordinating Committee with representatives of Guyana Water Incorporated, Guyana Power and Light, Lands and Surveys Commission, Environmental Protection Agency, Ministry of Health, Ministry of Education, Ministry of Local Government and Regional Development, Ministry of Public Works, and the National Drainage and Irrigation Board, the electrification was lagging behind.

### **III. RESULTS**

#### **a. Outcomes**

There is a close correlation between improvements in access to affordable housing and higher levels of occupancy. Therefore, the level of occupancy was considered a proxy for improved access to housing. Program design stated that the Program would deliver its anticipated results when it reaches the target of serving 70% of targeted low-income households, or 6,608 families. Actual investments show that the Program benefited 9,648 families. (9,440 serviced lots and 208 Hinterland households). 74% of them are occupied.

ACHIEVEMENT OF DEVELOPMENT OBJECTIVES (DO)			
Development Objective(s) (Purpose)		Key Outcome Indicators	
1. (For Components 1 and 2) To improve the quality of life of low income families through better access to housing. Low Income families occupy dwellings that at least meet the following minimum standard: 312 sq. ft. with septic tank, water, and power connections and located on land with access. <i>Classification: HP,P,LP,I</i>			
<u>Planned Outcomes</u>		<u>Outcomes Achieved</u>	
<u>Baseline</u> 20 %(Year 0)	<u>Intermediate</u> N/A	<u>End of Project</u> 70% (Year 5)	<u>End of Project</u> 74%
Reformulation . N/A			
PPMR Retrofitting. N/A			
Summary Development Objective(s) Classification (DO)			
<input checked="" type="checkbox"/> Highly Probable (HP)		<input type="checkbox"/> Probable (P)	<input type="checkbox"/> Low Probability (LP) <input type="checkbox"/> Improbable (I)
The classification as “highly probable” is justified by the results of the Program, i.e. the number of families who received subsidies and occupy their home. [depending on the difference between planned and achieved outcome]			
<b>Country Strategy.</b> Program design was aligned with the social development for growth pillar of the Country Strategy for 2008-2012. The Country Strategy for 2012-2016 was designed to support the goals of the country set forth in the Low Carbon Development Strategy of Guyana. Housing was not present in the strategy; however, the pilot for the hinterland did fit within the strategy as the indigenous Amerindian populations’ needs and particularities was a priority for the agenda of the Bank in Guyana.			

## b. Externalities

The factors of adequate housing, as defined by the United Nations – legal security of tenure, availability of services and infrastructure, affordability, habitability, accessibility, location, and cultural adequacy – work together to ensure that housing can allow its inhabitants to produce economic benefits for both the family and the community as a whole. But the ability to access complete housing solutions at once is a luxury. Low-income families improve their homes in stages. The basic concept of incremental housing is that it provides affordable, immediate options for home improvement. The externalities that have accompanied the implementation of the Program look at what have sprouted while the Program financed the first step of an incremental process. The observations that follow are based on the semiannual reports done by CH&PA during Program implementation, the evaluation of the pilot in the hinterland, and the evaluation carried out by Reinhard Goethert, the Director of SIGUS at MIT Architecture.

**Self-esteem and social status.** With the subsidies, the beneficiaries were able to move from a "shack" to a house. A study conducted between November 2014 and August 2015 among 81 women and community leaders at three of the Hinterland Pilot sites in Regions 1 and 9, revealed that women at all sites demonstrated improved self-efficacy and self-confidence as a result of being beneficiaries of the housing intervention in the hinterland. Women perceived themselves as now being more equal in status to others in the community since they now have decent housing. Additionally, women are more actively participating in community activities and contributing to decision making by sharing their ideas and opinions. Further, women aspire to participate in community

leadership and have some level of confidence that they can function, at least at the level of a village councilor, and for some even as a Toshao- the highest level of leadership in their communities. This shift **in women's perception of themselves** as a result of their participation in the project holds the potential for women to individually, and possibly collectively take action to challenge unjust social relations that keep them poor and disempowered (Bess-Bascom. 2015).

**Stability and community belonging.** Homeownership changes the social fabric of communities. This was strongest in sites where housing solutions were provided in clusters. It was observed that households developed deeper communal relations. Core House beneficiaries at Non Pariel who were allocated in a cluster occupied their homes, prior the area being electrified and have maintained good neighborly relations, and a good sense of community. This was also observed in Bell West Phase II and Recht-Dor-Zee Phase II. Beneficiaries reported feeling a greater sense of security when they were settled in clusters.

It was also observed that in instances where core house pilot beneficiaries were settled clusters they demonstrated higher levels of participation in community development activities.

In the case of the Hinterland community of Oronoque, one of the Hinterland Pilot sites, the Bess-Bascom (2015) study revealed that beneficiary women reported a reduction in gender-based violence perpetrated by men against women in their new housing units, compared to where they were living previously. The women attributed this change to the clustered arrangement of the houses as this site, since previously they were very isolated and experienced violence, particularly when the husband was under the influence of alcohol.

Me husband used to knock (hit) me... first time (previously) the slightest thing when he drunk is blows. I notice that he doesn't knock me since we move in this house... I say he doesn't do it because we are living so near to other people and if he knocks me people will hear when I am screaming. Before time was me and he and them (the children) alone, so he would do to me anything and nobody wouldn't know it.

*Hinterland Pilot beneficiary woman (Bess-Bascom.2015)*

**Immediate relief from home repair expenses.** A complete housing solution frees families from having to repair problem areas and create opportunities for the beneficiaries, such as the ability to establish and strengthen small home businesses. The survey conducted by the team of Reinhard Goethert revealed that after the home improvement, families began to consider options for home businesses that would meet basic needs of the community.

**Resolution of specific home improvement needs.** The decision to invest part of family's resources in home improvements is influenced by factors both internal and external to the family sphere. From the perspective of the family's satisfaction with the change, the results of a progressive solution can be similar to those of a complete housing solution. Such improvements increase the value of the home, and respond to an immediate need, resulting in greater comfort, reduction of risks to health and security, and a general improvement to quality of life. A significant portion of home improvement subsidies went towards the expansion of homes. This helped to improve comfort, and in some instances, helped to reduce overcrowding.

**Health.** Adequate housing notably decreases illness such as gastrointestinal infections, bronchitis and respiratory and skin diseases. This was systematically reported by the beneficiaries of the pilot in the hinterland. Women at Oronoque, Whitewater and Kwatamang who participated in the Bess-Bascom (2015) study reported similar experiences. They stated that their health and that of their children was better as a result of the improvement in housing conditions. They reported that since they had safer water they had less sickness such as diarrhea and other water borne illnesses in the household caused by unsafe water. They also reported that rat, roach and snake infestation, and their associated illnesses and risks were no longer an issue, due to better housing. Further, many women participating in the study also reported sleeping better as a result of the zinc roofs, since they were no longer affected by the rainfall, which previously resulted in inability to sleep due to leaking thatch roofs. Some attributed the improvement in their hypertension numbers to the improved sleep as a result of the new house. (Bess-Bascom. 2015)

*"I really want to thank the IDB and the Government of Guyana for what they have done for my family and this community. I am happy and thankful today because I have a beautiful home for me and my family and we are no longer getting sick. Before time we would get sick with operation (diarrhea) vomiting and we used to get rash and sore pon (on) we skin. But now we get good water from the tank and we are healthier."*

*These are the words of 50 year old Elizabeth who resides in a remote Hinterland community in Region 1. Prior to the Hinterland Housing Pilot, Elizabeth, her husband, eight children and six grandchildren occupied a derelict, 150 sq ft. structure, with partially enclosed thatch walls and thatch roof. The home was overcrowded, and when it rained the thatch roof would become porous, making it difficult to exist inside the building as books and clothes would become soaked. Sleeping during the rainy season was nearly impossible because of the poor housing conditions.*

*Elizabeth and her family accessed drinking water from the nearby creek. This is the very creek where the women in the village would wash their clothes, and bathe. Water for cooking was also accessed from this creek. Diarrhea, vomiting and rashes were very common in the house hold and the grand children ages 12 years to 18 months shared the worst fate.*

*Under the Housing Pilot, Elizabeth and her family received a subsidy for a full house measuring 500 square feet, complete with rainwater harvesting system and a toilet. Elizabeth reported that her family is now more comfortable as the home is less crowded, they are no longer exposed to the elements of nature and they have safer water. She states that best part of having her new home is the improved health of her family.*

**Formal inclusion.** A complete housing solution creates initial capital for a family, which allows them to exist within the formal market. This was evidenced in several cases with the Core House Pilot.



*In 2010, Leoni Hinds, a 41 year old widow and a single mother, occupied a 960 square foot two story wooden and concrete building in Georgetown, along with her three teenaged children, her brother, his wife and child. The building was owned by Leoni's brother, and she would pay a weekly contribution of US\$3,000. Leoni, her two daughters and a son occupied one bedroom in the house. Leoni earned a monthly income of the equivalent US\$240 and was the sole bread winner for her household.*

*Due to a domestic dispute Leoni was required to move from her brother's home in November 2010. With nowhere else to live, and her very small income, Leoni constructed a 144 sq ft shack, made of discarded materials, on the house lot she had been allocated by the Government of Guyana in Westminster Phase I. The structure sat flat on the ground. There were no internal walls and some of Leoni's household items could not be accommodated in this small, derelict, overcrowded building. As such some of her items were left out in the open. There was no toilet or bathroom facility, and water and electricity services had not yet been connected. Baths, particularly for the female occupants, were taken at night as a means of ensuring some amount of privacy, in the absence of a bathroom*

*Leoni and her three children lived in this shack for over a year. Since she was unable to finance the construction of a home that met basic habitable requirements, and could not qualify for a home loan due to her small income and lack of equity, Leoni applied and was approved to participate in the Core House Pilot.*

*Ms. Hinds and her family occupied their Core House in December 2011 and are relieved to have improved living conditions. Leoni stated that transportation costs increased once she relocated to Westminster which is some distance away from Georgetown, where she worked and her children attended school. Even though there are secondary schools closer to her new home she preferred to have the children complete their schooling at the institutions in which they were enrolled. However, since utility costs had reduced she and her family were able to manage the increased transportation costs.*

*Now that Leoni had a property valued at over US\$10,000 she approached a financial institution and was approved for a home loan to the equivalent of US\$8,000, which she used to facilitate a 413 sq. ft concrete extension to her core home. The expansion design was obtained as part of a technical assistance from the CHPA. Ms. Hinds and her family now have a building measuring 743 sq ft, with a living room, three bedrooms, two toilets and baths, and a verandah. The family now has a home that meets habitable requirements. They can now dispose of their human waste appropriately, have access to electricity and potable water. Leoni's expenditure on utilities has been reduced by 75% since she now spends US\$3,000 on utilities.*

*Her monthly mortgage installment totals US\$70 per month, which Leoni states, is within her reach. The financial burden is further relieved since she has received a salary increase equivalent to US\$80, and her eldest daughter, now 21, is currently employed and contributes financially towards the expenses in the home.*





### c. Outputs

 **DEV**  
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PCR April 2006

**2. Component 2 (Implementation of pilots to attend issues of affordability and sustainability):**

Total cost of Component 2: US\$1.8 million

Counterpart: CH&amp;PA

IDB:

IDB Disbursement: 100%

Classification: HS

**Key Output Indicators:**

<b>Planned Outputs</b>			<b>Outputs Achieved</b>
2.1 Subsidies executed for incremental housing			2.1 Subsidies executed: 400
<u>Baseline*</u>	<u>Annual/Intermediate</u>	<u>End of Project</u>	<u>End of Project</u> : 400 by year 5.
0 (year 0)	200 (year 3)	200 (year 5) 400 subsidies	
2.2 % of targeted population in improved housing			2.1A Subsidies for incremental housing to female headed households
<u>Baseline*</u>	<u>Annual/Intermediate</u>	<u>End of Project</u>	<u>End of Project</u> : 216 by year 5.
0 (year 0)	50 (year 3)	100 (year 5)	
2.3 Partnerships with professional groups			2.2 % of targeted population in improved housing
<u>Baseline*</u>	<u>Annual/Intermediate</u>	<u>End of Project</u>	<u>End of Project</u> : 100%
0 (year 0)		50 (year 5)	
2.4 Housing in the hinterland			2.3 lots for professional groups pilot
<u>Baseline*</u>	<u>Annual/Intermediate</u>	<u>End of Project</u>	<u>End of Project</u> : 207 by year 5
After the need assessment it was determined the base line in 200 subsidies.		200 subsidies	
* (if applicable)			2.4 Housing in the hinterland
			<u>End of Project</u> : 208 by year 5 (122 houses and 86 roofs)

The pilot for professional groups and the pilot for the hinterland were designed during Program implementation. The indicators were added to the PMR in 2009-2010.

**Restructuring.** N/A**3. Component 3 (Strengthen Central Housing and Planning Authority):**

Total cost of Component 2: USD 0.2 million

Counterpart: CH&amp;PA

IDB:

IDB Disbursement: 100%

Classification: HS

**Key Output Indicators:**

<b>Planned Outputs</b>			<b>Outputs Achieved</b>
3.1_Investment in MIS <u>Baseline*</u> <u>Annual/Intermediate</u> <u>End of Project</u> Current MIS (year 0)      Upgraded MIS and CH&PA personnel Trained (year 1)			3.1_Investment in MIS Upgraded MIS and CH&PA personnel Trained achieve 100% <u>End of Project:</u> MIS upgrades and Personnel trained in office: 100%
3.2 Training <u>Baseline</u> <u>Annual/Intermediate</u> <u>End of Project</u> No training      CH&PA trained in mngmt      Staff using new (Year 0)      planning and assessment      software in pre- for pre-design phase      design phase. including software (Yr 2)      (Year 5)			3.2 Training Staff using new software in predesign phase <u>End of Project:</u> 100%
3.3 Evaluation <u>Baseline</u> <u>Annual/Intermediate</u> <u>End of Project</u> Midterm evaluation      Final evaluation Completed      completed.			3.3 Evaluation Final evaluation completed. <u>End of Project:</u> Completed
3.4 # of regional housing offices able to access CH&PA remotely <u>Baseline</u> <u>Annual/Intermediate</u> <u>End of Project</u> 0 (Year 0)      2 (Year 3)      4 (year 5)			3.4 # of regional housing offices able to access CH&PA remotely <u>End of Project:</u> 4
3.5 Housing policy and strategic planning developed <u>Baseline</u> <u>Annual/Intermediate</u> <u>End of Project</u> 0      Completed and approved      ...      Implemented			3.5 Housing policy and strategic planning developed <u>End of Project:</u> The government of Guyana has put in place the new housing policy to support housing development strongly influenced by the experience of this Program.
<b>Summary Implementation Progress Classification:</b>			
[   ] Highly Satisfactory (HS)      [ X ] Satisfactory (S)      [   ] Unsatisfactory(U)      [   ] Very Unsatisfactory (VU)			

#### d. Project Costs

Total Project Cost - Planned (US\$)			Total Project Cost - Actual (US\$)			% Difference
Components	Bank	Total	Components	Actual	Total	
Component I	25,301	25,301	Component I	25,286	25,286	1%
Component II	1,362	1,362	Component II	1,349	1,349	0.95%
Component III	781	781	Component III	776	776	0.6%
Evaluation & Auditing	56	56	Evaluation & Auditing, and Interests	425	425	6.79%
Interests <sup>2</sup>	400	400	Total	27,836	27,836	0.2%
Total	27,900	27,900				

### IV. PROJECT IMPLEMENTATION

#### a. Analysis of Critical Factors

It has never proved easy to help the poor through housing subsidies. With the help of this Program, the government of Guyana instituted a number of programs and

<sup>2</sup> As requested by the Government

mechanisms to assist lower income households. Dependent on this decision, a series of implementation problems relating to the monitoring of the subsidies and quality of construction appeared, such as the cost of materials, the availability of contractors, the challenges related to the occupancy level, and location for the pilot in the hinterland.

**Monitoring of the subsidies and quality of the construction.** By the end of 2011, CH&PA and the Bank noticed that the pace of the pilots execution had not been as fast as expected. One of the main reasons for this delay was the need of support in terms of monitoring. With administrative funds, the Bank hired a consultant to join the CH&PA team and conduct a monitoring of tender documents for the supply of materials, reviewing of tender procedures and inspection visits as the works were carried out in the field. The consultant worked with CH&PA for four months. This helped speed up the execution and improve some works that were not satisfactory. CH&PA did hire an additional nine clerks of works in 2012 to increase the capacity for better supervision and quality control of civil engineering works. In December of the same year CH&PA hired a procurement specialist.

**Cost of materials.** The cost of materials increased between 2009 and 2011, resulting in the need to review the targets as originally thought in Program design. There were increases in every component of the core house.

The two areas that suffered significant increases were: (i) excavation and earthworks; and (ii) concrete and blockworks. There was approximately 100% increase for excavation and earthworks while there was a steady increase for the concrete and blockworks which started at 45% and moved up to 72% then to 93%. The carpentry, joinery and plumbing works showed an average increase from 16% to 45%. For the roof works, there was an initial increase of 10% and there were no further increases. The only area that showed a decrease in price was the electrical. The prices actually decreased about 40%.

**Availability of contractors.** The core house pilot suffered from a shortage of contractors interested in doing small batches of works in different locations. This situation created lags in the execution of the pilot. To resolve the issue, CH&PA and the Bank discussed the procurement methods and agreed on moving to the direct procurement of high performing contractors (during the second half of 2012). This resulted in the acceleration of pilot execution and a reduction of the administrative costs for CH&PA.

**Occupancy and cost of investments.** Program design was documented by an economic analysis that showed that the government was incurring an opportunity cost when lots remain vacant (the annual cost of a vacant lot was estimated to be US\$755). It is based on this finding that the outcome selected to measure the success of the Program was the level of occupancy. CH&PA put in place a series of actions to reach that objective. Those actions are [

The Core House Pilot was one of the projects implanted under the Program to help improve occupancy of households among allottees of very low affordability. The government subsidized more than 14% of the cost of the house and land for

beneficiaries in this category. This pilot saw 400 families benefiting from this type of subsidy with 81% of beneficiaries occupying their Core Homes within a few months.

Another approach used by CH&PA to increase occupancy was to facilitate face to face discussions with non-occupant allottees. Based on reports obtained from regular monitoring visits, CH&PA held discussions with non-occupant households to determine the reason for non-occupancy. Based on the reasons provided, allottees and CH&PA would agree on a possible solution. This exercise has shown some success as several allottees have since occupied their house lots.

CH&PA also forged partnerships with Habitat for Humanity and Food for the Poor Inc. so that the persons who were unable to benefit the Core House Pilot, but were of low affordability were directly referred to these organizations. Habitat for Humanity also assisted some Core House Pilot beneficiaries to complete their equity share contribution payments.

CH&PA also provided support by providing building plans for the construction of the basic Core House as well as expanded Core House to individuals who were unable to participate in the pilot but were interested in using the design to construct their homes. Some of these persons were able to secure home loans from financial institutions. Several of these persons were referred to financial institutions for home loans.

**Location for the pilot in the hinterland.** The dispersion of the targeted sites presented a challenge in logistics as well as in cost. To resolve partially the issue, CH&PA put emphasis on the involvement of the beneficiaries. The beneficiaries, through their Village Councils were responsible for advising the executing unit on the providers of local materials and labor. Flexibility of procedures and adaptability to local conditions were essential in this pilot.

## **b. Borrower/Executing Agency Performance**

Borrower/Executing Agency			
<input checked="" type="checkbox"/> Highly Satisfactory (HS)	<input type="checkbox"/> Satisfactory (S)	<input type="checkbox"/> Unsatisfactory (U)	<input type="checkbox"/> Very Unsatisfactory (VU)

CH&PA, as a budget agency, uses the financial management and accounting system of the country, or the IFMAS. As an extension to this, and along with the Bank's mandate to strengthen and increase the use of country systems, this loan was declared a pilot operation for the introduction of the Bank's portfolio to use the IFMAS. The Program received detailed attention in its design and execution phase, from the Bank, the Borrower and the Audit Office of Guyana. Herein, an operations manual for Bank funded operations using IFMAS as its accounting system was developed. The successful implementation of IFMAS as a pilot using this operation provided the platform for successive IDB funded operations to continue.

CH&PA performed in a very organized, efficient and dedicated way. Despite the challenges, the team was able to meet the implementation targets. The executing unit, led by its CEO put emphasis on the need to respond to the needs of the beneficiaries. To reach the targets set in the Program and ensure adequate solutions to the needs of

the beneficiaries, the CEO: (i) hired local professionals, as part of the staff for CH&PA to work not only on the Program but also on the projects financed by the government, ensuring a sole vision when addressing the needs of low-income housing; (ii) placed participatory approach front and center in each project designed under the Program; (iii) created and led an Inter-Agency Coordinating Committee to improve Program coordination and future planning; (viii) created ad-ons activities to the Program to foster the incremental housing approach in the country among public as well as private stakeholders; and (ix) held regular scheduled project management meetings to track progress and resolve issues that affected project performance. The in-house executing unit augured well for the success of the Program as it helped to integrate the Program to the overall agenda of the Ministry.

### c. Bank Performance

Bank Performance			
<input checked="" type="checkbox"/> Highly Satisfactory (HS)	<input type="checkbox"/> Satisfactory (S)	<input type="checkbox"/> Unsatisfactory (U)	<input type="checkbox"/> Very Unsatisfactory (VU)

As per the evaluation of the Bank by the Borrower “many lessons were learnt throughout implementation. The highly participatory method which was pursued with development partners and beneficiaries laid the foundation for the achievement of development objectives, as well as sustainability of the outputs and outcomes which were achieved.”

## V. SUSTAINABILITY

### a. Analysis of Critical Factors

Program design underscored two main implementation issues related to the sustainability of the investments: inter-institutional coordination and strengthening of community participation. In relation with the first issue, the design of the Program included a series of actions to improve coordination with service providers and Neighborhood Democratic Councils (in charge of maintenance), such as criteria for site selection, coordination in the planning phase and a memorandum of understanding with the various actors and the beneficiaries to provide fully serviced lots. An Inter-Agency Coordinating Committee was established incorporating eight other public sector organizations to enhance the efficacy of Program’s implementation through improved coordination and information sharing. It provided support to community groups in accessing funding for community priorities as identified in the community development plans. One mechanism that has proven successful is the support from the Department of Youth Sports and Culture for playground enhancement. Funding can be up to the equivalent of US\$5,000 for the enhancement of community grounds. This requires the activism of the community group and the approval of the local authority. Of the 28 community projects implemented during the tenure of the Program, 10 were funded through this medium across five communities.

In relation with the second issue, Program activities included a series of actions for each phase of project development: (i) participation of the community in the assessment of needs in the pre-design phase; and (ii) training and education of community members in maintenance and environmental responsibilities during projects construction. CH&PA offered technical assistance to beneficiary households through the provision of building

plans for the Core House in its basic as well as expanded forms. Additionally, guidance was provided through monitoring meetings on building maintenance and care. Guidance was also provided on expansions options. Moreover, a do-it yourself Core House Maintenance Manual was prepared by CH&PA and distributed to beneficiaries as well as other allottees.

Regarding environmental responsibilities, the Hinterland Housing Pilot designed a housing solution with a zinc roof. This was done at the request of the beneficiary communities in order to reduce the depletion of the palm trees that were used to make the thatch roof.

## **b. Potential Risks**

The maintenance of the services in the coastal area depends heavily on the Democratic Councils and their capacity to assess and levy taxes. Potential impact on beneficiaries when taxes become in effect needs to be considered when setting rates. The ability to collect taxes will also need to be verified. Finally, the amount collected may not be enough to cover the expected items.

In seeking to improve quality of life, income generation must be a key consideration. As households of low affordability are settled into new communities it becomes imperative that innovative approaches be developed to facilitate large and small scale economic activities, including focused planning for the informal sector.

The high demand for wood and extremely high cost of kiln dried wood prevents the use of cured wood **for house construction. As such, the use 'green' or uncured wood has** been common practice which increases the likelihood of shrinkage.

## **c. Institutional Capacity**

There is no follow-up action plan from the IDB to monitor sustainability. The issues of sustainability identified during Program design have been embedded within Program execution and are now part of CH&PA daily activities. Should CH&PA decide to pursue the pilots as projects of its own, the same methods will apply.

### **Sustainability Classification SU:**

<input type="checkbox"/> Highly Probable (HP)	<input checked="" type="checkbox"/> Probable (P)	<input type="checkbox"/> Low Probability (LP)	<input type="checkbox"/> Improbable (I)
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## **VI. MONITORING AND EVALUATION**

### **a. Information on Results**

The Program was expecting one outcome: an increase in the levels of occupancy. Program execution achieved this outcome. The current rate of occupancy is 74%, i.e.

4% more than the original target. This was measured based on the administrative data of the Program and the semiannual reports during Program execution.

## **b. Future Monitoring and Ex-Post Evaluation**

There is no future monitoring or ex post evaluation planned. CH&PA will keep designing and implementing housing programs in the country, as per its mandate and in that context monitor its interventions.

## **VII. LESSONS LEARNED**

### **Program design**

Program design included some flexibility in the design of the pilots, allowing the team to carry out participatory workshops, **stakeholders'** consultations and knowledge sharing activities with other countries. This proved to be very valuable as it did not slow the execution of the overall Program. Instead, it strengthened the team to be able to be highly performant once the pilots were fully designed.

### **Program implementation**

**Training and knowledge exchange.** The Procurement Forum proved to be timely and lent itself to meaningful exchanges among Program Coordinators and in itself contributed to knowledge sharing. Program Management Professional training was undertaken by a team member who was successful and the Program unit is part of efforts to have the Guyana Chapter of Program Management Institute (PMI) resuscitated. Program Managers were also invited to participate in the PMI Guyana Chapter.

During Program implementation, the CH&PA team visited Suriname and El Salvador to get a first-hand look at similar projects which were implemented in those countries and gained an appreciation of the similarities and differences which are determined by country experiences and context.

**Special procedures.** CH&PA established formal procedures with the Village Councils, which are recognized and organized bodies, as a means of mitigating delays in the project implementation process. This was brought to bear in the instance of the hinterland pilot, where labor contracts were signed with individual local builders who subsequently relocated from the communities where the project was being implemented. As a result, CH&PA had to establish contractual arrangements with the Village Councils in order to get these works completed. Although these arrangements are time-consuming, they are key for any project success in the hinterland.

**Procurement issues.** Direct procurement of high-performing contractors for the Core House Pilot resulted in acceleration of that pilot, ease of quality management and proved to be more cost effective than open tendering. In implementing programs where suppliers/contractors have proven reliability that results in timely, cost effective implementation and delivery of program components, there should be some flexibility of procurement rules to continue with the approach that guarantees successful achievement of the desired results. This would also mitigate against beneficiaries



becoming frustrated due to lengthy delays. There is need for dedicated procurement support for a Program of this nature. CH&PA did hire a procurement specialist in 2012.

**Season's programming.** Weather is an actor to take into account. The Program modified its schedule to make sure implementation was done during period of favorable weather, so that works were maximized.

**Stakeholders' coordination.** This is important at all levels. CH&PA, there is buy in and support for this approach, it helps to identify issues that can affect project implementation, clarifying of roles and responsibilities is critical for successful stakeholder coordination and project implementation, it can be strengthened. The Ministry of Communities holds great potential for seeing a deepening of the coordination among certain key sectors.

### **Program closing**

**Housing technical issues.** There are a few issues with the houses' design that would be necessary to review for future expansion of the Program: (i) current septic tank location and piping make expansion difficult; (ii) according to homeowners, eight feet extensions fail to accommodate more than a single bed; (iii) some houses might not be high enough, which might cause inappropriate ventilation, and floor rotting; (iv) standing water under the house was noted by several, which might cause mosquitos and humidity. It would need consider filling land under house before construction<sup>3</sup>; (v) the use of green woods has resulted in excessive shrinks leading to leaks; (vi) windows detail allow wind-driven rain leaks; (vii) front door location could be placed closer to exterior wall to facilitate addition of interior walls dividing space into two rooms; (viii) consider adding double window for better ventilation and lighting; and (ix) consider a larger core house to accommodate larger families and multiple uses if beneficiaries are able to cover additional costs.

Based on feedback from Core House beneficiaries, it may be prudent not to strictly restrict the design of the expansion for the house, as it can stifle the creativity of the beneficiaries and take away from their sense of ownership of the building. However, there must be some control on the size of the expansion in order to ensure that planning standards for this category of housing are maintained.

**Allocation issues.** It is recommended to review the allocation procedure for the following reasons: (i) some lots were located in standing water, requiring investment on part of the beneficiaries to fill low areas to make them useful; and (ii) many expressed dissatisfaction with the inability to move together with relatives and friends, for which a solution could be the offer of cluster units of 10-15 self-selected groups.

### **Other Observations and Recommendations**

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<sup>3</sup> Usually 3-4 truckloads of sand are needed at about GYD 15,000 (US\$ 73.5) each plus labor.

The final evaluation performed by MIT during June 2015 and the exit workshop in October 2015 generated valuable information that is summarized below.

1. Consider an absolute minimum core as replacement shelter for unsafe structures where minor improvements are insufficient. This could also be an option after disasters for rapid provision of shelters, being a temporary lower standard hour with long-term benefit with the beneficiaries' input. However, it would need to be tested whether families would choose this type of solution. In order to find innovative designs consider open competition or solicit entries from Universities, professional associations, general public, etc.
2. Emphasis and support for income generation/employment coupled with housing programs. Consider allow homeowners to open small stores on their properties. Family business supports family wellbeing as well as collectively being. Micro businesses are often noted as a large percentage of the economic base of cities.
3. Larger shops could be of great benefit to the communities, better when they are owner occupied. Lot size could be adjusted accordingly in desirable locations. They can also help to reinforce the feeling of community center.
4. Lots can provide opportunities for growing food and raising animals. This might also help the beneficiaries to develop income generating activities, as well as self-consumption produce.

## **Annexes:**

1. [Minutes from the Exit Workshop](#)
2. [Borrower Evaluation](#)
3. Others
  - (i) [Observations Final](#)
  - (ii) Hinterland Reports:
    - a) [Lessons Learned: Overcrowding](#)
    - b) [Lessons Learned: Access To Water Indicators and Roofing Component Of The Program](#)
    - c) [Lessons Learned: Access To Sanitation Indicators and Security Of Tenure Indicators](#)
    - d) [Lessons Learned: Structural Quality](#)
    - e) [Quantitative Evaluation Of Housing Indicators](#)
  - (iii) [Midterm Evaluation](#)

**Acta del Taller de Cierre**  
**Second Low Income Settlement Program**  
**Minutes of Project Closure**

**Attendance Register**

<b>No.</b>	<b>Name</b>	<b>Agency</b>	<b>Contact</b>	<b>Email</b>
1	Karl Singh	Regional Democratic Council	604-1160	Karlsingh44@yahoo.com
2	Sheryn Greaves	Republic Bank	624-0364	
3	Davindra Ramnarine	CH&PA	696-0227	<a href="mailto:Davermnarine2002@ymail.com">Davermnarine2002@ymail.com</a>
4	Amanda Damon	Nurse GPHC	626-8200	
5	Ronette Hetsberger	Min of Finance	616-5970	rhetsberger@finance.gov.gy
6	Stanley Jacobs	Dvelpmnt Ass of Fort Ordenance	639-4109	
7	Enol Band	Tuschen/Uitvlugt NDC	621-4075,	
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9	Barbara Surubally	Non Pariel Comm Group	629-2938	
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22	Neville Corbin	HIP Beneficiary Sophia		
23	Floris Ramjattan	Bath Woodley NDC	328-7686	
24	Sophia Mackonnen	IDB		
25	Anette Dass	Mon Repos NDC	622-4364	
26	John Mendoca	Chairman Oronque		
27	Terrence Hendricks	Beneficiary	680-5714	
28	Priscilla Torres	Region 9 CDC North	648-4749	<a href="mailto:priscillatorreswowetta@gmail.com">priscillatorreswowetta@gmail.com</a>
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30	Rabindra Kishun	Min of Education	626-2637	<a href="mailto:Rkishun@gmail.com">Rkishun@gmail.com</a>
31	Everett Harewood	IMC	339-2694	
32	Cleveland de Souza	White Water Village	676-8770	
33	Emilia Chapuis	IDB		<a href="mailto:emiliach@ciidb.org">emiliach@ciidb.org</a>
34	Randolph Blair	Buxton/Foulis NDC	220-8449	
35	Ahphernee Murray	Corehouse Beneficiary	649-7646	
36	Naveen Umrau	IDB	600-1213	<a href="mailto:Naveenj@iadb.org">Naveenj@iadb.org</a>
37	Sonjia Bailey	HIP & Sanitation Beneficiary	687-5288	
38	Hon Keith Scott	Min of Communities	226-0489	
39	Hon Ronald Bulkan	Min of Communities	226-0617	

40	Hon Dawn Hastings	Min of Communities	226-0617	
41	KuneBeharry Ramgopal	Mon Repos NDC	663-6282	
42	Eoni Hinds	Corehouse Beneficiary	613-6011	
43	Margaret Lambert	Port kaituma NDC	660-6911	
44	Oshanna Miggins	CH&PA	622-5205	
45	Gaitree Ramwad	CH&PA	603-5913	
46	Shevon Moore	CH&PA	655-5444	
47	Carneseshia Pereira	CH&PA	652-7000	
48	Rawle Edinboro	CH&PA	600-3315	
49	Denise King-Tudor	CH&PA	600-3317	
50	Andrea Smirth	CH&PA	662-0048	
51	Roxanne Ross-Sutton	CH&PA	600-3317	
52	Fayola Zore	CH&PA	226-5533	
53	Germere Stewart	CH&PA	227-3737	
54	Malini Jaikarran	CH&PA	227-3737	
55	Ceola Moseley	CH&PA	227-3647	
56	Lenise Tucker	CH&PA	226-3078	
57	Aishan Hussain	CH&PA	231-0258	
58	Reaze Abraham	CH&PA	662-1893	
59	Gladwin Charles	CH&PA	600-3316	
60	Fazal Wahab	CH&PA	684-4500	



Inter-American Development Bank  
Project Completion Report –2010 PCR  
Borrower's Evaluation

Project Name: 2102/BL-GY	
Executing Agency(ies): Central Housing and Planning Authority (CH&PA)	
Borrower: Co-operative Republic of Guyana	
Date of Project Approval:	Date of Contract Effectiveness:
Date of Borrower Evaluation: <a href="#">January 15, 2016</a>	Expected Date of Exit Workshop: <a href="#">November 5, 2015</a>

### Borrower Project Performance Ratings

Probability on Achieving its Development Objective(s):

[ ☒ ] Highly Probable (HP)      [ ☐ ] Probable (P)      [ ☐ ] Low Probability (LP)      [ ☐ ] Improbable (I)

Project Implementation:

[ ☒ ] Highly Satisfactory (HS)      [ ☐ ] Satisfactory (S)      [ ☐ ] Unsatisfactory (US)      [ ☐ ] Very Unsatisfactory (VU)

Sustainability of Project Results:

[ ☒ ] Highly Probable (HP)      [ ☐ ] Probable(P)      [ ☐ ] Low Probability (LP)      [ ☐ ] Improbable (I)

**Comments:**

Many lessons were learnt throughout implementation. The highly participatory method which was pursued with development partners and beneficiaries laid the foundation for the achievement of development objectives, as well as sustainability of the outputs and outcomes which were achieved.

### Borrower Performance During Project Preparation

Please rate your own performance during Project Preparation:

[ ☒ ] Highly Satisfactory (HS)      [ ☐ ] Satisfactory(S)      [ ☐ ] Unsatisfactory (US)      [ ☐ ] Very Unsatisfactory (VU)

**Comments:**

Project preparation was an exciting and productive phase of the Programme. The involvement of the implementers was highly interactive with the Bank personnel and provided the opportunity for individual and collective growth and development.

### Borrower Performance During Project Execution

Please rate your own performance during Project Execution:

[ ☒ ] Highly Satisfactory (HS)      [ ☐ ] Satisfactory(S)      [ ☐ ] Unsatisfactory (US)      [ ☐ ] Very Unsatisfactory (VU)

**Comments:**

At the individual level, the responsibility for leading the Programme afforded me the opportunity for effective time management, multi-tasking, meeting tight deadlines, keeping team members motivated, maintaining effective teamwork and assigning tasks and responsibilities to team members that built on their strengths.

Overall, I thought that my individual performance was of a high standard which was maintained throughout execution.

### Bank Performance During Project Preparation

Please rate the Bank's performance during project preparation. Factors to be considered include the extent to which the Bank facilitated a participatory project design, proposed adequate technical solutions to the problems identified, and responded to the needs of the Borrower (timeliness, selection of instrument type).

[ ☒ ] Highly Satisfactory (HS)      [ ☐ ] Satisfactory (S)      [ ☐ ] Unsatisfactory (US)      [ ☐ ] Very Unsatisfactory (VU)

**Comments:**

The Bank's approach was highly interactive and participatory at the design and project preparation phase; an approach that can be considered as critical to the overall success of the Programme.

The Bank also adequately provided technical support and advice to the implementers mostly in a timely manner and demonstrated flexibility that contributed meaningfully to resolving many issues prior to implementation. Teamwork between the Bank and the Executing Agency was of a high level.



### Bank Performance During Project Supervision

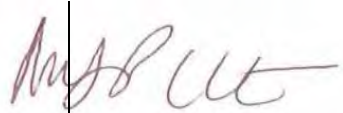
Please rate the Bank's overall performance during project supervision. Factors to be considered include technical assistance (including informal and formal training) to Executing Agency, timeliness of Bank response and the Bank's flexibility to respond to emergency situations during project implementation.

[ ☒ ] Highly Satisfactory (HS)      [ ☐ ] Satisfactory (S)      [ ☐ ] Unsatisfactory (US)      [ ☐ ] Very Unsatisfactory (VU)

**Comments:**

The Bank facilitated many relevant training programmes/sessions which built capacity and increased the body of knowledge as it relates to IDB procedures, as well as exchange visits to countries implementing similar programmes. The breakfast forums which were arranged by the Bank also proved useful as Programme Coordinators were granted the opportunity to share experiences in programme implementation, discuss common problems, and approaches to monitoring and supervision of their Programmes.

Overall, the Bank's performance could be rated as excellent in the support that was given to the Project Team at CHPA.



Chief Executive Officer

Additional Suggestions for Improving Bank Performance

# **SECOND LOW INCOME SETTLEMENTS PROGRAMME**

## **GOG/IDB LO-2012/BL-GY EXIT WORKSHOP REPORT**

**November 5<sup>th</sup> 2015,**

**Regency Suites, Hadfield Street, Georgetown Guyana**



**Central housing and Planning Authority**



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## Background

The Second Low Income Settlements Programme (LIS-2) was implemented in Guyana between June 2009 and June 2015. The programme was implemented by an in house management team within the Central Housing and Planning Authority (CHPA) on behalf of the Government of Guyana (GOG). LIS-2 was financed via GOG/IDB Loan LO-2012/BL-GY, totaling \$27.0M USD from the Inter-American Development Bank (IDB).

The LIS-2 aimed to improve the quality of life of low income families through better access to housing. The programme strategy proposed a more comprehensive urbanization process in the country by:

- Providing site and services infrastructure, and improving coordination with the agencies which provide water and electricity, and;
- Incorporating basic core houses into the subsidy to provide a housing solution to the poorest.
- Implementing 3 other pilots (Home Improvement Subsidy Pilot, Hinterland Housing Pilot, and Partnership with Professional Groups Pilot) to test specific aspects of sustainability and affordability in the Guyana context

The programme also included actions to improve CHPA intervention in housing schemes and squatting settlements, by consolidating pre-selected existing housing schemes and upgrading specific squatter settlements; training of CHPA staff for better planning and assessment in the pre-design phase of housing schemes and development of monitoring and evaluation capabilities within the organization

Programme results include:

- The construction of 400 core houses under the Core House Pilot
- The disbursement of 400 subsidies for the improvement of houses in squatter settlements and pre- approved existing housing schemes under the programme
- The disbursement of 208 subsidies for construction of homes and the repair of roofs in the hinterland in regions 1 and 9 - 122 houses constructed and 86 roofs repaired - a total of 208 subsidies disbursed; exceeding the target of 200 subsidies.
- The allocation of 206 house lots in Recht-Door-Zee Phase 2 to nurses, police officers and teachers, exceeding the target of 200.
- The provision of services (roads, drainage networks, electrical distribution networks, water distribution networks) to 8467 lots in new and existing sites and 973 lots in regularized squatter areas under the programme

- The construction of 285 septic tanks
- Training of CHPA staff in disciplines including engineering, Monitoring and Evaluation, Management, legal education, accounting, customer relations, housing and urban development, Applied Community Change, Business Management and the Installation of an improved management information system
- Installation of a Wide Area Network to facilitate connection of Regional Housing Offices in regions 3,6 and 10 to the main network
- Preparation of twelve community development plans and the implementation of community projects
- The transfer of 4434 titles to beneficiaries in housing schemes and squatter settlements under the programme
- National Housing Policy completed and presented to Cabinet in 2013, but will now have to be reviewed and updated.

