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ACTIVITY REPORT

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Identification of Financial Resources
And Credit Mechanisms for the
Urban Sanitation Program in Jamaica

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by
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CONTENTS

ABOUT THE AUTHOR	iii
ACKNOWLEDGMENTS	iii
ACRONYMS	v
EXECUTIVE SUMMARY	vii
1 BACKGROUND AND CURRENT SITUATION, AS OF JULY 1997	1
1.1 Institutional Background	1
1.2 Sanitation as Part of the Community Upgrading Program	2
1.2.1 Community Upgrading	2
1.2.2 Housing Guaranty Activities	3
1.2.3 Sanitation Program - CRDC/SSU	3
1.3 The Credit Mechanism for CRDC/SSU Activities	3
1.3.1 Project Costs per Parcel	4
1.3.2 CRDC/SSU Program Income and Expenditures	6
1.3.3 Sanitation Project Evaluation	7
2 FINDINGS	8
2.1 Government of Jamaica Strategy for Community Improvements	8
2.2 Financial Market Conditions in Jamaica	9
2.3 USAID - Credit Enhancement	10
2.3.1 Development Credit Authority	11
2.3.2 Activities Supported by USAID/Jamaica	11
2.3.3 Coastal Water Quality Improvement Pogram	11
3 RECOMMENDATIONS	13
3.1 Strategy for a Credit Enhancement Mechanism	13
3.2 Potential Stakeholders and Resources	14
3.2.1 The Environmental Foundation of Jamaica	14
3.2.2 Workers Bank	16
3.2.3 Building Societies	16
3.2.4 Jamaican Credit Union System	17
3.2.5 Jamaica Social Investment Fund	18
3.2.6 Jamaican Mortgage Bank	20
3.2.7 National Housing Trust	20
3.2.8 The Caribbean Housing Finance Corporation	22

3.3	Programmatic and Financial Parameter Analysis and Sensitivity Analysis	23
4	FINANCIAL ANALYSIS AND SENSITIVITY ANALYSIS	29
5	CONCLUSIONS AND NEXT STEPS	31
5.1	Summary of Findings	31
5.2	Recommended Next Steps	32
5.2.1	USAID/Jamaica	32
5.2.2	CRDC/SSU	33
	SOURCE MATERIALS CONSULTED	35
	APPENDIX	
A	Individuals Contacted	37

ABOUT THE AUTHOR

Raymond Ocasio is a consultant for EHP. Until recently he was a Vice President for Programs with the Local Initiatives Support Corporation, providing guidance and management to programs with public-private partnerships that support community-based organizations in developing housing and rebuilding their communities. For 13 years prior to that, he was engaged in international development activities with an emphasis in the Caribbean and Central and South American. Mr. Ocasio implemented an innovative urban sanitation program in Tegucigalpa, Honduras. His work before that was largely focused in the United States dealing with housing and community development issues at the local level.

ACKNOWLEDGMENTS

This report is based on EHP's experiences in planning and evaluating the sanitation efforts in Montego Bay. The report also draws on the consultant's experiences with urban sanitation work in Honduras and his prior involvement in financial and implementation of community upgrading programs throughout Jamaica. The author relied on inputs of USAID staff in Washington and Jamaica. Particular thanks to Eric Richardson, who directed the USAID support over the last two years and to Howard Batson, who assumed these responsibilities just prior to the initiation of this effort. Stephen Hodges, the Executive Director of Construction Resource Development Centre played a major role in directing and contributing to the conceptualization, strategic thinking, investigation phase, analysis and evaluation of the overall strategy, and conclusions. In addition to those named here, everyone that allowed themselves to be interviewed or provided background information was vital to the findings and conclusion expressed herein.

ACRONYMS

CAR	USAID's regional Caribbean programs
CHFC	Caribbean Housing Finance Corporation
CRDC	Construction Resource and Development Centre
CWQIP	Coastal Water Quality Improvement Program
DCA	Development Credit Authority
EFJ	Environmental Foundation of Jamaica
EHP	Environmental Health Project
GOJ	Government of Jamaica
JMB	Jamaican Mortgage Bank
JSIF	Jamaica Social Investment Fund
NGO	nongovernmental organization
PRI	Project-Related Investment
RHUDO	Regional Housing and Urban Development Office
SSU	Sanitation Support Unit
USAID	United States Agency for International Development

Exchange rate as of June 1997: J\$35.00 = US\$1.00

EXECUTIVE SUMMARY

Background

USAID/RHUDO/ Jamaica undertook a cooperative grant agreement with Construction Resource Development Centre (CRDC), a Jamaican nongovernmental organization (NGO), to carry out a demonstration urban environmental sanitation program in two informal urban settlements in Montego Bay. CRDC created a special branch office, the Sanitation Support Unit (SSU), to implement the project.

At USAID's request, the Environmental Health Project (EHP) conducted a thorough evaluation of the CRDC/SSU activities in June 1997. The evaluation found that the project activities had been successful in meeting or exceeding project target indicators for performance. The evaluation revealed that the availability of credit to the low-income portfolio was crucial to CRDC/SSU's success, and that the current source of credit was to terminate shortly. As a result, a successful sanitation project benefiting lower-income, informal communities is seriously in jeopardy.

The purpose of the current activity was to investigate possible methods of utilizing USAID/Jamaica project funds to expand credit access to low-income residents for the provision and improvement of their sanitation infrastructure by accessing the CRDC/SSU services; the long-term purpose is also tied to improvement of the quality of Jamaica's coastal waters. This report provides an analysis of the prospects for alternative credit resources for sanitation improvements in informal coastal communities. It also makes suggestions for adjustments to the delivery mechanism, where these might be needed.

Recommendations and Conclusions

The recommended strategy is premised on the use of a variety credit enhancement and mitigation mechanisms.

The basic outline of the strategy is as follows:

- # Funds would be borrowed from a variety of sources to create a consortium or pool of funds. The resources should consist of both concessionary and non-concessionary funds. The funds would be blended to produce an interest rate for on-lending that is consistent for the shelter and community infrastructure sector.
- # The blended funds would be on-lent to a respected intermediary financial institution. Sound underwriting standards would be used. A network of outlets with a high level of expertise in on-lending to lower-income communities would handle loans to clients.
- # The loans would be dedicated to a broad array of water and sanitation solutions. For the consumer households, customized technical assistance and specialized sanitation education would be provided by CRDC/SSU.
- # The overall portfolio would have a guarantee sinking fund or trust to offer protection of the shared risk. The use of experienced financial intermediaries will bring institutional strength and mitigation measures, providing a heightened level of security to the portfolio.

A critical element for the success of this strategy depends on attracting an adequate amount of concessionary as well as non-concessionary funding. During the consultant's field examination, positive responses were achieved from a wide variety of potential participants. This suggests that the stated conceptual framework and strategy is achievable.

To move forward and make full use CRDC/SSU's capacity to work with a credit program to improve urban sanitation conditions, between J\$20,000,000 to J\$40,000,000 (US\$571,000 to US\$1.15 million) would be needed. Half would be composed of commercial lending at a preferred-customer rate, as supported by enhancement mechanisms. Concessionary loans, including public and private soft lending, such as a Project-Related Investment, would constitute the other half.

The analysis demonstrates that a J\$60,000 sanitation loan can be supported by a median-income household (J\$13,278). When interest on the commercial portion of the loan is at 35%, 40%, or even 45% and the pool of funds is balanced with appropriately priced concessionary funds, the loan terms are affordable for median-income families.

It has been demonstrated, in Montego Bay and elsewhere, that the populations of informal communities are prepared to solve their infrastructure needs, including sanitation; credit that is obtainable and affordable is the major element needed but missing, in most instances. Another missing ingredient is adequate and appropriate information about technology and health matters.

The successful CRDC/SSU Urban Sanitation Project was able to bring these elements together for the targeted communities: financing, technical assistance, and sanitation/health information. CRDC/SSU has proven it can help low-income households and communities meet their sanitation needs through a loan program. A new credit enhancement mechanism would allow CRDC/SSU to continue to provide its critical services elsewhere in Jamaica. Given the current economic context of Jamaica, that CRDC/SSU will do this with credit generated from untraditional sources, within an innovative and constructive framework, makes it that much more exciting.

The recommendation to USAID/Jamaica is to allow the urban sanitation credit enhancement activity to remain within the proposed Coastal Water Quality Improvement Program. During the contract preparation period, USAID should inform the international contractor(s) of the strategic work that has been accomplished to date and request that full consideration and support be given to refining the urban sanitation program elements within the CWQIP framework. Where appropriate, technical assistance should be provided to CRDC/SSU to address outstanding issues and any additional matters that may arise as the proposal moves forward.

1

BACKGROUND AND CURRENT SITUATION,

Purpose of Technical Assistance Activities

To investigate methods of utilizing USAID/Jamaica project funds to access credit for financing sanitation infrastructure with CRDC/SSU's promotional, technological, and sanitation support services that will have a positive impact upon the coastal waters of Jamaica.

1.1 Institutional Background

The Urban Environmental Sanitation Program is integrated into the USAID/Jamaica environmental Strategic Objective 2, "increased protection of key natural resources in environmentally and economically significant areas."

In July 1995, the Rural Housing and Urban Development Office (RHUDO) in the USAID Mission to Jamaica entered a cooperative grant agreement with the Construction Resource Development Centre (CRDC), a Jamaican nongovernmental organization (NGO). The purpose of the grant agreement was to carry out a demonstration urban environmental sanitation program in two informal urban settlements in Montego Bay. With the grant agreement funds, CRDC set up a branch office in Montego Bay, called the Sanitation Support Unit (SSU). A key goal of the CRDC/SSU activity was to improve the environment and health of residents by changing behaviors and insuring effective use of the sanitation improvements. Since 1995, CRDC/SSU has been implementing a program to mobilize residents' demand for change in sanitation conditions and to improve their household and community sanitation situation. As a component of a larger squatter upgrade program and in conjunction with credit for on-plot sanitation improvement for the urban poor homeowners, CRDC/SSU has provided critical information to householders on technology choice and construction services and, for the community, sanitation education.

USAID/RHUDO/Jamaica requested technical assistance from the Environmental Health Project (EHP) to provide training and support to CRDC/SSU as it started up. Since 1995, EHP has carried out a number of technical assistance activities in management training, technical training, and hygiene behavior change. In June 1997, at the request of USAID/Jamaica, EHP conducted a thorough evaluation of the CRDC/SSU program. It found that the activities had been successful in meeting or exceeding target indicators for performance. The Mission and CRDC subsequently requested that EHP conduct a follow-up activity to the evaluation to address the critical issue of financing.

The evaluation found that availability of credit to the low-income householders was crucial to the success of the CRDC/SSU program. With the closing of the RHUDO office and the close-out of the Housing Guaranty loan program in Jamaica, credit to this portfolio will cease as of December 1997. HG funds were used for the housing improvements in Montego Bay; a portion of each loan was used to pay CRDC/SSU's fee for services rendered. Without that credit and clients' ability to pay CRDC/SSU for services, the sustainability of the Sanitation Support Unit is in question, along with its critical function of promoting demand for sanitation improvement, disseminating appropriate sanitation and construction technologies, and facilitating behavior modification in households and community sanitation practices. This successful sanitation project, benefiting lower-income, informal communities, is placed in jeopardy if credit funds are not available.

The purpose of the current activity was to investigate possible methods of utilizing USAID/Jamaica funds to expand credit access to low-income residents for the provision and improvement of their sanitation infrastructure with access to the CRDC/SSU services. The sanitation improvements would have a positive impact upon the quality of coastal waters.

To undertake this assignment, the consultant reviewed background materials on the design and development of the Montego Bay activity and the recently completed evaluation. After preparatory meetings in Washington, D.C., the consultant met with staff of the Environment and Health Offices of USAID/Jamaica and the directorate of CRDC in Kingston, Jamaica.

The consultant then traveled to the Montego Bay area and met with community members—both those currently making sanitation improvements and those who may be involved in future efforts. The visit allowed the consultant to examine first-hand the quality and impact of the activities and achievements to date. It also afforded him the opportunity to explore the likely impact of an alternative approach (after HG funding ceases) and the organizational, operational, and cost implications. This report provides an analysis of the prospects for alternative credit resources. It also suggests possible modifications to the current delivery mechanisms.

1.2 Sanitation as Part of the Community Upgrading Program

1.2.1 Community Upgrading

Under the current system, sanitation improvement is a component of a larger community upgrading program designed to improve the infrastructure of existing informally settled communities in the Norwood and Rose Heights areas of Montego Bay. The Norwood community was initially settled in the 1970s and contained, at that time, less than 200 squatter families. The initial governmental response was to provide basic infrastructure to these inhabitants and to make provision for another 200 serviced lots, as part of a larger, planned-growth design.

1.2.2 Housing Guaranty Activities

When the Housing Guaranty-012 loan program was initiated in the early 1990s, continued informal settlement had brought the population of Norwood and Rose Heights to more than 2,000 households. The infrastructure being introduced through the USAID program was divided into two distinct components. Road improvements, stormdrains, and household water and electrical connections were to be undertaken by the national Ministry of Environment and Housing, with inputs from a quasi-governmental unit, the Caribbean Housing Finance Corporation. The sanitation system was treated as a separate component, with on-site solutions either being upgraded or newly introduced.

1.2.3 Sanitation Program - CRDC/SSU

The goals of the urban environmental sanitation project were two-fold:

- # to assist residents in installing safe, on-site sanitation facilities (or improving substandard ones) as part of a larger overall attempt to gain land title, and
- # to improve the health status of residents by reducing poor hygiene behaviors and providing access to improved sanitation infrastructure.

The various elements of the sanitation program were assigned to the CRDC/SSU through a grant agreement with USAID/Jamaica. The newly created SSU was charged with the responsibility of promoting hygiene awareness and creating demand for sanitation improvements. The CRDC/SSU provided assistance to the inhabitants to define the appropriate sanitation solution, select the appropriate technology, prepare costs estimates, arrange contract letting, and provide construction supervision and monitoring. The SSU personnel also contributed important sanitation educational messages and training. The services and expertise provided by CRDC/SSU were compensated with project funding as a sub-element of a larger loan for the purchase of the improved lands.

1.3 The Credit Mechanism for CRDC/SSU Activities

The program design called for CRDC/SSU to inspect the on-site sanitation system and hygiene conditions in all households. CRDC/SSU staff then outlined to each of the households whether the current sanitation system was acceptable or nonacceptable. Where the sanitation system was acceptable, the household was charged J\$1,125 as part of the overall costs for their purchase of the improved site. Those households that were inspected and determined to have inadequate sanitation systems were provided with technical assistance in determining an appropriate and affordable solution. Once the individual households accepted the offer of assistance, they executed a loan acknowledgment and service contract agreement with CRDC/SSU. The service agreement allowed for CRDC/SSU to provide and bill them for technical services in defining and executing appropriate and affordable sanitation solutions. As CRDC/SSU clients, the householders were given project specification, cost estimates, construction supervision, and monitoring of the construction and installation expenditures. Households were free to choose their own contractors (or do the work themselves). CRDC/SSU also assisted by prequalifying and standardizing costs

for the excavation work that was frequently a significant portion of the overall costs. All of the households in the target communities also received materials and training in health education, particularly in hygiene practices which would benefit health in the communities. The fee ascribed to those households requiring improvements in their sanitation was J\$4,500.

CRDC/SSU was able to charge for its services in two distinct phases, based on the level of its activities. The initial inspection and certification of acceptable or not acceptable sanitation system was identified as Phase I, billed at J\$1,125 per inspection. For the plots with unacceptable systems, which were then successfully processed by CRDC/SSU and subsequently certified as having acceptable sanitation solutions, an additional fee of J\$3,375 was allowed. In all instances, the maximum service fee for CRDC/SSU was J\$4,500 for a fully improved parcel that benefited from a sanitation loan.

1.3.1 Project Costs per Parcel

Activities	Costs (J\$)
Land and Communal Infrastructure*	280,000
Sanitation Loan- Maximum Authorized Loan	60,000
Total Costs	340,000

*Average cost is derived from the price lists examined that contained a range from J\$159,352 to J\$591,381; variations are based on lot size, with an average cost of improvements, including sanitation, of J\$803 per square meter. There is no indication that location or level-of-service factors were used to apportion added value or to rationalize any differences among parcels.

The improved land with sanitation costs, when offered for sale to the inhabiting households, are subject to a 5% down-payment [deposit] as well as life insurance, processing, legal, survey, registration fees, and stamp duty. For this analysis, the ancillary costs and the down-payment are treated as if they cancel each other out or were not applied.

Financial Elements & Feasibility Analysis:

	Land Improvements & Sanitation	Sanitation Improvement Alone	Sanitation as % of the Total Loan
Loan amount	J\$340,000	J\$60,000	18%
Interest/Annual	13%	13%	
Term Full Years	20 yrs	20 yrs	
Payment Monthly	J\$3,983.36	J\$702.95	18%
Monthly Costs as a Percentage	30%	5.30%	
Minimum Monthly Eligible Income	J\$13,278	J\$13,278	
Median Monthly Income*	J\$13,278	J\$13,278	
Monthly Cost/Median Income	30%	5.30%	

* The median income was calculated on information obtained from a 30% factor applied to the loan payments for the purchase of the improved lands in Norwood. A review of an update figure was not possible.