The program was successfully completed and implementing agency has learnt valuable lessons regarding program design, management and implementation, approaches for addressing issues of affordability in housing, coordinating among multiple stakeholders and the value of participatory program design and implementation.

The Exit workshop is implemented to share the knowledge and experience gained from the implementation of the LIS-2, the lessons learnt and areas for improvement, should similar programmes be implemented in the future.

## **Purpose of the workshop**

The reason for the workshop is to thank the IDB, stake holders and partners for their enormous contribution and to present a synopsis of the programme, to share with those present the achievements, lessons learnt, identify best practices that can be applied in the future and to extract meaningful discussions from the workshop through the full participation of participants.

The Workshop was prepared and conducted with the following three key objectives.

- i) Highlight and Share the knowledge, experience and lessons that have evolved during the project implementation period including strengths gained, weaknesses experienced, opportunities that have arisen and the threats to further and sustained progress.
- ii) Agree on the best practice approaches and action points necessary in a more comprehensive, scaling-up process, from the housing policy perspective, hence the

scope and stakeholders and/or collaborators roles, resource allocation etc..., for sustained effort and far reaching impact.

- iii) Highlight and make recommendations for consideration based on the planning of the LO-2102/BL-GY: Second Low Income Settlements Programme.

## **Workshop Methodology and Process**

Adopting a participatory process, the workshop was facilitated through a series of presentations and a number of small group discussions. The workshop methodology was designed to stimulate discussions around the successes, challenges and lessons learnt during the implementation of the LO-2102/BL-GY: Second Low Income Settlements Programme work in its six years of project life.

The sharing of knowledge and experiences was stimulated by key presentations by the Minister of Communities, Minister within the Ministry of Communities with responsibility for Housing and Water, Resident Representative of the Inter-American Development Bank, Mission Leader of the Inter-American Development Bank, and Chief Executive Officer (CEO) of Central Housing and Planning Authority (CHPA), Director of Projects, CHPA, Chief Planning Officer, CHPA and Director, Community Development (ag). Based on the outcomes of the small group discussions, selected participants, including some beneficiaries of the programme made presentations. Key among these reports were the representatives from each stakeholder group including the Guyana Bank for Trade and Industry (GBTI), Regional Democratic Councils (RDCs) of Regions 1 and 9, Neighbourhood Democratic Councils (NDCs) of Tuschen/Uitvlucht, Bath Woodley Park, Buxton/Foulis, Mon Repos and Port Kaituma and the community leader from Ordinance/Fortlands in Region 6.

The Workshop started at 9:00 am with the opening remarks from Ms. Denise King-Tudor, Director of Operations of the CHPA within the Ministry of Communities. The Director of Operations opened the workshop with the reciting of the National pledge, addressed the distinguished officials at the head table and acknowledged the honorable Minister within the Ministry- Ms. Dawn Hasting - Williams and his worship – the Mayor Hamilton Green (Chairman of Board of Directors CHPA)), representatives from the RDCs and NDCs, Commercial banks, IDB and Inter- Agency coordinating committee (ICC). In her statement, Ms. King-Tudor, welcomed all to the exit close out workshop of the LIS 2 Programme and recapped on the very programme being launched at the same venue in June 2009 with the government securing funding to the sum of \$US27.9 million from the IDB to implement the Low Income Settlement Programme. Ms. King-Tudor explained that the main purpose of the programme was to improve the quality of life of low income families through better access to housing and stated that the programme strategy was multi-dimensional and a more comprehensive package than the



previous programme (LIS 1) which concluded in 2007. She clarified that the programme conceptualized, went beyond the basic provision of sites and services, land divestment and incorporated four pilots to address issues of affordability. These included:

- The home improvement pilot
- Core house pilot
- Hinterland pilot
- Partnership with professional homes

## Workshop Participants

A total of sixty eight (68) persons attended the workshop. This included the Vice President and Minister of Indigenous People's Affairs, Minister of Communities, both Ministers within the Ministry of Communities, IDB Resident Representative, IDB Team Leader, Core House, Sanitation and Home Improvement Beneficiaries from regions 4, 10, 9, 6, 1 and 3, the Regional Chairpersons from the RDCs of Regions 1 and 9, Mayor of Georgetown, NDC's and Municipal Councils, Inter-Agency Coordinating Committee, Commercial Banks and Management and staff of the CHPA and other stakeholders was also represented.

## Program Successes as presented by presenters of CHPA and from the small group discussions:

### CHPA

The programme was successfully implemented since all targets were met, and in some instances, exceeded. This is the general perspective expressed by the government of Guyana, the IDB, the CHPA and the program partners and beneficiaries.

- o The quality of life of beneficiaries were improved through improved access to affordable housing, increased security of tenure, improved access to basic amenities such as water and electricity and roads.
- o Occupancy of house **lots was improved as a result of the program's intervention.**

### Local Democratic Organs

From the perspective of Local Democratic Organs (both at the RDC and NDC levels) the LIS-2 had positive effects on their locale. This was evidenced through:

- o Improvement in infrastructure and improved sanitation
- o Improvement in the provision of facilities and services (education, health, playgrounds)

- Enhanced Social Cohesion
- The program worked well as it built on existing good relationships between RDC and Amerindian Village Councils in Regions 1 and 9.

### **Commercial Banks**

The information below was provided by the Guyana Bank of Trade and Industry since Republic Bank had already departed.

- Significant financing obtained by low income households – as at 30/09/2015 the portfolio is at \$1.8 billion (698 beneficiaries for home construction) and G\$66 million for home improvement(38 beneficiaries)
- There is a very high repayment rate among low income households
- Low income earners such as teachers, public servants generally, farmers (self-employed), private sector workers including entry level clerk have all benefited from loans
- The banks have also provided some concessions to low income groups (see discussion notes)

### **Beneficiaries**

Beneficiaries of all the pilots as well as the sanitation component provided their impressions of the project in small group discussions

### **Core house**

- The program facilitated an improved sense of safety, freedom, well-being, confidence and accomplishment for beneficiary households
- Beneficiaries now have more disposable income

### **Home Improvement**

- This pilot facilitated increased living space for beneficiary households

### **Sanitation**

- The sanitation program helped to improve comfort and convenience

### **Professionals Pilot**

- The program facilitated an improved sense of safety, freedom, well-being, confidence and accomplishment for beneficiary households
- Beneficiaries now had more disposable income

### **Hinterland Housing Pilot**

- In general the households reported an improved standard of living as a result of project: enhanced health and reduced burden on women due to improved access to

safer water and zinc roofs, improved educational performance and increased sense of security due to zinc roofs which lends itself well to the installation of the solar panels for electrification.

- Savings were reported since housing needs have been met.

### **Community Leader**

The Chairperson of the Development Association of Ordnance/Fortlands reported the following regarding the successes of the programme in his community:

- There has been improvement in infrastructure with the development of Ordnance/Fortlands Phase 2
- Increase in population as some persons have begun to occupy their lots, including the Core Houses
- Improved social cohesion

## Key Issues and Lessons Synthesis

The section below synthesizes the key issues/challenges and lessons learnt and recommendations as captured by the various presentations and small group discussions

Project	Challenges/Issues	Lessons Learnt	Recommendation
Development of Sites and Services, consolidation of existing areas and upgrade of squatter settlements	<ul style="list-style-type: none"> <li>Provision &amp; accessibility of water</li> <li>Street lighting</li> <li>Availability of water at the time of power outages</li> <li>Implementing the LIS2 programme without a PEU was very demanding.</li> <li>Maintenance was not given the necessary attention it deserves.</li> <li>Poor contractor performance, in some instances</li> </ul>	<ul style="list-style-type: none"> <li>Unsuccessful contracts linked to lowest bids</li> <li>There is need for strengthening the LDOs to be able to deliver better services, including street lighting</li> </ul>	<ul style="list-style-type: none"> <li>Integrate schedules in the AOP rather than having them stand alone.</li> <li>Continue to provide training in Procurement, PM and resume the procurement round table session.</li> </ul>
Core House Pilot	<ul style="list-style-type: none"> <li>Poor performance by some contractors</li> <li>Price increases in the cost of labour and materials</li> <li>Some applicants falsified information in order to benefit from the programme</li> <li>Some persons, due to low affordability, could not afford to pay the beneficiary equity share contribution.</li> </ul>	<ul style="list-style-type: none"> <li>The Core house is a feasible affordable housing option for persons of low affordability</li> <li>Flexibility is necessary regarding timeline for payment of the beneficiary contribution</li> <li>Core House enabled beneficiaries of low affordability to become eligible for bank financing, which facilitated larger scale improvements/expansions</li> <li>Children have more yard space for recreation</li> <li>A stronger sense of community and social cohesion develops when households are settled in clusters or groups, and have been constantly interacting.</li> </ul>	<ul style="list-style-type: none"> <li>The Core house should be retained as a housing solution for households of low affordability.</li> </ul>
Home Improvement	<ul style="list-style-type: none"> <li>Poor performing suppliers, in the initial stages of the project</li> <li>In some instances, beneficiary</li> </ul>	<ul style="list-style-type: none"> <li>There is great need for interventions that help to improve the housing quality among groups of low affordability</li> </ul>	<ul style="list-style-type: none"> <li>Home Improvement subsidies should continue, however a range of subsidy options should be</li> </ul>

	<p>expectations were greater than the scope of the subsidy</p> <ul style="list-style-type: none"> <li>■ The level of improvement required, in some cases, to bring the home to a standard that meets habitable requirements exceeded the scope of the subsidy</li> <li>■ The cost and complexity of executing structural works resulted in significant time lapses beneficiaries who attempted to affect structural works, generally were unable to do so on their own, and had to source, in many instances, paid labour to complete these works which were of a complex nature.</li> </ul>	<ul style="list-style-type: none"> <li>■ The need for this type of intervention was greater in housing areas that were in existence for a longer period of time, and particularly great in regularized squatting areas</li> <li>■ Direct procurement of high performing contractors saves time and delivers a higher quality product</li> <li>■ The Core House Pilot would be an appropriate intervention for regularized Squatter settlements as an intervention for improving the quality of housing and low income groups.</li> </ul>	<p>offered.</p>
Sanitation Project	<ul style="list-style-type: none"> <li>■ Poor performing contractors</li> <li>■ Beneficiaries were fearful of injury due to design of toilet (on top of tank)</li> </ul>	<ul style="list-style-type: none"> <li>■ Public Awareness is essential to creating an understanding of interventions</li> <li>■ Stakeholder involvement coordination important to successful project implementation.</li> <li>■ Comfort and convenience</li> </ul>	<ul style="list-style-type: none"> <li>● Sanitation subsidies should continue, particularly, in existing and squatter settlements</li> </ul>
Hinterland Housing Pilot	<ol style="list-style-type: none"> <li>1. Access to these remote communities was difficult</li> <li>2. Building trust with communities took time and constant presence.</li> <li>3. High Operational costs</li> <li>4. Coordinating with other service providers</li> <li>5. Interagency coordination</li> </ol>	<ul style="list-style-type: none"> <li>■ Hinterland Communities have the ability to manage local development initiatives</li> <li>■ High levels of Community organization in Hinterland villages auger well for speed and successful implementation of projects</li> <li>■ Unique socio-cultural attributes of hinterland community matter, and must be embraced in project design</li> <li>■ Adaptability is essential to project</li> </ul>	<ul style="list-style-type: none"> <li>● Installation of an internal ceiling or tile roof to reduce head produced by zinc sheets</li> <li>● Installation of septic tanks instead of pit latrines</li> <li>● Installation of water from the main water supply to each home.</li> <li>● Termite Treatment</li> </ul>

		<p>implementation</p> <ul style="list-style-type: none"> <li>■ Participatory approaches to development creates the space for disempowered groups to empower themselves</li> </ul>	<ul style="list-style-type: none"> <li>• Provision of a Maintenance manual</li> <li>• Continue to the use of this type of participatory approach to programme planning, design and implementation</li> <li>• A focused effort should be made to ensure female participation in program design and implementation in the hinterland and other groups of low affordability</li> </ul>
Professional Group Pilot	<ul style="list-style-type: none"> <li>■ Timely delivery of Certificate of Title to beneficiaries</li> <li>■ Late installation of electricity due to capacity issues by GPL; CHPA had to undertake actual procurement and installation works</li> <li>■ Associations not referring persons to be pre-qualified in a timely manner</li> </ul>	<ul style="list-style-type: none"> <li>• It is important to allow applicants to choose the It bank and not to randomly assign a bank</li> <li>• Greater Involvement of stakeholders augers well for project planning and implementation</li> <li>• It is important to allow for more flexibility in house design</li> </ul>	<ul style="list-style-type: none"> <li>• Provision &amp; accessibility of water</li> <li>• Street lighting</li> <li>• Availability of water at the time of power outages</li> <li>• It is important to allow for various house design options</li> </ul>
Community Engagement	<ul style="list-style-type: none"> <li>• NDCs reported Poor revenue Collection</li> <li>• Slow pace of transfer of housing schemes</li> <li>• Violations by residents due to the lack of transfer of schemes</li> <li>• Outdated valuation</li> <li>• Resale of Lots before 10 year period</li> <li>• Community leaders indicated the</li> </ul>	<ul style="list-style-type: none"> <li>• Local Authorities generally desire to be engaged early in the planning and developing processes of CHPA schemes</li> <li>• <b>Local Authority's involvement can help</b> significantly in ensuring success in project implementation</li> <li>• The capacity of LDOs need to be built in in order to manage housing areas</li> </ul>	<ul style="list-style-type: none"> <li>■ Ministry of Communities to be more proactive in terms of transferal of schemes to ensure that it is done in a timely manner</li> <li>■ Valuation office to be reassigned to the Ministry of Communities; Valuation officers could be placed within the local authorities</li> <li>■ Regular meetings with various</li> </ul>

	<p>need for more information sharing and sensitization at the community level</p> <ul style="list-style-type: none"><li>• Beneficiaries report a lack of recreational facilities</li></ul>	<p>developed by CHPA and to enforce the bylaws in order to maintain orderly development</p>	<p>agencies (local organs)</p> <ul style="list-style-type: none"><li>▪ Put in basic infrastructures first in schemes before allocation.</li><li>▪ Ensure greater community involvement in infrastructure development, particularly in existing schemes</li><li>▪ More frequent communication between CH&amp;PA and the communities.</li><li>▪ Advocate for security and health services in the housing schemes</li><li>▪ Recreational facilities readily available</li><li>▪ CHPA and LDOs must ensure that unoccupied lots are better managed.</li></ul>
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## APPENDIX 1: Power Point Presentations

### Presentation #1: Development of new sites with services, consolidation of existing housing schemes, and upgrading squatter areas

**Presenter: Mr. Fazal Wahab**

Programme Purpose and Strategy

The main purpose was to improve the quality of life of low-income families through better access to housing

#### Targets vs. Achievements - # of Sites

Description	Target	Actual	Remarks
<b>No. of Sites</b>	<b>20</b>	<b>19</b>	
• <i>New</i>	8	7	Tuschen Ph2, Belle west ph2, Recht Door zee ph2, Section EE Non Pariel, Ordnance Fortlands ph2, <b>No. 76 Village ph2, &amp; Amelia's Ward ph3.</b>
• <i>Existing</i>	7	7	Westminster Ph1, Onderneeming ph1, Recht Door Zee ph1, Area B Lusignan, Block D Bath, Tabatinga <b>&amp; Amelia's Ward ph2</b>
• <i>Squatter</i>	5	5	Binkey Alley, Section D Sophia, Area R Ankerville, Block 5 Ankerville & Eliza and Mary

#### Description of Programme sites

Sites	Description
New	New land sub-division with connections to basic infrastructure (Roads, Power, Water and Drainage)
Existing	Completion or rehabilitation of existing infrastructure
Squatter	Improving of physical infrastructure (widening and paving of roads, water distribution, drainage and septic tanks)





- To increase occupancy of house lots
- To test specific aspects of affordability and sustainability in the Guyana context



### The Core House Pilot

#### Aim:

- To construct 400 starter homes.
- To improve occupancy of house lots
- To address issues of affordability in housing

#### Target:

- 400 low income households

#### Location:

- New schemes(8)
- Existing schemes(7)

#### What is a core House?

- Modest starter home
- Dimensions - 20'-0" x 16'-0" (330sq. ft.)
- Timber and concrete structure
- No internal partition walls, except for the enclosed sanitary block comprising a toilet and shower



Figure 3 Image showing a Core House

- Outfitted with a basic kitchen sink and electrical wiring and plumbing.
- Beneficiary contributed \$100,000 (US\$500)

### **The Core House Pilot Results**

- The Housing conditions of 400 low income families improved across 8 new and 7 existing housing schemes
- Beneficiaries report improved family relations
- Female headed households were able to become home owners (61% of beneficiaries)
- 84% of the Core Houses occupied
- Strong sense of community among beneficiaries
- Heads of households with disabilities also benefited (2%).

### **The Core House Pilot - Improvements to units**

- 58% of Core homes improved – works commenced within 2 -4 weeks of receipt of keys

### **Core House Pilot- Extension to units**

- 10% of Core Houses extended
  - **Increasing the family's living space**
  - Works commenced between 2 weeks and 14 months



**Figure 4 Self-Financed Core House Extension**



**Figure 5 Bank Financed Core House Extension**

## **Challenges**

- Poor performance by some contractors
- Price increases in the cost of labour and materials
- Some applicants falsified information in order to benefit from the programme
- Some persons, due to low affordability, could not afford to pay the beneficiary equity share contribution.

## **Lessons Learnt**

- The Core house is a feasible affordable housing option for persons of low affordability
- Flexibility is necessary regarding timeline for payment of the beneficiary contribution
- Core House enabled beneficiaries of low affordability to become eligible for bank financing, which facilitated larger scale improvements/expansions
- Allow for creativity on the part of beneficiaries in house designs

## **The Home Improvement Subsidy Pilot**

- Supply of the G\$200,000 (US\$1,000) worth of materials to improve their homes
- 400 households of low affordability benefitted
- Beneficiaries in existing and regularized squatting areas
- Beneficiaries provided 100% of the labour

## **Home Improvement Subsidy Pilot Beneficiary Communities**

- Westminster Phases 1 & 2
- Onderneeming Phases 1 & 2
- Recht-Door-Zee Phase 1
- Parfait Harmonies Phase 2
- Sophia D
- Sophia C
- Cummings Park
- Block D Bath
- Block 5 Ankerville
- Area R Ankerville
- Eliza and Mary

### **Home Improvement Subsidy Pilot Results**

- Increased living space
- Reduced overcrowding
- Improvements provided impetus for home owners to effect additional works to their homes, beyond the pilot
- The quality of housing improved for 400 families across 6 regularized squatter settlements and 10 existing housing areas
- Better and safer housing structures
- 56% of beneficiaries are female-headed households
- Beneficiaries were more inclined to participate in community development initiatives

## Home Improvement Subsidy Pilot



**Figure 6 Image showing the Condition of the home before the subsidy**



**Figure 7 Image showing the Improved home as a result of the subsidy**

### Challenges

- Poor performing suppliers in the initial stages of the project
- In some instances, beneficiary expectations were greater than the scope of the subsidy
- The level of improvement required, in some cases, to bring the home to a standard that meets habitable requirements exceeded the scope of the subsidy
- The cost and complexity of executing structural works resulted in significant time lapses to beneficiaries who attempted to effect such. Generally these beneficiaries were unable to do these works on their own, and had to source, in many instances, paid labour to complete these works which were of a complex nature.

### Lessons learnt

- There is great need for interventions that help to improve the housing quality among groups of low affordability







difficult

- Building trust with communities took time and constant presence.
- High Operational costs
- Coordinating with other service providers
- Interagency coordination

### Lessons learnt

- Hinterland Communities have the ability to manage local development initiatives
- High levels of Community organization in Hinterland villages auger well for speed and successful implementation of projects
- Unique socio-cultural attributes of hinterland community matter, and must be embraced in project design
- Adaptability is essential to project implementation

### The Professionals Group Pilot

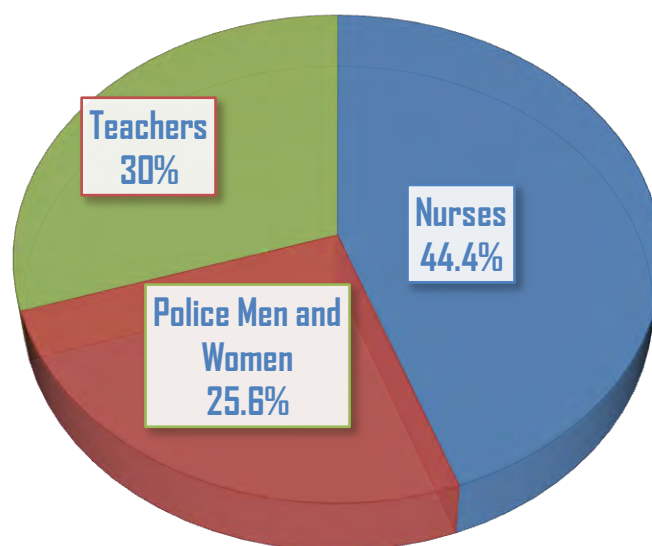
- **The Pilot's aim was** to address the shortage of affordable houses for specific organized groups.
- The general characteristics of the pilot were finalized at the conclusion of a technical study executed to determine the following:
  - Eligible Organizations
  - Eligible activities
  - Amount of subsidy
  - Eligible project
  - Project cycle
- The findings of the study revealed that the associations did not have the financial capacity to install the infrastructure and to construct the houses as were initially conceptualized.
- Guided by the results of the study, the following were the characteristics of the pilot:
- The Pilot allowed for partnership among CRG, GBTI, Republic Bank, Guyana Police Association, Guyana Nurses Association and Guyana Teacher's Union.

## Results

The Pilot commenced in October, 2011 at the Application/Interview stage and was concluded in June, 2015 at the stage of Allocation.

### **The Pilot achieved 207 allocations:**

	TOTAL
Applications received	825
Applicants prequalified by CHPA	676
Applicants prequalified by the Banks	249



**Chart 1 Chart showing the distribution of allocations in the Professionals Pilot**

At the close of the Pilot,

- 130 were at different levels of construction:
  - 101 completed buildings
  - 29 houses are at different levels of construction

## Challenges

- Timely delivery of Cert. of Title to beneficiaries

- Late installation of electricity due to capacity issues by GPL; CHPA had to undertake actual procurement and installation works
- Associations not referring persons to be pre-qualified in a timely manner

### Lessons learnt

- Allow for various house design options
- Allow applicants to choose the bank and not to randomly assign a bank
- Greater Involvement of stakeholders augers well for project planning and implementation

### General Lessons Learnt from pilots

- Direct procurement of high performing contractors saves time and delivers a higher quality product
- Local Authorities generally desire to be engaged early in the planning and developing processes of CHPA schemes
- **Local Authority's involvement can help significantly in ensuring success in project implementation**
- Communities, given the opportunity to get involved, give more to support an initiative that they relate to
- Participatory approaches to development create space for disempowered vulnerable groups to empower themselves
- The pilots (particularly Core and Home Improvement) acted as catalyst for a heightened sense of pride at the individual and community levels.
- Improved housing helps vulnerable groups to feel more empowered and confident.
- Flexibility is necessary regarding timeline for payment of the beneficiary contribution
- Flexibility is required on the part of implementing partners to ensure successful and efficient completion of hinterland projects
  - **The IDB's flexibility was particularly helpful (HIP, Sanitation – additional communities)**
- Always celebrate success

## Presentation # 3: Community Planning and Implementation of Community Projects

**Presenter: Mr. Rawle Edinboro**

### Community Planning

- Generally a multi-dimensional process.
- Development of communities through collaborative efforts between government agencies, NGOs and people

### Community Planning & Development Operations

- The ***Low Income Settlements Program (LISII)*** realized innovation in the CH&PA's Community Planning & Development operations.

### CH&PA & Community Planning

#### A highly participatory Planning and Development Process

1. Engage the community
2. Develop a community profile & information system
3. Define a community vision
4. Engage key government stakeholders (including government agencies)
5. Prepare Community Development Plan
6. Collect feedback and secure approval

### Results

- **LIS II** facilitated the preparation of Fifteen (15) **Community Development Plans (CDPs)**.

#### An Explanatory Guide Discussing a Community's Development

- Documents community realities.
  - prioritized community issues
- Articulates community development goals & objectives
  - Coined Community Vision Statement.
- Stated Development Recommendations
  - derived Implementation Matrix
- Identified Community Development Projects.
- Discussed Project Implementation framework.

### Key Planning Process Outputs

- A defined methodology for community planning and engagement.
- Consolidated community development operations
- Presentation and subsequent handing over of CDPs to Communities & Local Authorities.
- Enhanced synergies between local authorities and community groups.
- Empowered Community Groups

### Reflections on the Community Planning Process

- Encouraged a more participatory approach to community development.
- **Promoted the ‘bottom up’ approach to community planning and development.**
- Facilitated communication between community groups and the Local Authorities.
- Provided the opportunity to recognize and build communities and their leaders.
- Improved the capacity of communities to be involved in their own development.

### Potential benefits of CDPs

- A record of information on the community
- Documents your Concrete representation of community vision and development ideas for the community.
- Can ensure orderly development within the community.
- Can be used to solicit funding for community projects.
- Community projects galvanise communities to work together.
- Outlines a process that can be used for future community development initiatives (building local capacity).

It takes a place to develop a **community** and a **community to develop a place**”

- Fred Kent

## Presentation # 4: Impact Evaluation of the LIS 2 Programme with a Specific Focus on Gender Issues

**Presenter: Damien Echiven**

### Methodology of Impact Evaluation

#### The Evaluation Problem

- Counterfactual question

How would individuals who participated in the program have fared in the absence of the program? How would those who were not exposed to the program have fared in the presence of the program?

- Difficulties

At a given point in time, an individual is observed to be either exposed or not exposed to the program + various factors other than the program can have an impact on this individual

- What can we do?

Measure the average impact of the program on a group of individuals by comparing them to a similar group of individuals who were not exposed to the program

### Methodological Approach

#### Comparison approach

- Establish a *credible comparison group*, a group of individuals who in the absence of the program would have had outcomes similar to those who were exposed to the program.

#### Difficulty

- Individuals who participated in a program and those who did not are different (different areas, motivation, selection criteria, decision to participate, etc.)

### Comparison By Group: LIS 2 Households vs. Non-LIS 2 Programme households

The households being sampled are very comparable. This is helpful for the evaluation process.

## Household Characteristics

In %	LIS2	No LIS2
Number of members 12 years and less	1.0	0.9
Number of members 13-17 years	0.5	0.4
Number of members 18-59 years	2.3	2.1
Number of members 60 years and more	0.2	0.2
Literacy (10 years old or more)	90.4	91.1
School attendance (6 to 24 years)	60.7	62.1
None/Nursey/Kintergarten	4.4	4.5
Primary	33.2	34.3
Secondary	54.9	52.4
Post-secondary	2.3	3.2
University/tertiary	2.1	2.6
Employment rate (25-69 years old)	80.9	82.8
Wealth scale (1 poorest to 10 richest)	4.6	4.7

## Housing Conditions and Quality

In %	LIS2	No LIS2
Housing is a private house or apartment	98.6	98.4
Property owned by a woman	57.8	57.9
Housing in good condition	37.9	49.5
Housing not vulnerable to flood	63.7	69.4
Housing quality index (Mean)	.648	.653

## Gender Issues

- In the Millennium Development Goals: The reduction of gender inequality is set as a long term goal

- Why empowerment of women is needed?
  - **Female empowerment is particularly beneficial for children's health,** nutrition and education
  - Empowerment of women can yield positive effects for other household members
  - Empowerment of women can favor poverty reduction and yield higher level of development

### **Gender Evaluation**

The Evaluation wishes to address the following:

- Potential direct effects of program
  - Infrastructure improvements may have gender-specific benefits, for instance reducing the housework burden of women by providing clean water close to the home
  - Land titling programs may have significant impact on gender relations in the community depending on how property rights are allocated across husbands and wives
- Other indirect effects through income-education
- Questions
  - Who own property titles?
  - Who pays for community resources?
  - Who participates in managing local resources?

### **From Preliminary results the following can be concluded**

- LIS2 and No LIS2 are comparable in terms of household characteristics (reliable comparison groups)
- Selection bias exist : this is directly related to the selection criteria of the Pilots under the LIS 2 Programme e.g. Core House & Home Improvement pilots
- Positive impact at the household level of LIS 2 (no pilot), Core House pilot, Home Improvement pilot
  - LIS2 squatting areas are rather deficient as there seems to be more violence and the persons are less wealthy in these areas. Thus there should be more focus placed on these housing areas.
- There is a positive although less significant impact of the LIS 2 programme on women empowerment.



## **APPENDIX 2: Small Group Discussions Notes**

### **Group Discussion Groups**

1. Hinterland Housing Pilot
2. LIS 2 Programme Beneficiaries (Core House, Home Improvement Improvement, Sanitation Project and Professionals Pilot)
3. Commercial Banks
4. Neighbourhood Democratic Councils
5. Regional Democratic Councils

### **Key Issues and Lessons Synthesis**

Synthesis of key Lessons as brought out in the various plenary and small group discussions during the workshop.

### **Hinterland Housing Pilot**

#### **Question #1: What changes has the program enabled in the lives of your community members?**

The following are feedback from some of the beneficiaries on the impact of the programme on the community members:

- Enhanced lives and health due to installation of water tanks; able to access clean water
- Savings can now be used for other needs such as education and other household essentials.
- With the installation of zinc roofing, each home can have its own solar panel system for the provision of electricity. Villagers are able to have power supply during the days and the nights, thus children are able to study and complete academic work and mothers are able to do household chores in the evenings.
- Improved Security- With an improved electricity supply, the community is generally brighter.

In general the households reported an improved standard of living as a result of receiving the home improvement subsidy.

#### **Question #2: Is there anything you would have liked to see done differently? If so, please state?**

- Installation of an internal ceiling or Tile roof

The representatives of the community suggested that internal ceilings be installed or tile should be used for the roof instead of zinc which makes their homes are very hot. They added that tiles are made in their community so it can be easily accessed.

- Installation of septic tanks instead of pit latrines

Disadvantages of having Pit Latrines

- Pit latrines tend to overflow and during the rainy season when the community is flooded, resulting in unsanitary conditions throughout the community.
- Pit latrines, after some time, need to be relocated resulting in several pits being dug throughout the community. This also results in unsanitary conditions in the long run.

- Installation of water from the main water supply to each home.

Although the water tanks have been very helpful and have enhanced the wellbeing of the community members, during the dry season, the water supply is very poor. The community members depend on the rain to fill their water tanks.

- Termite Treatment

Community members have been experiencing termite invasion; termites are attacking the wood that was used during home improvement. It was suggested that the wood be treated.

- Provision of a Maintenance manual

Families will have knowledge of the tools that would help them to maintain their buildings

## **General Comments**

- The pilots helped communities to conserve on the natural resources so that so much of it does not have to be used towards housing
- The entire community is using the design for the pilot as a model for other homes within the communities of the hinterland

## **LIS 2 Programme Beneficiaries (Core House Pilot, Home Improvement Pilot, Sanitation Project and Professionals Pilot)**

### **What change has the LIS 2 programme enabled in your life?**

#### **Core house**

- Children have more yard space for recreation
- Feeling of owning a home; accomplishment
- More comfort
- More facilities available for convenience in the home
- No burden of paying rent
- More safety and freedom

#### **Home Improvement**

- More space in the home

#### **Sanitation**

- Comfort and convenience

#### **Professionals Pilot**

- Owner of my own house
- A sense of relief, joy and removal of burden, hence it made me happier

### **Do you think CHPA can do anything better in your housing scheme?**

- Provision & accessibility of water
- Street lighting
- Availability of water at the time of power outages
- Advocating for security and health services in the housing schemes
- Recreational facilities readily available
- Better management of unoccupied lots

## **Commercial Banks**

### **How did the housing financing for the pilot work?**

Guyana Bank for Trade and Industry reported that significant lending was done to low income households GBTI - as of September 2015 the portfolio for len30/09/2015 the

portfolio is at \$1.8 billion (698 beneficiaries) and for home improvement – \$66 million (38 beneficiaries)

### **Were the allottees able to service their mortgages?**

High repayment rate – flexibility accorded up to 2 month arrears

### **Who is really benefitting from the low interest rates?**

Low income earners such as teachers, public service generally, farmers (self-employed), private sector workers- entry level clerk have all benefited from loans

### **Proposals on how to make financing accessing to those who earn less than 75,000**

The Guyana Bank for Trade and Industry currently make the following concessions available to its mortgage/loan beneficiaries in the low income bracket:

- a. Flex on equity contribution
- b. Extend repayment period – affordable installments
- c. Initial financing stepped up as children move into the workforce (refinanced)
- d. Pensioners – flexibility with age e.g. teachers, pension as well as contract payments/ salary
- e. Remittances (taken into account) – family contributions to make them quality
- f. 3 month postponement of payments – case by case basis

## **Neighbourhood Democratic Councils**

### **What Impact Did the LIS 2 Housing programme have on your NDC?**

<b>Positives</b>	<b>Negatives</b>
<ul style="list-style-type: none"><li>• Improvement in infrastructure</li><li>• Improved Sanitation</li><li>• Improvement in the provision of facilities and services (education, Health, Playgrounds)</li><li>• Social Cohesion</li></ul>	<ul style="list-style-type: none"><li>• Poor revenue Collection</li><li>• Transfer of housing schemes</li><li>• Violations due to the lack of transfer of schemes</li><li>• Valuation</li><li>• Resale of Lots before 10 year period</li></ul>

### **Mitigation**

- Ministry of Communities to be more proactive in terms of transferal of schemes
- Valuation office to be reassigned to the Ministry of Communities; Valuation officers could be placed within the local authorities
- Regular meetings with various agencies (local organs)

### **Regional Democratic Councils**

#### **Key Questions:**

1. Should a Project of this nature be possibly replicated?
2. What are the views on the role of the RDC?
3. Are there any key issues/comments regarding the question of implementation?

#### **Group contribution/comments:**

- Full consensus that the Project should be replicated in other communities since it was very beneficial to residents.
- The RDC worked closely along with the NDCs and the Amerindian communities to see projects through successfully (building on a traditionally good relationship between the RDC, NDC and Amerindian communities).
- The RDC can possibly play a stronger role in the beneficiary selection process since they (RDC) are quite well knowledgeable of the communities and their socio-economic characteristics.
- Given the point above, it was discussed and agreed that there is a possible role of the RDC in managing potential conflicts in future programme execution.
- Reflecting on the execution of the hinterland aspect of the Programme, the group concluded that because of the historically strong relationship with Local Authorities in Regions No. 1 and 9 in particular, the RDCs of these Regions were well positioned to meaningfully support the implementation of the hinterland Programme.

## APPENDIX 3: Workshop Programme

PROGRAMME	
<b>Chairperson</b> —Mrs. Denise King-Tudor, Director of Operations, Ministry of Communities	
8:15 – 8:50	<b>Registration</b>
9:00 – 9:05	<b>Welcome</b>  Mrs. Denise King-Tudor., Director of Operations, Ministry of Communities
9:05 – 9:15	<b>Opening Remarks</b>  Hon. Keith Scott, M.P., Minister within the Ministry of Communities
9:15 – 9:25	<b>Remarks</b>  Ms. Ophelie Chevalier, Mission Leader, Inter- American Development Bank
9:25 – 9:35	<b>Remarks</b>  Ms. Sophie McKonnen, Representative, IDB
9:35 – 9:55	<b>Feature Address</b>  Hon. Ronald Bulkan, M.P., Minister of Communities
9:55 – 10:10	<b>An Overview of the Programme</b>  Ms. Myrna Pitt, CEO, Project Manager

10:20 – 10:40	<p><b>Component 1</b> (New Sites and upgrade of Infrastructure in existing and squatting areas)</p> <p>Mr. Fazal Wahab, Director of Projects</p>
10:40 – 11:00	<p><b>Component 2</b> (Issues of affordability and sustainability)</p> <ul style="list-style-type: none"> <li>- Core House Pilot</li> <li>- Home Improvement Pilot—Professional Groups &amp; Hinterland</li> </ul> <p>Ms. Donell Bess-Bascom</p>
11:00 – 11:10	<p><b>Community Planning and Implementation of Community Projects</b></p> <p>Mr. Rawle Edinboro</p>
11:10 – 11:20	<p><b>Gender Evaluation</b></p> <p>Mr. Damien Echevin</p>
11:20 – 12:00	<p><b>Discussion</b></p>
12:00 – 12:10	<p><b>Closing Remarks</b></p>

## APPENDIX 4: List of Participants

**GOG/IDB  
LO-2 102/BL-GY:  
Second Low Income Settlements  
Programme  
EXIT WORKSHOP  
Attendance Register**

No.	First Name	Last Name	Agency/Group	Contact #	E-mail address
1	Karl	Singh	Regional Democratic Council	604-1160	<a href="mailto:Karlsingh44@yahoo.com">Karlsingh44@yahoo.com</a>
2	Sheryn	Greaves	Republic Bank	624-0364	
3	Davindra	Ramnarine	CH&PA	696-0227	<a href="mailto:daveramnarine2002@ymail.com">daveramnarine2002@ymail.com</a>
4	Amanda	Damon	Nurse GPHC	626-8200	
5	Ronette	Hetsberger	Min of Finance	616-5970	<a href="mailto:rhetsberger@finance.gov.gy">rhetsberger@finance.gov.gy</a>
6	Stanley	Jacobs	Development Asso of Fort Ordance	639-4109	<a href="mailto:DAFO_2013@yahoo.com">DAFO_2013@yahoo.com</a>
7	Enol	Band	Tuschen/Uitvlugt NDC	621-4075, 275-0355	
8	Hamilton	Green	Chairman CH&PA	623-5342, 225-1159	<a href="mailto:mayorofgeorgetown@mail.com">mayorofgeorgetown@mail.com</a>
9	Barbara	Surubally	Non Pariel Comm Group	629-2983	
10	Parbattie	Ramdhanny		672-7660	
11	Durk	Farrell	Core House Bene	681-3987	
12	Shaleeza	Shaw	GBTI	227-8167	<a href="mailto:headofcredit@gbtibank.com">headofcredit@gbtibank.com</a>
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14	Richard	Hoyte	GWl	699-0383	?
15	Mervyn	Williams	MOIPA	623-1048	
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22	Neville	Corbin	HIP Beneficiary Sophia		
23	Floris	Ramjattan	Bath Woodley NDC	328-7686	
24	Sophia	Mackonnen	IDB		

**GOG/IDB**  
**LO-2 102/BL-GY:**  
**Second Low Income Settlements**  
**Programme**  
**EXIT WORKSHOP**  
**Attendance Register**

No.	First Name	Last Name	Agency/Group	Contact #	E-mail address
25	Annette	Dass	Mon Repos NDC	622-4364, 220-8110	-
26	John	Mendonca	Chairman Oronque		
27	Terrence	Hendricks	Beneficiary	680-5714	-
28	Priscilla	Torres	Region 9 CDC North	648-4749	<a href="mailto:Pricialltorreswowetta@gmail.com">Pricialltorreswowetta@gmail.com</a>
29	Sydney	Allicock	Min of Indigenious	650-9261	<a href="mailto:Sydneyallicock@gmail.com">Sydneyallicock@gmail.com</a>
30	Everett	Harewood	IMC	339-2694,667-9549	-
31	Rabindra	Kishun	Min of Education	626-2637	<a href="mailto:rkishun@ymail.com">rkishun@ymail.com</a>
32	Cleveland	De Souza	White Water Village	676-8770	-
33	Emilia	Chapuis	IDB		<a href="mailto:Emiliach@ciidb.org">Emiliach@ciidb.org</a>
34	Randolph	Blair	Buxton/Foulis NDC	220-8449	
35	Anphernee	Murray	Corehouse Beneficiary	649-7646	
36	Naveen	Umrau	IDB	600-1213	<a href="mailto:naveenj@iadb.org">naveenj@iadb.org</a>
37	Sonjia	Bailey	HIP & Sanitation Beneficiary	687-5288	-
38	Hon Keith	Scott	Min of Communities	226-0489	

39	Hon Ronald	Bulkan	Min of Communities	226-0617	
40	Hon Dawn	Hastings	Min of Communities	226-0617	-
41	KuneBeharry	Ramgopal	Mon Repos NDC	663-6282	-
42	Eoni	Hinds	Corehouse Bebeficiary	613-6011	-
43	Margaret	Lambert	Port Kaituma NDC	660-6911	-
44	Oshanna	Miggins	CH&PA	622-5205	-
45	Gaitree	Ramwad	CH&PA	603-5913	-
46	Shevon	Moore	CH&PA	655-5444	
47	Carnesehia	Pereira	CH&PA	652-7000	
48	Rawle	Edinboro	CH&PA	600-3315	

**GOG/IDB**  
**LO-2 102/BL-GY:**  
**Second Low Income Settlements**  
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**EXIT WORKSHOP**  
**Attendance Register**

<b>No.</b>	<b>First Name</b>	<b>Last Name</b>	<b>Agency/Group</b>	<b>Contact #</b>	<b>E-mail address</b>
49	Denise	King-Tudor	CH&PA	600-3317	-
50	Andrea	Smith	CH&PA	662-0048	
51	Roxanne	Ross-Sutton	CH&PA	694-0266	-
52	Fayola	Azore	CH&PA	226-5533	-
53	Germene	Stewart	CH&PA	227-3737	-
54	Malini	Jaikarran	CH&PA	227-3737	-
55	Ceola	Moseley	CH&PA	227-3647	-
56	Lenise	Tucker	CH&PA	226-3078	-
57	Aishah	Hussain	CH&PA	231-0258	-
58	Reaze	Abraham	CH&PA	662-1893	
59	Gladwin	Charles	CH&PA	600-3316	
60	Fazal	Wahab	CH&PA	684-4500	-

61	Cy	Rodrigues	CH&PA	600-0589	-
62	Omar	Bispat	CH&PA	600-2311	
63	Omar	Narine	CH&PA	227-8886	
64	Kenola	Levans	CH&PA	603-6973	-
65	Shazeeda	Rahim	CH&PA	600-2312	-
66	Myrna	Pitt	CH&PA	600-3314	-
67	Donell	Bess-Bascom	CH&PA	231-0258	-
68	Taima	David	CH&PA	226-2265	-

## **APPENDIX 5: Remarks made during the Opening Ceremony**

### **Official Opening Statement**

**SPEECH BY HONOURABLE KEITH SCOTT, M.P  
MINISTER WITHIN THE MINISTRY OF COMMUNITIES  
LO-2102/BL-GY: SECOND LOW INCOME SETTLEMENTS PROGRAMME  
END OF PROJECT WORKSHOP  
REGENCY SUITES HOTEL, NOVEMBER 5<sup>TH</sup>, 2015**

Thank you madam chairperson –Comrade Denise King-Tudor,

Madam, it's a pleasure to be afforded this opportunity to have discussions with you today, rising out of which I do hope when I leave here I would be much more enlightened than I am right now.