Breakdown of the Sanitation Loan

	Costs (J\$)
Total Sanitation Loan	60,000
Excavation Work/Platform	40,000
Sanitary Unit Fixtures / Accessories / Contingencies	15,500
CRDC/SSU Service Fee	4,500

It is important to note that CRDC/SSU was working within the general parameters of the community upgrade program. Feasibility and underwriting determinations were the responsibility of the Caribbean Housing Finance Corporation (CHFC). In the same manner, all of the physical development activities related to the communal infrastructure were managed by the Ministry of Environment and Housing. Marketing the improved plots was also the responsibility of the ministry and its agents. While much of the program was not the direct obligation of CRDC/SSU, the delays in implementation of the marketing program and CRDC/SSU's timely initiation of its sanitation activities resulted in a high level of involvement with the inhabitants. As a consequence of promoting sanitation concerns, CRDC/SSU was engaged in considerable promotional, marketing, and community organizing efforts that went well beyond sanitation.

The maximum sanitation loan amount (J\$60,000) has remained unchanged since the start of the program, despite inflationary pressure on the cost of materials and labor. It is assumed that households will provide the difference between the actual cost of the improvements and the loan amounts. In the majority of the solutions, CRDC/SSU ensures the completion of the absorption pits with platform-covers-base as well as the provision of fixtures and accessories. Depending on the actual solution chosen and the location, there can be additional costs of J\$12,500 or more beyond the loan amount. This unfinanced portion of the sanitation improvement is generally provided by the household as cash and/or in-kind contribution of material or labor. The householder's contribution to the project is viewed as the equity contribution. In some cases, this equity contribution is provided immediately, while in others it will be provided over time.

1.3.2 CRDC/SSU Program Income and Expenditures

The CRDC/SSU operating costs incurred in the start-up and during the program implementation were supported by a USAID/ Jamaica operating grant. Based on the actual costs CRDC/SSU incurred from January through April 1997, the average monthly operational costs are approximately J\$500,000, or J\$6,000,000 per annum. All earnings from fees have been earmarked for future sanitation activities by CRDC and have been set aside in a special account.

CRDC/SSU Income Projection by the End of Project

Households Inspection/Acceptable	Household Inspection/ Plus New or Improved Sanitation Solutions	Fee per Household (J\$)	Total Projected Fees To CRDC/SSU (J\$)
585		1,125	658,125
	1,504	4,500	3,768,000
Total Solutions	2,089	Total Income	7,426,125

The bulk of the operational costs (60%) are for personnel, with the balance being administrative costs. It should be noted that no costs for administrative overhead were attributed to the above figures, although an in-kind contribution was programmed.

CRDC/SSU Estimated Monthly Operating Budget

Budget Item	J\$
SSU Salaries	312,000
SSU Operational Costs	204,000
CRDC Administrative Costs	0
Total	516,000

1.3.3 Sanitation Project Evaluation

The recent evaluation of the sanitation program concluded: “CRDC/SSU developed an effective technical strategy which, in combination with the behavior change strategy, resulted in significantly increasing sanitary coverage and improving the urban environmental conditions. The key components of this strategy were developing a range of technologies that were appropriate to the conditions on each site as well as acceptable to community lot holders, effectively using private-sector contractors to do the construction, and providing affordable solutions.”¹

The evaluation provides some important financial information about of CRDC/SSU operational costs.

- # CRDC/SSU’s monthly operational costs are expected to remain close to the actual recent figures, approximately J\$500,000 per month.
- # CRDC/SSU has the capacity to service enough households to achieve the goal of 100% financial self-sufficiency from service fees at the current level.
- # The fees charged by CRDC/SSU cover not only the direct hourly costs of the Technical and Community Officers but also the indirect costs of the management, administrative, and accounting personnel.
- # A critical issue for the sustainability and replicability of the CRDC/SSU program is locating alternative financing, once the HG loan program ceases, to provide credit to families living in informal urban areas.²

¹ Daane et al. 1997, page 23.

² Ibid., pg. 13 and 21.

2 FINDINGS

2.1 Government of Jamaica Strategy for Community Improvements

The Government of Jamaica (GOJ) is pursuing a dual urban environmental strategy of improving centralized sanitation systems and servicing the unserved areas with community improvement programs. International assistance, both loans and grants, has been critical in the work achieved to date. The environmental quality of principal tourist centers along the coastal waters of Jamaica should be significantly improved with the substantial investments made on behalf of the National Water Commission. The European Union is assisting in the rehabilitation, improvement, construction, and maintenance of central sewerage facilities in urban centers along the northern coast. Another useful tool has been the use of the USAID-sponsored Housing Guaranty loan program for upgrading informal communities, with significant work again taking place in the northern coast. The approaching end of the Housing Guaranty loan program in Jamaica will have substantial impact. Reduced resources will mean fewer program activities focused on mitigating the negative impact that unplanned residential development has on the environment.

The Government of Jamaica plans to continue its efforts in community upgrading to meet the current and projected demand for shelter, communal infrastructure, and sanitation solutions for its citizenry. Locating replacement capital for the Housing Guaranty funds is a path now being pursued by GOJ. No clear indication has emerged of newly committed or soon-to-be-committed replacement funding. However, the most significant action to date is the recently announced governmental initiative known as PRIDE.

The new PRIDE program hopes to capitalize on active citizen participation. It will bring together community energy and idle government lands with supportive governmental expertise and professional skills. Community groups will be asked to come together under enabling legislation that provides for Providence Societies. (Mutual housing societies and cooperatives will also be recognized.) These groups will work with GOJ to identify land that can be purchased by the communal societies on behalf of its members. Basic infrastructure, with an emphasis on appropriate and affordable technologies and systems will be designed and installed in phases, as the resources of the communities permit.

The initial round of sites and community groups have been announced, while the governmental organizational structure and financing mechanisms are being molded to address the demands of this new program. Regarding sanitation, there are two particularly key elements in the restructuring of the Government of Jamaica's response to this challenge. The role of the

Caribbean Housing Finance Corporation will be modified, and the Jamaica Social Investment Fund will be put into operation. These are discussed later in this report (see Chapter 3).

2.2 Financial Market Conditions In Jamaica

The formal banking system in Jamaica has undergone a great upheaval in the last two years. A number of banks have closed due to various problems, while others were taken over by the government. Recently, the banking industry has focused on traditional customers and increased efficiencies, with a general tightening of credit. Liquidity is down in most banks, and the most conservative banks appear to have the greatest potential for lending. Bank customers are moving more capital to this small circle of less speculative banks.

An exception to this pattern is the Workers Bank. This financial institution was originally created by the government to serve the financial needs of its workers throughout the nation. Under a privatization program, the bank was removed from public management and is being innovative in expanding its business base. Among the novel activities is its microenterprise programs. With USAID/Jamaica assistance, the Workers Bank is blending aspects of the traditional Jamaican “partner” financial mechanism with microenterprise lending, with apparently profitable earnings.

The following chart gives a range of indicators that help in understanding the current financial market.

Institution	Interest Rate
Public Sector	
Government of Jamaica Treasury Notes	18.50%
Private Sector - commercial	
Pass Book Savings Accounts	11-15%
Bank Certificates of Deposit	18-24%
Lending Secured Loans / 3 yrs	56%
Preferred Customer Loans	35-48%
Micro-Enterprise Workers Bank	48-56%
Private-Sector Non-Profit	
Credit Union Certificate of Deposits	6-18%
Credit Union Loans	12-24%
CU National Development Bank Loans	18%
Private Housing Sector	
Building Societies Saving Accounts	17-21%
Building Society Loan/Secured	30-35%
Public Housing Sector	
HG Land & Sanitation Loans	13%
National Housing Trust	2-14%

2.3 USAID - Credit Enhancement

During the 1990s, the U.S. Government has been attempting to broaden the reach of its financial support in international development efforts. In seeking greater flexibility to enhance credit where appropriate, USAID hopes to offer credit in place of grants or to reduce its proportion of the guarantee risk. In this way, the U.S. Government is also trying to bring its development assistance more in line with that of other international development institutions. A major application of enhanced credit techniques has been in USAID's loan portfolio for micro and small enterprise development. This loan portfolio frequently uses a guarantee. The underlining objective of credit enhancement is to reduce the risk or perceived risk to the lender/investor to improve the credit-worthiness of borrowers and consequently improve the terms of the lending.

The USAID Housing Guaranty program is a good example of leveraging resources by the application of an enhanced credit mechanism. The Housing Guaranty model offers two such options. On the one hand, there is the full faith and credit of the U.S. Government behind the loan. The other mechanism is to set up a sinking fund to make up for any potential shortfall in the underlying loan payment experience. Both of these alternatives make favorable lending possible to an otherwise less attractive borrower.

2.3.1 Development Credit Authority

The U.S. Congress is currently considering a budget request that would establish the Development Credit Authority (DCA) with up to US\$10 million of transfer authority, using funds assigned from development assistance accounts earmarked for USAID/Missions and USAID/Washington. Under the authorization, development assistance would have greater flexibility and lower budgeting costs associated with financial development activities throughout the world. While individual credit enhancement operations will vary, it is estimated that leveraging can be as significant as 7 or 10 to 1. When/if this authorization is approved, USAID Missions will be able to access this new development tool.

2.3.2 Activities Supported by USAID/Jamaica

USAID/Jamaica has been successful in enhancing credit for microenterprises by its support of the Workers Bank. Based on strong savings patterns and high effective yield on individual loans, the program has proven to be profitable and has gained positive publicity for the bank. While expanding micro- and small-business credit, the program does not leverage credit with the use of a third-party guarantee. The program, however, has demonstrated the positive aspects of lending to nontraditional segments of the Jamaican population.

In recent years, considerable efforts have been made to improve the scope, operation, and maintenance of the centralized sewerage systems, as exemplified by current activities in the tourist-sensitive communities of Montego Bay, Negril, and Ocho Rios. Not surprisingly, it is in these same areas that the most dramatic growth of informal development has occurred. The community upgrading and the sanitation program in Montego Bay were designed to improve the quality of life for inhabitants while affording increased protection to the environment. As mentioned earlier, it is in these upgrade activities that the Housing Guaranty has played a central role.

2.3.3 Coastal Water Quality Improvement Program

USAID/Jamaica is preparing for a targeted program of separate but complementary activities, which include the following:

- # Support of community-based initiatives to identify, prioritize, and address environmental concerns;

- # Establish public-private partnerships to improve the operation and maintenance of municipal wastewater management systems;
- # Improve the environmental practices of industries and commercial establishments through an environmental audit program;
- # Develop NGO-governmental partnerships to expand and regularize coastal water quality monitoring;
- # Improve the coordination of coastal zone management activities among Jamaican government agencies, international donors, and NGOs.

The first program element calls for the creation of financially viable, enterprise-oriented approaches to improve environmental management. Focused community participation will create, through sanitation and other environmental efforts, a direct linkage to improving coastal water quality.³ Addressing wastewater disposal needs is viewed as in keeping with the program's intent. The Mission can provide initial planning and management assistance and up-front, start-up costs through grant resources. It is anticipated that the use of such initial grant funding to enhance future credit standing, as outlined herein, will be consistent with the program objectives relating to environmental issues.

³ The Coast Water Quality Improvement Program (CWQIP) A USAID/Jamaica Result Package (Under Strategic Objective Two, USAID / Mission Jamaica, May 1997, pg. 6.

3 RECOMMENDATIONS

This chapter presents a series of recommendations that, taken together, form a strategy that should lead to enhanced credit resources to support urban sanitation improvements. That, in turn, will support, protect, and improve environmental conditions in targeted coastal water areas.

The following principles were used to guide the development of these recommendations:

- # Maximize the opportunities afforded by the experience gained from the current Housing Guaranty program, particularly the targeting of lower-income households for the use of credit to meet their sanitation needs.
- # Make effective use of the social, managerial, and technical expertise developed by CRDC/SSU within a financially sound and replicable framework.
- # Enhance opportunities to replicate the credit mechanisms and the supply of credit for application to environmentally appropriate and financially sound investments that build the community and household infrastructure and protect the environment.
- # Consolidate and build on the physical environmental improvements made in the Montego Bay community upgrading areas.

3.1 Strategy for a Credit Enhancement Mechanism

The recommended strategy to enhance the credit mechanism for continuation of the Urban Sanitation Improvement Program as a component of the Coastal Water Quality Improvement Program is premised on the use of a variety of credit-enhancement and mitigation mechanisms.

The basic outline is as follows:

- # Funds would be borrowed from a variety of sources to create a consortium or pool of funding. The resources should consist of both concessionary⁴ and nonconcessionary funding. At this level, the funds would be blended to produce an interest rate for on-lending⁵ by a commercial bank, credit union, or building society with terms consistent for the shelter and community infrastructure sector.

⁴ *Concessionary loan*: a preferential loan with less-than-market rate terms, made to specific customers or for a special reason

⁵ *On-lend*: the use of loan or grant funds that are passed from the originating lender/grantor to a secondary institution and ultimately to the beneficiary or sub-borrower.

- # The blended funds would be on-lent to a respected intermediary financial institution.⁶ Sound underwriting standards and a high level of expertise in on-lending through a network of outlets would follow. The network of local lenders would be experienced with credit activities targeted to households with limited resources.
- # The loans created by the on-lending would be dedicated to a broad range of water and sanitation solutions. These solutions would contribute to improving environmental quality in the local and regional targeted areas. For the consumer households, customized technical assistance and specialized sanitation education would be provided by CRDC/SSU.
- # The overall portfolio would have a guaranteed sinking fund⁷ or trust to offer protection to all participants in the shared risk. The use of experienced financial intermediaries will bring institutional strength and mitigation measures to provide a heightened level of security for the portfolio.

A critical element for the success of this strategy revolves around accessing adequate resources in the concessionary as well as nonconcessionary funding. During the consultant's field interviews, considerable enthusiastic and positive responses were received from a variety of participants. This suggests that, in fact, the conceptual framework and strategy as presented here could be achieved.

3.2 Potential Stakeholders and Resources

3.2.1 The Environmental Foundation of Jamaica

A key piece in the strategy is based on the response from the Environmental Foundation of Jamaica. EFJ was created by the governments of Jamaica and the United States, based on debt reduction agreements between them. EFJ has received over US\$10 million, of a total scheduled endowment of US\$21 million. EFJ can also receive funds from other donors.

EFJ's purpose is to promote and implement activities designed to conserve and manage the natural resources and environment of Jamaica. It works with and funds nongovernmental and community-based organizations operating in this sphere. The work of the Foundation, since its inception in 1991, has been to support more than 200 projects, at a funding level of over US\$1.3 million. Its newly developed strategic plan calls for a sharper focus of activities. The areas of focus are management of protected areas, pollution control, sustainable agriculture, sustainable tourism, and child survival. It would be fully consistent with three of these focused areas (pollution control, tourism, and child survival) for EFJ to make a commitment to the sanitation program.

⁶ *Intermediary financial institution*: the recipient of loan or grant funds that serves as a pass-through for an originating funding source (or sources) to reach the sub-borrowers or beneficiaries.

⁷ *Sinking fund*: a specially earmarked fund, such as a trust or reserve fund, that can be turned to when specific conditions exist or have been satisfied.

All of the funding by EFJ has been in the form of grants. The credit demands for a single year of the urban sanitation program would be almost equal to all of EFJ's funding to date. Therefore, the approach to the Foundation needs to be innovative. For the sanitation program, EFJ would be asked to provide a Project Related Loan (PRI), rather than a grant. As a project-related loan action, the Foundation would not be losing a portion of its core capital, but would, in effect, lend it for specific purposes consistent with its objectives. It is important to note that Project Related Investments are increasingly being used by foundations to achieve defined objectives, particularly where meaningful and sustained results are desired within a framework of sectoral development.

The parameters for the request to the Foundation are as follows:

- # EFJ would be asked to provide a Project Related Loan to the Urban Sanitation Improvement Program.
- # The loan would carry with it a concessionary interest rate and a term of at least five to six years or longer. During the life of the loan, only interest would be paid; at the end of the loan period, a balloon payment of the full principal amount would be made.
- # The Project Related Loan would be matched by other funds that, when combined, would provide a fund of approximately twice the size of EFJ's portion.
- # To the extent warranted, the resources provided by EFJ could be backed by a partial guarantee mechanism.
- # This pool of funds would be dedicated for Urban Sanitation Projects for households in targeted areas that are determined to be consistent with environmental concerns of the Foundation.
- # The pool of funds would provide a blended rate of interest, to be consistent with comparable program activities and affordable to households in the targeted areas.
- # The funding mechanism used to target the program areas and populations would be such that it insured adequate underwriting⁸ and servicing of the underlining loans and would use an acceptable intermediary financial institution.
- # The targeted households and communities would be supported by CRDC/SSU in such a manner as to ensure that appropriate, functional, and affordable sanitation solutions are provided. This support would include promotional, technical, and educational activities.

The above framework was greeted with considerable enthusiasm by EFJ. CRDC was asked to draft an outline of this proposal and explore it with EFJ's board of directors.

RECOMMENDATION:

Provide to the Environmental Foundation of Jamaica a concept paper for a Project Related Loan. The request should be in the magnitude of J\$10 million to J\$20 million.