Hon. Ronald Bulkan –Minister of Communities, Madam Sophie McKonnen – Representative Of the IDB, Ms. Ophelie Chevalier – IDB, Members of the head table, special invites including the Mayor of Georgetown and Board Member of the Central Housing and Planning Authority, Minister Dawn Hastings Williams who also has responsibilities for community development and vice president Mr. Sydney Allicock, ladies and gentlemen all, a special good morning to you.

It is my pleasure this morning to deliver the opening remarks for this exit workshop which signals the wrapping up of the Second Low Income Settlements Programme which as I understand, was implemented by the CH&PA over a period of six years and which started with beneficiaries of houses and house lots in various housing schemes. I am pleased that this programme was specific to low income persons as this being reprised since these are the usual areas or usual persons that have the greatest needs. It is also the area which the Ministry of Communities as well as, the government of Guyana plays serious and careful attention to because we are people ourselves. But the people are within an organ.

A review of the components of the programme indicates that it was designed with specialties of this democratic in mind with a view to improving their lives and granting them the opportunity to access housing as it relates to services at an affordable cost. The affordable cost is where we do have a debt of gratitude to give to the IDB and other agencies because that is one of the biggest problems that we are still to see bringing houses to the level of cost factor that people can afford – we have not yet conquered that but we are aiming there and ultimately we will get there.

I note with interest pilots that were implemented and from which results came that a commendable level of success was achieved. I hope that the stand which was provided by this programme is a catalyst through which beneficiaries of that programme will improve and leave a legacy for others to follow.

As we move forward, this administration is focusing on further consolidating committees and creating new communities that are cohesive and sustainable. Interventions to place emphasis on the provision of jobs, social infrastructure and other community based projects that will harness the skills of individuals from each community. It would also be used as an opportunity not just to harness but to teach people to teach others, it is one of the previous means by which we sustained the culture of our communities while at the same time producing patriots for our societies. We will be creating jobs as well. This new vision also embraces knowledge sharing pertinent to communities. Our planning and our communities sections and departments will continue to work together to reach out to all the local democratic organs and here again, with the new dispensation that are coming on stream come March/April next year (2016). We will have the opportunity for the communities section of our organization to fully embrace each of the new communities and village council that are in need of our help. We are proceeding as brothers and sisters and will be working together so that at some point we would not be able to distinguish between towns from hinterland because we are producing patriots and see all Guyana as one. Hence, this is what we call the participatory approach.

I would like to offer congratulations to the IDB and CH&PA, the teams that have worked together on a programme that has provided improved quality of life for over 9,000 households. Twelve hundred (1200) of these households would have benefited directly from improved housing in the form of either the core house, an improved existing housing scheme or structure that they would have also have an idea of having different types of houses that can still be affordable, the type of houses you would find in the hinterland might not be the same as you would find in town. But through exposure we would be able to improve on all sites where we can see that our inputs together with your inputs can make a quality life that is better than anything before. This is the case with the professional pilots, which have provided serviced lots that have enabled our officers more to help others like teachers, civil servants, police men and women, and nurses - an area which is solely our concern and we intend to specifically address in the early years - houses for nurses and teachers particularly because historically, I feel that they have not been fully given the attention and the element in that department that they should get. We are thinking of them and we shall be doing that in the new year. Nurses and teachers you are special to us!

I want to also congratulate those officers that are involved and would continue to be involved in ensuring that their communities get the attention and the serious help that they need. I note however, the plight coming from the draft project completion report and CHPA's performance which was termed and I quote "organized, efficient and dedicated" and was able to make additional targets despite challenges that were placed. This to my mind is commendable! It proves to me that we as a staff, is quite competent and dedicated to the task at hand. My future

with this organization, my future with my desire is to ensure that people of Guyana get the best can only succeed once I have competent staff as I do have and I commend them for that and encourage them to stay committed and look forward to them maintaining the high standard that they would have set. It is my hope that the lessons learnt from the implementation of this project and this programme, and more particularly, the pilots, will enable issues that emerged to be addressed and the pilots are replicated. My wish for you today is for a successful exit workshop.

Thank you very much.

## Remarks

**MS. OPHELIE CHEVALIER  
MISSION LEADER  
INTER-AMERICAN DEVELOPMENT BANK**

Good Morning,

There are two things that I want to share with you that I think would make this programme quiet exciting. First of all is the fact that Ms. Pitt and I met for the first time in December 2007, and then we've maintained our position for the last eight years. Ms. Pitt as Chief Executive Officer (C.E.O) and myself as team leader has been quite an asset for the programme because with responsibility came stability, fluidity, communication and the ability to address issues of importance.

The second thing I would like to lecture to you is that they are two projects in this programme that is dearer to my heart because I think that they've become examples in the regions and ethnically.

The first one is the core house pilot within the sites and services project. As you know a sites and services project is a very long gradual process where you give the land then services and after the house and since the 80's the developing communities haven't really liked this model because its slow and it doesn't really look nice right away. But we had wanted to test in this project, that sites and services could work if we kick start the incremental process and help them to move into their new house, that's the idea of the core house and this project was documented during the implementation phase.

The other project I would like to mention is the hinterland pilot. It's a pilot that we had wanted to be highly participatory and the way it's designed basically, the communities did their needs assessment and we allow them to design their house and they participated in building their house. This model was also introduced in Suriname which is now being implemented using the method we have developed here in Guyana.

In conclusion, I think this programme is definitely an example for the region and the housing cluster of the IDB. I would like to say this team of CH&PA has been a wonderful one and today is a great opportunity for us all to make an assessment of, not only the challenges, but to make sure that in the future we keep improving our intervention in the housing sector. I look forward to more discussions.

Thank you

## Remarks

**MS. SOPHIE MCKONNEN  
REPRESENTATIVE  
INTER-AMERICAN DEVELOPMENT BANK**

Good Morning,

Hon. Mr. Allicock (vice president), Hon. Minister Bulkan, Ministers within the Ministry of Communities, Advisors to the Minister of Indigenous Affairs, Mayor of Georgetown, Members of the head table, CH&PA team, all special guests, good morning to you.

Thank you very much for having me this morning. It's always a pleasure to be able to come at the end of a project. I usually am very concentrated at the beginning at how to get things moving and get caught up with its execution and the challenges of its execution but with this programme we didn't have too many of those and that's a good thing. However, most times we forget about the end and that's important because it's the evidence that the project cycle – very hard work - has come to a result. So it's an important phase of the project cycle. It's an important phase of financing that Guyana has brought to its communities so it's a moment to be celebrated. We often focus on how we're going to get things better and we forget about how we're going to celebrate so I think this is an opportunity for us to celebrate a very good programme.

All programmes have issues. I don't think this is one of them. This is a success story, a success story of results, good project management, facing challenges and finding solutions. So I think that there are lots of examples here to be looked at in terms of results, in terms of the sector itself about how a programme can be led. I need to complement the CH&PA team lead by Ms. Pitt on the excellent management of this programme.

As my colleague Ms. Ophelie Chevalier said, this is important, so we need to look at the history of the project, what worked and what did not work. But some things did not work and if we don't do that, this is an important part for the next programme because as much as we are happy that this is ending with good result, there is a good story about the pilot projects that did lead to another programme. So while we are finishing this one we are preparing another one which we should be going to the board with soon; and we were able to do that because of the lessons learnt. Its approximately a three (3) million dollar project concentrating only on the hinterland and that was possible because of the success of the pilot so that way we already have the lessons learnt here, we are already implementing it but I think it's a little more important to look at the challenges we had with a few models for that programme to continue to execute towards having the swift execution in planning.

Housing is important. It's part of property allocation, it's part of addressing the needs of populations to have low income basic needs and this is not the first programme that the bank financed in Guyana. This is one of the most successful sector programmes in terms of housing in



the region and in Guyana and the issue of shelter is really one of the big issues for families with modest needs and addressing affordable equitable housing is the first step in the path in the family stopping the cycle of poverty. So I'm very pleased to be here to celebrate with you the end of a very good project.

Thank you very much.

## **Official Feature Address**

**SPEECH BY HONOURABLE RONALD BULKAN, M.P**  
**MINISTER OF COMMUNITIES**  
**LO-2102/BL-GY: SECOND LOW INCOME SETTLEMENTS PROGRAMME**  
**END OF PROJECT WORKSHOP**  
**REGENCY SUITES HOTEL, NOVEMBER 5<sup>TH</sup>, 2015**

Thank you Madame Chairperson – Mrs. Denise King-Tudor for those remarks. Thank you for reminding me of the challenges and expectations. Vice President and Minister of Indigenous People's Affairs – Honorable Sydney Allicock, colleagues, Ministers of government – Dawn Hasting Williams and Keith Scott, Mayor of Georgetown and Chairman of the Board of Directors of Central Housing and Planning Authority – Mr. Hamilton Green, Ms. Ophelie Chevalier and Ms. Sophie McKonnen – Representatives of the Inter -American Development Bank - Ms. Myrna Pitt – Chief Executive Officer Executives and Management of CH&PA, chairpersons and councilors of our Municipalities and as well as other local democratic organs – Neighbourhood Democratic Councils representatives of government agencies, advisor of the Ministry of Indigenous People's Affairs, representatives of commercial banks , members of the media, ladies and gentlemen a pleasant good morning to each and every one of you.

Let me begin by saying how pleased I am to be here. Today, we are here to address and access the Second Low Income Settlement Programme. We are here to learn from the lessons, as we've heard from Ms. McKonnen that would undoubtedly guide the future inventions in this sector. In this regard, the strategic vision of this administration was articulated by President Granger on June 10<sup>th</sup> this year at the opening of the 11<sup>th</sup> parliament. The president in his address had this to say "your government aims at providing accessible and affordable housing in sanitary and safe

communities with the necessities full of wholesome and dignified living for citizens in need, we shall ensure that all state sponsored housing developments are provided with recreational, educational, sports facilities, in addition to basic infrastructure and services such as electricity, telephones, roads, solid waste disposal and pure water supply”. It is fair to say therefore, that we do have a bias; and it is finding and implementing fair housing solutions for the most vulnerable among us, the needy and the poor. To elaborate a little, I would say that the administration is committed to providing, affordable, decent, dignified housing to needy Guyanese. We would continue the good programmes that we have inherited and would seek the genocide of the not so good ones. In so far, as state sponsored housing schemes has concerned, the administration’s definition of housing, extends beyond simply putting a roof over the heads of citizens, instead it encompasses realistic access by all – and again, in keeping with the President’s articulation, the portable water, electricity roads, schools, health care, and recreational facilities and all other services and facilities which will allow citizens to enjoy a decent standard of living and quality of life - as our chairperson reminded us in phase 2 of this programme.

The administration’s definition of housing is centered in the principle of community development and enhancement. The administration sees each citizen as important as an individual not a statistic. Each Guyanese has unique talents, desires, goals and needs. The government will treat each person seeking its assistance with the dignity and respect that he or she deserves. Our housing policies and administrative arrangements will be formulated with this in mind. At our Ministries, all Guyanese must be treated with respect. Your government will work towards this important goal by continuing and widening training programmes and implementing much needed ones to ensure that public servants live up to their title - meaning that we are all servants of the public.

The administration, with these matters in mind, has created the Ministry of Communities which will co-ordinate development of regions under a single administrative structure rather than having diverse agencies doing their own things without co-ordination or access to the big picture. The focus of the Ministry, ladies and gentlemen, is on the human condition or human needs. The government recognizes that Guyana is a large diverse landscape with wide diversity of geography and cultural features as such a one size fits all approach, will not work. Each community has its own unique needs and solutions to the problems will necessarily have to be tailored to meet individual needs. In this regard, I would like to assure that the hinterland development is a major priority of this government. We recognize that Guyana’s first people, our indigenous sisters and brothers, have been neglected for far too long. The administration is committed to improving the standard of living of citizens who live and work in our large diverse

hinterland. The administration is determined to ensure our vast wealth of the hinterland is finally used to develop those who make Guyana's interior their home.

The information regarding squatting which this programme provided, will enable the administration to better serve Guyanese by regularizing squatting areas and providing services required for dignified living. 2009 is recognized by the previous administration that there was a deficit of some nineteen thousand (19,000) low income households. This administration is of the view that that number was under estimated and is currently there is a backlog of some twenty five thousand (25,000) house lot applicants - over six thousand (6,000) in region four (4) alone. There is as well, overwhelming evidence, that poor Guyanese have not been given the level attention of priority that they are deserving of but favours of providing house lots to the wealthy and well-connected, perhaps Prado Ville 2 is a prime example of that.

This government has designed implemented programmes that would benefit all Guyanese. Not just the well-connected, the rich and friends of cronies. The administration is committed to renewing the dreams of all Guyanese and making that dream a reality.

We are also committed to the provision of housing solutions. To ensuring basic infrastructure, such as electricity, roads, water, drainage and other necessary facilities are in place once house lots are issued. In this way communities would be developed with individual dwellings and as Madam Chevalier reminded us the features of core the homes, which is among other things design to kick start the creation of new housing schemes and to accelerate the sense of community belonging is an important feature.

- Working with financial service providers to facilitate affordable loans to home builders
- Giving tax incentives to encourage home builders to use locally produced materials because at the end of the day the economic stimulus opponent is important in this programme.
- Supporting volunteerism to help those in need of assistance to build homes
- establishing and developing hinterland communities
- building of starters homes across Guyana for those in need of transitioning from rented accommodation to home ownership
- to ensuring the beautification of our country through proper planning - including landscaping, standardization of building codes, establishment of zones within communities to allow from comfort to easy access to industries and commercial

establishments and we would have all heard the point made by my colleague Mr. Scott - how important it is for the question of employment and job creation. In fact, this might become a feature for the development of housing schemes, ensuring that home builders and house lots applicants get value for their hard earned money.

In this regard, the co-operative republic of Guyana, the IDB is executing the second low income settlement programme, we've heard 2009 - June 2015 has been so far benefitted some nineteen thousand (19,000) Guyanese and provided valuable data which the administration can, will use to formulate and implement housing policies initiatives. The administration therefore, continues to look forward to working with external agencies such as the IDB to improve housing conditions for Guyanese in lined to a strategic vision and comprehensive housing policies was articulated both in our manifesto and was expressed in the words of a resident which I repeated a short while ago.

In this regard, ladies and gentlemen, allow me to briefly to the Board of the Central Housing and Planning Authority, which is only recently being reconstituted, broadly the mandate of the board would be to support the management by providing direction, guidance and leadership. The board has been reminded that on May 11, 2015, that the people of Guyana voted for a change our promised was to provide representative, transparent and accountable government that is now our responsibility to deliver on those promises. Let me say this, political intervention will be in the form of providing policy framework not in the form of interference. Execution therefore, would be the job of the professionals. The Board is not expected to be at the acquiescent to political control nor is it expected to be passive. It will be allowed to function with independence, and in pursuit of publically articulated goals and objectives. Some of the major issues that will be addressed by the board will include:

- Enforcement of our zoning regulations
- Building codes as well as
- Indiscriminate occupation of state reserves
- 

I am however, divesting because today we are here to address and assess the second low income settlements programme. Our programme informs us as to the particular presentations that we can expect. Next and personally we will have an overview of the programme by Ms. Pitt, the CEO as the project manager that would be followed by details on the two major components as well as other aspects of the programme. While we await those two presentations, let me say that this programme may be coming to an end but would not be

coming to an end certainly is our work that remains a continuous task. In this regard, our focus is/will be on efficiency and effectiveness - if I'm allowed to say, it will not be business as usual.

It gives me pleasure therefore, to join all of my colleagues; particular was expressed by Minister Scott earlier, in expressing gratitude to the IDB and other agencies for their cooperation and collaboration and support to this programme.

Finally, I pledge my own support and that of the Ministry in our endeavors.

Thank you very much

## **OVERVIEW OF THE PROGRAMME**

**SPEECH MS. MYRNA PITT  
CHIEF EXECUTIVE OFFICER  
CENTRAL HOUSING AND PLANNING AUTHORITY**

**LO-2102/BL-GY: SECOND LOW INCOME SETTLEMENTS PROGRAMME  
END OF PROJECT WORKSHOP  
REGENCY SUITES HOTEL, NOVEMBER 5<sup>TH</sup>, 2015**

Thank you Madam Chairperson – Ms. Denise King-Tudor.

Hon. Minister Ronald Bulkan, Ms. Sophie McKonnen, Resident Representative of the IDB, other members of the Head Table, special invitees, staff of the Central Housing and Planning Authority, members of the media, ladies and gentlemen.

I am indeed pleased this morning to present a review of the Second Low Income Settlements Programme, the planning for which started in the 2007/2008 period, prior to the approval of the \$27.0M USD Loan in December 2008. The loan agreement was signed in April 2009 and the loan declared eligible in July of the same year.

The Inter-American Development Bank, together with the Central Housing and Planning Authority, designed the programme, against the background of low affordability among low income households, their sanitation needs, and their lack of access to housing opportunities. In addition, there was the need to further the goals of the Poverty Reduction Strategy to increase coverage of programmes for the most vulnerable, including the indigenous population, and realization of the goals of the National Development Strategy, which aimed to rapidly expand the supply of housing, make housing affordable and improve access to housing for low income families. Programme design therefore addressed affordability and accessibility to housing for low income groups through improving sites and services, introducing the core house to provide a housing solution to the poorest, and tested three pilots: for home improvement, housing in the Hinterland and partnership with professional groups.

The programme was officially launched at this very venue in June of 2009 and CHPA commenced its implementation. A Project Execution Plan was prepared for the life of the Programme, from which Annual Operating Plans were prepared, implemented and monitored.

The programme covered new and existing areas in six regions, namely: region 3: Westminster Phase 1, Onderneeming Phase 1, Recht-Door-Zee Phases 1 and 2, Tuschen Phase 2 and Bell West Phase 2); Region 4: Block EE Non Pariel, Area B Lusignan; Region 5: Block D Bath; Region 6: Ordnance Fortlands Phase 2, Block 5 Ankerville, Number 76 Village; Region 9: Tabatinga; Region 10: Amelia's Ward and 5 squatter areas in regions 4 ( Section D, Sophia, Binkey Alley), Region 6 (Eliza and Mary, Area R and Block 5 Ankerville). The Hinterland Pilot covered three areas in region 1 (Oronoque, Whitewater and Manawarin) and five areas in Region 9 (Katoka, Kwatamang, Apoteri, Annai and Massara).

From the outset, the project team established its monitoring mechanism which included weekly meetings for monitoring progress, and, when required, two meetings, when critical time-bound decisions and actions had to be taken. The project team also established a highly successful working relationship with the bank, both locally and at the headquarters in Washington, a relationship which saw the exchange on hundreds of e-mails and other documents, telephone calls when required, video conferences and other meetings. There were also exchange visits to Suriname and El Salvador which provided the opportunity for team members to exchange information and share experiences with their counterparts who were also implementing programmes of a similar nature, in their countries.

The programme achieved the following:

- The construction of four hundred (400) core houses under the Core House Pilot

- The disbursement of four hundred (400) subsidies for the improvement of houses in squatter settlements and existing housing schemes under the programme
- The disbursement of two hundred (208) subsidies for construction of homes and the repair of roofs in the hinterland in regions 1 and 9 – 122 houses constructed and 86 roofs repaired, a total of 208 subsidies disbursed at Oronoque, Manawarin and Whitewater in region 1 and Katoka, Kwatamang, Apoteri, Annai and Massarra **in region 9; exceeding the target of 200 subsidies.**
- The allocation of two hundred and six house lots in Recht-Door-Zee Phase 2 to nurses, police officers and teachers, exceeding the target of 200.
- The provision of services (roads, drainage networks, electrical distribution networks, water distribution networks) to 8467 lots in new and existing sites and 973 lots in regularized squatter areas under the programme
- The construction of 285 septic tanks
- Training of CHPA staff in disciplines including engineering, M&E Management, legal education, accounting, customer relations, housing and urban development, Installation of an improved management information system
- Installation of a Wide Area Network to facilitate connection of Regional Housing Offices in regions 3,6 and 10 to the main network
- Preparation of twelve community development plans and the implementation of community projects
- The transfer of 4434 titles to beneficiaries in housing schemes and squatter settlements under the programme
- National Housing Policy completed and presented to Cabinet in 2013, but will now have to be reviewed and updated.

Capacity was also built since the programme provided for Institutional Strengthening and number of staff benefited from training included Geographic Information Systems, Legal Education, Project Management, Procurement and supply, masters level in Management and Applied Community Change, Urban Planning and Management, Housing and Urban Development. There was also in-house training in Customer Service for front-line staff and for Clerks of Works.

I would now like to touch on some of the success and highlights of the programme:

### **The Hinterland Pilot:**

Results of the Evaluation of this Pilot showed that overcrowding was reduced; access to safe water, sanitation and the quality of housing units were improved in both regions. Beneficiaries contributed labour as their equity share contribution for construction of their homes or replacement of their roofs. Other benefits of this pilot include job creation, women's empowerment and enhanced capacity in the management of projects.

Under the training component of the Programme, the candidate who is the Senior Community Development Officer completed her thesis on Housing and Women's Empowerment which is a case study of the Hinterland Housing Pilot Project in Guyana and which examined the pilot to ascertain whether the intervention impacted on gender equality and women's empowerment. This now adds to the body of knowledge on planning for vulnerable groups in our country's context and provides CHPA with a road map for similar future interventions.

### **The Core House Pilot:**

CHPA carried out an evaluation of the beneficiaries of the core house to ascertain their level of satisfaction with the house. Responses varied; there were some who felt the house was too small to accommodate the needs of their family, with some opting to extend before moving into the house. Some respondents however liked the fact that the house was wired for electricity, that sanitary facilities were inside of the house and that the design lent itself to expansion. The results of the evaluation would guide any intervention of a similar nature, since it would be evidence-based.

### **The Home Improvement Subsidy Pilot**

The Home Improvement Subsidy Pilot provided beneficiaries with a subsidy of \$200,000 in materials to affect improvement works on their houses. They provided the labour which was a decision which was reached in consultation with them; this allowed the entire subsidy to be used in purchasing material for the improvement works. Despite challenges with some suppliers, all 400 subsidies were disbursed and 400 households or approximately 1600 persons now benefit from improved housing.

### **Partnership with Professional Groups**

There was some deviation from the original design of this pilot occasioned by the results of the Consultancy which was commissioned to ascertain whether the credit unions and associations had the financial capacity to construct the houses for their members. This proved not to be so and CHPA approached two banks, namely Republic Bank and the Guyana Bank for Trade and Industry to provide mortgages for the teachers, nurses and police officers. The banks responded well and these groups were able to proceed with construction of their houses. A total of 206 lots were allocated at Recht-Door-Zee Phase 2 for this pilot.

I would not like to give the impression that implementation of the programme was without its challenges. The challenges were many, including poor performance of contractors and having to terminate them, problems with some suppliers of materials for the Home Improvement Pilot, the long and tedious delay in getting the electrical distribution networks installed in the schemes. In fact CHPA had to undertake the procurement and implementation of this aspect of infrastructure,



the remoteness of the Hinterland areas and the challenge of getting materials to the various sites and I could go on. Suffice it to say that challenges are there to be surmounted, it requires implementers to assess the risks inherent in project management and implementation, plan to mitigate those risks and think outside of the box to find solutions to the problems as they rise. To borrow a quote from Thomas S. Monson “our most significant opportunities will be found in times of greatest challenges”, and indeed the challenges presented opportunities for the team to continue to see the big picture, stick to the tasks at hand and overcome the challenges. Today, six years after the commencement of the programme, we can look back and say it was well worth it since the programme targets were achieved and in some instances exceeded.

I wish to recognize the key stakeholders who worked well with CHPA including the Amerindian Village Councils, The Community Development Officers and other officials of the Ministry of Indigenous People’s Affairs, the beneficiaries of the programme, the Local Democratic Organs, the Inter-Agency Co-coordinating Committee, the contractors who managed to perform in accordance with the terms and conditions of their contracts and deliver in a timely manner, GBTI and Republic Bank for being receptive to the idea of providing financing for the nurses, teachers and police officers and for working with us to make that pilot a reality; if you are here and I unintentionally neglected to mention you, you would forgive me; thank you all for being a part of the Programme.

The Project Completion Report for the Programme is in draft, to be completed after the conclusion of this workshop. It is my hope that the feedback that we get today will add in a significant way to the observations and recommendations to conclude the report.

I wish to thank each and every one of you here today for your presence and to thank you in advance for your participation in the discussion session. I wish to once again thank the Inter-American Development Bank for its support during implementation of the programme, the Ministers for their presence and last but not least, a huge thank you to team CHPA for the hard work and dedication that led to the successful completion of the programme.

Ladies and Gentlemen, I thank you for your attention.

## Closing Remarks

**MS. MYRNA PITT  
CHIEF EXECUTIVE OFFICER  
CENTRAL HOUSING AND PLANNING AUTHORITY**

**LO-2102/BL-GY: SECOND LOW INCOME SETTLEMENTS PROGRAMME  
END OF PROJECT WORKSHOP  
REGENCY SUITES HOTEL, NOVEMBER 5<sup>TH</sup>, 2015**

Ladies and gentlemen,

Let me first thank you very much for your presence here today. It's a good indication that at the Ministry of Communities as a whole as you might have heard already, we'll be strengthening at the end of all the Local Democratic Organs, we are looking forward to that and we believe that what we do can only be done best if the local Democratic Organs is strong enough to do what they are supposed to do. Maintenance of infrastructure is very important, training under the LIS-1 where we had the maintenance manual; we had a lot of interaction with the NDC and with the regions.

As we look forward, this whole vision of cohesive communities can only become possible if there is a lot of coordination and collaboration. These types of confabs on regular bases so that we can feed and hear each other, respond to each other to achieve a common goal. I am also positive hearing the vision from the Honorable Minister – Mr. Bulkan, in which he quoted for a few of his Excellency President David Granger's public Statement and we as practitioners, community members, NDC's Officials, Regional Officials have to take these things on board and embrace them and make a conservative effort and work together.

I heard the comment about the street lightning, and would like to highlight that it's not the responsibility of CH&PA but it all hinges on capacity and funding as the NDC representative indicated earlier, the schemes have to be handed over but it must be handed over in good condition and good infrastructure in place and here is where we are heading in that direction. When we are talking about cohesive communities – we are speaking about communities that are

well planned, that have the play field areas developed. I heard the comment about empty lots being used for play grounds. However, each design layout caters for that, it has public open space. The issue is that they are not developed, however as we move forward, what we're saying is part of our strategic vision for 2016 – 2020 that's the next five years, is to ensure that when the schemes are planned, when the infrastructures are put in, we will have playgrounds, not only defined but it must be clear that this is an recreational space. We are also speaking to about amenities for communities like day care centers, regional development plans, community development plans etc. So as we move forward, that vision is there and we intend to make that vision a reality but it cannot be done alone it involves every single person in this room so having said that I everybody is energetic and hopeful for more of these sessions because it's only from constant interaction that visions can be realized, that people have to work together to realize visions. So let me once again thank you for your presence, thank you for your interest. Beneficiaries I see you are well represented and I am very happy about that. Thank you everyone that is here and lets us pledge to continue to working together. We also will be intensifying our work in the Community Development Department, we have a lot of energetic staff and I can only pledge and look forward to working together with all of you.

Thank you very much and may God continue to bless you all.





## OBSERVATIONS

### **Towards a Qualitative Assessment at the Conclusion of LISP2**



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Prepared by

Reinhard Goethert, Martin Scoppa

For the Central Housing and Public Authority (CH&PA) of Guyana  
and the InterAmerican Development Bank  
Georgetown, Guyana, June 2015

We wish to thank the  
Central Housing and Planning Authority (CH&PA) for their  
generous assistance and hospitality, with particular  
appreciation to  
Ms. Myrna Pitt and her staff.

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## A Rainbow of new homes!

CH&PA  
Guyana

*The core house program is going particularly well and enthusiastically embraced by the new homeowners. The colorful parade of homes was one very apparent manifestation of the pride of the new homeowners.*





CH&PA  
Guyana

## **Their New Home – An Excited Start! 787 Applicants Waiting to Build**

*The large number of applicants is one of the undeniable indicators of acceptance of the core house approach.*

## INTRODUCTION

- I. These observations were made during a 1-week period of review in Guyana by Reinhard Goethert and Martin Scoppa, consultants. Observations are largely impressionistic, limited by the 1-week period, June 19-26, 2015. It is recognized that some issues may have been misread, or not noticed in their totality because of the short time and the need for an overview to better understand the situation.
- II. This report is organized as follows: a brief introduction is followed by a series of key cross-cutting observations organized around house, community and city. Each of the three scales is then explored with more detailed observations. The field schedule in Guyana is included at the end, along with key persons met.
- III. The primary focus of the mission was surveys of beneficiaries of the various housing programs, mainly the core house program, site and services, upgrading, and home improvement programs, organized around pilot test projects. A key goal was understanding the impact and perspectives from beneficiaries.



- IV. Each of the communities in the program was visited, and approximately 3-4 families in each were targeted for in-depth interviews in a non-structured format. Interviews were selected with beneficiaries from three types: those that did not modify their houses, with those that introduced small changes, and those that substantially expanded and invested in their houses. Results could only be impressionistic from a relatively small sample, but do offer a basis for a qualitative assessment, as well as issues and concerns.





*Basic Core House*



*Consolidated Core House*



*Expanded Core House*

- V. These observations were made with the basic belief that houses are the components that build communities, and that the aggregation of communities creates the urban framework. In view of this, we have grouped the observations into three interrelated scales. These are: House, Community, and City, separated for clarity but interrelated in practice. A 'general' category addresses broader policy issues: scalability, sustainability, and affordability, containing comments on the specific programs.
- VI. When we arrived we were impressed by the large number of projects completed. The programs have done well, and the additional affordable housing options and improvements were well accepted. Clearly the programs have evolved and now their impact and opportunity merit attention – they can no longer be looked at in isolation but need to consider context. The *evolution of the program* to the broader city has become an important concern, and we would be in remiss if not mentioned. The impact of the projects is an opportunity to also benefit city development as the project scope logically evolves beyond the original vision: *an unexpected opportunity!*



### HOUSE

Contract issues  
Future Tax issues  
House design issues  
Income Generation  
Lot Allocation



### COMMUNITY

Neighborhood centers  
Focused growth  
Coordination w/ services  
Streetlights  
Stakeholder involvement



### CITY

Large scale planning

## FOUR HIGHLIGHTS - The Success of the Programs Leads to Unanticipated Challenges and the Evolution Toward New Opportunities

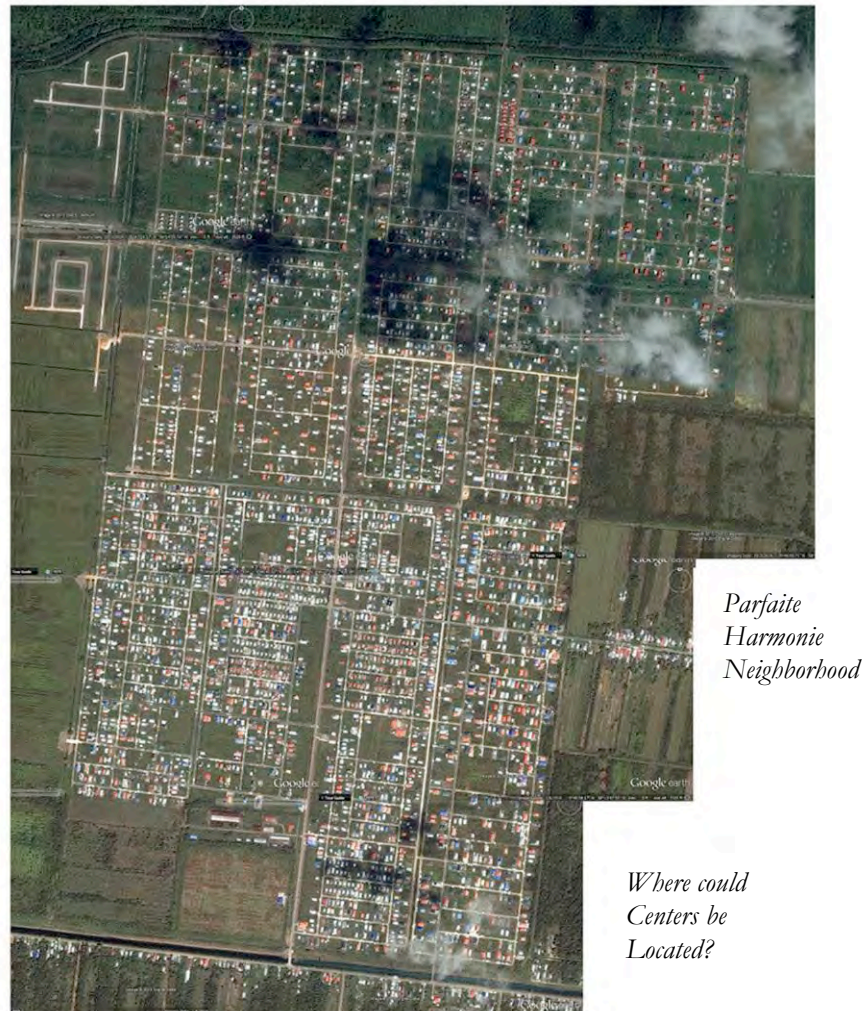
### 1. BENEFICIARY FLEXIBILITY IN HOUSING INITIATIVE

It was impressive to see the energy and initiative shown by many beneficiaries when directly involved in the improvement of their homes. However, contract restrictions cited by beneficiaries noted that they inhibit their ability to consolidate and generate income, particularly by those who exhibited initiative and drive. Beneficiaries across all pilot projects expressed that they would prefer a more flexible framework that allows them to make more decisions about *what*, *where*, and *when* to build in their lots. This also opens a wide range of other opportunities to explore, including broadening involvement into community issues. Shops, rental units, and multi-story construction were cited as ways to address housing needs and increase income but currently restricted. In the spirit of the core house 'self-help' concept, where users are expected to contribute according to their resources and interests, a less rigid approach should be explored.





## 2. NEW MINI-CENTERS FOR NEIGHBORHOOD AREAS



The large housing schemes suggest consideration for town/community centers. In the west area (Region 3) with several schemes and a population of 30,000 – and expected to grow to 50,000 when all lots are occupied – smaller town centers would be suggested. These tend to be central places in a community reinforced by shops, eateries, small service businesses, with often public facilities as anchor. It is an issue of community and traffic. They build identity, provide a focus for businesses and moreover would make it a more attractive area encouraging development of vacant lots. It mitigates traffic issues by avoiding the need to go outside for shopping and other services.

Not surprising, informal ‘centers’ appear to be starting. The section known as ‘Four Corners’ has a series of small shops and food stands and is at the intersection of two main roads, all good indicators of a potential mini-center. If not considered in the development planning, these informal areas form haphazardly which may or may not be appropriate.

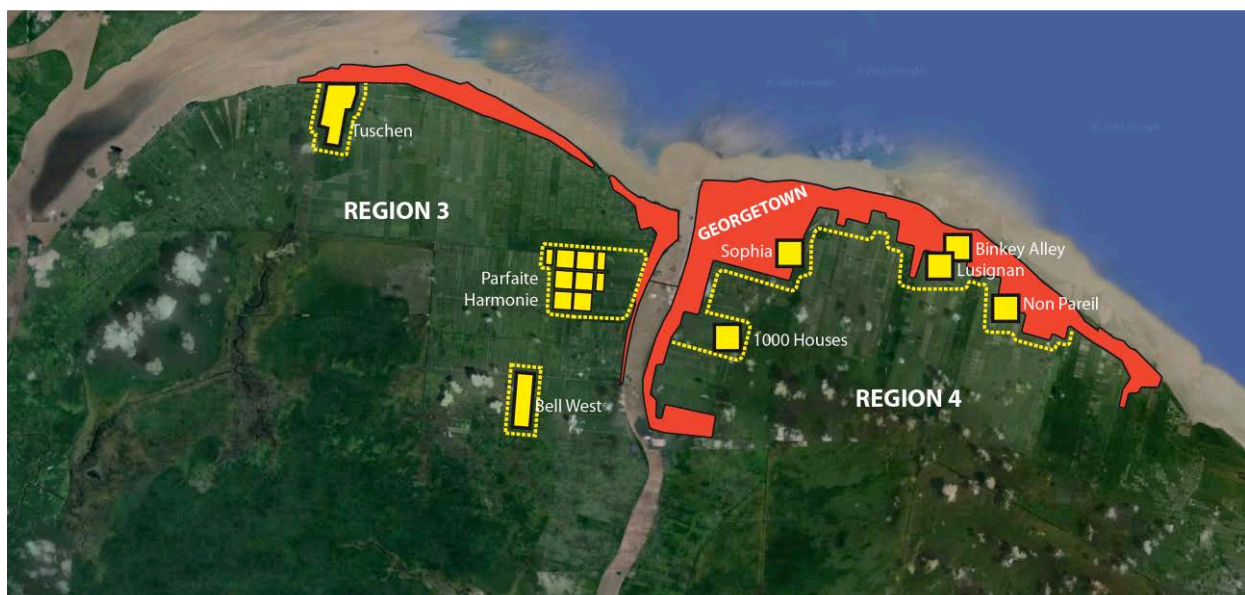
### 3. IMPACT ON CITY DEVELOPMENT

The many housing schemes implemented are having a big impact on Georgetown's development – an indication of the success of the programs. Two areas of the city seem to be disproportionately affected: the large relatively untouched agriculture area to the west of the river (Region 3), and along the east of the city on the coast with encroachments down into the agriculture area (Region 4).

The cluster of development schemes on the west side of the river identified as Parfaite Harmonie now has about 30,000 population (from a recent CH&PA study). Assuming 40% vacant lots, this would suggest a population in a few years of around 50,000. Its location in the center of the agriculture area encourages further surrounding development, taking advantage of trunk infrastructure for connection and attracted by the existing communities and amenities. This cluster of schemes would add to the drive for a second bridge across the Demerara River to handle anticipated traffic to and from Georgetown. The other area where many schemes are developed is on the East Coast, which will drive development there and invariably open expansion into agriculture land.

Consideration needs to be given to the location of housing schemes and their impact. A city planning review is needed to bring these areas and their attraction of surrounding growth into a coherent planning framework. A previous plan dating from 2001 needs to be revisited. Some have noted that ‘things are moving so fast’ that there is no time to plan’. However, a simple definition of a future road grid would aid the city in planning for future development. This frame may be used to guide and encourage city growth in desired areas from a macro-planning perspective of Georgetown.

Related, particularly in the western area, there is concern that it becomes a concentration of low income. This would most likely change after the 10-year limitation on sale expires and possibly higher income encroach as the area becomes ever more desirable.



Georgetown Region. Expected direction of urban growth given current development

#### 4. ON THE USE OF GEOSPATIAL DATA.

It is our understanding that the Government of Guyana is currently planning to upgrade its computerized systems. The CH&PA thus, has an opportunity to increase its urban land management systems capacity. More particularly, it could strengthen the current use of *geospatial data management systems*, such as Geographic Information Systems (GIS), to monitor the progress and consolidation of new and existing housing schemes.

The decision to discuss opportunities for strengthening the use of GIS and associated technologies emerges from the interest shown on the tools and methods used when conducting surveys for this study. Particularly the use of geotagged photographs, where accurate positioning allowed the fast construction of maps of the surveyed areas, and the efficient management of the collected information. For this reason, we outline several issues -which could have been already considered by the CH&PA, but could be further supported by the use of emerging surveying methods based on geospatial technologies and the use of portable handheld, devices such as tablets and smartphones.

##### **Reviewing benefits of strengthening the existing geospatial data capture and handling capacity.**

- Fast monitoring of housing schemes growth and consolidation: *Where located, the development status? What has been built?* It has been previously noted that parcel occupation is low in new schemes. The ability to conduct low cost, periodic monitoring tasks could support and guide policy aimed at consolidating housing schemes.
- Keeping track of neighborhood consolidation assists in prioritizing areas for infrastructure development. It has been noted that water, street paving and particularly electricity have often lagged behind the development of schemes. Prioritizing infrastructure building and road paving, in areas that are effectively consolidating would strengthen this trend and would assist in more efficiently allocating infrastructure budgets.
- Monitoring the occupation and consolidation trends of new schemes can also assist policy making in terms of priorities for the development of community services (schools, recreation areas, and health centers).
- Additionally, monitoring consolidation can assist in identifying areas of emerging demand, assisting land use policy and the establishment of local commercial centers.
- Digital data management platforms, such as GIS, allow for efficient scaling and information sharing. In terms of the former, as the CH&PA housing initiatives grow, so can its digital platform. In terms of the latter, efficient information sharing with the Neighborhood Democratic Councils would strengthen their management capacity, and further enhance their tax assessment capabilities.
- Enhanced data monitoring facilitates understanding of important issues including ‘creaming’, trickle down, and oversupply. Effective tracking of lot development allows quicker and more effective control and support.

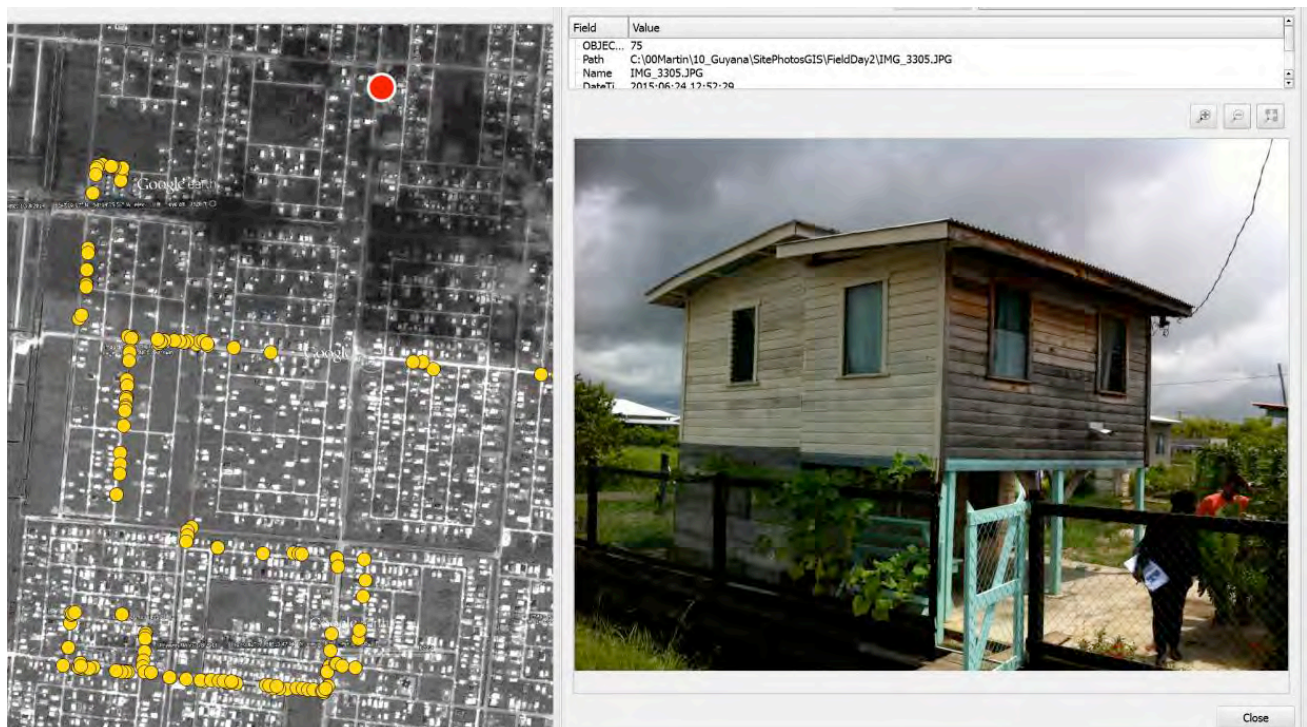


**Low-cost monitoring tasks involve geo-located photographic captures of scheme's parcels and buildings, and their post-processing using GIS tools.**

Digital tools for conducting these tasks are increasingly affordable - sometimes even free - reducing the overall hardware and software costs of maintaining an updated cadastral database.

The images below show how photographic captures can be efficiently mapped, and how accurate information for each street, land parcel, and house can be read from these photographs.

Information extracted from these images can be collected into geo-databases for further reference and for conducting queries and spatial analysis tasks.



***Parfaite Harmonie. Building Survey.** On the left, the aerial photograph of the area is used as background for displaying the collected information. Each yellow dot represents a data point with an associated photograph. The red dot at the top shows the location of the building seen on the left.*

Attribute table - day2\_photos\_points :: Features total: 445, filtered: 445, selected: 0

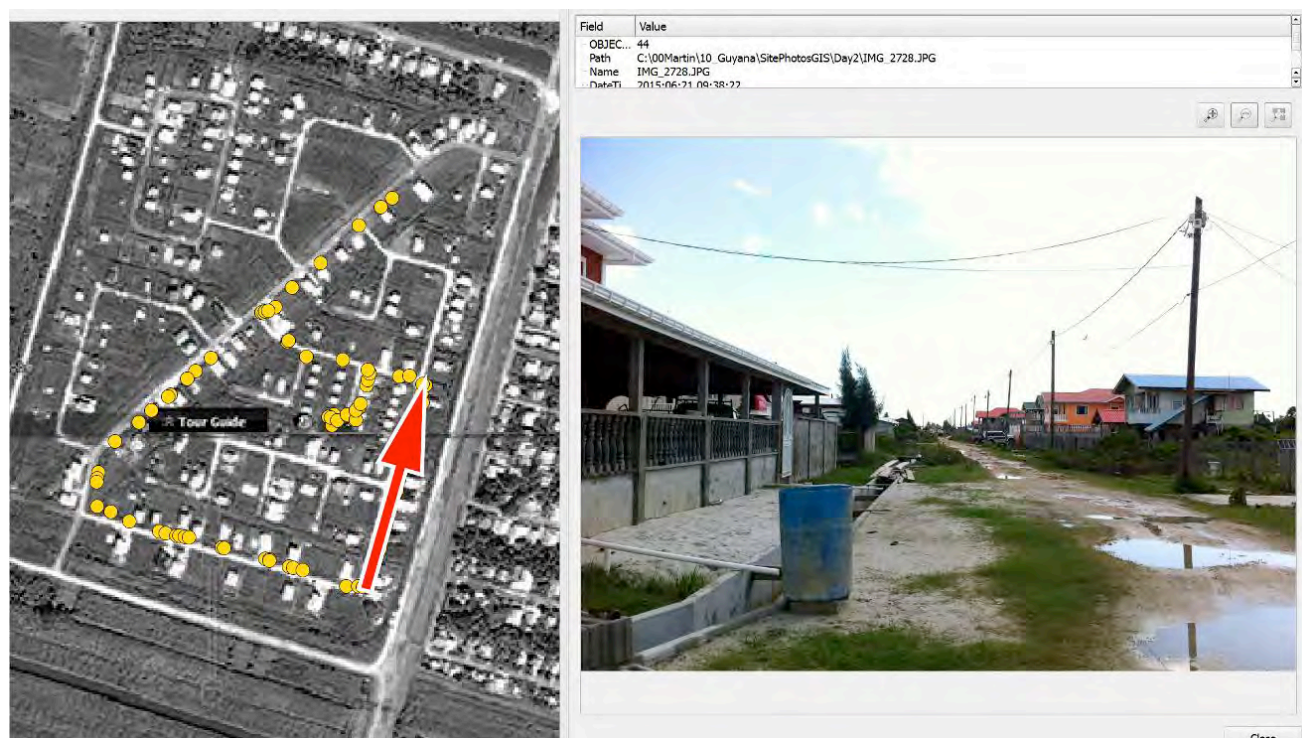
OBJECTID	Path	Name	DateTime	recti	Occupancy	Core	Home Impvm	Storeys	Material	Year Built	Yr Expand	Area sq ft	Lot Number
444	445 C:\...	IMG_3132.JPG	2015:06:21 12:50:46	296...	Owner, single	NO	YES	2	Timber	2011	2012	860	627
1134	104 C:\...	IMG_2788.JPG	2015:06:21 10:33:58	359...	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL
5456	335 C:\...	IMG_3022.JPG	2015:06:21 12:12:17	358...	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL
5461	331 C:\...	IMG_3018.JPG	2015:06:21 12:11:08	356...	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Show All Features.

***Information recorded in the database.** Among other data, such as the ID of the parcel, the database can contain information regarding the height (in stories), material, and size of the building.*



The table in the previous page shows how information about each surveyed house can be recorded in the database, as is commonly done when using GIS. For illustration purposes, the data collected and transferred indicates that the house was expanded in 2012, through a home improvement loan, has two stories, and it is built mainly of timber. Further, an approximate number regarding the built area was included. Finally, the lot number is noted as the unique id field, along with the region number, name of the scheme, and subarea. New quick surveying tools can be tailored to record additional data relative to, for example, number of residents and other demographic data, place of work, intention of running a business, or the actual presence of business. In other words, the customization of the surveying form is possible and simple.



***Non-Pareil Survey. Road surveying.** On the left, an aerial photograph is used for background. The yellow dots represent data points with associated photograph. The red arrow shows the direction towards which the photograph was taken. Road consolidation surveying tasks can be conducted simultaneously with building surveys*

**Monitoring development can also be done at an aggregated scale.** The image in the following page shows how web mapping services (Google Earth) are useful in evaluating growth and consolidation – in this case shows changes in a southeast block of Parfaite Harmonie over a period of 8 years. The rate at which blocks consolidate, and the spatial distribution of new buildings, provide valuable information for tracking development for guiding and supporting growth.

Programs exist for documenting these changes, or this may readily be done manually. These services, however, cannot replace the regularly scheduled collection of detailed, ground level, information regarding individual building or streets.



2006



2008

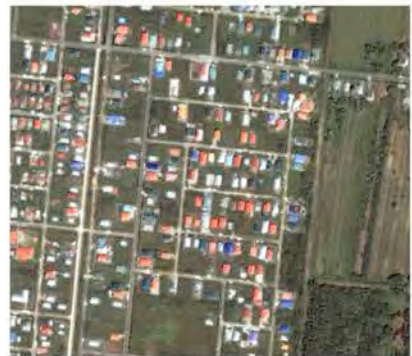
*(Google Earth Images  
2006 – 2014)*



2009



2011



2014

# HOUSE ISSUES

## 1. CONTRACT ISSUES

**Beneficiaries expressed repeated concern over contract restrictions (5 year rule).** They noted that this inhibits their ability to consolidate their house as they desire and add space to generate income. This was particularly noted by beneficiaries who exhibited initiative and drive. More specifically, beneficiaries stated that they cannot deviate from prescribed expansion plans and secondly, they are limited to residential use only. Also, renting was not allowed. Assuming this also included rental of rooms, this would eliminate a major source of supplementary income as seen in low-income areas in other countries.

Allowing 2 stories – with technical support for adding a floor or raising the house – beneficiaries could add space as well as rental units. Perhaps raising the house after families have moved in could be explored, with adequate technical support. (Lifting houses is not uncommon in other countries and can be simple and inexpensive.) Two stories are noted commonly in Georgetown; a ground floor is generally built out with a floor above. One wonders if the core may be replaced by a concrete block structure on concrete piers as is seen in many (most?) houses? Would it be a question of allowing and not prohibiting in the contract?

It was noted that perhaps some restrictions were misunderstood, and perhaps added attention is required on contract clarification.

**Beneficiaries show strong commitment to their contractual obligations.** Of the small sample of families we spoke to, all were seemingly clear on what they could do and could not do regarding house changes and sale. All repeatedly cited the ‘5-year rule’ concerning the end of restrictions on what they could do. None entertained the notion of doing something that would jeopardize their situation, although some mentioned others had opened shops despite the 5-year rule.

## 2. LOT ALLOCATION

**It may be useful to review the lot allocation procedure.** Two cases are suggested for choice.

- i. Some lots were located in standing water, requiring investment on part of the beneficiary to fill low area to make them usable. In these cases, some protocol for either selecting another lot or filling the lot beforehand would be suggested.
- ii. Many expressed dissatisfaction with the inability to move near their relatives or friends. A simple procedure could be developed without appreciable added administrative burden, as noted in other countries. Offering a cluster unit of 10-15 lots to self-selected groups may simplify allocation choice, and concurrently address scalability (i.e. dealing with groups instead of single families one at a time.)



### 3. TAX ISSUES – FUTURE LAND AND HOUSE TAXATION

**NDCs have not yet assessed and levied taxes which could become problematic in the future.**

Potential impact on beneficiaries when taxes become in effect needs to be considered when setting rates. Secondly, the ability to collect taxes once a tax program is implemented should be verified – is a collection system in place and operational? Thirdly, the amount collected may not be enough to meaningfully cover expected items, or even to support a taxation program. It is noted that an earlier EU project considered using taxes to cover services, but it did not succeed.



*Former EU project*

The perception of taxes as related to services is a factor to consider: no or deficient service may lead to poor tax payments. From the small sample of families we talked to, all were aware of impending taxes, but surprisingly not overly concerned.

The future collection of taxes could be problematic. The rate needs to be carefully set, public infrastructure needs to be present and functioning, and a collection system must be established. Undoubtedly the amount would affect affordability. If the income from taxes needs to go toward long-term subsistence of the programs, the tendency to increase taxes would be counterproductive if the program is to expand.

#### 4. CORE HOUSE DESIGN ISSUES

From discussions with families, several useful suggestions arose regarding the core house:

- **As noted in previous reports and again by homeowners, current septic tank location and piping make expansion difficult.** This is a continuing issue and previously noted by others and already variations were seen. Several felt it was easy to relocate the pipes running into the septic tank and did so, but the resulting right angles may increase the potential for blockage.



- **Emphasize 10 feet side extensions in suggestions to homeowners.** According to homeowners, 8 feet extensions failed to accommodate more than a single bed. Review expansion guidelines and relate to actual practices. There was some discussion of additional setback of the house from the street, commenting that the space is not enough when expanding toward the front.
- **Raise house higher to enhance ventilation and protect floor from rotting.** Consider potential for raising the core house: review foundation details (pillars/perimeter beam) for flexibility. Raising the house once constructed was considered difficult and not likely, since the perimeter concrete beam was anchored to the footings by reinforcing rods embedded in the concrete. Raising the floor level one block during construction is feasible, and would require readjusting steps at front and back of house, with minor cost increase.



- **Standing water under the house was noted by several.** Control of water pooling under the house prevents mosquitos/pests, humidity and wood rotting. Consider filling land under house before construction.



- **There was concern over standing water in lots.** Many raised the level of their lot to eliminate water pooling, and make the area useful. Usually 3 to 4 truckloads of sand are needed, at about GTD 15,000 each, plus labor.
- **Consider use of dried wood in siding to avoid shrinkage leading to leaks.** Green wood shrinks excessively, resulting in gaps sometimes exceeding  $\frac{1}{4}$  inch (6.35 mm). Homeowners resorted to caulking wall siding joints to stop wind-driven rain, mosquitos and drafts.
- **Modify windowsill to prevent wind driven rain leaks.** Wind-driven rain would enter below the window, and addition of a small lip prevents water entering. Some added a wooden sill, one added a built-up cement edge.



- **Review front door location** – placed closer to exterior side walls would facilitate addition of interior wall dividing space into 2 rooms. This was already done in some core houses, based on earlier suggestions. Perhaps already a standard adjustment in all core units.
- **Consider adding double windows** for better ventilation and lighting. This was claimed to be cost effective, and provide much benefit. Probably not an important item to include in future core units, but perhaps include in suggestions to homeowners.
- **Review potential for core house variations.** Consider options to better address beneficiary needs: in addition to the ‘standard’ core, explore the possibilities of an absolute minimum structure as well as a bigger unit. *However, the ‘Standard’ core would remain as the main product.*
  - i. **Consider a larger core house** to accommodate larger family and multiple uses, if beneficiaries are able to cover additional costs. Beneficiaries noted that they would be willing to pay more for a larger starter house if available, but this would be on a case by case basis. A wider unit was repeatedly mentioned, so when an interior wall is inserted as commonly done by the beneficiaries the two resultant rooms would be more usable. Perhaps add 4 feet to the width, taken from the side yard.
  - ii. **Consider an absolute minimum core** as replacement shelter for unsafe structures, potentially in house improvement loans where minor improvements are insufficient. (This could also be an option after disasters for rapid provision of shelters, and provides a base for recovery). The provision of a lower cost core house, chosen by the beneficiary could be considered as a key way to lower costs to a family and make more affordable. It shifts more responsibility to the beneficiaries and relies on their effort – as demonstrated by many – in modifying and adding to the minimum unit to fit their needs. It is a choice for a temporary lower standard house (in size) with long-term benefit with their added input. It would need to be tested whether families would choose a minimum core with lower costs as an initial entry into housing. Also, noting that the government has settled on the ‘standard core’ as the lowest standard, a minimum core could be offered as a *temporary* shelter, with additions by the beneficiaries bringing it up to the standard level.

In essence, the additional room often added in the house improvement program is already a minimum core around which a better quality house can develop.

For innovative designs for a minimum multi-purpose core, several options are available: consider an open competition/solicit entries from Universities, professional associations, general public.

Finally, offering free use of the starter core plan to private developers could be considered. The attractiveness of core units would be tested in the open market as well as result in experimentation in lowering costs. ‘Branding’ the core as a desirable marketable unit by developers may add affordable units quicker and broaden the widespread appeal of the core house as a standard.

## 5. INCOME GENERATION/LIVELIHOOD

- Increased emphasis and support for income generation could be coupled with the



housing programs.

- Homeowners** should be encouraged and allowed to open small stores on their properties, and contracts should be modified accordingly to support this opportunity. Encouragement of informal production supports family well-being as well as collectively being an important economic sector, often noted as a very large percentage of the economic base of cities.



- Larger shops** – best if owner occupied - should be encouraged for the benefit of the community, in locations to reinforce identity. Lot sizing could be adjusted accordingly in desirable locations on larger streets and intersections. Families identified larger stores as existing in their areas, but they seemed to be scattered and have not reinforced a feeling of a community focus and center.



- **Lots provide opportunities for growing food and raising animals.** Homeowners have shown much initiative regarding growing vegetables, fruits, and small animals for food. Encouraging this trend to continue should not be overlooked and further promoted for improvement of their general livelihood. Large animals, however, would require special accommodations and would be difficult in urban-sized lots.



# COMMUNITY ISSUES

## 1. NEIGHBORHOOD CENTERS

- Large schemes suggest the need for neighborhood scale centers, supporting community identity, potential employment and income generation opportunities. The schemes provide a base of economic demand, which would readily support varied commercial activity.
- Schemes on the outskirts could be developed as local/regional centers. For example, the large Tuschen scheme and perhaps Parfait Harmonie could become an anchor catalyst for a new center in the west.



## 2. SCATTERED DEVELOPMENT OF LOTS/ FOCUSED GROWTH

- In addressing the large amount of vacant lots the increase of foreclosures may mobilize more construction, from initial allottees and subsequent replacements. In new allocations, more emphasis on the ability to start quickly should be emphasized.
- The added emphasis on mini-centers may make areas more attractive and encourage building on the currently vacant lots.

### *3. COORDINATION OF HOUSING SCHEMES AND SERVICES PROVISION*

- As mentioned in previous reports a major contributor to delays in neighborhood development was the lack of services at the start, and dispersed development of housing schemes makes services provision difficult and expensive. It is continuing issue: how to assure parallel installation of services and occupation of the lots.
- The recent combination of Housing and Water under the Ministry of Communities should improve timely water services. Combining the other services at a higher organizational level may increase political visibility with timely parallel provision.

### *4. STREET LIGHTS ISSUES*

- A strong desire for street lighting for security and to reinforce a neighborhood sense was noted. Lighting was considered imperative for improved visibility, especially with the open drainage ditches, unpaved road conditions, and need for neighborhood surveillance. It was noted that concerns over costs were the limiting consideration: initial purchase, usage costs, bulb replacement. However, the benefits override the concerns.
- A possible direction to explore includes street lamps with solar panels and LED bulbs, as seen in some other countries. An approach used by some is where the solar lights are assembled by a community to lower costs and to build 'ownership' to avoid vandalism.

### *5. STAKEHOLDERS INVOLVEMENT IN SCHEME DEVELOPMENT*

- The current successful outreach efforts to inform about new schemes and housing provide the basis for continued strong community engagement. The community groups which are now formed could be strengthened with defined tasks, perhaps through 'community contracting' mechanisms. More successful communities could mentor other communities – a community-to-community training/learning.

## CITY SCALE

### 1. ADDRESS IMPACT OF LARGE SCALE HOUSING INITIATIVES.

- The large scale housing initiatives from the Government require planning at the city scale. It was noted that approximately 30,000 people were expected to live in the La Parfait area on the west – increasing to 500,000 when all lots are occupied, a population which would have considerable impact in the area and cannot be ignored. On the east, the several schemes near the coast contribute and encourage to the development pressures. The installation of infrastructure further makes these areas attractive and invites further development.
- As noted in previous studies, scattered schemes create scattered, expensive to service cities. The scattered sites also cause planning issues at the city scale, in some cases encouraging ‘leapfrog’ development with expensive infrastructure services.
- Isolated schemes can be both an instrument to direct development in desired directions but also a problem if not carefully planned to avoid undesirable development attraction.



*Two agriculture land subdivision patterns are noted, quite uniform, which provide the potential for guiding development. The existing pattern provides a ready frame for ease in staged land acquisition and subdivision layout and is particularly useful in land release development strategies.*





## PROGRAMS

### *1. HOME IMPROVEMENT LOANS ARE MORE THAN PHYSICAL IMPROVEMENT*

The program clearly is a catalyst for some, with some remarkable results. Many beneficiaries have taken advantage of the grant to improve their homes which has led to substantial improvement.



*A carpenter, used the grant to elevate his house, adding a full second room. He did the work himself and the grant became the impetus for improvement. He now has started a garden for food and planted banana trees.*



*A single mother with 11 children used the grant for finishing (plastering of the walls) and internal partitions. Her oldest children helped in the construction and contributed funds.*

However, in other cases the limited amount granted in the program cannot begin to cover the needed repairs, and it becomes a 'Band-Aid' at best. The addition of a full room however, is attractive, which provides a base around which to improve the remainder of the house. In these cases where relatively small interventions would provide a needed push or cover repairs is not sufficient, additional assistance should be explored, despite the added complications to the program.



*A less successful result from an upgrading funds project.*



It would be useful to team with a social services agency or NGO, in cases where physical improvements are not enough or cannot address underlying issues. Social welfare support could be a vital component providing income and employment counseling. Closer links with the ministries dealing with welfare and social security could be explored.

A minimum core unit that would replace the house would be useful in cases where the house is beyond repair. (Note: a minimum core could also be used after disasters as emergency housing, and provide the base around which families could begin their recovery.) Noting that the government has settled on the 'standard core' as the lowest standard, a minimum core could be offered as a temporary shelter, where additions by the beneficiaries would bring it up to the standard level. In essence, the added room is already a minimum core, and offers a good base around which to improve the complete house.

#### HOME IMPROVEMENT SUBSIDY PILOT *(data from files)*

No. of Applications Submitted	No. of Subsidies disbursed	No. of Female Headed Households receiving subsidy
723	400 (55%)	216 (54%)

#### Regional Distribution of Home Improvement Subsidies

Region 3	Region 4	Region 5	Region 6	Total
165	143	71	21	400

Noted is the large percentage of female-headed households receiving a subsidy. The few beneficiaries interviewed did well in utilizing the grant, and managed to handle the construction fittingly. But special attention must be given to facilities in support of these many female-headed households. Timely installation of public facilities are imperative.

Not surprisingly the largest number of subsidies were from the Georgetown regions and the other growth areas on the west.

## 2. UPGRADING

There appears to be two families of areas to be upgrading. (Apparently there is a listing of slum/squatter areas but it was not seen. Large slum/squatter areas as seen in many cities are not noticed; apparently there are sufficient opportunities for lower income to find accommodation. The programs of the CP&PA undoubtedly draw off potential settlers from unauthorized communities.)



The Sophia area is a good example of peri-urban squatter settlements where standard upgrading interventions are possible: regularizing lots, rights-of-way for streets, services. Another area, Binky Alley, is a small scale, close-knit community, where sanitary solutions and street paving appropriately respond to the basic needs of the community. Both Sophia and Binky Alley can be upgraded *'in situ'* and would not require resettlement of their populations which make for simpler intervention following by now well-known customary practices.

Logically new housing for the low income draws from existing low income areas, and squatter settlements are candidates for the various programs. Upgrading we believe is a preferred program. But a caution: the many advantages are well known, but the drawing off of more successful lower income (generally those meeting the selection requirements) into projects elsewhere is a loss of community leaders in struggling areas although a gain to the projects.





Isolated pockets of squatters/slums (some were seen in the port area) seem to be located in contested areas are more problematic. These smaller slum areas in the inner-city often require resettlement, a more complicated process – simple removal tends not to be viable and only displaces the population elsewhere, but now homeless and without the social support network. In special situations – for example in the port service areas - smaller slum pockets may be able to enlist the support of the industry, drawing on their symbiotic relationship.

For impact, and to simplify and facilitate upgrading, a street-based focus is suggested as opposed to a house-by-house strategy. Upgrading the street surfacing, drainage ditch maintenance, along with installation of water and electrical service offers a highly visible, quicker, cost effective outcome. Individual families would be assumed to be more motivated to improve their homes and participate in improvement programs. A Street-based strategy better addresses issues of scale.

## GENERAL ISSUES

### 1. AFFORDABILITY

Affordability should be considered in a broad sense. There are two sides to the equation, the direct payment by beneficiaries related to income, and the '*willingness to pay*' related to what is offered. Several – from a small sample – noted they would be willing pay more despite their low income, citing a desire for a 'bigger house', etc. As was seen and also noted in other studies, even subsidized lots resulted in very slow and delayed habitation when basic services were not initially installed. Location to employment, services (water, street paving, and electricity), public facilities (schools, clinics) and location featured heavily in the *willingness to pay* calculations.

A variety of small saving measures in the different components is the suggested strategy to increase payment affordability. Making each cost component efficient without drastically cutting a component is a more measured response for initial focus.

To address the affordability issue but also as reference to policy questions, suggested is to develop a *typology of housing* for all income sectors. It would link 'value for money', showing what people pay now for what they get. Not just what % the people pay - affordability - but to show clearly what they get for this, not just the physical definition of the house, but also the public services and location, typical profiles of beneficiaries and potential for participation in housing programs.

### 2. SCALABILITY AND SUSTAINABILITY

Both are closely interrelated. Four factors are considered: capacity, technique, resources and demand. *Capacity* is the ability to implement measures: staffing number and skill. *Technique* relates to manner of implementation; *Resources* relates to the likelihood of subsidies, land, etc. to continue and expand; demand – as in sustainability - relates to sufficient interest, ability and numbers of beneficiaries to participate. *Time* is an issue throughout, to illustrate: 100 units/10 years vs 100 units/year. Time issues is in part a policy issue linked to demand/need: keeping up with growth and/or addressing backlog influences amount of attention directed toward scalability concerns.

In the site and services programs limiting factors could be land availability, the concerns related to sufficient demand, and ability to provide timely services. The home improvement program is very problematic although very beneficial and desirable. Continuation of subsidies may be an issue, intensive effort by staff limits expansion of program unless increased personnel, and addition of a revised program to include social services for broader coverage would require more staff inputs but potentially result in a more successful, longer beneficial program.

In terms of technique grouping programs into larger units addresses scale. Clustering seems to be an appropriate strategy, both for core houses as currently practiced and in upgrading. Economies of scale were already recognized in the construction of groups of core houses. The clustering of

units around one larger septic tank would be worthwhile to test, despite the reluctance stated by some in communal use (a single tank also lowers costs and speed delivery).

By focusing on streets in home improvement areas together with upgrading, a stronger impact results. In addition to scale and economic advantages, addressing streets as a unit offers the potential for reinforcement of neighbors in their house development. Time is another factor to consider, scalability has a strong time component. Faster implementation tends to require substantial added resources.

### 3. SUSTAINABILITY AND SCALABILITY REQUIREMENTS MATRIX

PROGRAM	CAPACITY TO IMPLEMENT	SCALABILITY STRATEGY	RESOURCES NEEDED	DEMAND (BENEFICIARIES)	POLITICAL WILL
<b>CORE HOUSE</b>	<ul style="list-style-type: none"> <li>Experienced staff in outreach and beneficiary selection</li> <li>Experienced builders</li> </ul>	<ul style="list-style-type: none"> <li>Clustered construction of houses</li> <li>Experimentation with communal services: shared septic tanks lowers construction time and lowers costs</li> </ul>	<ul style="list-style-type: none"> <li>Requires subsidy</li> <li>Beneficiary payments?</li> </ul>	<ul style="list-style-type: none"> <li>Low growth rate of city, little in migration, traditional family accommodations;</li> <li>De-densification of Georgetown?</li> </ul>	
<b>SITE AND SERVICES</b>	<ul style="list-style-type: none"> <li>Experienced staff in outreach and beneficiary selection</li> </ul>	<ul style="list-style-type: none"> <li>Large schemes</li> <li>Put emphasis on employment</li> </ul>	<ul style="list-style-type: none"> <li>Requires well located land availability</li> <li>Subsidy for land</li> </ul>		
<b>UPGRADING</b>	<ul style="list-style-type: none"> <li>New staff needed if broaden program with social support</li> </ul>	<ul style="list-style-type: none"> <li>Shift to street basis instead of house-by-house as priority.</li> </ul>	<ul style="list-style-type: none"> <li>Subsidy</li> </ul>	<ul style="list-style-type: none"> <li>Occupants of site</li> </ul>	
<b>HOME IMPROVEMENT</b>	<ul style="list-style-type: none"> <li>Experienced staff in outreach and beneficiary selection</li> <li>New staff needed if broaden program with social support</li> </ul>	<ul style="list-style-type: none"> <li>Difficult unless increase staff and training if new social support added</li> <li>Shift to street basis?</li> </ul>	<ul style="list-style-type: none"> <li>Subsidy</li> </ul>	<ul style="list-style-type: none"> <li>Occupants</li> </ul>	

## APPENDIX – CORE HOUSES IN PILOT PROJECTS

### CORE HOUSE PILOT

No. of Applications Received	No. of Core Houses Built		No. Of Female Headed Households receiving a Core House	
787	400	(51%)	244	(61%)

### CORE HOUSE LOCATIONS

Core houses have been constructed in the following housing areas: Region 3 – Bell West Phase 2 (59), Westminster Phase 1 (51), Onderneeming Phase 1 (5), Recht-dor-zee Phase 1 (29), Recht-dor-zee Phase 2 (52), Tuschen Phase 2 (31); Region 4 – Area B Lusignan (27), Non Pariel (20); Region 5 – Block D Bath (16), Region 6 – Ordnance/Fortlands Phase 2 (33), Block 5 Ankerville (13), No. 76 Village (15), Region 9 – Tabatinga (15); Amelia's Ward (34).

### HOME IMPROVEMENT SUBSIDY PILOT

No. of Applications Submitted	No. of Subsidies disbursed		No. of Female Headed Households receiving subsidy	
723	400	(55%)	216	(54%)

#### Regional Distribution of Home Improvement Subsidies

Region 3	Region 4	Region 5	Region 6	Total
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**Proposed Program – REVIEW OF CH&PA HOUSING PROGRAM**  
19-27 June 2015

Friday 19 June	Saturday 20 June	Sunday 21 June	Monday 22 June	Tuesday 23 June	Wednesday 24 June	Thursday 25 June	Friday 26 June	Saturday 27 June
<p><i>(Leave Boston on 18 June, arrive in Guyana at midnight)</i></p> <p><b>Brief meeting with CH&amp;PA</b> to arrange weekend field visits to project areas <i>Time/place TBD</i></p>	<p><i>'Drive through'</i> visit to program areas; 'ad hoc' family interviews</p> <p><b>Suggested support:</b> Person from CH&amp;PA + transport; Map of city with areas identified</p>	<p><i>Con't:</i> <i>'Drive through'</i> visit to program areas; 'ad hoc' family interviews</p> <p><b>Suggested support:</b> Person from CH&amp;PA + transport Map of city with areas identified</p>	<p><b>Discussion with CH&amp;PA</b> on <u>status update of programs</u></p> <p>Consider concerns, assessment. Collect information from office</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-top: 10px;">*To be detailed in survey form</div>	<p><i>Field Survey, Interviews:</i> <b>Core House Program</b></p> <p>*Consider expansion, family inputs, etc.</p> <p><b>Suggested support:</b> Person from CH&amp;PA + transport, map</p>	<p><i>Field Survey, Interviews:</i> <b>Site and Services Program</b></p> <p>*Consider degree of occupation, housing buildouts, costs, layouts, etc.</p> <p><b>Suggested support:</b> Person from CH&amp;PA + transport, map</p>	<p><i>Field Survey Interviews:</i> <b>Upgrading Program</b></p> <p>*Consider improvements, costs, construction support, etc.</p> <p><b>Suggested support:</b> Person from CH&amp;PA, transport, map</p>	<p><i>'Catch-up'</i> Collect missing information</p> <p><b>End of day: 'Wrap-up' meeting</b> with CH&amp;PA for highlights of surveys</p>	<p>Departure 6:05am</p>

## APENDIX – PERSONS MET

Georgetown, Guyana, June 2015

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**GUYANA**

**SECOND LOW-INCOME SETTLEMENT PROGRAM (LISP 2)  
GY-L1019  
HOUSING PILOT IN THE HINTERLAND**

**LESSONS LEARNED: OVERCROWDING**

October, 2014

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## **1. REVIEW OF 2009 ASSESSMENT INDICATORS**

This section reviews the housing indicators that were assessed in 2009, during the pre-feasibility study for this pilot program (See Arboleda 2010). They are: overcrowding, structural quality of the housing unit, access to water, access to sanitation, and security of tenure.

### **1.1. Overcrowding**

Overcrowding was one of the indicators that the Hinterland Program placed more emphasis in solving. It was one of the most pressing issues that the 2009 assessment identified, along with access to water and the structural quality of the house.<sup>1</sup> On the basis of that finding, for the selection of beneficiaries the program gave great weight to overcrowding conditions. Along with the dwelling's structural conditions, overcrowding was the most important aspect in the scoring of applications. It was reflected on three of the 10 questions in the application: number of household members (the more, the higher the score), the size of the housing unit, and how many rooms the house had. Besides, after special needs like disabilities, overcrowding was the deciding item in applications that were tied with the same score.

Because of that, it is important to look at overcrowding first and foremost in this review of the assessment indicators.

The issue of how many square meters per person constitute overcrowding is a tricky one. UN-Habitat defines overcrowding in terms of number of persons per room: more than 2 qualifies as overcrowding (UN-Habitat 2003, 12). It offers the numeric standard as an alternative: "The alternative is to set a minimum standard for floor area per person (eg 5 square metres)." The latter is a more exact measure, because it provides a consistent metric that can be used to compare across different contexts and regions: measuring the number of persons per room ignores the size of room variable.

As for what the number in square meters should be, the UN only suggests 5.0 as an example (see the cite above). In fact, beyond this mention the organization avoids

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<sup>1</sup> The other two indicators, access to sanitation and security of tenure, were found to be less problematic in the 2009 assessment. Regarding the first, the assessment found it would be less critical once the issue of water access was solved, because pit toilets contaminate ground fresh water sources. That is the major problem with this sanitation technology.

providing a number across its literature on overcrowding. That is understandable because it is a complex issue. Although a number provides a consistent measure, it cannot be objective because the perception of overcrowding is cultural, and is also determined by the context, whether urban or rural, as well as other factors (UN 2003, 98).

Regardless of that limitation, 5.0 square meters has been widely adopted as an international indicator of overcrowding. It is the number that was adopted for the Guyana Hinterland Program in 2009, and will be the one that this report uses to analyze the changes in overcrowding conditions after the program.

### **1.1.1. Changes in Overcrowding Indicators**

For the analysis of change in overcrowding conditions, there is comparative data available on 32 beneficiary households, 19 in Region Nine and 13 in Region One. The 19 households in Region Nine constitute 16.5% of the beneficiaries in that region. As for the 13 households in Region One, they make up for roughly 17% of the subsidies that had been delivered at the time the assessment interviews were carried out in that region (January 2014).

The data compared in this section are the area of the house where the household lived before, and how did the household size change after the program.

Data collected in 2011-12 provides evidence of just how dramatic the situation of overcrowding was in some households before the Hinterland Program. For example, in the case of Whitewater, interview No. 5, there were 8 people living in a 15'x12' space (180 ft<sup>2</sup>). In Blackwater No. 19, a total of 9 people were living in a similar area.

Even worse is the case of Arakouru No. 8, where 13 persons lived in a 14'x10' (140 ft<sup>2</sup>) single-room space. That is barely the size of one bedroom in an American lower-middle class home. Image 1.1.1. shows one such case, in Whitewater. The family kept the old house to use it as their kitchen. The contrast with the program-provided house requires no explanation.