⁸ *Underwriting*: the process of analysis and judgment made by the lender in reviewing a loan request, such as the borrower's financial worth or ability to pay, or the investment purpose, the risk involved in the venture or use of the funds, or the risk associated with repayment of loan.

As mentioned earlier, the financial community has seen a tightening of its liquidity, and consequently lending has become somewhat more difficult. Nevertheless, there are some encouraging notes, such as the active development of the micro enterprise market by the Workers Bank, the aggressiveness of the National Commercial Bank, and the strong positioning of the Scotia Bank. Based on these exceptions and with the full understanding that economic conditions can change, the consultant undertook an investigation of a variety of private and public financial entities. A brief review and recommendations follow.

3.2.2 Workers Bank

In an exploratory meeting of the EHP consultant with a representative of the Workers Bank, the conceptual framework, as outlined here, was received with interest.

The Workers Bank is accustomed to dealing in smaller transactions. Its operation is built on the use of governmental postal windows throughout the country. In recent activities with micro- and small-business entrepreneurs using traditional Jamaican “partner” elements, the Workers Bank has shown good performance and profitability.

As indicated by its name, the Workers Bank appreciates that lower-income groups represent an active market which it is interested in servicing; it could consider the sanitation program as yet another product-line made available to its clients. In this regard, the bank was receptive to looking at a possible association with the program.

3.2.3 Building Societies

Based on the savings and loan system of the United States, building societies play a significant role in the shelter saving practices of the working and middle classes of Jamaica as well as meeting the traditional banking needs of these customers. In addition to providing mortgages for a variety of home purchase and improvement plans, land purchases are also covered. Based on statutory enabling authority, building societies are highly regulated and restricted as to how they can place their deposits. All lending must be secured by either a lien or a guarantee provided by a commercial banking institution.

While intrigued with the underlining sanitation needs and the unique application of resources, the building society consulted in field investigations felt that, at present, the building society network does not have the flexibility and where-with-all to participate in the urban sanitation program. However, having said that, the network should be kept within the broad discussion as a source of information, potential long-term contributor to the urban sanitation fund, and an additional outlet for CRDC/SSU services.

No other commercial banks or investment firms were approached. Nevertheless, it is apparent that, at first glance, the mitigating risks and the loss guarantee in conjunction with some holding or depository function appear attractive to the commercial financial community. The dialogue with the banking community, particularly with the Workers Bank, should be continued.

RECOMMENDATION:

The dialogue with the banking community, in particular with the Workers Bank, should be continued. In the first instance, a concept paper should be shared so the Workers Bank can more accurately gauge its potential role, costs, and interest.

3.2.4 Jamaican Credit Union System

Credit unions, by their membership, form the largest single financial system for the Jamaican public. With affiliates across the entire island, credit unions can be found in all the principal cities as well as in towns and villages. As savings and loan cooperative societies, credit unions take in shares and savings and make personal loans to their members. For shareholders, they offer the potential for dividends as determined by the operational productivity and democratic decisions.

Credit unions provide lending in the following broad categories: commercial/ business loans, housing/home improvement loans, and personal/consumer loans. Within the housing and home improvement loans, current lending can address household sanitation improvements. Approximately 20% to 30% of each credit union portfolio is dedicated to shelter lending; loans for sanitation improvements are not broken out separately.

As closed membership groups, credit unions establish their own standards for interest on deposits and loans. In general, interest rates cluster just over 20% per annum. As an example, the City of Kingston, one of the largest credit unions, charges 24% on typical loans to its members.

Credit unions are governed by a national federation, the Jamaican Credit Union League. The League monitors and provides a central banking function for its members. The League traditionally has served as an intermediary financial institution for national and international donors/lenders. Through the League, the credit union movement has successfully participated in earlier Housing Guaranty program activities in Jamaica.

The consultant's discussions with the League in regard to the proposed sanitation loan program were very positive. Credit union participation would, in itself, increase the overall leveraging of the pool funding, based on initial discussion of a potential request for a 20% contribution to the pool of funds.

Offering loans for the sanitation program through the Montego Bay and Negril credit unions would provide a solid avenue for reaching customers. Given the nature of credit unions, the beneficiaries of loans for sanitation improvements would come from the pool of current and newly recruited members. The standard membership and loan guidelines would be modified to accommodate the new clients. Some small capitalization of shares for the new members might need to be included in the sanitation loan. The potential for continuing and expanded relationships between the credit unions and the beneficiaries is quite high. As active members, the beneficiaries would become eligible for other credit union financial and educational opportunities as well.

Because of the pass-through of funds via the League, funds would be subject to separate add-on costs before getting to the final users. An initial review of the likely impact of the total costs indicates that they would be within the parameters of the sanitation project at this stage of development.

RECOMMENDATION:

Conversations with the Jamaican Credit Union League should be continued into the next stage. The League should be given an opportunity to respond in detail to the program concept. Subsequent dialogue with individual credit unions would follow, once the elements of the strategy come together.

In addition to the commercial financial markets, various organizations in the public and quasi-governmental financial sector should be examined; contact was made by the consultant with four of them: the Jamaica Social Investment Fund, the Jamaica Mortgage Bank, the National Housing Trust, and the Caribbean Housing Finance Corporation.

3.2.5 Jamaica Social Investment Fund

The Jamaica Social Investment Fund (JSIF) was created to balance the economic measures deemed necessary to improve the Jamaican economy. The goal of JSIF is eradicating poverty, i.e., dealing with the most impoverished elements of Jamaican society. JSIF will fully incorporate the principles of community-based participation, partnership, and targeting to channel benefits to the poorest communities in the country. It is looking for a working collaboration with the private sector, NGOs, community-based organizations, communities, and donor/lenders.

JSIF objectives call for the establishment of efficient and demand-driven mechanisms to deliver basic services and infrastructure to the poor. A parallel objective is to increase the institutional capacity of NGOs that adhere to community participation to design, implement, manage, and sustain small-scale, community-based projects.⁹ JSIF is in the formative stage of developing a mechanism for evaluating, funding, supporting, and monitoring approved projects.

In the initial funding requests submitted to JSIF, only a limited number of responses were received, and only a small portion of those were for sanitation projects. Recently a more open submission policy was adopted, and more requests have been for sanitation projects. The majority of the early project submission requests are still in the formative stage; they need further development and refinement. Many of these early project requests are being shared with the Environmental Foundation of Jamaica either for assessment or funding.

In exploring the possible relationship of JSIF and the Urban Sanitation Program, there are many shared objectives and opportunities for collaboration. Among the potential areas of mutual

⁹ Brief on the Jamaica Social Investment Fund, Project Preparation Management Unit, October 25, 1996.

interest is the support of community-based organizations (and communities) in designing targeted program activities that relate to health and sanitation.

The promotional, organizational, and educational work undertaken by CRDC/SSU emphasizes the critical importance of individual awareness and community responsibilities. As shown in the Montego Bay experience, CRDC/SSU can develop and activate effective local participation and demand for improved services in the affected communities. The sanitation program represents a consistent effort at targeting and implementing a community-based project as well as developing a demand-driven mechanism to deliver basic services and infrastructure. It will be important to emphasize the collective and communal aspects of CRDC/SSU's work, so as not to conflict with JSIF's focus and concern to address community concerns (rather than individual interests).

It would be very constructive to separate out the costs of these communal elements (creating an environment for communities to solve their own problems) from the service fee structure that is now built into the current loan program for CRDC/SSU. JSIF's funding of these communal activities would be appropriate, since they are part of the programmatic concerns of the Fund. At the same time, separating these communal costs might compensate for what may be a higher rate of attrition within the promotional work leading up to household loans. The attrition rate among community animators was a cause for concern in the evaluation report about the Montego Bay activity.¹⁰ If future urban sanitation programs in other informal communities are undertaken without being tied to legalizing the tenure/ownership of land, such attrition can also be anticipated.

RECOMMENDATION:

CRDC should develop a project proposal for the Jamaica Social Investment Fund that would allow CRDC to do the initial promotional and educational work in targeted communities that will be the subject of the urban sanitation program.

3.2.6 Jamaican Mortgage Bank

The Jamaican Mortgage Bank (JMB) is a quasi-governmental financial intermediary originally created to support the development of a secondary mortgage market. It became a principal financial agent for many of the earlier Housing Guaranty loan programs between the Governments of Jamaica and the United States. Based on a heavy foreign exchange obligation matched by extensive devaluation of the Jamaican dollar, JMB was unable to meet its financial commitments. Consequently it was disqualified to serve as the vehicle for additional Housing Guaranty activities. In the last two years, in conjunction with the Government of Jamaica, the foreign debt obligations of JMB were removed. Based on this restructuring, JMB believes it is in a position to actively re-enter the housing market in fulfillment of its mission.

¹⁰ Daana et al. 1997, page 33.