From the 2011-12 data it also becomes evident that households were bigger in Region One in comparison to Region Nine (9.23 versus 6.26 persons in average). The average area of houses was also much smaller (232.62 ft<sup>2</sup> versus 407.63 ft<sup>2</sup>). That means, in Region One bigger families were living in smaller houses. The overcrowding indicators in table 1.1.1. at the end of this section make evident the scale of the difference: 2.63 m<sup>2</sup>

versus 9.14 m<sup>2</sup> available per person mean that households in Region One were over three times more overcrowded than those in Region Nine.



Figure 1.1.1. A household in Region One, before and after the Hinterland housing program. Before moving to the Program's house (above right), the household was cramped in the tiny house on the left.

As table 1.1.1. shows, on average the area available for one person in Region One increased to 5.44 m<sup>2</sup> after the program (up from 2.63 m<sup>2</sup>). This is higher than the UN suggestion of 5.00 m<sup>2</sup> per person. It also means that on average these families now have more than twice as much space as they had before the Hinterland Program.

The data about the area now available (5.44 m<sup>2</sup>) also helps dispelling a notion that the houses the program was providing in the Hinterland were too big. They are indeed bigger than those of the equivalent LISP 2 urban component. However, the area available per person was increased to just above the minimum required to meet the suggested United Nations MDG<sup>2</sup> target.

The situation of overcrowding was far less critical in Region Nine before the program (9.14 m<sup>2</sup> available per person on average). There, the overcrowding indicators have improved further after the intervention (12.04 m<sup>2</sup> now available on average).<sup>3</sup>

Despite generally speaking Region Nine does not look as overcrowded, households living in dwellings that were not overcrowded still qualified for the subsidy on the basis of structural conditions of the house. It is evident that houses among the poorest in Region Nine are generally bigger than in Region One (the 407.63 ft<sup>2</sup> versus 232.62 ft<sup>2</sup> mean 175% bigger). In fact, in some cases families in this region moved from their bigger houses to the program's house that was comparatively smaller. See for example the cases of Annai, interviews Nos. 8, 9, and 27.

Yet, regardless of the fact that they had more space available, their houses were in poor structural condition and this demanded that the households urgently moved to a new house. The risk of collapse was higher than in Region One because of the Region's common building technology, which is mud bricks as opposed to the Region One's timber.

It also needs to be mentioned that, in a small number of cases, Region Nine households that were not overcrowded were assigned a house because of a defective beneficiary selection on the Village Council side. Such is the case of Annai, where a house was assigned to a relative of the Toshao to live in it as its sole occupant, and another was assigned to someone who did not move in.

That aside, 37% of the households in the Region Nine sample were living in overcrowded houses before the Hinterland Program. None of them is undergoing overcrowding anymore after the intervention (See table 1.1.1., under the column "overcrowding indicator – 2014").

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<sup>2</sup> Millennium Development Goals.

<sup>3</sup> A confounding factor here is the assignation of some houses to very small families, which makes this average high. The median is 7.74, which is still higher than the median before the program (5.57). See table 1.1.1.

As for the case of Region One, all (100%) of the households we have comparative data about were living under conditions of overcrowding. After the intervention, this percentage has been reduced to 46%. The remaining percentage consists of those households that were very large (between 10 and 16 members). Overcrowding in all those cases will be solved when beneficiaries complete the planned self-built increments on the ground level.

The community design of the Region One house provides for the opportunity to wall in the ground level, with that duplicating the amount of available space. When this is done, the area for the worst-case scenario, which corresponds to Arakouru, interview No. 8 (2.90 m<sup>2</sup> per person) will increase to 5.80. In the other cases the increase will be higher, and therefore in all cases the available area per person will be higher than the United Nations' suggested standard.

Thus, the hinterland pilot was successful in ending overcrowding for all the beneficiary households in the Region Nine sample, and reducing overcrowding to roughly one half in the Region One's. In the latter case, the issue of overcrowding should be fully solved after the user-run incremental housing portion of the construction is completed.

CHANGE IN OVERCROWDING INDICATORS													
VILLAGE	INTERVIEW No.	SUBSIDY	HOUSEHOLD SIZE		AREA OF HOUSE						OVERCROWDING INDICATOR <sup>1</sup>		
			2014	2011 2012 <sup>2</sup>	length x width		square feet		square meters		2014	2011 2012	
					2014	2011 2012	2014	2011 2012	2014	2011 2012			
REGION ONE	Whitewater	1	F+W+T <sup>3</sup>	14	14	25'x20'	<16'x<16'	500	<256	46.45	<23.78	3.32	<1.70
	Whitewater	2	F+W+T	9	8	25'x20'	18'x14'	500	252	46.45	23.41	5.16	2.97
	Whitewater	3	F+W+T	11	14	25'x20'	18'x12'	500	216	46.45	20.07	4.22	1.43
	Whitewater	4	F+W+T	5	6	25'x20'	20'x14'	500	280	46.45	26.01	9.29	4.34
	Whitewater	5	F+W+T	8	8	25'x20'	15'x12'	500	180	46.45	16.72	5.81	2.09
	Whitewater	6	F+W+T	8	8	25'x20'	18'x14'	500	252	46.45	23.41	5.81	2.93
	Blackwater	18	R+W+T	8	8	± 25'x20'	20-24'x<16'	± 500	<320	± 46.45	<29.73	5.81	3.72
	Blackwater	19	R+W+T	13	9	± 25'x20'	18'x10'	± 500	180	± 46.45	16.72	3.57	1.86
	Arakouru	8	F+W+T	16	13	25'x20'	14'x10'	500	140	46.45	13.00	2.90	1.00
	Arakouru	9	F+W+T	15	7	25'x20'	18'x14'	500	252	46.45	23.41	3.10	3.34
	Arakouru	11	F+W+T	10	12	25'x20'	16'x12'	500	192	46.45	17.84	4.64	1.49
	Arakouru	26	R+W+T	5	6	± 25'x20'	18'x16'	± 500	288	± 46.45	26.76	9.29	4.46
	Arakouru	23	R+W+T	6	7	± 25'x20'	18'x12'	± 500	216	± 46.45	20.07	7.74	2.87
	AVERAGE			9.85	9.23			500	232.62	46.45	21.61	<b>5.44</b>	<b>2.63</b>

<sup>1</sup> Area available per person in square meters. Less than 5.00 sq. m. indicates overcrowding, following the United Nations' MDG indicators (UN 2003).

<sup>2</sup> The data were collected in 2011 for Region One and 2012 for Region Nine. That is the case for all the data marked in this way in the present document.

<sup>3</sup> F = Full house. W = Water infrastructure. T = Toilet. R = Roofing upgrade.



	MEDIAN			10.5	10			500	252	46.45	23.41	5.16	2.87
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REGION NINE	Kwatamang	3	F+W+T	6	10	25'x20'	25'x15'	500	375	46.45	34.84	7.74	3.48
	Kwatamang	5	F+W+T	8	8	25'x20'	25'x19'	500	475	46.45	44.13	5.81	5.52
	Kwatamang	6	F+W+T	6	5	25'x20'	20'x12'	500	240	46.45	22.30	7.74	4.46
	Kwatamang	8	F+W+T	7	3	25'x20'	22'x14'	500	308	46.45	28.61	6.64	9.54
	Kwatamang	9	F+W+T	5	5	25'x20'	25'x16'	500	400	46.45	37.16	9.29	7.43
	Kwatamang	10	F+W+T	6	14	25'x20'	22'x14'	500	308	46.45	28.61	7.74	2.04
	Kwatamang	12	F+W+T	4	7	25'x20'	25'x20'	500	500	46.45	46.45	11.61	6.64
	Kwatamang	7	R+W	7	8	± 25'x20'	25'x16'	± 500	400	± 46.45	37.16	6.64	4.64
	Annai	17	F+W+T	4	5	25'x20'	20'x15'	500	300	46.45	27.87	11.61	5.57
	Annai	19	F+W+T	8	8	25'x20'	30'x18'	500	540	46.45	50.17	5.81	6.27
	Annai	20	F+W+T	2	2	25'x20'	20'x15'	500	300	46.45	27.87	23.22	13.94
	Annai	22	F+W+T	9	9	25'x20'	30'x18'	500	540	46.45	50.17	5.16	5.57
	Annai	23	F+W+T	8	1	25'x20'	20'x15'	500	300	46.45	27.87	5.81	27.87
	Annai	26	F+W+T	6	9	25'x20'	26'x18'	500	468	46.45	43.48	7.74	4.83
	Annai	27	F+W+T	1	2	25'x20'	40'x20'	500	800	46.45	74.32	46.45	37.16
	Annai	28	F+W+T	7	7	25'x20'	20'x18'	500	360	46.45	33.44	6.64	4.78
	Annai	18	R+W	2	3	± 25'x20'	23'x15'	± 500	345	± 46.45	32.05	23.22	10.68
	Annai	21	R+W	2	4	± 25'x20'	22'x18'	± 500	396	± 46.45	36.79	23.22	9.20
	Annai	29	R+W	7	9	± 25'x20'	26'x15'	± 500	390	± 46.45	36.23	6.64	4.02
	AVERAGE			5.53	6.26			500	407.63	46.45	37.87	<b>12.04</b>	<b>9.14</b>
	MEDIAN			5.50	6.00			500	390	46.45	36.23	7.74	5.57

Table 1.1.1. Change in overcrowding indicators, before and after the Hinterland Program.

### **1.1.2. Changes in Household Size**

One of the expectations from the Hinterland Program was that the size of households would decrease after the intervention. This expectation was founded on an important finding during the 2011–2012 application process. Often enough, big households (10 people and more) were actually composed by two families living together out of necessity.

The expectation was that, by providing a housing solution to an individual household living temporarily in somebody else's house, the number of people living in both the new and the old house would be considerably reduced because the combined households would be split.

This possibility for homeless households to move to their own place did materialize in a number of cases. Yet, puzzling enough, as a general norm the number of people in the households did not significantly decrease after the Hinterland Program. Table 1.1.1. shows how, in both regions, in most cases (69%) household sizes did not decrease. They either stayed the same or increased.

Table 1.1.2. at the end of this section analyzes 45 households for which we had comparative data, indicating in how many cases the household size remained the same, in how many there was a reduction, and in how many other cases the household actually increased. Although the number of households that became smaller is the highest, it is not far higher than those that became bigger (17 versus 14, or only 10% higher). Even when the number of households that decreased in size and those that remained the same are combined, the number of those that increased in size is still considerable—about one third of the total. This number is high enough to merit attention.

Noticeably, this phenomenon was more prevalent in Region One than in Region Nine among the villages we have data about. Household sizes in Region Nine are in average smaller (around 60%, as table 1.1.1. shows). The general norm is about 6 to 7 persons per household in Region Nine as opposed to 10 to 15 in Region One. After the Hinterland Program, the average size of beneficiary Region Nine households was reduced to 5.53 people, from 6.26. In Region One instead, the household sizes increased to 9.85, up from 9.23 (See table 1.1.1).

The increase in some cases was dramatic. Table 1.1.1. shows the case of Blackwater, interview No. 19, and Arakouru No. 8. These were big households (9 and 13 people), and

yet, even more people (13 and 16) were reported as living in the new house in 2014. More drastic is the case of Arakouru No. 9; upon moving to the new house, the household duplicated in size (from 7 to 15 people).

What are the causes for this increase? There is comparative data available on the changing composition of ten households before and after the program. These data are shown in table 1.1.3. These households grew because of two main reasons. The first is organic; some grew naturally because of newborns. There is for example a new son in Manawarin, interview No. 12, and a new grandchild in Manawarin, No. 17. This is easily explained by the fact that a majority of the program's beneficiaries were couples still in an age of having children.

The second reason is that new relatives became part of the household after the move to the new, program-provided house. These include grandchildren, for example in the case of Kwatamang, interview number 8. This household grew from 3 to 7, the interviewee now reporting grandchildren as part of the household. Yet, and strikingly, it is even more common the case of adult relatives joining the household: adult siblings, grandparents, uncles, and in-laws. That is evident in Arakouru, interviews No. 7 and 9, and Annai, No. 16.

The latter is the reason that more deeply affected the increase in household size by looking at the sample. Poverty itself can explain why the household sizes did not decrease. The Hinterland Program catered to the poorest households in villages that were undergoing great poverty. Once these households were in a better shape after the program, they lent a hand on their impoverished relatives, bringing them to live in the new houses.

The Program's houses brought in more people to the household as opposed to helping it split in one third of the cases. Poverty is the reason behind this great inter-family mobility after the Hinterland Program. It is remarkable that even in the cases in which the increase was only slight there was mobility, as reflected in the changing household composition in table 1.1.3. In some cases no major change appears recorded numerically, but children left while a similar number of grandchildren arrived, for example. That is the case of Whitewater, interview No. 2, Blackwater No. 19, and Kwatamang No. 8.

This strengthens the evidence that poverty is more prevalent in Region One, where this phenomenon happened most often, than in Region Nine. It also challenges an old stereotype that low income households grow because people keep having more children. In these cases, most of the growth was caused by pure solidarity.

In conclusion, the households in Region One remained large after the intervention. This happened partly because the families are slowly growing, and especially because new adult relatives moved in. The later issue is in connection to the still prevalent situation of poverty in some of the intervention areas of the Hinterland Program.

	Village	NEW HOUSE OCCUPANCY IN RELATION TO OLD HOUSE			Number of beneficiary households surveyed
		Fewer occupants	Same	More occupants	
REGION ONE	Whitewater	3	3	2	8
	Arakouru	3	3	4	10
	Manawarin	1	1	4	6
	R1 TOTAL	7	7	10	24
REGION NINE	Kwatamang	4	2	2	8
	Annai	6	5	2	13
	Massara <sup>7</sup>	†	†	†	†
	R9 TOTAL	10	7	4	21
	TOTAL	17	14	14	45
		31		14	
	Percentage of households that responded to this question over total of program’s beneficiary households (208)				

Table 1.1.2. New house occupancy in relation to old house, on the basis of comparing data from this 2014 assessment, against data from application forms (2011 – 2012).

<sup>7</sup> Information from application forms was not available for review during this research.

CHANGES IN HOUSEHOLD COMPOSITION						
	INTERVIEW No.	VILLAGE	HOUSEHOLD SIZE		HOUSEHOLD COMPOSITION	
			2014	2011 / 2012	2014	2011 / 2012
REGION ONE	2	Whitewater	9	8	Interviewee, Husband, 5 Boys, 2 Girls	Interviewee, Wife, 1 Son, 5 Daughters
	19	Blackwater	13	9	Interviewee, Wife, Mother, 6 Sons, 4 G.Children	Interviewee, Wife, 6 Sons, 1 Daughter
	7	Arakouru	9	6	Interviewee, Husband, 4 Children, Mother, Sister in Law, Brother (stays only sometimes)	Interviewee, Husband, 1 Son, 2 Daughters, 2 G. Children <sup>1</sup>
	9	Arakouru	15	7	Interviewee, Husband, 4 Children, Sister, 3 Children, Mother, Father, 2 Uncles, Grandma	Interviewee, Wife, 5 Children, 1 Pensioner <sup>2</sup>
	12	Manawarin	9	8	Interviewee, Husband, 7 Children (3 boys + 4 girls)	Interviewee, Husband, 2 Sons, 4 Daughters
	17	Manawarin	14	13	Interviewee, Wife, 10 Children (6 boys + 4 girls), 2 G.Children	Interviewee, Wife, 6 Sons, 4 Daughters, 1 G.Child
REGION NINE	6	Kwatamang	6	5	Wife, Husband, 4 children	Husband, Wife, Son, Relative <sup>3</sup>
	8	Kwatamang	7	3	Wife, Husband, Grandchildren	Husband, Wife, Child
	16	Annai	6	4	Grandmother, Mother, 3 children, 1 on holiday	Mother, Father, Daughter <sup>4</sup>
	23	Annai	8	1	Mother and Family members <sup>5</sup>	Woman

Table 1.1.3. Composition changes in households that increased in size after the Hinterland Program, where comparative data was available. The list of household members appears worded as it was originally on the paper forms. Only identifying information has been modified (i.e., “Charles” would be rewritten as “interviewee”). The interviews from 2011/2012 and 2014 were carried out by different individuals.

<sup>1</sup> The interviewee listed one more household member than it appears numerically reported.

<sup>2</sup> Same as above.

<sup>3</sup> The interviewee listed one less household member than it appears numerically reported.

<sup>4</sup> Same as above.

<sup>5</sup> Comment from interviewer: “Unsure about specific members in family.”

### **1.1.3. Recommendations from Lessons Learned on Overcrowding**

#### 1. More Focus on Region One

Overcrowding and household size data indicate that poverty is currently far more prevalent in Region One than in Region Nine. Yet, for the Hinterland Program the subsidies were distributed roughly equally between both regions (93 in Region One and 105 in Region Nine). This was the way for CH&PA to deal with the difficulty of identifying an accurate number of subsidies per village before the intervention was already advanced.

As for why is this difficult, how much housing is required in each village can only be known after the process of application and scoring has been completed. By that point already an estimated number of houses has been shared with the Village Councils. It is very complicated to get the program started without giving the Councils an estimated number of houses for their village—the program cannot proceed by having the main partners in the dark.

However, the problem with making this pre-estimation is that, if after the scoring it surfaces that there is less need in certain villages, households that do not have a pressing need there end up receiving subsidies, while in other villages there is no way to better cover the existing need. That was the case of Annai, where some households with no pressing need (comparatively speaking) received subsidies. By contrast, in Whitewater there were more households in need than the program could cover. There, households with great need but who were not numerically as big as the selected ones had to be left out of the program.

This logistical difficulty—how to allocate different amounts to different villages before starting the intervention—will probably remain during the program expansion. In order to lessen the consequences, it is proposed here to make a pre-determination on the basis of a global re-distribution of percentages. From this review it is clear that the overall percentage should not be 50/50 as it was during the Hinterland Program. The overcrowding data on table 1.1.1. indicates that before the program there was three times more overcrowding in Region One than in Region Nine. After the program there remained still twice as much overcrowding there among the program beneficiaries. Considering these numbers, the investment should be roughly between 75/25 percent and 66/33 percent, as opposed to 50/50 in each region.



## 2. In Region One, More Focus on Satellite Villages

As tables 1.1.1. to 1.1.3. demonstrate, satellite villages are undergoing more poverty than the central villages. If during the program expansion there is an intervention in Whitewater for instance, it should be at the periphery in preference to the central village. For example, more work is still needed in Whitewater's satellite villages Arakouru and Blackwater.

## 3. Explore with Village Councils the Possibility of Reassigning Some Housing Subsidies

It is recommended that CH&PA considers the possibility to follow up with the Annai Village Council for the reassignment of properties that were not distributed on the basis of need. Also, that CH&PA follows up with the Kwatamang Village Council about the reassignment of roofing units where beneficiaries did not move in.

## 4. Recommendation on Increase in Household Size

If there is anything to do about the household size is not to expect that it will reduce, but to continue acting on the house provision itself. After the Hinterland Program the household size was not reduced, but overcrowding was, and by a great margin.



**GUYANA**

**SECOND LOW-INCOME SETTLEMENT PROGRAM (LISP 2)  
GY-L1019  
HOUSING PILOT IN THE HINTERLAND**

**LESSONS LEARNED:**  
**• ACCESS TO WATER INDICATORS**  
**• ROOFING COMPONENT OF THE PROGRAM**

October, 2014

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### **1.3. Access to Safe Water**

Access to safe water was another priority indicator for the Hinterland Program. The 2009 assessment mentions some of the serious issues Hinterland households had to face with regard to limited access to fresh water. The assessment found a majority of people in Region One drinking very turbid water from shallow ponds, or from contaminated rivers. Or, in Region Nine, a majority of households heavily depending on wells that became contaminated with fecal matters from pit toilets during seasonal floods. The later issue has in the past forced the Guyana government to charter bottled water to this and neighboring regions during the seasonal floods.

The Hinterland Program provided 208 housing subsidies for beneficiary families, 122 being full houses and 86 roofing units (explained later). Regardless of the subsidy, in 100% of the cases it provided families with a full water collection and storage system, consisting of a roofing unit in corrugated zinc to harvest rainwater, the complete guttering and piping system, and a 400-gallon tank to store the water.

That considered, the impact of the program in terms of access to safe water was huge. The scale of change in the living conditions of households that now have the basic need to safe water solved is extraordinary, following the descriptions from families. There is for example a change in health indicators. Families interviewed in 2014 often reported that they were now more infrequently getting sick. Unfortunately, this can only be relayed anecdotally, because no health indicators were recorded as part of the 2009 prefeasibility assessment or the 2011/12 interviews—such an impact was certainly not expected during the preparation of the program.<sup>1</sup>

Another major impact is that these families now have water access at home. The general norm in these regions is that families bring the water from far away, and this task is usually reserved for women and children of the household.

#### **1.3.1. Quantitative Indicators on Access to Safe Water**

As for quantitative data, the 2011/12 numbers confirm the findings from the 2009 study. When it comes to general housing-related necessities, water was (and still is) the most

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<sup>1</sup> Interestingly enough, families in Region Nine reported this less frequently, which suggests there were more health issues in connection to water consumption in Region One.

important infrastructural aspect to be confronted.<sup>2</sup> The 2009 assessment found out that only 8% of the consulted households had access to rainwater, the only locally available source of safe water. Among the households interviewed in 2011/12 and sampled in Table 1.3.1 (end of this section), the rate was still very low, only 16%.

Other indicators continue unchanged since 2009. No households are yet served by a plumbing system, and none have access to protected wells or springs. The latter confirms how relevant it was for the program to focus on providing a way for villagers to tap into rainwater as the only source of safe water available in these areas.

Also, the overall impact of public (as in communal) water infrastructure remained small. For example, there was little change in Whitewater (from 14% in 2009 to 15% in 2011), despite the standpipe infrastructure that the Red Cross installed for certain households during that time lapse. As for the general case of villages sampled in Table 1.3.1, households reported in 2011/12 using communal infrastructure in only 21% of the cases. This means, right before the Hinterland Program in roughly 80% of the cases families were still trying to procure water by their own means.

The most common water sources were in Region One creeks and ponds (46%). In Region Nine the most common source was by far dug-out wells. Looking at data from Table 1.3.1, as of 2012 the sampled families in Region Nine relied in 100% of cases on wells, either own or public, before the intervention.<sup>3</sup> This confirms a finding from the 2009 assessment, that Region Nine is a region of wells and Region One is one of ponds and creeks as the main sources of water provision.

There are issues with these three sources. First, there is bacterial contamination and turbidity in ponds. Second, there is increasing contamination of rivers and creeks in Region One, remarkably contamination by mercury due to the intensification of gold mining activities in that area.<sup>4</sup> Third, and as mentioned earlier, there are issues with fecal contamination in wells, especially during the seasonal floods.

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<sup>2</sup> This is not in contradiction with the earlier mention about overcrowding. When it comes to the house itself, overcrowding is the most important issue to confront. In connection to housing in general, and beyond the house itself, water is the most critical one.

<sup>3</sup> The over-dependency on this resource was inevitable in the villages of Annai and Kwatamang because of the lack of nearby creeks and the low phreatic level that does not allow for the digging of shallow ponds.

<sup>4</sup> Almost one-fourth of the sampled households in Region One depended on creeks and rivers for their water supply as of 2011 (see Table 1.3.1).

Therefore, although villagers did have access to water, it was generally unsafe for human consumption. Before the program it was difficult for households to procure the much safer rainwater. Villagers explain that water from thatch roofs comes out dirty and with bugs, so it cannot be harvested, and the majority of roofs in both regions was in thatch (51%, compared to 34% in zinc). However, albeit primitive, there was already some use of makeshift rainwater harvesting systems. The data sample from 2011/12 shows the use in Region One in 31% of the cases (compared to 11.5% in the same villages in 2009). Thus, families especially in Region One were aware and welcoming of rainwater harvesting as an option. The collection was made through reused barrels of up to 55 gallons, or simply buckets, the guttering being with split bamboo poles.

The indicators of water access changed for the 2014 interviews, where 100% of the families above reported access to rainwater harvesting and collection. For those interviews, families also reported that the above-mentioned means of procuring water were still being used as a backup to the rainwater system, which means they now have year-round access to water. Dug-out wells work as a source of water during the dry season, because this is the season when it is less risky to use this source. The use of wells as public infrastructure is similar in both regions (23% in Region One and 21% in Region Nine).

During the rainy season (which is when wells are generally unusable) rainwater is plenty, so there is no shortage in the tanks. As explained in a 2012 program report (Arboleda 2012), a 400-gallon tank gets full only after a few hours of rain. Families in fact mentioned in the 2014 interviews that during the rainy season they do laundry at leisure using the water tanks' supply, but during the dry season they limit the use of the tank to only essential fresh water consumption; they switch to some of the traditional sources for non-essential water consumption then.

Thus, the Hinterland Program has made a great step towards solving the problem of access to fresh water in the beneficiary villages. The scale of what the program achieved is remarkable. A total of 208 families now have access to safe water, with that achieving the landmark of MDG's indicator 30. They now rely much less on wells, which are now only an alternative limited to the dry season. With that, they are putting much less pressure on the wells water, of which there is now more available for those families that were not covered by the program.



### **1.3.2. An Assessment of the Roofing Units Component**

Roofing units were initially the upgrading component of the Hinterland Program. As originally planned, this component relied upon the premise that some Hinterland families are able to build, on their own, houses that are in good structural condition and with a good roof framing, ready for the installation of a zinc roofing. However, the families are unable to afford this material and because of that they have to thatch the house, in the expectation commonly unfulfilled that at some point in the future they will be able to purchase zinc. As the aforementioned 2012 report states, a comparatively wealthy family in Region One reported they were able to save only enough to purchase one sheet every month, out of the 34 required for their house.

Since roof structures built for zinc have customarily a lower pitch, they are more prone to leaking when thatched. The leaks end up deteriorating the wooden framing and other parts of the structure, thus the investment gets lost over time because the house has to be rebuilt. The spirit of this program component was then to help families complete the investment by funding what they were unable to, which was the roofing and water gathering system. With that, the program sought to help families to finally materialize their project of having a well-built house with a good roof that would last for a good deal of time, and that could be used for rainwater harvesting. Basically, the roofing program component proposed to give families a “push,” so they would not lose the investment they had made to that point.

This notion worked extremely well when it was tested as a prototype in Arakouru.<sup>5</sup> The family was able to finish their house in only one day and a half. That little was the time it took them to remove the thatch and put up the zinc roof, as well as installing all the guttering and water collection system.

The fact that in only one day and a half a family could complete a house with a full safe water provision was indeed a very exciting possibility. However, for the larger scale intervention this approach quickly demonstrated not to work as efficiently as it did with the prototype. It was constrained by both administrative aspects and the need to keep the focus of the program on very low income families. The key administrative issue was the ultimate difficulty to find houses that were close in size to the Program’s standard, 25'x

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<sup>5</sup> A detailed report is in Arboleda 2012.

20'. While the house for the prototype did have dimensions close to those, for the program expansion these dimensions turned out to be rather uncommon in the villages.<sup>6</sup>

Applying the principle to houses of many varied dimensions would have required an unmanageable amount of customization from the administrative standpoint. The similar size dimensions requirement was prompted by the fact that, in order to cater to different sizes, the program would have required technical construction facilitators to visit each house and assess how many sheets were necessary, as well as whether the roof framing was in fact appropriate for a direct change to zinc, or if building a new framing was required; then the facilitators would have been required to make customized estimates of materials (numbers of sheets, lengths of gutters, pipes, etc) for each of the houses. After this detailed work, similarly customized tasks would have been necessary for procurement, delivery, monitoring, and control. In sum, the program would have demanded too much customization and therefore too much administrative expenditure in order to work.

The underlying social upgrading principle (the “push”) of this component still makes sense, but either for a very small scale program, or one with a big administrative infrastructure. Yet, another issue that emerged was that the notion of the push would have ended up conflicting with the focus of the Hinterland Program on the very poor. By building upon good existing housing structures, the program would have served a village middle class, people who had been able to solve by themselves their basic shelter needs. The idea aimed to protect their investment and materialize their effort into a full house. This still makes sense, but in order to favor those families some of the very poor ones would have been left unattended.

Due to the administrative demands of the roofing component as it was envisioned, and in order to keep its focus on the very poor, this component was transformed during the execution into one of building roofing structures from scratch. The re-formulated component consisted of providing a standard amount of roofing and water collection materials for families to build a 25'x20' structure from scratch, where the families' economic contribution was the building of the underlying framing. With that, the finished structure under the program would already include the roofing and the completed water infrastructure, which is, again, the investment that families as a whole are unable to make.

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<sup>6</sup> See for instance the dimensions listed on Table 1.1.1.

The fact that under the re-formulated component families wall in the house in an incremental way means that, from being a housing upgrading component, this became an incremental core housing one, the core being the roof and the water system.

At the same time, the approach changed from building from the bottom-up (beneficiaries completed the structure and the program then provided the roof) to building from the top down (the program starts with the building of the roof, and over time beneficiaries complete the bottom). The sequence of building from the top-down fits appropriately with building traditions in the area, because this is how Hinterland families build. Looking for protection from excessive sun and rain, it is common in the area to build first the roof and then wall in the structure, the same process that the re-formulated program component entails.

The incremental housing process works comparatively fast. From the 2014 research it was possible to document that, when users had the walling materials available, they had finished the house in less than a month. A graphic sequence of this process is under image 1.3.1. This re-formulated program component proposes a creative approach to incremental housing that has a tremendous potential.



Fig. 1.3.1: The incremental process of the Hinterland Program's roofing core units:  
A. How does the starting core unit look. B. When the family first moves in. C. Almost finished. D. Finished house.

### 1.3.3. The Roofing Unit as a Starting Core: A Case Study

As a starting core—a unit into which a family can immediately move—the re-conceptualized roofing unit is a feasible solution. This section details an example of the beginning of the incremental housing process, in particular what does a family do once they receive the subsidy. It describes the experience from one of the beneficiary families, interviewed in 2014.<sup>7</sup> Their case is selected because it is one in which the incremental building process has been slow, so it is a good example of a lower-performing case, and how even in these cases the program appears to have worked.

This is a seven-people family (five children plus two parents) that has been living in the roofing unit for nearly two years. Before, they lived in a 25'x16' thatch house with no internal divisions. Both the roof and the structure required repairs. The family procured their water from a dug-out well.

Prior to moving to the roofing unit they owned some plastic tarp, which they had purchased for the making of bricks (it is used to cover the bricks). The husband is a brick maker who in fact made bricks for the program. The cost of the tarp was 5,000 GYD, or US\$ 25. They decided to re-purpose this tarp to temporarily wall in about one half of the roofing structure in the form of one big, single sleeping room just like in the old house.

The unwallled portion of the new house is a verandah, where the family has a table for dining and study. They cook outside, in the back of the house, and will continue this practice after finishing the house, according to the Hinterland tradition of building the kitchen separate from the main sleeping area. They also had a separate kitchen in the old house.

From the program they received the zinc to roof a 25'x20' structure, but they decided to stretch the material by lowering the roof pitch and build a bigger structure. They paid from their own income the wood for the framing. For the construction, the husband worked through mutual help with the beneficiary of another roofing unit: “I helped him out, and he helped me,” he says.

After the structure was complete, the household received a solar panel and light bulbs from a Ministry of Amerindian Affairs program.

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<sup>7</sup> Interview No. 7, Kwatamang.



Regarding the walls, as of the time of the interview (mid-august 2014), the husband was waiting for the season change (in a month, he expected), to start making the bricks to wall in the house. As image 1.3.2 shows, he was also preparing to lay a concrete floor. The floor inside the big room is already in concrete.

In the interview they did not report any income, and said they have a farm by the mountain, where they plant cassava for the making of their bread, and peppers also for their own consumption. The wife does most of the farming. At home they are raising chicken (six) for their eggs. Around the house they have planted several trees: orange, lime, pear, coconut, and mango. The family reported no illness (and no illness either in the old house).

The oldest daughter is in 10th grade; she walks to school in Bina Hill, which is roughly a mile and a half away. Because of that, she does not come home for lunch, but she has to buy lunch at school (600 GYD, or US\$ 3). She finds the new house to be a better place to do her homework. She speaks three languages: Macushi, English, and Portuguese. Her mother and father both speak Macushi and English.

This is a typical case among beneficiaries of the hinterland program. Although it is an economically depressed household, it was not among the poorest covered by the program. They had some income from brick making. Also, they were in good health; that is, it was not a household with special needs, which was the first qualifying criterion for the full housing program. This made them qualify for the roofing unit, since the full units were reserved for families in even greater need.

Although this family was not among the poorest of the program, they were still very poor. The 2012 application interview describes them as unemployed and solely relying on farming. Probably as a consequence of their income limitations, it has taken them a while to wall in the house. Thus, their situation of overcrowding remains—they still sleep in one single room. In that sense, they are not worse off than they were before the program, and this situation will be improved after they put in the walls.

The family is going on a decisive path towards improvement, not only in terms of the physical condition of the house but also in the fact that for example they are raising some chicken, they have planted fruit trees around the house, and although it is far away they have a farm that provides some of their staple food. Also, one of their children is about to finish high school. And very importantly, they now have access to safe freshwater at home, as well as basic electricity.

This family is still making efforts, but they seem to be steadily on the way to overcoming extreme poverty. It is clear then from this example that even in the worst-case scenarios, those in which it has taken families longer to get on their feet, the re-structured roofing component of the program has appeared to work.



Fig. 1.3.2. The starting core unit described under the previous section.

#### **1.3.4. Issues During the Implementation of the Roofing Component of the Program**

Although a comparatively small issue, a dark spot of this portion of the program was the questionable quality of the faucets.

The question about the present condition of the faucets was not asked initially during the Region One 2014 round of interviews. Once the issue that many were defective was noticed it was added to the Region Nine questionnaire. The results were surprising: in an overwhelming majority of cases the faucets had broke only after a few uses. To deal with this issue, families had appealed to tying up the faucets with rubber or cloth, and had managed to make them semi-operational, yet still without being able to avoid a considerable leaking.



Although this is a solvable issue—changing the faucets to better quality ones—if the program does not act on solving it, the whole purpose of the investment will be lost because of the water loss. A constant leak during the dry season will make a considerable dent on the household's scarce water supply.

On other issues, in a few cases there were factory defects or transportation damage on the supplied tanks, and they arrived onsite with leaks or fissures. In another case, outside of the program's scope, the beneficiary built a defective support for the tank, which broke into pieces after falling from the supports when it was full.

### **1.3.5. Recommendations on Access to Safe Water Indicator**

#### **1. Water access should remain as the leading concept in the expansion program**

Overall, access to safe water continues to be the most important infrastructural necessity to act upon in Regions One and Nine. At the level of the house itself, the priority is overcrowding as it was mentioned earlier. Yet, as for housing-related infrastructural priorities, access to safe water continues to be the main one.

#### **2. Maintaining the emphasis on water access, continue the focus on rainwater harvesting**

It is necessary to keep the focus on rainwater harvesting, especially in riverine villages in Region One. The safe water conditions have worsened because of mercury-related river contamination, a consequence of increased gold mining activity in this region.

The original notion of the roofing unit as a house upgrade should be archived for this program, and the modified version in the form of a core housing unit should be widely implemented. While it takes more time to complete, it is much more effective from an administrative standpoint and, even more importantly, it keeps the program's focus on the very poor families.

#### **3. Fix a small but significant issue with faucets in pilot program**

It is strongly suggested that the program considers providing an overall replacement of faucets in the beneficiary villages of the pilot program. It makes no sense that a US\$

1,300 investment in water infrastructure per house gets spoiled over a US\$ 5 defective piece. This would be a very small allocation from the new program funds, but one that would ensure the sustainability of the previous investment.

#### 4. Deepen the program scope with allocation of water disinfection systems

Although rainwater in the two regions has been generally safe to drink, it will be worthwhile for the program expansion to implement household water disinfection systems to supplement the rainwater harvesting system provided by the program. A partnership with the Pan-American Health organization (PAHO) for the distribution of these systems would be very appropriate. PAHO does have those programs in place in Guyana, so it would be both feasible and very important to formally extend this distribution program to the households covered by the program.

SOURCE		FRESH WATER SOURCES													
		REGION ONE						REGION NINE						GRAND TOTAL	
		Whitewater	Blackwater	Arakouru	Manawarin	TOTAL R. 1		Kwatamang	Annai	Massara	TOTAL R. 9				
						No.	%				No.	%	No.	%	
2011/12	Creek or river	1	1	3	1	6	23%	0	0	0	0	0%	6	12%	
	Pond	2	0	3	1	6	23%	0	0	0	0	0%	6	12%	
	Public well – standpipe – pump	4	0	2	0	6	23%	1	4	0	5	20%	11	21%	
	Dug out well – own	0	0	0	0	0	0%	6	12	2	20	80%	20	39%	
	Barrel (plastic or metal), or bucket	1	1	3	3	8	31%	0	0	0	0	0%	8	16%	
	Total of reported sources among respondents					26	100%				25	100%	51	100%	
2014	Rainwater harvesting system: metal roof, gutters, pipes, tank, faucet					100%						100%		100%	
	This sample: Total of 2014 respondents above (respondents for whom 2011/12 data was available)	6	2	10	5	23		7	13	2	22		45		

Table 1.3.1: Fresh water sources, on the basis of data from 45 households interviewed first in 2011/12, and then in 2014. Some households reported using more than one source of water, and because of this the number of sources (51) is slightly higher than the number of households (45).

## References

Arboleda, Gabriel. *Pre-Feasibility Study for a Housing Pilot in the Hinterland*. Washington, D.C.: Inter-American Development Bank, 2010.

Arboleda, Gabriel. *Housing in the Hinterland Pilot Program. Final Report on the Roofing Component of the Program: Region One*. Washington, D.C.: Inter-American Development Bank, 2012.

**GUYANA**

**SECOND LOW-INCOME SETTLEMENT PROGRAM (LISP 2)  
GY-L1019  
HOUSING PILOT IN THE HINTERLAND**

**LESSONS LEARNED:**

- ACCESS TO SANITATION INDICATORS**
- SECURITY OF TENURE INDICATORS**

October, 2014

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#### **1.4. Access to Sanitation**

The access to sanitation indicator demanded less radical action from the program. Through the work with the community between 2009 and 2010, the consultant found that the solution villagers normally use, a pit toilet, is the one that works best for their present circumstances.

That aside, the indicators before the program were still dramatic. Table 1.4.1 shows access to sanitation indicators for 43 families for whom there is comparative information available. Of them, 14 or 32% reported in the 2011/2012 application interviews not to have any kind of toilet. They would for example go to the field, use public toilets, or a neighbors' one. That is, nearly one-third of the beneficiary families had no access to sanitation at home prior to the program. This is much worse than families reported in the 2009 assessment. Then, 13% of the surveyed families did not report having a toilet.

Very interesting to note, six out of the 14 toilet-less families above, or 14%, did not have access to fresh water either. They were using either public pumps or creeks. That is the case of interviews numbers 18 (Blackwater), 8 and 9 (Arakouru), 6 (Kwatamang), and 25 - 26 (Annai), families who had neither water nor sanitation access. In those cases, their change in living conditions after the program was remarkable.

Also an important piece of information from table 1.4.1, before the Hinterland program, in 100% of the sampled cases in Region Nine and 47% in Region One, families that were using pit toilets were also procuring their fresh water from ground sources. This made them exposed to drinking water with fecal matter contamination. The program solved that issue for the entirety of these families, with the installation of rainwater collection tanks. This might help explain the anecdotal recount from families that they are now getting sick less often.

Also to note from table 1.4.1, the roofing units subsidies in the Region Nine sample did not include toilets, which were part of the beneficiary contribution. In this sample two of those families did not have a toilet before the program. In our 2014 interviews they mentioned they were in the process of building them. That means, the Hinterland program fully solved the issue of lack of sanitation in the Region One sample, and solved it in 90% of the Region Nine one (only two out of 20 families were still working on building their toilet).



Somehow related to this, in the 2014 interviews some Region Nine beneficiaries mentioned that they, and not the program's contractors, had built the toilet, although it was supposed to be part of the subsidy. The CH&PA engineer in charge of monitoring the program explains that this happened in the cases in which the family had failed to provide their labor contribution to build the house, per the contractual agreement between CH&PA and the beneficiary. They had committed to provide the labor from three unqualified laborers for 30 days, but did not fully honor that commitment. Given that, contractors in those cases had to assume the extra expense in labor, in order to finish the house within the contractual time. Consequently, Village Councils decided that in those cases the beneficiary family had to make the full labor investment to finish the toilet, with materials provided by the program.

#### **1.4.1. Pit Toilets and the Hinterland**

Pit toilets are by far the most common sanitation solution in both regions of the Guyana Hinterland. Any other type of toilet is a rarity among Amerindian families in these areas. The 2009 assessment found that 85% of the surveyed families owned a pit toilet. Only 2% used a flush toilet, because they lived in government or other institutional or corporate infrastructure. The rest did not report having any toilet.

A pit toilet is a very simple technology. Users dig a pit of between five and six feet deep, and roughly 3 x 3 feet wide. On top of the pit they install an outhouse with a wooden seat with a hole that is kept closed with a lid, in order to avoid insects and animals from coming in and out of the pit.

Villagers use the pit toilet for all their toilet needs, with no extra maintenance required beyond cleaning the seat. It takes between one and two years for an average-size pit to become full. After this, villagers build or dig another pit nearby, and move the outhouse. They cover the old pit with a layer of soil of one foot or so, and some plant a tree on top.

Despite the construction of a pit toilet is relatively simple and land is available in the Hinterland, there was a high percentage of families who did not have a toilet before the program. One possible reason is that they were households with no people able to dig the pit (which is hard work) and build the outhouse.

ACCESS TO SANITATION					
	INTERV. No.	VILLAGE	2014	2011/2012	
			SUBSIDY	TOILET?	WATER SOURCE <sup>1</sup>
REGION ONE	1	Whitewater	F+W+T <sup>2</sup>	Yes	Creek
	2	Whitewater	F+W+T	Yes	Well - Stand Pipe. Village survey says: Pond
	3	Whitewater	F+W+T	Yes	Village survey says: Well
	4	Whitewater	F+W+T	Yes	Bamboo gutter to plastic barrels
	5	Whitewater	F+W+T	Yes	Public pump. Village survey says: Well
	6	Whitewater	F+W+T	Yes	Stand pipe. Village survey says: Pond
	18	Blackwater	R+W+T	No	Creek
	19	Blackwater	R+W+T	Yes	Rainwater tank
	7	Arakouru	F+W+T	Yes	Pond
	8	Arakouru	F+W+T	No toilet	Public pump. Village survey says: Pump
	9	Arakouru	F+W+T	No toilet	River. Village survey says: Creek
	10	Arakouru	F+W+T	No toilet	Rainwater tank
	11	Arakouru	F+W+T	Yes	Pond. Village survey says: Pond
	21	Arakouru	R+W+T	Yes	Rainwater tank
	26	Arakouru	R+W+T	Yes	Rainwater tank. Village survey says: Creek

<sup>1</sup> In the case of Region One, this column includes data from both CH&PA interviews and the surveys that Village Councils themselves carried out prior to the interviews.

<sup>2</sup> F = Full house. W = Water infrastructure. T = Toilet. R = Roofing upgrade.

	22	Arakouru	R+W+T	Yes	Pond
	23	Arakouru	R+W+T	Yes	Pump. Village survey says: Well/Pump
	25	Arakouru	R+W+T	Yes	Creek
	12	Manawarin	F+W+T	Yes	Rainwater tank
	14	Manawarin	F+W+T	Yes	Rainwater bucket
	15	Manawarin	F+W+T	Yes	Rainwater bucket
	16	Manawarin	F+W+T	Yes	Pond
	17	Manawarin	F+W+T	Yes (insufficiently clean)	Creek
REGION NINE	3	Kwatamang	F+W+T	No	Dug-out well
	6	Kwatamang	F+W+T	Uses public toilet	Dug-out well (from neighbors)
	8	Kwatamang	F+W+T	Yes	Dug-out well
	9	Kwatamang	F+W+T	No	Dug-out well
	10	Kwatamang	F+W+T	No	Dug-out well
	12	Kwatamang	F+W+T	Pit latrine	Dug-out well
	7	Kwatamang	R+W	No	Dug-out well
	16	Annai	F+W+T	Pit Latrine	Dug-out well
	17	Annai	F+W+T	Pit Latrine	Dug-out well
	19	Annai	F+W+T	No toilet	Dug-out well
	20	Annai	F+W+T	No toilet	Dug-out well
	22	Annai	F+W+T	Pit Latrine	Dug-out well
	23	Annai	F+W+T	Pit Latrine	Dug-out well
	26	Annai	F+W+T	No toilet	Dug-out well/public pump

	27	Annai	F+W+T	Pit Latrine	Dug-out well/public pump
	28	Annai	F+W+T	No toilet	Dug-out well
	18	Annai	R+W	Pit Latrine	Dug-out well
	21	Annai	R+W	Pit Latrine	Dug-out well/public pump
	25	Annai	R+W	No toilet	Public Pump
	29	Annai	R+W	Pit Latrine	Dug-out well

Table 1.4.1. Changes in access to sanitation indicators. The wording in the 2011/2012 columns appears as it was in the original paper forms.

#### **1.4.2. The Hinterland Program's Exploration of Alternatives to Pit Toilets**

From the 2009-2010 participatory work with families it was very apparent to the consultant that they were well used and comfortable with pit toilets, the sanitation solution they had. However, the pit toilet is a very crude technology; pit toilets are unsightly, and because of the humidity in the pit they normally smell bad. Interestingly enough, the consultant also found the latter is an inconvenience villagers acknowledged, yet they were not too mortified by it.

Following is a report on findings in the search of alternatives.

##### ***- Flush Toilets***

As mentioned earlier, although used in hotels and institutional settings, flush toilets are extremely rare for domestic use in the rural Hinterland. The 2009 assessment found just a small percentage used in Oronoque, Manawarin, and Annai. In the first case, the families reporting using those toilets were living in housing built by the Barama timber company for its workers, and transferred to Amerindian families after the company left the zone. These toilets were connected to a septic tank system, and families had no clear idea about what to do once the tanks became full.

Flush toilets are the solution that most immediately comes to mind in connection to housing improvement programs in the developing world. However, early in the collaborative planning phase of the Hinterland program (2009-2010) this was identified as a very onerous solution for the Guyana Hinterland, both in terms of the implementation and the environmental costs. On the one hand, installing flush toilets demands the construction of sewage systems or septic tanks, both of which are a high expense for a very low income housing program. The latter also implies the investment in disposing of the tanks' contents, which also involves bringing in tanker trucks, an extra complication for places where there are no access roads, which is the case of some of the villages covered by the program.

There is already an antecedent of an unadvisable investment in flush toilets in a Guyanese Amerindian village. It is the case of the Food for the Poor housing project in St. Cuthbert, Region Four. The consultant had the opportunity to visit this project in 2009, during the assessment studies for the Hinterland program. This project's expense in a flush toilets system was so high, that the budget was barely enough for a minimal-size housing

solution of substandard building quality. Additionally, the septic tanks turned out to be too small, and some quickly overflowed.

By the time of the consultant's visit, the excess water consumption of these toilets had created tensions between the Food for the Poor beneficiaries and the rest of the community, over access to the village's limited fresh water supply. This brings the second issue, which is the environmental cost. The amount of freshwater that flush toilets consume is incredible, especially in places where there is little available, as is the case of the Hinterland, widely discussed under the water access indicator above.

In conclusion, for the present conditions of the Hinterland flush toilets were found during the planning phase of the program to be neither a feasible solution from the implementation standpoint, nor a recommendable one from the environmental perspective.

### ***- Composting Toilets***

Facing the difficulties to install flush toilets, the other solution examined in the search of alternatives was the radical opposite, ecological toilets. The consultant explored in detail the possibility of installing composting toilets with villagers from both regions. This technology is often promoted as a very efficient one from the environmental standpoint, because there is no water consumption, and the waste gets recycled into fertile soil.

Nobody in the beneficiary villagers had a composting toilet, and only a few villagers were aware of this technology, which had been mentioned to them in past community development workshops.

In order to explore the possibility of implementing composting toilets, the consultant carried out sanitation workshops in both regions, with the goal of demonstrating how the technology works. This included the training in, and installation of, portable, do-it-yourself composting toilet systems during community workshops in preparation to the program execution. One for example was installed for the use of interested participants during a community design workshop in Annai, Region Nine, in 2010.

The villagers' general reactions fluctuated between relative interest and amusement. In either case, the consensus was that they were not interested in pursuing that alternative. Tellingly enough, nobody used the composting toilet during the 2010 Annai workshop, despite it was available to them for several days. Simply, this is a technology that has not

been part of the Hinterland cultural practices, and they did not expressed themselves as interested in exploring it.

### **- VIP Toilets**

In search of more alternatives, the consultant examined with villagers the VIP toilet as a hybrid between a composting toilet (a foreign development), and a pit toilet (something villagers are familiar with).

The exuberance of trees that grow over old pits is the most visible sign of how, over time, the contents of an old toilet pit actually undergo a slow process of composting. This means that, for all practical purposes, a pit toilet ultimately ends up operating as a distant cousin of a composting toilet.

The principle of using pit toilets as composting toilets was in fact developed in Africa in the mid-1970s (see Mara 1984). It is called the VIP toilet, VIP standing for *ventilated improved pit*. The VIP is a more sophisticated form of a pit toilet whose contents can be emptied and therefore the pit does not have to be rebuilt. The improvements consist of walling around and finishing the pit, with which it looks like a small septic tank. There is also a duct installed for the venting out of the gases, capped with a mesh to avoid insects from coming in and out of the pit. The duct is painted black, so it attracts more sun heat and facilitates the faster circulation of air.

The VIP toilet is a model that international aid organizations have been promoting and building in the Guyana Hinterland. The author consulted with families in both regions, who felt that they were not sufficiently trained in the aspect of emptying the pits. It was not clear for them what to do with the material that was emptied; where and how to store it. More importantly, they did not feel inclined by cultural aspects to deal with their own discard in such a way. In response, some villagers intended to deal with the VIP in the way they do with the traditional pit toilet. That is, closing the pit once it gets full and moving the outhouse elsewhere. This means, all the investment in materials and labor to create the underground tank was going to be lost because the tank was going to be used only once.

Not only the consultant found the VIP underground tanks to be a superfluous investment for the case of the Guyana Hinterland beneficiary villages. Other sophistications of the VIP toilet were also found to be unnecessary. A number of VIP toilets that the consultant personally inspected in Region Nine did not work as intended. The system of air



circulation through the duct was inefficient, the toilets were just as smelly as regular pit toilets, and the mesh did not keep insects away.

In sum, in the work with villagers the consultant found no significant difference between the VIP toilet and a regular pit toilet in the Guyana hinterland. The VIP toilet improvements were found to be non-essential.

#### **1.4.3. Final Decision: Pit Toilets**

The experience gained from the exploration of alternatives with villagers informed the decision to simply stick to pit toilets as the sanitation solution for the Hinterland program. Being flush toilets impracticable and composting toilets not welcomed, the closest alternative to work was the VIP toilet. However, this model included sophistications that would have made the program more expensive and were found to be unnecessary. From this, the program implementation team concluded that the sanitation technology that villagers presently have is the one that works best for the present circumstances and for this type of program. It is affordable, it works, and it has the villagers' acceptance. Last but not least, it is ultimately a matter of respect to let villagers decide over their own defecation.

Pit toilets are actually used by a majority of rural dwellers in the developing world. Yet, they are not popular among first world urban sanitation activists. This is partly in connection to a historical legacy of bias against this sanitation solution. Pit toilets were indeed common in the developed world as well, as recently as the 1930s. In fact, they are still used in some of the poorest counties of the United States. The technology became a target in international campaigns of modernization starting in the 1940s. These campaigns advocated for fixed international standards of hygiene based on the use of flush toilets.

However, this is not to say that pit toilets are free of problems. Pit toilets do contaminate underground freshwater sources (just like open defecation and defecation from animals do). Because of that, there exist technical principles regarding where to install them. These principles have been indicated by the World Health Organization, which endorses pit toilets as a sanitation system (WHO 2006). They include maintaining a considerable distance from the house, and locating them in the lower portion of the land; that is, below, rather than above the level of the house.

Considering that pit toilets are one of the factors impacting the contamination of underground water from wells in the Hinterland villages, in the case of the Hinterland program pit toilets worked well in combination with the proposed system of freshwater provision, which is above-ground: rainwater is kept in raised tanks. As for the water safety of other villagers, the program in general followed the WHO guidelines for the installation of these systems. During the research for this document the consultant's team did not inspect the location of all the toilets, but the ones that we studied were located in accordance to the WHO's standards. The distance (100–150 feet on average) was apparent, as upon approaching the houses normally the toilet could not be seen; also, where the land was sloped they were located on the lower side.

#### **1.4.4. Recommendations on the Access to Sanitation Indicator**

##### 1. Promote Awareness among Contractors and Families of the WHO Standards on the Location of Pit Toilets

The location of pit toilets in the cases we inspected did conform to WHO standards. However, and if regular pit toilets will be continued to be used for the expansion, the Program needs to make these locations conscious and controlled. Best practices for the installations of pit toilets need to be promoted among participants through workshops.

##### 2. Continue Exploring with Beneficiaries Some Alternatives to Regular Pit Toilets

If the new program becomes involved with the provision of water using underground sources, it is highly recommended to continue exploring alternatives with villagers. These can be hybrid alternatives that are not imported from elsewhere but designed with villagers in a way that works for them. That would be a Hinterland model of a safe toilet.

##### 3. Identify with Village Councils some feasible measures to deal with the cases in which beneficiaries fail to provide their full economic investment in labor

With Village Councils it should be discussed what would be feasible in order to deal with the cases in which beneficiaries fail to deliver their part in the contractual construction agreement with CH&PA. When, for example, they do not provide a labor investment in the building of the house. That happened in some cases in Region Nine, where the Councils decided that the labor contribution from the program would then be limited to

the construction of the house and the beneficiary had to build the toilet. That is a murky area, because the reasons for a family to fail to comply widely vary, so it is probably difficult to come up with a single regulation. Because of that, it is necessary to discuss with Village Councils their experience, and identify feasible remediation measures that can be specified in the contractual agreement between CH&PA and beneficiaries.

#### 4. Include Toilets in All the Roofing Subsidies

During the pilot program some roofing subsidies, especially in Region Nine, excluded a toilet, which was expected to be a beneficiary contribution. The consultant suggests that for the program expansion all subsidies include a toilet, so as to aim to cover 100% of the need to sanitation access. The pilot covered it in a 95% of the sample. That is not bad, but it will not be difficult to make it even better.

## **1.5. Security of Tenure**

Just as it was identified in the 2009 assessment, land tenure was the least critical issue that the Hinterland program faced. That issue was settled for Amerindian villages in Guyana after the 2006 Amerindian Act, which granted community land tenure to Amerindian titled villages.

Only one of the eight villages of the program was not an Amerindian titled village. It was Oronoque in Region One. The program solved the issues of security of tenure also for the beneficiary households in Oronoque, as will be explained below. With that, the issue of security of tenure has been solved everywhere among the villages covered by the program.

### **1.5.1. Security of Tenure in Oronoque**

As it was reported after the 2009 assessment, Oronoque did have an unresolved land issue at the beginning of the program. It took a considerable amount of time for this situation to be solved. This explains why the program took longer to be concluded in Oronoque than it did elsewhere.

The land issue was finally solved by CH&PA's direct intervention, after the process of recognition as an Amerindian titled village (the avenue first explored) became too cumbersome and slow. CH&PA acquired land on its own, and made it part of the subsidy for beneficiary families in these villages. With this, families moved from land where they were technically invading and had no expectation of tenure, to the titled plot that CH&PA provided. This was a voluntary move by the beneficiaries, who were consulted by the CH&PA's Senior Community Development Officer in advance.

CH&PA decided to design the settlement following an urban grid. Consequently, Oronoque became the most urban portion of the Hinterland program. Oronoque sits right at the periphery of an urban center, Port Kaituma, which is quickly expanding as a consequence of the mining boom.

There was an interesting debate regarding the area of the plot between both partners in the program, CH&PA and the Ministry of Amerindian Affairs. The plot size that CH&PA proposed is a half an acre, which allows for a family to plant just a basic garden. The Ministry advocated instead for one acre for a more expansive use of horticulture. This

makes sense; however, CH&PA reasoned that farming in Oronoque is not too intensive, because the economy of the area is centered on mining. Besides, with the reduced area they intended to accommodate as many families as possible in their piece of land. Yet, the main reason the office invokes is that a half an acre is analogous to the plot area of other CH&PA sites. CH&PA has a long-term infrastructural vision for the Oronoque settlement. They plan to develop a bigger housing development on this land, and half an acre is a more feasible area to develop for infrastructural purposes.

As of the writing of this report, the Oronoque construction is still ongoing, so it is not possible to learn from families what is their experience with this grid and plot size arrangement.

### **1.5.2. Issues with Tenure for Follow-Up**

There was also a re-settlement of a small number of families in Manawarin, Region One. Different than Oronoque, where the move was to the immediate vicinity, in Manawarin these families moved from distant areas. Their main motivation was to be close to the school in Manawarin. When the consultant carried out the interviews in Manawarin, some men reported having to paddle long hours to farm in the settlement where they had moved from. They explained it as a trade-off between them paddling to farm, or their children having to paddle to go to school.

The Village Council was in the process of addressing this issue by assigning land near the village to the families that moved, in fact at a walking distance from their new houses. As of the time of the interviews, the topographic survey was about to take place for the distribution of this land, and the Village Council had invoiced the families to fund a portion of the cost of carrying out the survey. This made some of the families nervous, because they were constrained economically and had not been able to pay for their contribution. They were afraid they would not get any land because of that.

In general, the consultant noted nervousness among beneficiary families in Manawarin regarding the ownership of their houses. They felt insecure as to whether their houses were actually theirs, or if they were going to be charged for the full cost later on.

This was not unique to Manawarin. The consultant found that also in Annai some of the beneficiary families are being haunted by fellow villagers into thinking that they will have to start paying for the house. A common mention from these families in our

interviews was that they were being told "you are living in government housing, and this does not belong to you."

A big matter of concern in connection to this is that scammers actually start trying to collect payments from the families. Also, the issue that some Village Councils start charging beneficiaries for services in connection to the new house does create a burden on these families, a burden that the program was supposed to help alleviate.

The issue of the ownership status can also obey to voids in the information that Village Councils and families themselves have. CH&PA did sign with families an agreement that gave them legal basis to prove their house ownership. However, the consultant found that despite that, families were not quite aware of the meaning of that document, and many were not even sure of where did they have their copy. In Kwatamang, we found out that one single person had kept all the documents for the families, which is a protection for the families when the person acts in good faith, but at the same time it means there is a lot of power to act, and assets in the hands of, one single individual.

The consultant made a big effort to explain to families, both in person and in bigger groups, the tenure status of their house, but this must be made more clear as will be detailed under the recommendations section below.

### **1.5.3. Recommendations on Land Tenure Indicator**

#### **1. Clearer Communication on the Land Ownership Status Is Required**

It is necessary to more clearly and widely communicate among beneficiaries that the house is theirs; that they already paid for the house with their labor investment.

#### **2. It Is Urgent to Define the Legal Status of Ownership under the Amerindian Act**

Notwithstanding the recommendation above, it is also urgent to define, in light of the Amerindian Act, what is the tenure status of the houses. It is clear by the Act that households do not own the land in Amerindian titled villages—that is community ownership. What about the houses? Are the Village Councils the owners, or the families? This is a very contentious issue, and during the interviews for this report many families expressed themselves anxious about it.

This is a puzzling situation, because a Village Council has the right to determine who and where settles in the village. Technically speaking, this means a Council could mandate a beneficiary family to surrender their house, and reassign it to a different one. While this is a legally useful figure to reassign houses in the cases of the families that received housing subsidies in Kwatamang but did not move in, or for the one or two cases in which housing subsidies were assigned out of evident nepotism, it could backfire in most cases.

An option to ensure the families' ownership while not violating the Amerindian Act is to specify that they own the house as a manufacture made of bricks and would, while not claiming the ownership of the site where the house sits, which continues to be a community ownership regulated by the Village Council. In this way, the house would be made equivalent to a commodity, such as a TV or a refrigerator. As such, families can claim it as their ownership; a commodity that they purchased with their labor investment, and as such they are entitled to keep it.

Once that is defined, the CH&PA-beneficiary agreement should make this arrangement explicit.

### 3. Follow Up with Families and Village Council in Manawarin About Issues of House Ownership

Follow-up work in Manawarin is required, in order to make sure that families have titling or any other form of documentation, and with that the certainty that they will not be displaced from the program house, and/or will not have to make any further payments to the Village Council or anybody else to ensure their ownership of the house. It is also necessary to inform the Village Council that this type of charges should ideally be avoided. In general, it is necessary to make it clear for everybody in the village that families own their houses.

### 4. If Needed, Reach Out to Manawarin's Village Council in Order to Make Sure that Families Have Access to Nearby Land

It might also be necessary to mediate with the Manawarin Village Council, in order to make sure that everyone among the families that decided to re-settle is getting land for farming near their new house. Ideally, all the families that moved to the central village should have land near the village, because their old farms are impossibly far away for them to continue farming there.

### 5. A Follow-Up of the Grid Arrangement in Oronoque Is Recommendable

Before committing to continue an investment in Amerindian housing in Oronoque, a follow-up on the grid model implemented is highly recommendable. The follow-up must take place after families are settled, and they can provide input about their experience with this arrangement.

### 6. Redefine the Partnership between CH&PA and MoAA

The partnership between CH&PA and the Ministry of the Amerindian Affairs might benefit from a re-definition. At the beginning of the pilot program the Ministry's input was extremely valuable because it had the know-how and the direct contact with the Toshaos and Village Councils. From an implementation standpoint, it is evident that CH&PA can now independently carry out a program in the rural Hinterland. However, the partnership should continue so a conversation between ongoing infrastructural



projects can be maintained. For example, the expansion program will include a solar energy component, something that the Ministry has done.

On the other hand, the Hinterland program greatly benefited from the participation CDOs (community development officers) from the Ministry. A viable option is that CH&PA carries out the bulk of the intervention, and MoAA stays in a consulting, supporting, and outreach role, mostly relying on its CDOs.

**GUYANA**

**SECOND LOW-INCOME SETTLEMENT PROGRAM (LISP 2)  
GY-L1019  
HOUSING PILOT IN THE HINTERLAND**

**LESSONS LEARNED: STRUCTURAL QUALITY**

November, 2014

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## **1.2. Structural Quality of the Housing Unit**

When overcrowding and structural quality are compared, it becomes evident that the dimensions of poverty were different between Region One and Region Nine. As mentioned under 1.1.1, the Region Nine original houses of applicants were much bigger comparatively speaking (therefore there was less overcrowding). However, there existed similar issues with regard to the physical quality, partly due to the prevalence of mud brick construction in that region. The next section will detail this and other particularities of poverty in connection to housing conditions (specifically regarding structure, roof, and walls) before the Hinterland program intervention; it will then offer a reflection on the impact of the program on alleviating these conditions. Then an assessment of the performance of village contractors will be offered, and after that the analysis of this indicator will end with recommendations for the future expansion of the program.

### **1.2.1. Analysis of Physical Conditions of Houses Before the Hinterland Program**

#### ***- Structure***

During the 2009 assessment, 33% of the participants reported they needed to immediately move to a new house (Arboleda 2010, Table 7). The reasons included both structural conditions and overcrowding. Also for that year's assessment, 26% of the surveyed participants reported repairs were required in their house, that including roofing, walls, and structural repairs.

Those were general indicators, for a sample of the population that included both the poorest and the better off. The 2011/2012 interviews focused only on those families that Village Councils had identified as the poorest, and pinpointed to the house's structural condition as the reason to move to a new house. For those instances, the indicators were found to be much more serious.

In an overwhelming 89% of the cases in the 2011/2012 sample, the structure was faulty (structure as in the full framing of the house). Additionally, in 32% of those faulty structures (or almost one third of all the applicants in the sample) the house was at risk of collapse (see Table 1.2.1 below).

GENERAL STRUCTURAL CONDITIONS 2011/2012		
CONDITION	No. RESPON SES	%
Repairs needed	16	57%
House at risk to fall down - Immediate move required	9	32%
New or in good condition	3	11%
TOTAL	28	100%

Table 1.2.1: Structural conditions of beneficiaries' houses before the Hinterland Program, on the basis of the cases in which there appear responses written on the 2011/2012 applications to the program. This analysis is based on the last column of Table 1.2.5.

It is worth looking in detail at two other critical components of the house, roof and walls, in the following sections.

### ***- Roofing Material***

By looking at the roofing material of the houses where beneficiaries lived before the program (2011/2012), it is notable how a great majority of them (86%) lived in thatched houses; in a few cases plastic was used to complete the thatch roof (see Table 1.2.2 below). Significantly, thatch palm roofing was an indicator of poverty: the interviewed families in the sample had been identified by the Village Councils as the poorest, and most of them were living in thatched houses.

ROOFING MATERIAL 2011/2012		
MATERIAL	No. RESPON SES	%
Thatch palm	29	78%
Thatch palm and other low quality material (like plastic)	3	8%
Zinc	5	14%
TOTAL	37	100%

Table 1.2.2: Roofing material of beneficiaries' houses before the Hinterland Program, on the basis of the cases in which there appear responses written on the 2011/2012 applications to the program. This analysis is based on the "roofing material" column of Table 1.2.5.

The situation that makes palm thatch burdensome for families is that it quickly deteriorates. The data on Table 1.2.5 powerfully attests for this fact; all the thatch roofs in the sample (100%) were reported in the interviews as defective. This indicates just how common is it that these roofs get deteriorated. Moreover, in 40% of these cases it was required that the roof be immediately changed (see Table 1.2.5).

### **- Walls**

The interviews from 2011/2012 confirm the observation from the 2009 assessment that Region One is wood country and Region Nine is brick's. Among the interviewed households in Table 1.2.5 (summarized in Table 1.2.3 below), in 90% of the Region One sample the house walls were in wood boards, at least partly. As for the remaining houses, they were walled with thatched palm, or the house lacked walls. In total, in 29% of the cases the house was not fully walled, had no walls at all, or it was walled with a temporary material (partially or totally).

MATERIAL OF WALLS 2011/2012			
MATERIAL		No. RESPON SES	%
REGION ONE	Wood	15	71%
	Wood + Other Temporary Material	4	19%
	Thatched Palm	1	5%
	No Walls	1	5%
	REGION ONE - TOTAL	21	100%
REGION NINE	Mud Brick	8	47%
	Mud Brick + Other Material	1	6%
	Burnt Brick	5	29%
	Burnt Brick + Other Temporary Material	2	12%
	Wood	1	6%
	REGION NINE - TOTAL	17	100%
TOTAL		38	

Table 1.2.3: Walling material of beneficiaries' houses before the Hinterland Program, on the basis of the cases in which there appear responses written on the 2011/2012 applications to the program. This analysis is based on the "materials of walls" column of Table 1.2.5.

As for Region Nine, 94% of the houses in Table 1.2.5 were walled with bricks, either partially or totally. Of those, 53% were in mud bricks and 41% in burnt bricks. In 24% of the cases the house walls were incomplete—some walls were built with wood boards or palm leaves, or some were missing. Contrary to Region One, in the sample there were no houses that lacked walls. Besides, there was a smaller percentage (24%, compared to 29% in Region One) of houses where the walling was incomplete: missing walls, or the house was walled with a temporary material.

Regarding the physical conditions of the walls, by the time of this analysis the consultant had a smaller data sample available about this item. In the case of Region Nine, the

sample is limited to the village of Kwatamang. For Region One, Table 1.2.4 shows how, even in the case of families that were living in fully walled houses with wood, the conditions of these walls were deficient. In 50% of the cases (that is, half of the sample), the 2011 interview shows that most of the walls required repairs.<sup>1</sup> In an additional 25%, the walls needed to be immediately changed.

GENERAL CONDITION OF MOST WALLS IN THE HOUSE 2011/2012			
CONDITION		No. RESPON SES	%
REGION ONE	Repairs Required	10	%
	New or in Good Condition	5	%
	Immediate Change Required	5	%
	REGION ONE - TOTAL	20	100%
REGION NINE	Repairs Required	1	%
	New or in Good Condition	1	%
	Immediate Change Required	3	%
	REGION NINE - TOTAL	5	100%
TOTAL		25	

Table 1.2.4: Condition of the walling material of beneficiaries' houses before the Hinterland Program, on the basis of the cases in which there appear responses written on the 2011/2012 applications to the program. This analysis is based on the "general condition of most walls" column of Table 1.2.5.

Interestingly enough, There was a much higher percentage of cases in Region Nine where the walling needed to be immediately changed than there were in Region One (60% versus 25%, far above twice as much). Contrastingly, in a smaller percentage the walling required repairs in this region (20%, vs. 50% in Region One). Albeit keeping in mind that

<sup>1</sup> The percentage of houses where most walls were new or in good condition was not too different, 20% in Region Nine vs. 25% in Region One.



the sample in Region Nine is much smaller, this provides evidence of a common issue that affects mud construction; an adobe wall is hard to fix when issues emerge—it is better to fully replace it; instead, wood gives more time for an intervention.

Defective walls, or the lack of walls, were a motive of great concern among beneficiary families before the Hinterland program. During the interviews for this report, some women in Region One recalled the fear they felt in the old house about their safety in the nights, and the concern about the integrity of their assets when they had to leave the house during the day. In the cases in which the program provided full housing units for those families (that is, 90% of this sample) many of those issues were resolved. Only in two cases, Arakouru numbers 21 and 26—a household living in a house with walls that required repairs, and one whose house had no walls—they were approved for a roofing unit (as opposed to a full unit) by the Village Council. However, in those cases the household size was smaller than the average (7 and 4, in comparison to the 9.23 mentioned in section 1.1).

Also to notice, in the sample there are two cases in which structurally the house was in good condition; those are Whitewater numbers 3 and 5. The house in those cases had a zinc roof, with walls and structure in good standing. In those cases, the beneficiaries qualified for a full subsidy on the basis of overcrowding indicators: those were big households of 11 and 13 people. These contrasting situations make it evident how solving the overcrowding of bigger households was the priority for the full housing component of the program.

### **1.2.2. General Analysis: The Program's Impact on Physical Housing Conditions**

As a whole, the Hinterland program achieved remarkable results in terms of improvements in the physical conditions of housing among the beneficiaries. Among these, there were large households that before the program lived in houses that required repairs in all fronts; roofs, walls, and structural framing. That was for instance the case of Whitewater, interviews nos. 1, 2, and 6, Blackwater no. 19, Arakouru 21, and Manawarin nos. 12 and 14 (Table 1.2.5).

Even worse, there were also large households living in structures that could have collapsed at any point; there was not only a decaying roof and crumbling walls, but the framing structure itself was at risk. That was the case of Arakouru no. 7, a household living in a house with a roof that had to be immediately changed, walls that required repairs, and a structure that was collapsing. Even more dramatic was the case of

Arakouru nos. 8, 9, and 10, houses where everything was falling down—the roof, the walls, and the structure required immediate change.

Particularly serious was the case of Arakouru no. 26; although it was a small household, the roof and the framing structure itself needed to be immediately changed, and the house had no walls at all. Along the same lines was the case of Kwatamang no. 12, where the roof required immediate repairs, the house was missing some walls, and the structure was about to collapse.

In fact, except for only one case (the critical issue in that one being overcrowding), all the houses on Table 1.2.5 demanded some type of intervention, either in terms of repairs, or more drastically, in assisting the family to move out to a new house.

The consultant's team registered great satisfaction among these families for having achieved structurally safe housing, fully walled, and with a durable roof through the Hinterland program.

	INTERVIEW No.	VILLAGE	SUBSIDY	HOUSEHOLD SIZE		PHYSICAL CONDITIONS OF OLD HOUSE (2011 / 2012)				
				2014	2012	ROOFING MATERIAL	GENERAL CONDITION OF ROOF	MATERIALS OF WALLS	GENERAL CONDITION OF MOST WALLS	STRUCTURAL CONDITION OF HOUSE
REGION ONE	1	Whitewater	F+W+T	14	14	Thatched palm	Needs repairs	Wood	Needs repairs	Needs repairs
	2	Whitewater	F+W+T	9	8	Thatched palm	Needs repairs	Wood + thatched palm	Needs repairs	Needs repairs
	3	Whitewater	F+W+T	11	[Empty field]	Zinc	New or in good condition	Wood	New or in good condition	New or in good condition
	5	Whitewater	F+W+T	8	13	Thatched palm	Needs repairs	Wood	New or in good condition	New or in good condition
	6	Whitewater	F+W+T	8	8	Thatched palm	Needs repairs	Wood	Needs repairs	Needs repairs
	18	Blackwater	R+W+T	8	8	Thatched palm	Needs repairs	Wood	New or in good condition	Needs repairs
	19	Blackwater	R+W+T	13	8	Thatched palm	Needs repairs	Wood	Needs repairs	Needs repairs
	7	Arakouru	F+W+T	9	6	Thatched palm	Needs immediate change	Wood	Needs repairs	Needs immediate change
	8	Arakouru	F+W+T	16	8	Thatched palm	Needs immediate change	Wood + thatched palm	Needs immediate change	Needs immediate change
	9	Arakouru	F+W+T	15	6	Thatched palm	Needs immediate change	Thatched palm	Needs immediate change	Needs immediate change
	10	Arakouru	F+W+T	10	10	Thatched palm	Needs immediate change	Wood	Needs immediate change	Needs immediate change
	11	Arakouru	F+W+T	10	10	Thatched palm	Needs repairs	Wood	Needs immediate	Needs repairs

									change	
	21	Arakouru	R+W+T	5	7	Thatched palm	Needs repairs	Wood	Needs repairs	Needs repairs
	26	Arakouru	R+W+T	5	4	Thatched palm	Needs immediate change	Wood [field on the right indicates no walls]	No walls	Needs immediate change
	23	Arakouru	R+W+T	6	6	Thatched palm	Needs immediate change	Wood	New or good condition	New or good condition
	25	Arakouru	R+W+T	9	14	Thatched palm	Needs repairs	Wood	New or good condition	Needs repairs
	12	Manawarin	F+W+T	9	8	Zinc	Needs repairs	Wood	Needs repairs	Needs repairs
	14	Manawarin	F+W+T	8	9	Thatched palm + other poor quality material	Needs repairs	Wood	Needs repairs	Needs repairs
	15	Manawarin	F+W+T	8	8	Zinc	New or in good condition	Wood	Needs repairs + some walls	Needs repairs
	16	Manawarin	F+W+T	8	7	Thatched palm	Needs immediate repairs	Wood + other poor quality material	Needs repairs + some walls	Needs repairs
	17	Manawarin	F+W+T	14	13	Thatched palm	Needs repairs	Thatched palm + other poor quality material	Needs immediate change	Needs repairs
REGION NINE	3	Kwatamang	F+W+T	6	10	Thatched palm	Needs immediate change	Brick [incomplete]	Need some walls	Needs repairs
	5	Kwatamang	F+W+T	8	8	Thatched palm	Needs repairs	Brick	[Empty field]	[Empty field]
	6	Kwatamang	F+W+T	6	5	Thatched palm	Needs repairs	Wood	Needs immediate change	Needs immediate change
	8	Kwatamang	F+W+T	7	3	Thatched palm	Needs	Mud brick	Needs	Needs

							immediate change		immediate change	immediate change
9	Kwatomang	F+W+T	5	5	Thatched palm	Needs repairs	Brick + Wood board	Needs immediate change	Needs immediate change	
10	Kwatomang	F+W+T	6	14	Thatched palm + other poor quality material	Needs immediate change	Mud brick	Needs repairs	Needs repairs	
12	Kwatomang	F+W+T	4	7	Thatched palm + other poor quality material	Needs immediate repairs	Mud brick [incomplete]	Need some walls	Needs immediate change	
7	Kwatomang	R+W	7	8	Thatched palm	Needs repairs	[Empty field]	New or in good condition	Needs repairs	
17	Annai	F+W+T	4	5	[Empty field]	Needs immediate change	Mud walls	[Data not available to consultant]	[Data not available to consultant]	
19	Annai	F+W+T	8 (1 in brazil )	8	Thatched palm	Needs immediate change	Mud brick with wattle	[Data not available]	[Data not available]	
20	Annai	F+W+T	2	2	Zinc	Needs immediate change	Mud brick walls	[Data not available]	[Data not available]	
22	Annai	F+W+T	9	9	Thatched palm	Needs immediate change	Mud brick	[Data not available]	[Data not available]	
23	Annai	F+W+T	8	1	Thatched palm	Needs immediate change	Brick, boards + leaf	[Data not available]	[Data not available]	
26	Annai	F+W+T	6	9	Zinc	New or in good condition	Brick	[Data not available]	[Data not available]	
27	Annai	F+W+T	1	2	Thatched palm	Needs repairs	Mud brick wall	[Data not available]	[Data not available]	

	28	Annai	F+W+T	7	7	Thatched palm	Needs immediate change	[Empty field]	[Data not available]	[Data not available]
	18	Annai	R+W	2	3	Thatched palm	Needs repairs	Brick	[Data not available]	[Data not available]
	21	Annai	R+W	2	4	Thatched palm	Needs repairs	Mud walls	[Data not available]	[Data not available]
	29	Annai	R+W	7	9	Thatched palm	Needs repairs	Brick	[Data not available]	[Data not available]

Table 1.2.5: Different structure-related conditions of beneficiaries' houses before the program. The information on this table is extracted from the original 2011/2012 application interviews, specifically from the questions that related to the structural quality of the housing unit. The wording is the same as in the original forms. Not all the fields were entered by the interviewer or were available to the consultant, therefore the observations on structural conditions are based on different subsets of the sample.

In square brackets - []: comments added to fields for this analysis.

### **1.2.3. Assessment of the Village Contractors' Work**

A central proposition of the Hinterland program was to hire all the labor from the villages themselves, as opposed to importing contractors from Georgetown, which is common practice in public infrastructure construction in Hinterland villages. The goal with this approach was to have most of the investment go directly to the beneficiary villages, by that bringing a much-needed source of income during the program execution.

This proposition was based on a key finding from the 2009 assessment. Although there is great building expertise in the Hinterland, only a handful of builders are able to make their expertise into an income-generating activity. In the 2009 study sample, 73% of the consulted villagers had building expertise, but only 8% had ever been paid to use it (Arboleda 2010, Table 12).

For the Hinterland Program, village builders were hired in all roles, from ordinary laborers to masons, carpenters, and up to level of clerks of works.

Fully relying on local labor was a daring proposition that had not been tried before in public infrastructure construction in the Hinterland that is funded by outside-based entities. How did this premise materialize? Is it possible to carry out a relatively large-scale housing intervention in the Guyana Hinterland, without relying on outside developers?

The quantitative assessment of the contractors' performance supports an overwhelming yes. In general terms, the work that village contractors did was superb. The quality of the construction by far surpasses that of outside developers that have done infrastructural work in the beneficiary villages. Particularly in Region Nine, the quality of the pilot houses is impressive, both in terms of structure and finishes.

As for the families' own assessment of the village contractors, their levels of satisfaction with the quality of the work are in fact very high, over 75% (see Tables 1.2.6 and 1.2.7). Out of the 70 interviewed families for this study, only a comparatively small number (17), reported issues with the contractors' work, and these being relatively minor issues. In most cases, the issues are about common defects in construction, and are easily solvable on the users' side.

Table 1.2.7 lists all the issues that beneficiaries mentioned when the consultant and his assistants explicitly asked, for the purposes of this study, whether there existed any (this

was one of the questions in the interview). Only in very few cases the beneficiaries themselves volunteered mentioning issues without having been asked first.

In most cases, the interviewed beneficiaries cited only one issue with the construction; only in a few there was more than one complaint. In one unique case the beneficiary noted six issues; in another, there were four issues noted. The breakdown of common issues is detailed on Table 1.2.6.

As Table 1.2.7 shows, most mentions to issues came from Region One beneficiaries (59%). Looking at the houses overall, the quality of the construction in Region Nine seems in fact better, especially in the area of final finishes. This can be explained by two factors. First, most of the construction work in Region One involved woodwork. Wood arguably demands more intricate labor than masonry; it demands more care, and therefore the risk of defects is higher; wood is unforgiving with those defects. This type of construction is also affected by the quality of the material. How and when is the wood cut, and how is it treated, are factors that have an immediate incidence on the quality of the construction in every single sense. A poorly treated wood can get bent, split, get bugs, and/or easily rot.

The second reason is that builders in Region One had less experience in taking contracts before the program. This is demonstrated by the 2009 assessment; in the sampled villages of Region One (Whitewater, its satellite villages, and Manawarin) there was an average of only 3% professional builders among the villagers in that sample. By contrast, the average among the Region Nine villages (Kwatamang, Annai, and Massara) was much higher, 10% (see Arboleda 2010, Table 2).