In this spirit, JMB has expressed interest in being a potential investor of financial resources for the commercial-rate portion of the financial pool. JMB is also prepared to serve as a financial intermediary for the entire pool of funds and to on-lend them to acceptable intermediary financial institutions. JMB has a long history of working with financial intermediary institutions that serve lower-income households. It has made a number of very successful loans to the credit union system, for example. CHFC was originally created by JMB as a wholly-owned subsidiary to service its portfolio of subloans to low-income households with more traditional housing solutions.

RECOMMENDATION:

Dialogue with the Jamaican Mortgage Bank should be contained. A concept paper should be shared with the JMB, which could lead to further negotiations for its possible participation.

3.2.7 National Housing Trust

The National Housing Trust was established in 1976 as a statutory body to help provide houses for working Jamaicans. All employees, employers, and self-employed are required to make contributions to the Trust. Employees contribute 2% of their earnings, and the employer matches with another 3%. The self-employed contribute either 2% or 3% of earnings, based on the type of business activity.¹¹ The Trust uses these contributions to finance the construction of houses and to provide mortgage loans for NHT contributors who wish to buy, build, or repair their houses or to buy land.

The Trust has a policy of favoring contributors with a one-time, life-time loan opportunity as a means of having the fund touch as many contributors as possible. In considering householders' sanitation improvements, it would be wise to open the lending opportunities to more than J\$60,000, to maximize the options for the Trust contributors. The Trust is very concerned about using its resources in ways that provide the greatest degree of subsidy to lower-income households. Any consideration of a match or blending of Trust funds would be looked at closely, to ensure that the higher-income groups are not subsidized by lower-income contributors to the Trust.

In exploring how the Trust could be supportive of the sanitation program and CRDC, two options were discussed. In the first instance, CRDC/SSU might work in a Trust project in the Flankers community in Montego Bay, where Trust funds have been provided to over 30 households. The Trust needs to assist these households in a number of technical and organizational matters. NHT could contract with CRDC for its organizational and technical services. CRDC/SSU activities in promoting sanitation solutions would be appropriate to this area, as would its organizational/development work. Under a special arrangement, the Trust has decided to leave

¹¹ Mortgage Programmes, National Housing Trust, January 1997, pg. 1.

the loans to the Flankers' households open for a year, thereby paving the way for the possibility of increasing the loan amount for sanitation improvements within the single loan policy.

Another option presented itself in discussions of past Trust, CRDC, and credit union collaboration. Under this arrangement, the Trust provided a credit union with funding, for on-lending to lower-income households for shelter; technical support was provided by CRDC. As this experience was explored, it appeared that there was a precedent for the current strategy whereby funds could be made available to lower-income households within a special-purpose fund. Such an initiative would require special approval of the Trust Board of Directors.

CRDC should consider how to make the best case for the sanitation program to the Trust. The key issue will be this: Is there greater potential to service Trust members through existing NHT lending facilities? Or can a case be made for a special funding arrangement that will satisfy the Trust's concerns of equity to lower-income households? In the end, a combination of approaches may be valid for CRDC and CRDC/SSU.

RECOMMENDATION:

CRDC should return to the National Housing Trust to offer technical support to the Flankers community. The dialogue for the special-purpose funding from the Trust should be studied and developed into a formal request to be presented to NHT.

3.2.8 The Caribbean Housing Finance Corporation

The Caribbean Housing Finance Corporation (CHFC) is the intermediary financial institution for the latest Housing Guaranty Loan which is supporting the current work of the Urban Sanitation Project. The transparent role of CHFC as the lead lending agency in the sanitation program in Montego Bay is of considerable interest in the formulation of a future sanitation project.

It appears that CHFC will be the mortgagee to the households in the Norwood and Rose Heights communities. Titles are being prepared for the improved properties, and liens will be placed on the same for the amount equal to the purchase price (a reflection of the improvement costs and apparently a zero value for the land itself) and the sanitation loans. In addition to its mortgagee position, CHFC has the capacity to act as the servicer of the loans. It is assumed that it will play this role.

The Government of Jamaica assumed control of CHFC recently, and it is unclear what its exact legal status is, i.e., whether it is a private company or a unit of government. In addition, there is considerable question about its future role. A current proposal would have the CHFC rolled into the government's new PRIDE initiative. The full implications of this action are not clear.

In considering its program role in a future sanitation program, CHFC would be concerned about a number of issues that represent variations from the current program in Montego Bay. One such

concern is handling as separate transactions the sale of land and the sanitation loan. The opportunity to purchase land is viewed as a huge incentive to borrowers, and thus its absence would be a test of the real demand for sanitation loans. Another concern for CHFC is the cost implications of dealing with significantly smaller loans. From CHFC's prospective, the margin between the cost of the pool funds and the cost to the final sub-borrower must be adequate to cover the cost of CHFC's involvement. These concerns are not exclusive to CHFC, but in fact will be questions for all who participate in the continuation of the sanitation program. CHFC's sensitivity to them may in fact be due to its own experience with the current upgrading portfolio as well as its heightened awareness of the market and product potential.

CHFC's capacity to bring its own resources to the pool is uncertain. CHFC's ability to borrow from the financial community or from a financial intermediary has not been tested. This raises questions that would be applicable to all the potential financial participants in a new program.

RECOMMENDATION:

CHFC should be appraised and consulted about the development of the revised sanitation program. The program concept should be shared with CHFC so it can explore its potential participation and contribution.

3.3 Programmatic and Financial Parameter Analysis and Sensitivity Analysis

Ownership

In some cases, depending on arrangements and conditions of the intermediary financial institutions, situations can arise where the intent of activities, such as those defined by CRDC or CRDC/SSU, are usurped or compromised by the lenders. Under the worst case, the objectives of such a program could be lost, due to financial demands or restrictions of the lending institutions. For this reason, in a future Urban Sanitation Program, CRDC should have the leadership position. The division of labor between the underwriting organizations and the organization managing the physical/technical/educational aspects must be clearly defined from the start. In addition, CRDC needs to define and clarify the two aspects of its work: the promotional elements within the community and its works with individual householders for sanitation improvements.

To address the potential threat of confusion of leadership, CRDC should assume a central role in the ownership and management of the core resources associated with the sanitation program. To that end, CRDC should be the conduit for USAID funding that might represent the guarantee funds. Similarly, CRDC should be the applicant and recipient of the Project-Related Loan requested from the Environmental Foundation of Jamaica. Every effort should be made by CRDC to position itself as the borrower and manager of all other project funds, be these at market rates or concessionary.

RECOMMENDATION:

CRDC should assume a central role in the ownership and the management of the core resources associated with the sanitation program.

By assuming a central ownership or management position, CRDC would be ideally situated to “control” or “have a voice” in the application of the funding as it moved from conduit to conduit, to the ultimate targeted borrowers of the sanitation loans. CRDC would not need to add on additional costs for its work in administering or managing the fund(s), but it should be allowed to cover those costs from the interest earned on the funds. CRDC should be allowed to retain all interest earnings, beyond the costs associated with handling or managing the fund(s). The rationale for CRDC ownership and management of the funds would be so that it could ensure their use to achieve the underlying program objectives.

From another perspective, the ownership of funds could be broadened in order to make the financial pool larger. A partnership, where the sum total is greater than the individual parts, might provide broader leadership; it should be considered during the program-design phase and into the execution phase. In building a partnership, it is important to leave options open for all the stakeholders. The creation of a partnership would allow varying groups and interests to participate. In being more inclusive, a partnership could take in both public and private stakeholders. Such participation should include representation of the beneficiary population.

An organization such as CRDC can be involved in a partnership without giving up control. And those other partners who can not immediately make a financial contribution to the fund might still be able to provide other valid inputs or make a contribution at a subsequent date. An alternative to bringing others into the ownership/administration of the financial consortium would be to establish an advisory body.

In Montego Bay, bringing the Chamber of Commerce and the Hotel & Tourism Association in program plans appears to have offered the promise of success, even though they provided no financial support in the short term. To engage and keep these critical stakeholders, it would be beneficial to include them in a advisory committee format. Within this format they would be able to observe what is being done and to lend support in various ways.

RECOMMENDATION:

Formation of a partnership should be considered for the program design phase and into the execution phase.

Intermediary Financial Institution

The selection of an intermediary financial institution is a matter of utmost importance for the sanitation program. However, at this point, it is too early to narrow the field of potential

candidates. Nevertheless, certain critical factors should come into play in the selection process. Among the important considerations are the following:

- # Ideally, the intermediary financial institution would bring funding to the sanitation program and share in the program risk.
- # The intermediary financial institution should have prior experience with the targeted market group(s) in terms of geography; underwriting high-volume, low-loan amounts; and character lending, i.e., allowing unsecured transactions.
- # The intermediary financial institution should have the financial and administrative capacity to service subloans, and the transaction cost should be reasonable.
- # The intermediary financial institution should have experience working in a collaborative setting with low-income communities and NGOs.