Very important to note, during the inspection of the houses for this study the consultant did not find any case in which the issue of craftsmanship was extensive to the structural quality of the houses. Most of the issues that families point out to in Table 1.2.6 refer to enclosure, rather than structure. Structurally the work was of good quality across the board.

There was one case in which the contractor did not brace the structure on the lower level. Except for that, the consultant did not note any other issue in which the stability of the new house was compromised. This, as well as other issues that beneficiaries pointed out to, are easily solvable on the users' side; in the particular case of the bracing, for example, the issue is about completing the work, rather than re-building it.



VILLAGE CONTRACTORS' WORK - COMMON ISSUES	
1) Nail leaks on zinc roof	28%
2) Quality of some materials	16%
3) Incomplete work	16%
4) Deterioration of staircase, or other staircase-related issues	12%
5) Door-related issues	12%
6) Missing wood pieces	8%
7) Quick deterioration of wood pieces	8%

Table 1.2.6. Common issues about the construction by village contractors, as reported by beneficiaries. The percentage is calculated on the basis of 25 issues that were mentioned in total.

By far, the most cited issue by beneficiaries was nail leaks. These leaks happen through small fissures that come naturally out of the process of nailing; they are common in zinc roofing. The loss of water through a regular nail leak is generally small, so this defect does not affect the ability of households to keep their access to safe water. It can, however, affect the durability of the rafters, which are normally in softer woods and therefore are prone to damage by humidity. If the leak also permeates to walls and floors, it can also affect the durability of these. Beneficiaries reported they were coping with these leaks by placing pots to collect the leaked water. This is a nuisance, and can be easily solved by patching the holes with a leak sealant, as will be mentioned under the recommendations section.

Also cited were the quality of some materials (mentioned under items nos. 2 and 7 on Table 1.2.6), and incomplete work (items 3, 5, and 6). The first is not accountable to contractors in the cases in which they had to deal with material that somebody else had provided. As for incomplete work, it needs to be noted that in some cases this issue originated with the users' own failure to comply with their own labor investment. This posed a burden on the contractor, who could not complete the work within the contractual time.

Yet, in all fairness, there were also cases in which the contractors' work ethics did influence their work quality. The builders were selected by the Village Councils, and

after being vetted by CH&PA they were offered contracts on the basis of their previous work expertise, as well as their personal integrity.

Just like in any other case beyond Amerindian villages, individual attitudes with regard to the work were varied. While some builders saw the program as an opportunity to make a profit and tended to work rather hastily in order to quickly move to the next house, others became personally invested in the project, making their best effort and often spending extra, unpaid time in the careful construction of every house.

In any case, as Table 1.2.7 shows, in most cases of incompleteness the contractors were actually almost done with the work. For example, only doors were missing to be installed, but the contractor had already built the door. The missing work was in reality very minimal, and solvable on the beneficiaries' side. This was in fact already happening when the consultant's team carried out their interviews for this assessment. Some families reported in the interviews they had already fixed the issue. Even in one case in Manawarin, the family had already procured the zinc by their own means.

There were some extreme cases in which contractors abandoned the work because, for instance, they ran into an opportunity to make more cash working with gold in Region One, or laboring in Brazil in the case of Region Nine. To deal with that issue, during the expansion of the program to Region Nine and in consultation with the Village Councils, CH&PA cleverly changed the contractual model, from signing individual contracts to signing contracts with the Councils themselves as legal entities. This was effective on several fronts. On the one hand, it ensured that if one contractor failed then the Village Council would find a substitute to complete the work. It also minimized the amount of work on the CH&PA side, because the office then had to process only one construction contract per village. Finally, it strengthened the role of the Village Councils because signing individual contracts also meant that the contractors directly dealt with CH&PA, therefore bypassing the Councils' authority.

Lastly, added to the issue of completeness there were also beneficiaries' mentions to the rapid deterioration of stairs due to humidity in Region One. This issue is limited to the treads or steps, rather than the structure of the staircase, which is in hardwood and therefore more resistant to humidity. Due mostly to the timber cost, the Region One full housing unit was expensive for the program. That forced CH&PA to make the difficult decision of delivering the houses without roofing above the stairs. Ironically, that issue could have been easily solved during the program execution because there was ultimately some zinc left from the original assignment to families; a good number of houses required less than the 34 sheets initially budgeted. Although that extra material could

have been used to roof the stairs, Village Councils decided to re-assign it to other families not covered by the program, six additional families that are not counted officially as part of the program (for a total of 214). This village decision was a good one, because it was focused on priorities; the zinc was not as urgently needed on the stairs as it was to housing other families. A concern, however, is that as time passes more houses will undergo this deterioration. Yet again, some families had already taken matters in their own hands, and had roofed the stairs with palm, as well as zinc they had procured by themselves.

In conclusion, the premise of fully relying upon village contractors was a notable success for the program, and it offers one of the most important lessons learned from this experience. Infrastructure projects among Hinterland Amerindian villages can be successfully carried out by fully relying upon local labor, in all roles and responsibility levels.

BENEFICIARIES' OWN ASSESSMENT OF VILLAGE CONTRACTORS' WORK – DATA LIMITED TO ISSUES				
	INT.#	VILLAGE	ISSUE	CONTRACTOR
REGION ONE	1	Whitewater	Back stairs uncovered (says Toshao took zinc to give it to someone in more need)	N. R.
	4	Whitewater	Steps in both staircases are very deteriorated due to humidity, termites, and lack of zinc cover	H. H.
	5	Whitewater	Slight water damage on stairs	H. J.
	6	Whitewater	House needs bracing	D. O.
	7	Arakouru	Contractor put plywood above wall	W. F.
	8	Arakouru	Door to balcony is missing	W. F.
			Several nail-related leaks	
	9	Arakouru	No hinges for balcony door	H. J.
			Wood frames missing for roof	
	12	Manawarin	Door wasn't installed properly, but problem has been fixed	N. M.
	15	Manawarin	Leaks from nails on roof	R. J.
	16	Manawarin	3 main leaks	N. W.
			1 zinc sheet is in terrible condition	
			Many zinc sheets have dents	
			Water damage	
			Unfinished water system	
			First step in poor cement mix	
REGION NINE	1	Kwatamang	Small leak in zinc in multi purpose room	N. E.
	4	Kwatamang	Wood under zinc is starting to rot	N. E.
	8	Kwatamang	Several leaks	N. E.
	16	Annai	Wasn't complete (cement, door frame, toilet), no window bolts	D. T.
	3	Massara	Contractor didn't finish + left with the money	M. M.
	9	Massara	leak in roof because of nail	J. B.
	10	Massara	Leak in MP room	K. J.
			verandah didn't finish	R. J.

Table 1.2.7. Beneficiaries' own assessment of village contractor's work, as recorded in 2014. Data only limited to the cases where beneficiaries pointed to any issues (17 out of 70). The data are also limited to the program's full housing units; the roofing units were self-built and no issues were indicated by beneficiaries about the quality of their own construction, which is expectable. The issues are worded as they appear in the original interview paper forms.

#### **1.2.4. Recommendations from Lessons Learned on Structural Quality Indicator**

##### **1. The Construction Component of a Program Expansion Can Be Carried Out By Relying Exclusively upon Local Labor in All Roles**

The construction of the LISP II pilot has demonstrated that it is possible to execute a housing infrastructure project in the Guyana Hinterland by relying exclusively upon village labor. This is one of the most significant lessons learned from the pilot program, and one that should be central to any new housing intervention in the Hinterland. The program expansion should maintain this spirit, and avoid hiring outside developers. When labor is not locally available because, for example, people have migrated or are working in other fields, the program can safely rely upon hiring builders from other villages. As an example of how this approach can work, during the pilot program a clerk of works from Whitewater successfully directed the work in Oronoque.

##### **2. The Role of Village's Clerks of Works is Critical to Ensure the Good Quality of the Program's Houses**

The role of clerks of works is critical to ensure the quality of the construction in the program. Special care should be placed on the case of Region One, where the houses are built with timber, which is a material naturally prone to defects in the construction. For a future expansion, it is imperative to continue offering support to the clerks of works, so they feel entitled to refuse any wood of poor quality, and to enforce full completeness of the construction work.

##### **3. The Best Contractors from the Pilot Program Could Be Hired to Spearhead the Program in New Villages**

In connection to the previous recommendation, from the pilot program a base of ethical contractors capable to deliver work of great quality has been identified. For a program expansion to new villages, and given that these contractors know well how does the program work, they could be hired to spearhead the intervention in the role of clerks of works if required.

#### 4. Houses in Region One Should Be Delivered with A Full Roofing Over Staircases

For the program expansion in Region One, it is not advisable that full houses are delivered without a roofing over the staircases. Any savings in roofing material come at the cost of a quick deterioration of stairs. In the cases where it is difficult for families to quickly act on the replacement of treads, this would affect their ability to safely access the house. Besides, the extra roofing cost might not be too high after all; in many cases there was remaining zinc from the original assignation of 34 sheets per household. Village Councils decided to use that extra zinc to house more families. Although this was a sensible decision, it does not seem worthwhile to spread the project too thin at the cost of a quick deterioration of what is a central element in the house.

#### 5. Consider Acting on Issue of Leaks by Procuring Sealant for Village Councils

A small yet meaningful action during the program expansion is to supply Village Councils with a few pints of roof sealant. The Councils could use this material to support families in fixing the roof leaks, which is a simple task once the sealant is available—it is not easy to get in the villages. This is an absolutely minimal expense for the program, yet one that will have a great impact on the beneficiaries and other families that are undergoing this issue. As an option, sealant could be included in the budget per house, and provided directly to each beneficiary.

**GUYANA**

**SECOND LOW-INCOME SETTLEMENT PROGRAM (LISP 2)  
GY-L1019  
HOUSING PILOT IN THE HINTERLAND**

**QUANTITATIVE EVALUATION OF HOUSING INDICATORS**

November, 2014

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## **2. QUANTITATIVE EVALUATION ON THE BASIS OF 2009 BASELINE INFORMATION**

The first part of this report detailed the particular outcome of the Hinterland program with regard to the five baseline items (overcrowding, structure, water, sanitation, and tenure). In this second part, the report details the results of a quantitative evaluation of the program, on the basis of the baseline numbers gathered in 2009.

### **2.1. Baseline (2009)**

The baseline information to evaluate the Hinterland program is provided in the 2010 report of the 2009 assessment, under the section named “Baseline Information for this Program” (Arboleda 2010, 45). The specific numeric indicators are in table 10 of that section. The whole section is reproduced here for the convenience of the reader.

“

From the indicators in the previous section it can be concluded that a very high percentage of households in these communities are living under inadequate housing conditions (74%, or 7 in 10 as table 10 shows). These conditions are: inadequate access to water and sanitation, poor quality of housing units, overcrowding, and/or low or no security of tenure. The high percentage demonstrates the need for this pilot program:

- Nearly 9 in each 10 households have inadequate access to water.<sup>1</sup>
- Nearly 10 in 10 have inadequate access to sanitation (if pit latrines are considered inadequate).<sup>2</sup>
- In 8 out of 10 cases there are issues with the quality of the housing unit (In particular, issues with materials or the present condition of the house).
- 9 in each 10 houses are overcrowded.
- There are no major issues with security of tenure. In this regard, only the case of Oronoque needs to be addressed (Oronoque makes up for 23% of the consulted households in Region 1).

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<sup>1</sup> Using data from table 3, and only considering from those data [the access to] pump water and rainwater as adequate access to water.

<sup>2</sup> The method used for the assessment did not allow to determine the exact number of pit latrines that currently are sufficiently ventilated. A more detailed appraisal will make it possible to know this exact number. The percentages here will then be smaller, given that this estimate is only considering a sewage system and a septic tank/washroom system as adequate sanitation.

Table 10 offers a per-region consolidated summary of the five baseline indicators of housing conditions mentioned above. On the basis of this consolidated set of results, CH&PA will be able to perform a general impact evaluation at the end of this pilot program. This evaluation will be useful to assess the feasibility of expanding the program (See section VII, ‘Evaluation of the feasibility to scale up the pilot’).

Indicator		Region 1	Region 9	Average
Inadequate access to water		83% <sup>3</sup>	88%	86%
Inadequate access to sanitation		95%	99%	97%
Poor quality of housing unit	Because of location	0%	0%	84%
	Because of materials	44% <sup>4</sup>	57%	
	Because of present condition	32% <sup>5</sup>	34%	
	TOTAL	76%	91%	
Overcrowding		86%	94%	90%
Low or no security of tenure		23%	0%	12%
<b>TOTAL</b> Average of the five indicators		73%	74%	74%

Table 10. Baseline indicators for the evaluation of this program.

”

<sup>3</sup> This number means: What percentage of the population has inadequate access to water?

<sup>4</sup> Counting here only inadequate materials from data in table 5: thatched palm and asbestos. For more information on palm as an inadequate material refer to section V.A.1.c)(2)(b) (“Issues of conservation and adequate building materials”).

<sup>5</sup> Data from table 7: “In need to immediately move to a new house.”

## 2.2. Baseline Analysis

A peculiarity of the 2009 baseline above is that the parameter for some indicators appears posed in negative terms, whereas it is in the positive for others. For example, the access to water indicator refers to who *does not* have access to water, whereas overcrowding refers to who *does* live in an overcrowded house.

In order to perform a consistent evaluation it is necessary first to normalize the data by using a consistent parameter. Table 2.2.1 below shows the normalized version of the baseline, where all the indicators are listed in a positive form. In the case of the first one, water access, the percentage listed is now that of households who *do* have access (as of 2009). The numbers remain the same, but the supplementary number to reach 100% is used instead. Rather than displaying 83% (the percentage of those who do not have access), the table now shows 17% (the percentage that do have).

As for the second indicator, sanitation access, data from 2009, 2011/12, and from the 2014 field research for this report show that pit toilets are the most widely used sanitation solution in the rural Hinterland. However, for the 2009 baseline every single type of pit toilet, regardless of its condition, was considered inadequate—only a sewage system and a flush toilet were considered adequate sanitation indicators. This happened because prior to the program there was little knowledge of the Hinterland conditions available to the program implementation unit as a whole. As mentioned under section 1.4.3 of Part 1, aiming to achieve conventionally urban sanitation infrastructure might be an over-expectation for these areas of the Guyana Hinterland. It would be very hard to implement, and possibly it would not be recommendable to implement it after all, because of the water over-consumption and contamination issues that the use of flush toilets presents.

Interestingly, the 2009 baseline document does state a caveat: “if pit latrines are considered inadequate.” As for the question of when is a pit latrine inadequate, a viable answer is: When it does not follow the WHO guidelines on depth, location, keeping the water and insects away, and covering the pit after it is full (WHO 2006, 80-81). During the 2009 research the consultant did not perform an assessment about pit latrines that was so fine-grained. The only specific number gathered regarding toilets was that of families that did not have a toilet at all. Since that is the only specific indicator from 2009, it is the only one that can be strictly evaluated.

The numbers for this item come from subtracting from 100 the percentages on the ownership of toilets from table 4 of the 2009 baseline (Arboleda 2010, 46). The question

of whether the family had a toilet was not directly asked out of privacy considerations at that point of the program, as the 2010 report itself explains.

As for the third indicator on the quality of the housing unit, it will be also listed in a positive form in the reinterpreted table; rather than citing the families living in bad housing, the supplementary number of those living in good housing will be given.

This indicator includes three sub-indicators in the 2009 baseline: location, materials, and present condition. The first is households living in geologically/topographically unsafe locations, which is the criterion from the MDGs upon which these indicators are based. This was largely a non-issue in the eight villages and the baseline shows it. For the normalized version 100% (safely located house) will be used, as opposed to the original 0% (unsafely located).

The second sub-indicator is limited to roofing materials (that is what the percentage in 2010, table 4 is about). The reason is that only conditions that would force families to move immediately to a new house were considered for the baseline, and wall conditions were not regarded to be one of them. For this sub-indicator, the 2009 appraisal recorded the good quality materials along with the poor quality ones (table 5 in Arboleda 2010); those data will be used in the normalized version instead of the later.

In the case of present condition, it refers to present factors that demand an immediate move to a new house. For the normalized baseline it is assumed that the supplementary number to 100 converts to the positive; that is, since 32% of participants declared the urgent necessity to move out, the opposite, or 68%, is listed: those who did not declare having that need.

The data collected about this sub-indicator in 2009 include not only the structural quality of the house, but also responses about overcrowding, marriage, and intra-family conflict, as is indicated under the “transitory housing units” section of the 2009 assessment (2010, 40). Therefore, the consolidated under this indicator in table 10 considers low quality of housing within an ample range, including physical and social factors. During the 2014 evaluation interviews only the physical factors were accounted for. That does not negatively affect the evaluation in so far as the final numbers are on the conservative side.

The above three sub-indicators of housing quality are not totaled in the normalized baseline. The average under the last column of that indicator now reflects the specific average for each sub-indicator. This allows for evaluating the housing quality in more

precise detail. It also allows to overcome an issue with totaling it, which is the fact that there is some overlapping between the condition of the roof and the households that need to urgently move due to the condition of the roof. The 32% originally listed under “because of present condition” includes households from the 44% listed under “materials,” those living in palm roofed houses that needed to move immediately because of that.

Finally, for the overcrowding and security of tenure indicators, the 100 percent-base supplementary of the original percentage will be used. With that, the parameters for these indicators, which were “overcrowding” and “low or no security of tenure,” appear now as “no overcrowding” and “security of tenure.”

The indicators in the normalized table are not totalized, so as to allow evaluating the change in terms of five specific housing conditions.

On the basis of the above considerations, table 10 appears translated below as table 2.2.1, or normalized baseline. A description field is added to this table for the convenience of the reader.

INDICATOR		DESCRIPTION	REGION 1	REGION 9	AVERAGE <sup>6</sup>
Access to water		Percentage of 2009 appraisal participants with adequate access to water	17%	12%	14%
Access to sanitation		Percentage of participants with adequate access to sanitation, considering the caveat on pit toilets described at the beginning of section	95%	82%	87%
Quality of housing unit	Location	Percentage of participants living in a house that is safely located	100%	100%	100%
	Materials	Percentage of participants living in a house that is roofed with good quality materials.	36%	35%	35%
	Present condition <sup>7</sup>	Percentage of appraisal participants that do not express the need to urgently move to a new house	68%	66%	67%
No overcrowding		Percentage of participants that are not living in overcrowded structures	14%	6%	10%
Security of tenure		Percentage of participants that have security of tenure	77%	100%	88%

Table 2.2.1. Normalized baseline data from Arboleda 2010, table 10. All the data in this version are focused on “who does,” as opposed to combining this with “who does not.” In particular, this table shows what percentage of households are fine with regard to each given indicator (as of 2009).

<sup>6</sup> This is the average from computing the data from eight villages, rather than computing from the two regions’ partial averages.

<sup>7</sup> In general, this indicator is the percentage of the 2009 appraisal participants that were generally fine staying within the same housing structure, that is, where there was no immediate need to move to a new house.

### 2.2.1. Baseline Data, Distributed by Village

Using itemized tables, this section explains in detail where the data on the baseline (table 2.2.1) came from. The ultimate goal of this section is to break down the data on that table for each specific village, in order to be able to perform a comparison that is focused on the villages that were sampled for this evaluation, and with that to have a more accurate idea of the program's impact. All the data in this section are extracted from different tables in Arboleda 2010. On the basis of those data, each item in table 2.2.1 is explained in the next pages.

#### - Access to Water

The access to water numbers in table 2.2.1 originate from Arboleda 2010, table 3. They result from adding the values from pumps and water tanks use; these were, for the program baseline, considered the only two indicators of access to safe water.

COMMUNITY  ACCESS TO WATER	Region 1				Region 9						AVERAGE <sup>8</sup>
	Oronoque	Whitewater	Manawarin	R1 AVERAGE	Kwatamang	Annai Central	Apoteri	Massara	Katoka	R9 AVERAGE	
Pump (community infrastructure)	0%	14%	0%		0%	17%	6%	6%	6%		6%
Tank - rainwater (own)	15%	21%	2%		8%	7%	8%	2%	0%		8%
TOTAL	15%	35%	2%	17%	8%	24%	14%	8%	6%	12%	14%

Table 2.2.2. Data from Arboleda 2010, table 3, totaled as row 1 (access to water) in table 2.2.1 of this report. In gray background are the totals that appear averaged in table 2.2.1, and detailed in 2.2.7.

<sup>8</sup> Average, after adding the data from the eight villages and dividing into 8.

**- Access to Sanitation**

The access to sanitation numbers are extracted from 2010, table 4.

<div>ACCESS TO SANITATION</div> <div>COMMUNITY</div>	Region 1				Region 9						AVERAGE
	Oronoque	Whitewater	Manawarin	R1 AVERAGE	Kwatamang	Annai Central	Apoteri	Massara	Katoka	R9 AVERAGE	
Sewage system	0%	0%	0%		0%	0%	0%	0%	0%		0%
Pit latrine (outhouse in own property)	88%	97%	87%		62%	92%	93%	89%	70%		85%
Washroom/bathroom with septic tank (in own house, inside)	12%	0%	2%		0%	3%	0%	0%	0%		2%
TOTAL	100 %	97%	89%	95%	62%	95%	93%	89%	70%	82%	87%

Table 2.2.3. Data from Arboleda 2010, table 4, totaled as row 2 (access to sanitation) in table 2.2.1 of this report. In gray background are the totals that appear averaged in table 2.2.1, and detailed in 2.2.7.

**- Quality of Housing Unit**

The numbers for this indicator originate from 2010, table 5 (quality of housing units) and table 7 (housing needs).



		Region 1				Region 9						AVERAGE
		Oronoque	Whitewater	Manawarin	R1 AVERAGE	Kwatamang	Annai Central	Apoteri	Massara	Katoka	R9 AVERAGE	
Safe location		100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
Roofing material of sleeping core	Thatched palm	51% <sup>9</sup>	60%	20%		42%	57%	47%	52%	78%		
	Asbestos	0%	0%	0%		1%	7%	0%	0%	2%		
	TOTAL – POOR QUALITY <sup>10</sup>	51%	60%	20%	44 %	43%	64%	47%	52%	80%	57%	52%
	Zinc	17% <sup>11</sup>	29%	62%		30%	37%	53%	43%	5%		34%
	Shingle	0%	0%	0%		0%	0%	0%	4%	2%		1%
	TOTAL – GOOD QUALITY <sup>12</sup>	17%	29%	62%	36 %	30%	37%	53%	47%	7%	35%	35%
Housing needs	In need to move	39%	36%	21%	32 %	15%	33%	47%	52%	23%	34%	33%
	No declared need to move	61%	64%	79%	68 %	85%	67%	53%	48%	77%	66%	67%

Table 2.2.4. Data from Arboleda 2010, tables 5 and 7, totaled as row 3 (quality of housing unit) in table 2.2.1 of this report. In gray background are the totals that appear averaged in table 2.2.1, and detailed in 2.2.7.

<sup>9</sup> The value 51% = 39/76. The community leader provided the information only for the “Louisville Group,” 76 families.

<sup>10</sup> These were the numbers reported in the 2010 baseline.

<sup>11</sup> The value 17% = 13/76. Similar as in the 51% for the thatched palm, estimated on the basis of a 76-family sample.

<sup>12</sup> These are in-the-positive numbers that are used for the normalized baseline; i.e., they represent who has housing of good quality, as opposed to who does not.

**- No Overcrowding**

The numbers for this table are obtained from 2010, table 8. For this indicator, the baseline took into account only two-people households. The logic was that those would be the only households that qualified as not enduring overcrowding, following the MDG norm of max. two people per room, and given that a majority of houses had only one room, and that, as seen under table 1.1.1 of Part 1, they were generally small (often room-size) houses.

<div> <div>COMMUNITY</div> <div>SIZE OF HOUSEHOLD</div> </div>	Region 1				Region 9						AVERAGE
	Oronoque	Whitewater	Manawarin	R1 AVERAGE	Kwatamang	Annai Central	Apoteri	Massara	Katoka	R9 AVERAGE	
2-person households	9%	27%	7%	14%	0%	0%	20%	9%	2%	6%	10 <sup>13</sup>
TOTAL	9%	27%	7%	14%	0%	0%	20%	9%	2%	6%	10%

Table 2.2.5. Data from Arboleda 2010, table 8, totaled as row 4 (no overcrowding) in table 2.2.1 of this report. In gray background are the totals that appear averaged in table 2.2.1, and detailed in 2.2.7.

<sup>13</sup> Different than in the cases of the previous three indicators, the average baseline for this indicator was estimated from dividing into two the averages from the two regions, rather than dividing into eight the values from the separate villages. The same was done for the last indicator, security of tenure. There was no particular reason to do that, and it is an inconsistency in the baseline. The results, however, are not too different in the first case and not too relevant in the second.

**- Security of Tenure**

This indicator takes into account the numbers from Oronoque, the only village where there existed issues with security of tenure in 2009.

<div> <div>COMMUNITY</div> <div>TENURE STATUS</div> </div>	Region 1				Region 9						AVERAGE
	Oronoque	Whitewater	Manawarin	R1 AVERAGE	Kwatamang	Annai Central	Apoteri	Massara	Katoka	R9 AVERAGE	
No security of tenure	23%	0%	0%	8%	0%	0%	0%	0%	0%	0%	12%
TOTAL - WITHOUT TENURE	23%	0%	0%	8%	0%	0%	0%	0%	0%	0%	12%
TOTAL – WITH TENURE	77%	100 %	100 %	92%	100 %	100 %	100 %	100 %	100 %	100 %	88%

Table 2.2.6. Data from Arboleda 2010, totaled as row 5 (security of tenure) in table 2.2.1 of this report. In gray background are the totals that appear averaged in table 2.2.1, and detailed in 2.2.7.

### 2.2.2. Baseline Indicators by Village (2009)

Below is a consolidated from tables 2.2.2 to 2.2.6, showing the baseline indicators (table 2.2.1), now separated by village. Since location was largely a non-issue, it will be removed from this version of the baseline.

COMMUNITY  BASELINE INDICATOR		Region 1				Region 9					AVERAGE	
		Oronoque	Whitewater	Manawarin	R1 AVERAGE	Kwatamang	Annai Central	Apoteri	Massara	Katoka		R9 AVERAGE
Access to water		15%	35%	2%	17%	8%	24%	14%	8%	6%	12%	14%
Access to sanitation		100 %	97%	89%	95%	62%	95%	93%	89%	70%	82%	87%
Good quality of housing unit	Materials	17%	29%	62%	36%	30%	37%	53%	47%	7%	35%	35%
	Present Condition	61%	64%	79%	68%	85%	67%	53%	48%	77%	66%	67%
No overcrowding		9%	27%	7%	14%	0%	0%	20%	9%	2%	6%	10%
Security of tenure		77%	100 %	100 %	92%	100 %	100 %	100 %	100 %	100 %	100 %	88%

Table 2.2.7. Consolidated from tables 2.2.2 to 2.2.6. This is the 2009 baseline in table 2.2.1, now showing a per-village detail.

For the purposes of this evaluation, the data from the baseline will be narrowed down to the sampled villages, in order to allow for more accurate observations.

As explained under the research method section in the introduction of this report, the field research for the present evaluation was carried out in five out of the eight villages. Table 2.2.8 below shows the data from table 2.2.7, now restricted to those villages.

<div> <div>COMMUNITY</div> <div>BASELINE INDICATOR</div> </div>		Region 1			Region 9				AVERAGE - TOTAL
		Whitewater	Manawarin	AVERAGE	Kwatamang	Annai Central	Massara	AVERAGE	
Access to water		35%	2%	18%	8%	24%	8%	13%	15%
Access to sanitation		97%	89%	93%	62%	95%	89%	82%	86%
Good quality of housing unit	Materials	29%	62%	46%	30%	37%	47%	38%	41%
	Present Condition	64%	79%	72%	85%	67%	48%	67%	69%
No overcrowding		27%	7%	17%	0%	0%	9%	3%	9%
Security of tenure		100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %

Table 2.2.8. The 2009 baseline, here narrowed down to the five villages that constituted the sample for this evaluation.

This will be the final baseline table against which the evaluation will be performed.

### 2.3. Quantitative Evaluation

Table 2.3.1 below shows how do the 2009 housing conditions shown in table 2.2.8 look as of 2014 for the 208 families that were beneficiaries of the Hinterland program. The 2014 data in this table comes from the quantitative analysis in Part 1 of this report.

<div> <div>BASELINE INDICATOR</div> <div>REGION</div> </div>		AVERAGES					
		REGION ONE		REGION NINE		TOTAL	
		BEFORE PROGRAM - GENERAL	AFTER PROGRAM - BENEFICIARIES	BEFORE PROGRAM - GENERAL	AFTER PROGRAM - BENEFICIARIES	BEFORE PROGRAM - GENERAL	AFTER PROGRAM - BENEFICIARIES
Access to water		18%	100%	13%	100%	15%	100%
Access to sanitation		93%	100%	82%	90%	86%	95%
Good quality of housing unit	Materials	46%	100%	38%	100%	41%	100%
	Present Condition	72%	100%	67%	100%	69%	100%
No overcrowding		17%	46%	3%	100%	9%	73%
Security of tenure		100%	100%	100%	100%	100%	100%

Table 2.3.1. Housing indicators for the general population before the Hinterland program (2009), compared to indicators for beneficiaries after the program (2014). Data obtained from table 2.2.8, and Part 1 of this report.

The comparison between 2009 and 2014 shows the magnitude of what the program achieved. The indicators for beneficiaries after the Hinterland program are now much higher than the general indicators before the program. As a general average, for all the

indicators that demanded action,<sup>14</sup> the housing conditions of beneficiaries appear now normalized—the MDGs housing-related indicators have been reached or exceeded.

The program's beneficiary households have become part of a selective minority percentages that are shown in table 2.2.8. Before the program, safe access to water was very rare in villages like Manawarin, Kwatamang, and Massara. There, it was restricted to just a minority of the population (only 15% in average). The program's beneficiary families now enjoy what was only the privilege of this minority.

Similar was the case of overcrowding. In Manawarin, Massara, Kwatamang, and Annai, a very dramatic situation of overcrowding was registered in 2009—only a very small minority of households were not overcrowded (9%). Also in terms of the quality of housing units, the percentages were still low (44%), and there was a big percentage of households that required to move immediately to a new house (31%).

Very important to note from these numeric data, by helping to improve the housing conditions of the poorest households in the eight participating villages, the program was supposed to achieve the landmark of leveling the playfield for these families in terms of housing conditions—making them as good as the average. What happened, though, was that on the way of helping families achieve that, the program also helped them to become part of a minority in their villages, in terms of housing conditions.

This is very significant in two senses. First, in terms of outcomes, the program went much farther than envisioned, because these families are much better off nowadays—it certainly amounted to a quantum leap in their housing conditions. This can be attested when one walks through these villages. The houses of the program are by far among the best, and these families now in terms of housing are definitely among the better off. That means, with the fact that their housing improved also their social standing in their communities increased.

However, this also means that in some aspects the program's beneficiary families have also become part of what remains a privileged minority in certain aspects. After the Hinterland program, families that enjoy safe water and do not live in overcrowded houses still remain the minority (39% and 30%, as shown in table 2.3.3). This justifies an appeal that Toshaos and Village Councilors repeatedly made to the interviewers during the research for this evaluation, that more work is required in their villages. What the

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<sup>14</sup> Four out of five, excluding security of tenure.

program achieved was extraordinary in terms of scale, but there is still work to do, particularly in the aspects of water access and overcrowding.

### **2.3.1. Impact of the Program on Housing Conditions in the Villages as a Whole**

Just as it achieved the landmark of dramatically helping to improve the housing conditions of beneficiary families, the Hinterland program increased the overall percentage of families living in good housing in the villages, as this section will explain.

Table 2.3.2 below shows how change in housing conditions among beneficiary households impacted the housing conditions of the participant villages as a whole. It shows the Hinterland intervention in the context of the total population, measured in terms of household numbers. It uses households as opposed to general population numbers because the data were provided in that form by the Toshaos and other village authorities during the 2009 pre-feasibility study (see Arboleda 2010, table 1).



COMMUNITY  SUBSIDY	REGION ONE							REGION NINE										AVERAGE - TOTAL
	Whitewater			Manawarin			AVERAGE	Kwatomang			Annai Central			Massara			AVERAGE	
	Beneficiaries	No. Households (2009)	Percentage	Beneficiaries	No. Households (2009)	Percentage		Beneficiaries	No. Households (2009)	Percentage	Beneficiaries	No. Households (2009)	Percentage	Beneficiaries	No. Households (2009)	Percentage		
Full house	23		15%	22		9%	11%	12		19%	12		15%	12		16%	16%	13%
Roofing upgrade	27		17%	3		1%	8%	23		36%	4		5%	7		10%	16%	11%
Total	50	155	32%	25	240	10%	19%	35	64	55%	16	79	20%	19	73	26%	32%	24%

Table 2.3.2. Percentage of the population that received a subsidy from the Hinterland program, broken down by village in the research sample. Averages are obtained from dividing the total of subsidies into household numbers. Percentages are shown in terms of total number of households. Year 2009 household numbers come from Arboleda 2010, table 1, and were reported by village authorities during the pre-feasibility study.

The numbers in table 2.3.2 speak for themselves. The program contributed to solve the issue of housing conditions for 20% of the sample households in Region One, and 32% (or nearly one-third) in Region Nine. There was one village, Kwatamang, in which the impact of the program was as high as in solving the housing problem of over one half of the population, as counted by the number of households. Nowhere the impact was lower than 10%, which is the percentage of Manawarin—still significant because this is one of the largest Amerindian villages in Guyana.<sup>15</sup>

How did this change affect the general indicators per village? Table 2.3.3 below shows an estimate of how the 2009 conditions changed after the program. In order to estimate this change, the results from the 2.2.8 baseline will be combined with those from tables 2.3.1 and 2.3.2.

In average, for 24% of the household sample (as table 2.3.2 shows) the program fully solved two of the five indicators in table 2.2.8 (indicated by 100% in table 2.3.1). These are access to water and quality of the housing unit (numbers one and three in the table).

That means, if 24% is added to the general percentage in table 2.2.8 for those indicators, the result is the new percentage of the population that have the indicator solved after the program. From 15% before the program, the average for this sample is now  $15\% + 24\% = 39\%$ .

What this means is that for each 100 people, the Hinterland program added 24 to the pool of those who had the situation already solved as shown in table 2.2.8 (baseline). In the case of access to water, 15 out of 100 had it solved, therefore now 39 do (15+24). Thus, in order to roughly know how the housing conditions have improved per village after the program, it is a matter of simple math to add percentages to the values in table 2.2.8.

Another way of going around these calculations is through more complicated math. Table 2.3.2 contains data from 611 households, which constituted the population of five villages, out of 870 households that were the population of the eight villages participating in the program. Table 2.2.8 (the baseline) shows that an average of 15% of households had access to safe water in the eight villages. Since the data for the baseline was representative (38% of the 870 households, or 321 were consulted back then, as the 2010

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<sup>15</sup> Also to notice, the program delivered many more full houses than roofing subsidies. Although in the table 2.3.2 sample the number is only slightly higher, it total the program delivered 122 full houses and 86 roofing units, or 30% more. This was a considerable economic investment, since the full houses were nearly four times as expensive as the roofing units.

report details), the percentages from the 2.2.8 baseline can be assumed as indicative of the totality.

That means:

- $15\%$  (average of households with safe water access)  $\times$  611 (total of households in 2.3.2) = 91.65

This was then the approximate number of households in the five sample villages that had access to safe water before the program (91.65).

- If the program helped to solve the issue of safe water access for 24% of this sample, it then did it for approximately:

$$611 \times 24\% = 146.64$$

- Those 146.64 households are to be added to the ones that had already solved it:

$$91.65 + 146.64 = 238.29$$

- This new total constitutes the following percentage of the total 611 households:

$$238.29 / 611 = 0.39 = 39\%$$

- Which is, again, the same as simply adding 24% to 15%.

The same is the case for all the other indicators, therefore for simplicity the plain addition (as in adding the percentage that the program achieved to the existing) will be performed for the values in table 2.3.3.

For the case of the partial indicators of housing quality (materials and present condition, the later regarding the condition of the framing structure), the new percentages are thus 65% (41% + 24%) and 93% (69% + 24%).

For the case of indicator number two (access to sanitation) the program covered nearly 100% in the research sample. As section 1.4 in Part 1 explains, in Kwatamang and Annai two families were still working on their toilets as of the time of the 2014 research. If the number of beneficiaries is reduced by 2 for these two villages, the final average for the sanitation indicator will be 23% as opposed to 24%.<sup>16</sup> In any case, adding this to the existing 86% it results in the average coverage being now 100% under this item. Everyone now has a toilet in this sample.

As for overcrowding, table 1.1.1 in Part 1 of the report shows how overcrowding was also fully solved in the Region Nine sample. If the average for that region in table 2.3.2

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<sup>16</sup> A total of 143 households benefitted under this item (as opposed to 145 for the others). The percentage is then  $143 / 611 = 23\%$

(32%) is added to the pre-existing 3% on the 2.2.8 baseline, then the new total for Region Nine should be 35%. As for Region One, table 1.1.1 shows 46% still undergoing overcrowding after the program, which means 54% of the total of beneficiaries in that region's sample did get to have the situation of overcrowding solved. A 54% of the total of 75 (total sample of Region One beneficiaries in table 2.3.2) is 40.5, or roughly 10% of the total households in the sample ( $40.5 / 395 = 0.10$ ). This 10%, added to the pre-existing 17%, yields a new total of 27% of households now free of overcrowding for this region. As for the total average of solved overcrowding issues between both regions, the program's contribution of 21% (average between 32% and 10%) should be added to the pre-existing total average of 9%, for a total of 30% as the new average for both regions in the no-overcrowding indicator.

Lastly, indicator number five was already solved before the program.

Table 2.3.3 below shows these calculations, and with that the new indicators of housing conditions, for the five sample villages.

<div> <div></div> <div>BASELINE INDICATOR</div> <div>AVERAGES</div> </div>		TOTAL AVERAGES		
		BEFORE THE PROGRAM	ACHIEVED BY PROGRAM	AFTER THE PROGRAM
Access to water		15%	24%	39%
Access to sanitation		86%	23%	100%
Good quality of housing unit	Materials	41%	24%	65%
	Present Condition	69%	24%	93%
No overcrowding		9%	21%	30%
Security of tenure		100%	0%	100%

Table 2.3.3. Impact of the Hinterland program on housing conditions in the sample villages, showing first average data before the program, then the program's contribution, and last the new percentages after the program.

## 2.4. Conclusion: The Program's Impact on Housing Conditions in the Hinterland

As table 2.3.3 shows, the Hinterland program made a very significant contribution in terms of improvement in the overall housing conditions in the sample villages. Regarding access to safe water, it increased the families' access in 62% with regard to the 2009 coverage (yet, still there is work to do in that front as mentioned earlier). As for overcrowding, the other critical issue to act upon for a future expansion of the program, what the program achieved is still impressive, expanding the percentage of households living without overcrowding in 267% (more than twice), with regard to the 2009 coverage.

The need of sanitation structures was covered—as in everybody in the toilet now having a toilet—among the sample. However, for a future program expansion, indicators need to be gathered also on the condition of the pit toilet, in order to be able to make a more fine-grained evaluation work.

As for the quality of housing units, when it comes to roofing materials, durable roofs that allow for the collection of safe water are now a majority in the houses among the sample—nearly two-thirds of the houses have zinc roofs, as compared to less than half before the hinterland program. The structural quality of the house has also highly improved, from 69% to being almost fully solved for the sample. Finally, the security of tenure indicator in those villages was not an issue before the program, and no issues have emerged since.

In total, the program brought nearly one-fourth of the households in these villages out of substandard housing conditions, or of plain homelessness. In terms of population, the program successfully contributed to house over 1,500 Amerindian villagers—most of them women and children—that were homeless or were in very dire housing conditions.<sup>17</sup> Their housing is now on par or better than that from the people who were better off in their villages.

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<sup>17</sup> This is:

93 subsidies in R1 x 9.23 (average household size in that region as of the beginning of the program as explained under section 1.1.1 of Part 1) = 858.39

+

115 subsidies in R9 x 6.26 = 719.9

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Total = 1,578.29

In terms of improvement in housing indicators, the Hinterland Pilot program was greatly successful, and the numbers in this evaluation clearly attest for that.

**Inter-American Development Bank**  
**GUYANA**  
**(GY-L1019)**  
**Low Income Settlements Program 2**  
**(LIS-2)**

**Technical Assistance Mission**

Georgetown, Guyana, April 10 to 15

Combined Back to Office Report of R. Chavez, G. Gattoni, and R. Goethert

1. A Technical Assistance Mission consisting of G. Gattoni, (architect and team leader), R. Goethert (engineer) and R. Chavez (socio-economist) visited Georgetown, Guyana from April 10 to 15, 2011, to review overall progress of the LIS2 program, to advise, make recommendations and agree with the Commission of Housing and Planning Authority (CH&PA) on technical and implementation adjustments. Ms. Derise Williams Sr. Operations Officer of the IDB Resident Mission assisted the mission. The mission members expresses appreciation to the Minister of Housing and Planning, as well to Ms. Myrna Pitt and her staff, for their kind hospitality and excellent professional collaboration (see ANNEX 1, List of Persons Met).
2. The objective of the mission was to provide technical advice on implementation of the project, and in particular discuss improvements to the incremental housing core units, layout designs and community participation.

### **Summary of Main Findings and Recommendations**

3. The mission activities included: i) an orientation briefing by for the mission by CH&PA staff; ii) field visits with CH&PA counterparts to seven project sites including serviced sites, core housing pilots, squatter upgrading, and interviews with families eligible for Core Houses and Home Improvement Grants and, iii) carried out a Program Implementation Review Workshop. The mission team also met with Minister of Housing the Hon. Mohamed Irfaan Ali to brief on the activities and findings of the mission. The Minister indicated that he was supportive of the project and hoped that the IDB would continue their assistance of the programs. Comments of the Minister are summarized in ANNEX 2.

Overall, the mission members found that the project is progressing satisfactorily with 46% of new lots allocated and 80% of squatter upgrading completed (See Tables ANNEX 3, 4, and 5)



and that loan disbursement is ahead of schedule. The CH&PA implementing team is well organized, efficient and dedicated. Beyond meeting the implementation targets and exceeding loan disbursement goals, it is noted that CH&PA has taken impressive measures to incorporate and strengthen community participation. A wide range of recommendations was discussed and actions to be taken were agreed upon. The Key recommendations of these and topics and issues that will require close monitoring are summarized as follows:

- **Pilot Core house design and process** – *the core concept has been well received by the first round of beneficiaries. Design modifications to enhance functionality, improve construction and reduce costs were agreed to. It was also recommended that the user-feedback process be continued as units are completed to further refine future units.*
- **Community Participation** – *CH&PA has in place a solid community outreach and participation program. Beneficiary/community involvement in all aspects of LIS2 will likely enhance implementation and results. Importantly and commendably, the program now is supporting community coherence as program goal. It was noted that this requires specialized staffing and training (see below).*
- **Allocation and Plot Occupancy** – *implementation targets are met or exceeded. Nevertheless some issues with availability of services (water) to sites raise concerns that, like LIS1, utility service delays and other factors that created slow plot occupancy, might be repeated. Coordination and timing of allocation and construction warrants monitoring.*
- **Infrastructure** – *cost reduction standards used for primary road paving is noted to deteriorate rapidly and will have costly maintenance problems. It was agreed that a test comparison with concrete block pavers be carried out. The pavers, while more expensive to install have no maintenance costs and high durability.*
- **Training** – *The workshop identified several CH&PA training and capacity strengthening opportunities. For example, urban planning, subdivision (infrastructure) design, community development skills such as leadership training, etc. A training strategy plan would help define a training program.*
- **Proposals for the remaining of program execution** – *many program components (community development, the pilots, etc.) are new to CH&PA – a learning-by-doing process. Some imply a higher than usual ‘transaction cost’ – more administration and staff resources. It is recommended that CH&PA monitor, assess, document and learn from this experience. Findings will provide a solid basis for future program design. Tracking core house development after occupation would provide a good understanding of design and expansion issues for future policy inputs. A tracking*

*process being used in recent El Salvador surveys may be a good model after adjustment to the Guyana context.*

- ***A proposed Regional Incremental Housing Learning Network*** – discussion about the core house referred to the value of having had CH&PA staff visit El Salvador's sites and services project's core houses. The idea emerged that it would be possible to create a network of practitioners involved with similar programs throughout the English-speaking Caribbean.

## **Mission Details and Results**

4. **Program Implementation Review Workshop.** The mission team proposed a participatory analytical methodology for reviewing implementation progress and indentifying issues and recording recommendations. This took the form of a joint CH&PA / TA team Program Implementation Review Workshop that jointly prepared an analysis matrix to structure and guide the discussion among the mission members and the CH&PA team (see Decision Matrix below). On the vertical axis, the following questions were posted:

- What is status of implementation?
- Are design or process improvements possible?
- Are cost reductions possible and/or can cost effectiveness be enhanced?
- Can participation of beneficiaries be broadened to enhance community development?
- Are there specific problems or bottlenecks that need to be addressed?
- What recommendations or next steps are proposed as a basis for a road map?

On the horizontal axis the main processes and components of the projects were laid out as columns to be filled in with answers to the above questions:

- Allocation and Occupation processes
- Community layout design
- Under Infrastructure three columns contain: i) roads, drains and water; ii) electricity; and, iii) maintenance and operation;
- Under the heading of Pilot Projects three columns include: i) core houses, ii) home improvement and, iii) septic tanks.

# THE DISCUSSION MATRIX

	ALLOCATION STATUS	OCCUPATION STATUS	COMMUNITY LAYOUT DESIGN	ON SITE INFRASTRUCTURE				PILOT PROJECTS		SANITATION: SEPTIC TANKS, PIT LATRINES
				ROADS AND DRAINS	WATER	ELECTRICITY	MAINTENANCE	CORE HOUSE	HOME IMPROVEMENT	
IMPLEMENTATION TARGETS										
CURRENT IMPLEMENTATION STATUS?										
ISSUES/PROBLEMS?										
DESIGN/PROCESS IMPROVEMENT										
COMMUNITY PARTICIPATION/ DEVELOPMENT										
COST EFFECTIVENESS & COST REDUCTION										
RECOMMENDATIONS NEXT STEPS										

**5. The Review Workshop successfully facilitated the exchange of information and discussion on recommendations for implementing the LIS2 program.** CH&PA briefed the team on changes made to the original core house proposal (presented and reviewed in El Salvador last June) and led in discussing technical and process topics for the remaining of program execution. Contractors building the core houses attended and made cost-lowering and recommended design changes. The topic matrices and descriptions below summarize the discussions, agreements reached and recommendations.

## 6. Review of Plot Allocation and Occupancy

As of April 2011	ALLOCATION STATUS	OCCUPATION STATUS
IMPLEMENTATION TARGETS	3,768 lots in 7 new schemes	
CURRENT IMPLEMENTATION STATUS?	1,895 lots in 5 schemes (50% of the target)	<ul style="list-style-type: none"> <li>Starting up</li> </ul>
ISSUES/PROBLEMS?	No issues at this point.	<ul style="list-style-type: none"> <li>Note possible infrastructure / services issues re: plot occupancy.</li> </ul>

ISSUES/PROBLEMS?	No issues at this point.  Note that ahead of target.	<ul style="list-style-type: none"> <li>• Note possible infrastructure / services issues re: plot occupancy.</li> <li>• Slow implementation of electricity provision</li> </ul>
DESIGN/PROCESS IMPROVEMENT	Monitor / review timing of allocation re: occupancy.	<ul style="list-style-type: none"> <li>• Timely electricity service and other utilities required prior to occupancy</li> </ul>
COMMUNITY PARTICIPATION/ DEVELOPMENT	Community actively being engaged.	<ul style="list-style-type: none"> <li>• Community being engaged and informed</li> </ul>
COST EFFECTIVENESS & COST REDUCTION		
RECOMMENDATIONS NEXT STEPS		<ul style="list-style-type: none"> <li>• Include community facilities financed by IDB</li> <li>• Training for community leaders: skills training, etc.</li> <li>• Tenders will be going out within two weeks for installation of electricity for New IDB Schemes.</li> </ul>

#### TARGETS AND STATUS - ALLOCATION AND OCCUPANCY

Allocation has been processed for 1,889 plot owners in five of the programmed seven sites. This is about 50% of the total program target of 3,768 plots to be allocated. This allocation to date exceeds of the anticipated number planned for the third year of implementation. These first five program sites are still under construction.

The process of plot occupancy is just beginning, with a few plots occupied at this stage.

#### ISSUES / PROBLEMS

While there are no issues at this point, it was agreed that plot allocation and occupancy combined needs close monitoring given the occupancy problems experienced in LIS1. Many households of LIS1 delayed occupancy because of a lack of utility services to subdivision sites. Also some households either had trouble accumulating savings to move to their plot and start building. Many felt they could not move until the house was completely built. These are all timing and sequencing issues. Presently there is a delay in supplying power to the some of the sites. However at the time of the mission CH&PA was informed that tenders for providing services were issued, potentially resolving the problem.

#### DESIGN/PROCESS IMPROVEMENT

Timing and sequencing of future allocation processes, plot occupancy and supply of services (i.e. planning, tendering and construction of off site infrastructure/utilities should be pre-

planned, reviewed with utility providers in advance, and monitored and adjusted to better synchronize with site completion and occupancy.

A large number of forms were required to be filled by applicants for both new plots and core houses. The whole process needs to be simplified and more agile. Several duplicated forms for different purposes have been combined, but more can be done. For example the 'one-stop' approach could be used for the applications and the occupancy process as well.

#### COMMUNITY PARTICIPATION / DEVELOPMENT

Community engagement has been one of the important new features of LIS2. The community development team is in place and well organized. As such the ongoing program of informing and consulting with future residents is key to overcoming potential slow plot occupancy, as well as promoting other roles for residents in the transition to new homes and the overall development of the community. The CH&PA team has made a good start in this area, but the social development group needs more training and resources to carry the heavier load of activities in the latter part of the program (see recommendations). It was suggested is that community interviews and informational meetings would be easier and more effective by having them on-site. For example the project could build a simple, low-cost multi-function facility (community center) at each development.

#### RECOMMENDATIONS

- Focus on up-front pre-planning and programming of site construction, off-site infrastructure and service delivery, and the plot allocation process. Coordination with all stakeholders/actors is key at the start-up phase to mitigate problems that might lead to slow plot occupancy.
- Strengthen the capacity and instruments for the Community Development Teams, particularly for helping address possible occupancy issues. For example special training for leadership and other skills needed in these tasks is recommended.
- Each program subdivision site should include a community meeting facility as part of the project.

### 7. Site layout design and community cohesion.

DISCUSSION MATRIX	LAYOUT DESIGN FOR COMMUNITY COHESION
IMPLEMENTATION TARGETS	

CURRENT IMPLEMENTATION STATUS?	<ul style="list-style-type: none"> <li>• All designed?</li> </ul>
ISSUES/PROBLEMS?  DESIGN/PROCESS IMPROVEMENT  COMMUNITY PARTICIPATION/ DEVELOPMENT	<ul style="list-style-type: none"> <li>• Explore efficient new layout for future designs</li> <li>• Explore methods for using current layout design to reinforce and support community – build identity</li> <li>• Consider multi-use community facilities</li> <li>• Re-evaluate large open space use and location</li> <li>• Review prime lot location use (<i>Cross-subsidy? Sizing? Use?</i>)</li> </ul>
COST EFFECTIVENESS & COST REDUCTION	<ul style="list-style-type: none"> <li>• Include alternative layout standards (<i>R-factor – network length/area served</i>)</li> </ul>
RECOMMENDATIONS NEXT STEPS	<ul style="list-style-type: none"> <li>• Training for CH&amp;PA in maximizing the use of design layouts as a tool in development</li> <li>• Tracking of impact of design as community develops; review and assess past layouts.</li> </ul>

## STATUS

Seven areas were visited and their layout plans were reviewed. All of the areas had already been designed and roads, lots and public spaces were already demarcated. The degree of plot occupancy and house buildout varied, from complete occupation in the squatter areas to partially occupied scattered construction in both the LIS-1 and LIS-2 sites. The all-at-once allocation of lots in each site resulted in seemingly random scattered construction, with families building as their resources allowed. A 'land release strategy', which focuses development, may be useful to consider. Phase plot allocation around a public facility 'starter' is one strategy to explore.

It was commendable to see CP&PA staff improve layout patterns by eliminating short blocks in the Section D plan. Streets defining the blocks were reallocated for lots, forming one longer block with 4 additional lots. A question arose as to what is a 'good' length for a block? The longer the block, the lower the cost of infrastructure and more area for lots but at the expense of pedestrian circulation. The relatively large lots in the schemes – in comparison to Latin American countries – and the long blocks have in resulted in lower costs for infrastructure, but at the expense of easy pedestrian access.

## ISSUES – OBSERVATIONS

Increased commercial activity was noted at major streets and key locations – generally at site entrance locations. It was discussed with CH&PA staff how to incorporate this finding into future layout designs. Variable lot sizing along a major road was already noted in the

Westminster site, and may be a good model to draw lessons. Perhaps increased size of plots at the corners to anticipate commercial activity? This approach could also be used as a means of 'cross-subsidy'.

Large public open spaces were noted on the plans and reviewed when visiting the sites. Several issues related to the size and uses were discussed with the CP&PA staff: *'How large should this reserve be?'* and *'What are the facilities intended to be built and are these realistic expectations?'* *'How to assure timely construction to parallel growth of the community?'* The location of public space, which facilitates access and use related to a layout, is an issue for consideration in future layout designs. Development of models for future projects may be useful now.

An alternative reference standard was tested by CH&PA staff in several of the sites and would be good to continue in future site designs. The total linear street length divided by the total site area offers an index for infrastructure investment and maintenance. The linear nature of infrastructure – roads, water network, drainage ditches, and electrical lines – offers a surrogate for estimating costs, as well as an indicator of 'walk-ability' – facilitating pedestrian access.

An issue that was repeatedly discussed with CH&PA staff was how to use the layout to support, reinforce and help create a sense of community. The layout pattern, the timely staging and provision of infrastructure, the location of public spaces, and the targeted location of initial core houses are useful elements in supporting communities.

#### NEXT STEPS/RECOMMENDATIONS

- Setting up a tracking mechanism monitoring the development of the sites would offer a rich resource for future site designs.
- T.A. funds from the project loan could be used for training and workshops, following suggestions from CH&PA staff.

## 8. Review of Off-site Infrastructure

	ROADS, DRAINS	WATER	ELECTRICITY	MAINTENANCE
IMPLEMENTATION TARGETS	10,016 Lots to be serviced in total			
CURRENT IMPLEMENTATION STATUS?	4,363 plot on site serviced with roads drainage and water	<ul style="list-style-type: none"> <li>• Supply delays</li> </ul>		<ul style="list-style-type: none"> <li>• None?</li> </ul> <p><i>Unclear situation regarding Interagency</i></p>

CURRENT IMPLEMENTATION STATUS?	4,363 plot on site serviced with roads drainage and water infrastructure – 43.6%	<ul style="list-style-type: none"> <li>• Supply delays</li> </ul>		<ul style="list-style-type: none"> <li>• None?</li> </ul> <p><i>Unclear situation regarding Interagency Co-coordinating Committee</i></p>
ISSUES/PROBLEMS?	<ul style="list-style-type: none"> <li>• Review surfaces according to use: <ul style="list-style-type: none"> <li>- Main road vs. interior</li> <li>- Surfacing (2BS, asphalt, concrete pavers)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Sequencing and availability</li> </ul>	<ul style="list-style-type: none"> <li>• Construction scheduling &amp; coordination among implementing agencies can be enhanced</li> </ul>	<ul style="list-style-type: none"> <li>• Non-performance by responsible agencies; NDCs</li> </ul>
DESIGN/PROCESS IMPROVEMENT	<ul style="list-style-type: none"> <li>• Consider alternative materials on main roads (<i>pilot?</i>)</li> <li>• Consider options for safety improvements <ul style="list-style-type: none"> <li>- sidewalks</li> <li>- street lights (security)</li> </ul> </li> </ul>			
COMMUNITY PARTICIPATION/ DEVELOPMENT				<ul style="list-style-type: none"> <li>• Explore 'community contracting'</li> <li>• Provide training for communities in composting as alternative solution for a part of solid waste management</li> </ul>
COST EFFECTIVENESS & COST REDUCTION	<ul style="list-style-type: none"> <li>• Consider community contracting for maintenance</li> </ul> <p><i>(Including separating, composting, recycling, and ditch cleaning)</i></p>			
RECOMMENDATIONS NEXT STEPS	<ul style="list-style-type: none"> <li>• Test sections of road using interlocking concrete paver blocks and comparative analysis with asphaltic concrete</li> </ul>			

STATUS



Off-site infrastructure (secondary/primary trunk lines providing subdivisions service supply) is partially under construction.

#### ISSUES – OBSERVATIONS

Some infrastructure/service issues, such as delays in water supply to inhabited sites are causing problems and beneficiary frustration. The main emerging problem is that the sequencing of on-site and off-site construction of infrastructure needs to be coordinated. Off-site is the responsibility of service providers; maintenance of streets and storm drains of NDCs. Long-term maintenance of drains and refuse collection are un-resolved issues, that, as the sites become more populated, can cause flooding and health risks. NDCs have little, if any resources or capacity to provide maintenance to any of the sites.

#### NEXT STEPS/RECOMMENDATIONS

It was agreed that a test of road surfacing options (concrete pavers) be carried out to determine cost effectiveness and suitability. The mission was informed that contracting for building the water transmission works for one of the sites was being tendered. Nevertheless, the mission recommends a review of all the off-site infrastructure construction and supply needs of the program and prepare a infrastructure/maintenance strategy to be presented to, and agreed by the IICC, and that the resulting delivery program be closely monitored by the IICC.

### 9. Review of Pilot: Core house design and process

(See also: ANNEX 7 – Core House Pilot, and ANNEX 8 – Summary of Core House Program 2010)

	CORE HOUSE
IMPLEMENTATION TARGETS	<ul style="list-style-type: none"><li>• 160 core houses in 2010-2011</li></ul>
CURRENT IMPLEMENTATION STATUS?	<ul style="list-style-type: none"><li>• 57 core houses under construction</li></ul>
ISSUES/PROBLEMS?	<ul style="list-style-type: none"><li>• Higher cost than anticipated</li><li>• Consider revising target/sequence</li></ul>

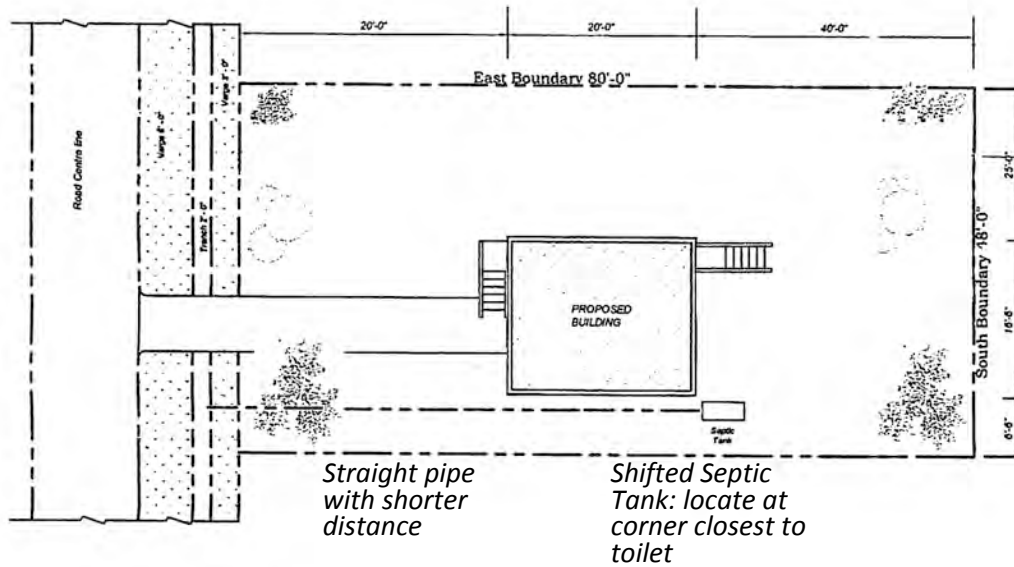
DESIGN/PROCESS IMPROVEMENT	<ul style="list-style-type: none"> <li>• Rationalize and test design: <ul style="list-style-type: none"> <li>- Explore all timber building</li> <li>- Test concrete block columns</li> <li>- Septic tank to be located in relation to the location of the washroom</li> <li>- Expansion could be done in 3 directions</li> <li>- Front door to be moved to one side to allow more flexibility</li> <li>- Kitchen sink installed on washroom wall leaving space for washroom sink to be done by the beneficiary at their convenience</li> <li>- Contract will allow for plumbing to be put in place to accommodate future installation of washroom sink</li> <li>- Relocation of washroom door</li> <li>- Prefabrication of timber to increase in time efficiency</li> <li>- Wooden beams should be 6" x 6" min</li> <li>- Washroom walls will have some treatment where showers are to be installed</li> <li>- Length of shower pipe extended so shower points downward</li> <li>- Wall separating toilet from shower 5'-0" height with mesh</li> <li>- Prototype to be done using new design</li> <li>- Show electrical plan for new design</li> <li>- Position of house remains the same from the front of the lot</li> </ul> </li> </ul>
COMMUNITY PARTICIPATION/ DEVELOPMENT	<ul style="list-style-type: none"> <li>• Sequencing of user feedback</li> <li>• Revise suggestions for consolidation / expansion (by construction of prototype with feedback from existing and prospective beneficiaries)</li> </ul>
COST EFFECTIVENESS & COST REDUCTION	<ul style="list-style-type: none"> <li><sup>a</sup> Consider all timber buildings</li> <li>• Consider concrete block columns</li> </ul>
RECOMMENDATIONS NEXT STEPS	<ul style="list-style-type: none"> <li>• Review design</li> <li>• Costing needed</li> <li>• Construction of prototype</li> <li>• Feedback from beneficiaries</li> <li>• Re-tender with new design subsequent to prototype construction and feedback</li> </ul>

## REVIEW OF SITE PLAN AND CORE HOUSE DESIGN

### POSITIONING ON PLOT

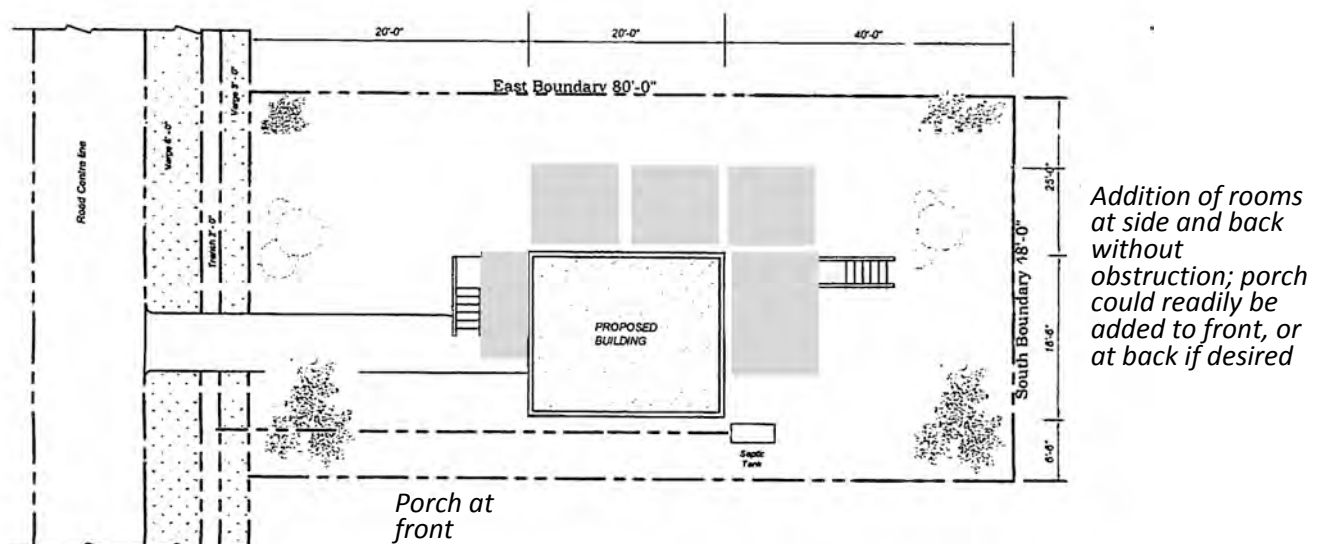
- The location of the core house respecting the required setbacks remains the same.
- A key recommendation is to shift the location of the septic to the narrow side closer to the back of the house. Technically this lowers costs and simplifies the pipe run to the front, but

it also eases expansion toward the rear without being limited by the pipe location and elevation.



#### EXPANSION

- Expansion can continue to be in three directions, including a porch at the front.
- The stairs may be reused by the owner when expanding the house.



SEVERAL SUGGESTIONS WERE MADE TO BREAK UP THE RIGID ROW OF HOUSES INTO A MORE 'COMMUNITY FRIENDLY' LAYOUT.

- Staggering the setback from the front breaks the static row.
- We recommend that the CH&PA provide owners with paint to protect exterior walls. A choice of colors should be provided, which also would break up rigidity of the pattern and personalize the home.

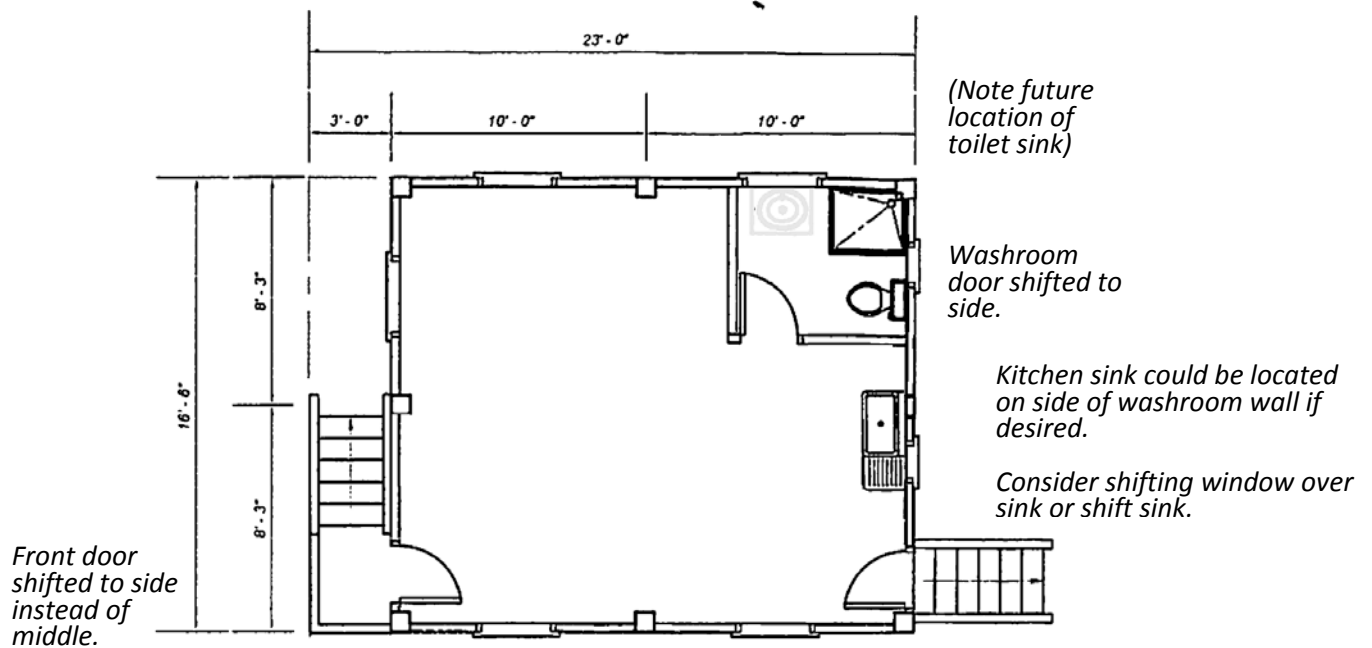
SEQUENCING CONSTRUCTION OF CORE HOUSES AROUND STREETS PROVIDES INSTANT COMMUNITY IDENTITY.

The hypothetical image below shows how construction would appear if grouped around a street.



## CORE HOUSE PLAN COULD BE ADJUSTED TO INCREASE FLEXIBILITY

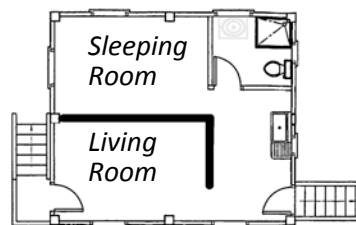
Doors are repositioned as shown to provide more options for owner.



## Ground Floor Plan

*Modified as discussed*

- Several future owners indicated that they would add interior walls with the following configuration. Doors are adjusted to reflect this option.



## SHOWER PARTITIONS ARE EXTENDED UP

*Shower pipe to point down at top instead of straight*

*Addition of 1-2 block rows to reach bottom of window*



*T-joint added in shower pipe for future faucet by owner*

ADDITION OF FLOOR OVER WASHROOM AND POSSIBLE EXTENSION INTO ROOM BY OWNERS ADDS USEFUL STORAGE SPACE OR EVEN COULD FUNCTION AS ADDITIONAL SLEEPING AREA.

- This suggestion could be included in a 'Guide for the Homeowner'.



*High ceilings allow addition of floor for storage or sleeping area by owner.*

CONCRETE PIERS COULD BE REPLACED WITH BLOCK + REBAR + CONCRETE INFILL TO SAVE COSTS AND CONSTRUCTION TIME, AND ALLOW SIMPLE HEIGHT ADJUSTMENTS WITHOUT FORMWORK.

- Blocks ease the adjustment of the house to address varied plot conditions, and ease in handling future additions.
- Timber beams could replace the concrete beams.



*Replace  
piers with  
concrete  
block*

*Concrete beam is  
replaced with 6" x 8"  
wooden beam since  
walls now all timber.*

#### OTHER CONSTRUCTION ISSUES

- The construction would be all timber to lower cost and speed construction.
- Prefabrication of walls and other elements increase speed as indicated by contractors.
- Concrete formwork is eliminated with block piers and timber beams (6" x 8").
- The wiring diagram and details need to be reviewed after they become available to carefully locate switches, receptacles, and lights to consider future interior partitions

#### RECOMMENDATIONS

- In addition to the design adjustments suggested above, we recommend building a model with the adjustments and including expansion options. This would serve as model for future owners, test construction details, and provide a cost reference.
- The core house with suggested modifications should be re-costed, and contractors should be requested to provide additional cost savings measures for consideration.
- A 'Home-Owner's Guide' may be useful to illustrate expansion options, costs of adding rooms and small improvements, tips on 'how to start', how to maintain, and other practical information useful to the owner.

**10. Review of Pilot: Home Improvement**  
*(See also ANNEX 8 – Summary Presentation)*

DISCUSSION MATRIX	HOME IMPROVEMENT
IMPLEMENTATION TARGETS	<ul style="list-style-type: none"> <li>• 200 subsidies to be disbursed 2010-2011</li> </ul>
CURRENT IMPLEMENTATION STATUS?	<ul style="list-style-type: none"> <li>• Pre-pilot has started</li> </ul>
ISSUES/PROBLEMS?	<ul style="list-style-type: none"> <li>• Not viable for 'room addition' incentive?</li> <li>• What is criteria and priority for subsidy? (strategy?)</li> </ul>
DESIGN/PROCESS IMPROVEMENT	<ul style="list-style-type: none"> <li>• Develop guidelines for T.A. and to help homeowners decide on improvement choices</li> </ul>
COMMUNITY PARTICIPATION/ DEVELOPMENT	<ul style="list-style-type: none"> <li>• Add counseling to technical assistance support? <i>(Who would do this?)</i></li> </ul>
COST EFFECTIVENESS & COST REDUCTION	
RECOMMENDATIONS NEXT STEPS	<ul style="list-style-type: none"> <li>• Implement system for information tracking and analysis <i>(CH&amp;PA will address this directly)</i></li> <li>• Can/should home improvement also be available to beneficiaries of core house pilot?</li> </ul>

**IMPLEMENTATION TARGETS**

**CURRENT IMPLEMENTATION STATUS**

The home improvement pilot is starting up. CH&PA is doing a pre-pilot to test and structure the process for identifying and completing the grants. Ten applicant households are part of the pre-pilot.



#### ISSUES/PROBLEMS?

The granting process is still being tested. There are some potential issues discussed with the CH&PA team concerning: a) what type and extent of improvement can be reached by the homeowner with the US\$1,000 grant subsidy – can a room be built with that amount; and b) how are competing improvement choices made? For example, the mission team visited a pre-pilot household appropriately electing to replace the roof, the cost of which is the entire grant amount. The house (self-built of scrap construction materials) however has many other needs, for example a rudimentary, overflowing pit latrine. The question is: how to establish priorities. The homeowner chose the roof as highest priority; a septic tank would cost much more than the available grant. These issues need to be explored in the pre-pilot.

#### DESIGN/PROCESS IMPROVEMENT

See above issues. One option is to expand the scope to the technical advice given to households, however that is an increased administrative cost for the program. Nevertheless it is evident that the poorest households will be confronted with difficult choices of how best to use the grant. The grant program team is examining these questions. A homeowner's guide could be produced to help, and an operating manual for the pilot that spells out how to help homeowners define priorities and make their choices, staging types of improvements over time, etc, could be tested.

#### COMMUNITY PARTICIPATION/ DEVELOPMENT

The pilot is appropriately designed around the concept of homeowner participation.

#### COST EFFECTIVENESS & COST REDUCTION

See Issues, above.

#### RECOMMENDATIONS

See design/process improvement above. The pre-pilot is an excellent opportunity to think through issues that the pilot can address. Three recommendations are proposed: a) producing some form of guide to help applicants and the pilot's technical staff work through the choices should be developed; b) there will be need to expand and train the T.A. staff working on this component; a manual for the pilot should be developed; and, c) as with all of the program's components this is an excellent opportunity to document the process and administrative (transaction) costs of conducting the home improvement grant program. Question: if this pilot is successful, could the concept be expanded into a "micro-credit" loan program for core house homeowners needing "move-in improvement loan" to start their 'home improvement process'?

#### NEXT STEPS

Monitoring the component and developing guidelines and manuals.

## 11. Review of Sanitation: Septic tanks-Pit Latrine

	SEPTIC TANKS, PIT LATRINES
IMPLEMENTATION TARGETS	<ul style="list-style-type: none"> <li>• All core houses</li> <li>• Pit latrines in squatter settlements?</li> </ul>
CURRENT IMPLEMENTATION STATUS?	<ul style="list-style-type: none"> <li>• Startup</li> </ul>
ISSUES/PROBLEMS?	<ul style="list-style-type: none"> <li>• Cost</li> <li>• Location of septic tank               <ul style="list-style-type: none"> <li>- Under house?</li> <li>- Side?</li> <li>- Distance from house?</li> </ul> </li> <li>• Limits expansion</li> </ul>
DESIGN/PROCESS IMPROVEMENT	
COMMUNITY PARTICIPATION/ DEVELOPMENT	<ul style="list-style-type: none"> <li>• Families help build? (dig pit?) (cost savings, delay? administration cost?)</li> <li>• Resident feedback</li> <li>• Maintenance and operation information to users</li> </ul>
COST EFFECTIVENESS & COST REDUCTION	<ul style="list-style-type: none"> <li>• Cheaper available?</li> <li>• Prefabricate elements?</li> </ul>
RECOMMENDATIONS NEXT STEPS	<ul style="list-style-type: none"> <li>• Secure funding for approximately 460 septic tanks – US\$ 550,000</li> </ul>

**12. Community Participation.** The mission and CH&PA staff held in-depth meetings in all seven sites with community members to understand their concerns and discuss their suggestions regarding improvements to i) the allocation and occupation process; ii) infrastructure; iii) pilot core houses; iv) septic tanks; v) the home improvement process; and, vi) the squatter settlement upgrading process.

The mission was impressed by the degree to which CH&PA staff members have incorporated meetings with beneficiaries and their feedback as part of the implementation of the program. The synergies that can be unleashed by community consultation were evident in Lusignan. The group of about 30 community representatives advised the visitors that they had organized themselves and elected a leader. They already identified their first communal project is to build a playground next to the Community Learning center (where our meeting took place). This community-driven will strengthen the bonds among the community, enhance the community center and keep children and teens off the streets

Project beneficiaries are very willing to speak up, and they provided excellent ideas for improving the program's implementation processes, the pilot core houses, and the placement of septic latrines. Many of their suggestions have been incorporated in the alternate pilot core house design noted in this report. The process of consultation could be enhanced by structuring it in such a way as to allow for comments by the beneficiaries of the pilot core houses to have inputs before the contractors complete the units. This would apply to the location of septic tanks on the lots and to components of upgrading in squatter settlement as well.

A good practice by CH&PA is the 'one-stop-shop' meetings that are organized at least once upon the launching a new project site. The meetings provide the format for explaining the project to families and helping them complete applications or discuss their status if they've already been allotted a plot. Representatives from government services, banks and hardware among others are invited to set up shop and provide information and brochures to the participants. The meetings usually take place at a nearby school, CH&PA or NDC offices, depending which is nearest. However, in locations such as Tuschen, for example, the nearest facility is quite distance away. This creates an unfortunate disconnect between where people are meeting and where they will live.

Tuschen is very sparsely occupied at this point. There are roads and water, and it is expected that electricity will be provided before long. The question that arose is what can be done to spark the development of the site, to attract families to start building and establish corner stores. The first recommendation is to establish at least one block with core houses on either side of the street. The second idea is to build a simple, low-cost, multipurpose facility at one end of the block of core houses. The objectives of the facility are multiple, but basically it is the seedling for a community center, where one-stop shop meetings and other gatherings could take place. In Sensunapan, El Salvador, the CH&PA and IDB consultants visited one such facility that had been originally used for community meetings and a materials warehouse for the home improvement phase. Today, it is put to excellent use by a community-based youth NGO that provide after school activities for children, sport events and parties for teens, and so on, to keep children off the streets and out of the hands of local gangs.

### **13. Monitoring and Learning**

CH&PA Learning and Knowledge. In conversations between CH&PA team members and the IDB consultants that visited El Salvador in June 2010, there was a general agreement that the peer-to-peer meetings and sites visited provided an extraordinarily effective learning experience. In the discussion, the idea emerged for a similar program of meetings and visits of the Anglophone Caribbean countries where the IDB has completed or has LIS-type projects that are currently underway. In addition to enhancing the capacity of project implementers, it would allow the IDB to tap into the 'passive' knowledge embedded in the projects of recently retired experienced staff members.

The Technical Assistance consultant team described a model for what might be called a '*Caribbean Incremental Housing Learning Network*.' A similar, successful experience was created carried from 2000 to 2007 with municipalities involved in World Bank-supported programs. At the invitation of the association of capital city mayors of the Spanish-speaking Central American and Caribbean countries a network was created of practitioners to share and exchange experiences – a horizontal learning initiative (*Ayuda Urbana*). The idea for incremental housing in the Caribbean would be to expose the largest number of CH&PA-like agencies staff to peer-to-peer knowledge sharing and learning experiences by rotating the countries where topical 2-3 day workshops would take place. Thus, the engineers, community developers, planners, financial and procurement experts, etc. would meet with their counterparts from the other countries to discuss problems and solutions among themselves, and visit their respective project over an 18 to 24 month program. In parallel to the workshops a website would be built to capture knowledge in the form of presentations and discussion at the workshops. Topical blog sites would seek to establish on-line communities of practitioners to continue the dialogue launched in the workshops.

#### **LIST ANNEX ATTACHMENTS**

ANNEX 1: List of Persons Met

ANNEX 2: Comments from the Hon. Minister of Housing and Water

ANNEX 3: LIS2 Update Presentation

ANNEX 4: Budgetary Allocation

ANNEX 5: Statement of Budgetary Balances

ANNEX 6: Home Improvement Subsidy Pilot

ANNEX 7: The Core House Pilot - Presentation

ANNEX 8: Summary of Core House Program 2010 (*Prepared in 2010 and used as a basis for assessment of the project.*)