RECOMMENDATION:

At this stage in program design, it is too early to narrow the field of potential candidates to serve as the intermediary financial institution.

Program Guarantee Element

The purpose of establishing a program guarantee is to reduce the real and perceived risks to the lenders/investors and to make good on an agreed-upon amount of loss that might be experienced. In this regard, the loan guarantee fund should have some relationship to the amount that is being leveraged and participating organizations' knowledge of the sector or targeted clients. Beyond the protection offered to the lenders/investors, the guarantee should serve as an inducement to have the financial institutions regard this market as economically viable.

RECOMMENDATION:

A better or more defined picture of the program elements (such as the size of the real, sustainable market for the sanitation program) is needed before the loan guarantee is finalized.

In structuring the loan guarantee, the factors and suggested structuring listed below should be considered:

- # **Familiarity of the lender with the market** (be this the product [sanitation] or the client [the poor]): Is the market a sustainable one, or is it limited? How much of the loan funds, at what level of risk, are being leveraged by the guarantee? The potential stakeholders or financial intermediaries that were approached have differing levels of familiarity with the targeted population and varying amounts of liquidity and administrative costs. Up to this point, the guarantee has been described as a fund of perhaps US\$100,000, with the possibility of a larger amount either in the initial instance or as the program moves forward. A maximum of US\$400,000 to US\$500,000 is thought to be possible. Access to additional funding for the

guarantee would depend on a larger market potential, which in turn would be determined by the strength of the demand and availability of concessionary funds.

- # **Loan approval:** Who would approve the loans? And who would assume the risk? The answer to these questions will influence the magnitude of the loan guarantee. The financial intermediary should be responsible for the underwriting standards, approving the eligibility of the borrower, and authorizing the loan. CRDC/SSU would agree to work within the parameters of the loan amounts determined by the financial intermediary.
- # **Transaction costs:** The cost of the transaction should be based on the interest rate, not on the amount represented by the loan guarantee. (It was suggested to the consultant that the interest rate bear the cost of the transaction plus a factor to mitigate to some degree the shortfall in the repayment stream, before the partners determine the guarantee mechanism and funds.)
- # **Risk factor:** What is guaranteed? The answer will bear on the risk and how large the guarantee needs to be. The guarantee should be limited to loans that are declared in default or not collectable. Only those 90 or 120 days or more in arrears should be negotiated. Ideally, only the principal would be guaranteed for default or uncollectable loans. On the other hand, if the income stream is being protected, both interest and principal should be insured.

Program Parameters

In defining future urban sanitation loans, critical program elements from the Montego Bay experience need to be examined as to their appropriateness and suitability, especially issues related to separating the sanitation program from the larger community upgrade activities. The most obvious difference is that the sanitation improvements will be a stand-alone loan. The repayment incentive (of households' obtaining title) will not be part of the terms. Nor will the added value of the public improvements be a factor. In order to assist in this re-examination, the following items should be considered:

- # **Promotion:** The promotion and marketing of sanitation loans will need to be more aggressive. Potential beneficiaries will not be defined by a larger program context. Their sense that things are happening (i.e., community upgrading) will be less than that found in the Montego Bay program. Depending on who the financial intermediary is, a new set of beneficiaries/clients may present themselves. These new borrowers may not be geographically concentrated. Joint promotional and marketing efforts need to be defined with the new financial intermediary.
- # **Sanitation options:** The work in Montego Bay became increasingly standardized as the local geology and financial parameters defined the appropriate technology and the loan's purchasing power. In the future, the lenders will need to view the new borrowers more as clients. This will mean that the sanitation options need to respond to the interests of diverse customers. CRDC/SSU should return to a broad range of options, as was initially envisioned in its original proposal.

It may be necessary to redefine the program objective(s) so as to be more encompassing. In this regard, the loan should be available for installation of any solution that deals with the introduction, storage, or use of domestic water and the treatment and disposal of wastewater, as

well as the management of solid waste and excrement. In the same way the technologies employed should include on-site solutions and accessing or connecting to communal solutions off-site.

RECOMMENDATION:

Critical sanitation loan program elements need to be re-examined as to their appropriateness and suitability for a wider audience.

CRDC/SSU Services

In addition to carving out a more central role in the ownership of the sanitation program, CRDC will need to re-evaluate other aspects of its involvement to reflect the changing dynamics of the program.

Promotional services: Depending on the options and nature of the financial intermediary or intermediaries, the promotional activities are likely to be modified from those used in Montego Bay. A combination or dual promotional strategy might need to be put into place. This will likely mean that CRDC will need to provide greater outreach to a larger audience in order to produce the same number of loans as achieved in the Montego Bay communities. Much of CRDC's current promotional work there has fallen into the category of community development and capacity building, strengthening local organizational structures, and leadership. Much of this type of work fits well within the objectives of the Jamaican Social Investment Fund. Efforts should be made to redefine the current work undertaken by CRDC into some distinct components so that some portion can be transferred to a cost center under the jurisdiction of JSIF.

Technical Services: With a more customer-oriented approach, CRDC/SSU needs to look at the services it provides now and think about ways to package them so they are more attractive and valuable to client households. A product list then needs to be advertised in the promotional phase of the program, particularly if the potential borrowers have an existing relationship with the financial intermediary. The product line can be the same as what CRDC/SSU already does, plus more. A potential product list might look like this:

- Site assessment
- Sanitation inspections
- Siting plan of sanitation improvement and illustration showing existing/future development
- Scope of work
- Bill of quantities
- Price estimate
- Model contract for the owner and contractor
- List of qualified contractors
- Price estimates and/or purchasing of materials
- General contractor
- Construction monitoring

- Construction supervision
- Certification of completion

! Educational Services: CRDC has incorporated educational elements into its different program components, i.e., promotional, underwriting, construction, and monitoring phases of the current program. A number of informational and promotional notices and materials have been used to deliver messages about sanitation and produce behavior changes. CRDC should consider ways to maximize the messages and their impact as elements of the loan program, determine the portion of their cost applied to the loan, and look for ways to funnel that portion as a separate educational activity to its own cost center[s].

A capacity-building contract from the Jamaica Social Investment Fund to CRDC might allow it to develop educational materials and training focused on targeted and participating communities. This would allow for the separation of the cost of general community development work to be separated from the costs that the borrower must bear within the sanitation loan package. Under separate funding, CRDC might then be able to give more attention to its work with the community leadership, in community organizing and organizational capacity-building in specific settings.

Another idea is that the financial intermediary could provide monitoring and educational reinforcement information in the post-construction phase. Under this scheme, CRDC/SSU would become more of a facilitator and provide “training of trainers” within the intermediary financial institution.

CRDC/SSU Cost Structure and Cost Centers

Once the program moves beyond the current Housing Guaranty-funded activities, the CRDC/SSU current price structure will not be appropriate. It is important for CRDC and SSU, separately and jointly, to define what they do now and what they will do in the future individually and jointly. In the same fashion, both CRDC and SSU need to spell out what is essential in their program and what is not. A final consideration will be to identify these ongoing activities, with real and appropriate costs centers, both within and outside of the fees charged to the new loans.

RECOMMENDATION:

CRDC and SSU should review their activities and costs and carefully match these to proposed cost centers.

Teamwork and Collaboration

As stated earlier, reconfiguration of the program will make for a new set of organizational dynamics. This is true, even if the main players do not change. There will need to be increased teamwork and collaboration within CRDC/SSU and with all of its partners, especially the financial intermediary. Even at this early stage of program design, further dialogue and input of potential participants needs to be solicited and considered in making any decisions.

Once the program reaches the implementation phase, close cooperation and considerable sharing of information will be needed. One way to see that this happens might be to reconfigure the SSU teams to include loan officers from the financial intermediaries themselves.

RECOMMENDATION:

There is need for increasing the cooperation and collaboration within CRDC/SSU and with and among its partners, particularly the financial intermediary.

4 BENEFIT ANALYSIS AND

With information on income, expenditures, and financial projections from past performance in the Montego Bay activity, it is assumed that the same level of activity by CRDC/SSU will be needed. The expanded project can maximize the momentum and capacity that have been developed in the use of credit to improve urban sanitation conditions. This suggests that somewhere between J\$20,000,000 to J\$40,000,000 (US\$570,000 to US\$1.15 million) will be needed.

It is also assumed that the amount available for loans would come from varied sources. Half would be represented by commercial lending, at a preferred customer rate, supported by the enhancement mechanisms outlined earlier. Concessionary loans, including public and private soft lending, e.g., PRI funds, would constitute the other half. Clearly, if more of the funds were concessionary, the mix would be more beneficial to customers.

The objective is to make the blended resources accessible and affordable to the targeted population. For this analysis, the median monthly income used for the Housing Guaranty-supported activity (J\$13,278) was used to test for affordability. The appropriateness and accuracy of data used in these assumptions should be confirmed, with a current estimate of the median income.

The targeted population has been defined as those households with income below the median. For a loan to be affordable, the household should have steady earning power. It is anticipated that households can use up to 30% of their income for housing or shelter-related expenditures. In circumstances where incomes are at the lower end, or where the housing is less than what would be considered a completed house, the use of this percentage (30% for housing costs) has limitations. Thus, the feasibility improves as this percentage is lower. For home improvement loans and where allowances for other household shelter costs must be factored in, it is better if no more than 20% of household income is dedicated to repayment of credit loans for sanitation improvements.

In this analysis, a J\$60,000 sanitation loan has been shown to be supportable by a median income when the interest on the commercial portion of the loan is at 35%, 40% and even 45% if the corresponding portion of the concessionary funds earn as high as 27.61% (when joined with the 35% commercial funds), 22.03% (when combined with the 40% interest match), and 16.02% (with the commercial rate of 45%).

This calculation proved that such loans are feasible if households are willing to pay up to 14% of their median incomes. A lower percentage would not be adequate to cover the principal and would produce a negative amortization situation, unless the monthly income were greater. Therefore, the market for the sanitation loan should be defined as those households with an income of at least J\$9,958.5, paying no more than 20% of their monthly household income (J\$1,991.70). Because the sanitation program will seek maximum coverage to have favorable impact on the environment, households with incomes higher than the median should not be excluded from participation.

Median Monthly Income J\$13,278		Payment of Market Rate Loan		Payment of Project-Related Loan		
% of Median Income	Applicable % in J\$	Interest Rate	Payment (P&I)	Balance Available for PRI Loan Pmt (P&I)	Interest As Translated from Available Balance	Overall Feasibility
10.00%	1,327.80	35%	1,064.71	263.09	-23%	NO
		40%	1,162.55	164.45	-37%	NO
		45%	1,263.80	64.00		NO
15.00%	1,991.70	35%	1,064.71	926.99	28%	YES
		40%	1,162.55	829.15	22%	YES
		45%	1,263.80	729.90	16%	YES
20.00%	2,655.60	35%	1,064.71	1,590.89	60%	YES
		40%	1,162.55	1,493.05		YES
		45%	1,263.80	1,401.80	52%	YES
25.00%	3,319.50	35%	1,064.71	2,254.79		YES
		40%	1,162.55	2,156.95		YES
		40%	1,263.80	2,055.70	81%	YES

Based on the above assumptions, the cost of the concessionary loan(s) could range from 16% to as high as 28% and still be supported by the targeted households, paying up to 20% of the median income. The application of the lower interest figure represents a safe margin for CRDC to assume the risks of borrowing the funds and should be the benchmark for future discussions for obtaining the concessionary funding.

5 CONCLUSIONS AND NEXT STEPS

5.1 Summary of Findings

There was considerable receptiveness in the targeted communities of Montego Bay for the concept of enhancing credit for sanitation upgrading and improvement in the informal settlements. There is general consensus that there is a huge unmet need for sanitation elsewhere in Jamaica also. The largest obstacle to meeting that need is the residents' lack of financial resources to deal with the issue. Informal communities are rapidly appearing, creating entire new cities over short periods of time. The development of these new communities has outstripped the ability of local and national governments to meet basic infrastructure needs, including sanitation. The populations of the informal communities are prepared to solve these problems themselves. What is urgently needed is credit that is obtainable and affordable.

Another ingredient which is missing is adequate and appropriate information about the technological and health issues related to sanitation. As the residents of these informal communities incrementally build their homes and neighborhoods, they often do not have access to the most appropriate technologies or the proper understanding of their use and consequences. The introduction of water and the use of flush-sanitation systems without proper treatment illustrates the classic dilemma of inadequate information about sanitation technologies and health matters.

The successful CRDC/SSU Urban Sanitation Project was able to bring these various elements together: financing, technical assistance, and sanitation health information for the targeted communities. Having proven it can manage as a successful enterprise, CRDC/SSU's use of a new credit enhancement mechanism can be supported, so that it can continue to provide such critical services. Undertaking this program with credit generated from untraditional sources within an innovative and constructive partnership makes it even more exciting, given the current economic context of Jamaica.

All of the potential contributors and participants who were contacted regarding the urban sanitation credit enhancement project were enthusiastic about the strategy as outlined here. They expressed an interest in being included in further discussions and consulted about their continued role in the project.

5.2 Recommended Next Steps

5.2.1 USAID/Jamaica

If it accepts the strategy outlined in this report, USAID will need to determine how it wishes to incorporate the proposed urban sanitation credit enhancement activities into the Coastal Water Quality Improvement Program. The deadline for submission under the Request for Proposals for the Coastal Water Quality Improvement Program is quickly approaching. A question remains: Should the sanitation credit program stand on its own independently, or should it be managed by the CWQIP's international contractor, as a subproject?

If a separate track is chosen for the urban sanitation credit enhancement program, USAID/Jamaica will need to identify where the program will be housed institutionally and how guidance and monitoring will be provided. A budget modification would also be necessary. If the sanitation project is left within the Coastal Water Quality Improvement Program, administrative and management questions would be left to the institutional contractor. The program would have an institutional home and a monitoring system in place.

The issue of integrating the urban sanitation credit enhancement project into the international contractor's work plan needs to be resolved. The goals of the urban sanitation credit program strategy fit well with those of the CWQIP. Specific design elements of the program, in accord with the goals and objectives of the Coastal Water Quality Improvement Program, provide good reason to believe that an international contractor would be receptive to working with the urban sanitation credit project as an element of the Community-Based Environmental Activities Program. The contractor could piggy-back on the experience gained to date by acceptance of the urban sanitation credit enhancement activities. The experience includes the total package of CRDC/SSU's promotional, technical, and educational work in Montego Bay. The leveraging of over 11 to 1 in expanded and tested program activities, building on the earlier work of the Housing Guaranty program, is a strong argument for keeping it with the international contractor. In addition, the work envisioned in the sanitation credit project is focused on the targeted communities in the key coastal tourist areas of direct interest in CWQIP.

Given these linkages, USAID/Jamaica should allow the urban sanitation credit enhancement activity to remain within the proposed Coastal Water Quality Improvement Program. During the contract preparation period, USAID should inform the international contractors of the strategic work that has been accomplished to date. USAID should request that full consideration and support be given to refining and expanding the program elements within the CWQIP framework. As needed, technical assistance should be provided to CRDC/SSU to address outstanding issues and any other matters that might present themselves as the proposal moves forward. The international contractor should be asked to provide a reasonable level of support to the urban sanitation credit enhancement program and to allow sufficient time for negotiations among stakeholders of the particulars and mechanics of the proposed activities. The international

contractor should be asked to reserve program funding to support the proposed activities, including the guarantee mechanism.

Depending on the timing, USAID/Jamaica may have two options for providing support for the credit enhancement mechanism. Under current conditions, USAID/Jamaica could authorize, through its CWQIP international contractor, a direct grant to CRDC to support the credit enhancement mechanism described in this report. On the other hand, if the U.S. Congress approves the Development Credit Authority, the Mission might be able to authorize the subsidy cost as a transfer of its own budget allocation, without a direct grant action. A final decision on this matter must await passage of the legislation and accompanying regulations.

5.2.2 CRDC/ SSU

In designing this strategy, the consultant encountered considerable interest among perspective participating organizations in the urban sanitation credit enhancement project. All of the strong candidates with potential roles in the program have asked that they have an opportunity to review a concept paper of the proposed credit enhancement strategy. CRDC/SSU should either use this report for that purpose or develop an extract from its relevant points. This document should be shared with the following organizations: the Environmental Foundation of Jamaica, the Jamaica Credit Union League, the National Housing Trust, the Jamaican Mortgage Bank, the Workers Bank, and the Caribbean Housing Finance Corporation.

A separate document should be prepared by CRDC for the Jamaica Social Investment Fund. As suggested earlier, the credit program provides an opportunity for CRDC to refine some of its community organizing, promotional, and educational work so that it meets JSIF program considerations. There is also an opportunity for CRDC to define a role for itself in the program design and support functions, as well as in technical support for the design and management of community infrastructure. These elements may be suitable for a community-based organization that may not have the expertise or resources to undertake the critical activities that the start-up of the Investment Fund program will require. From the JSIF perspective, it should welcome such assistance from CRDC during the initial moments of its history as well as in the future.

Active work in the review, definition, and reconfiguration of the programmatic, organizational, administrative, and technical elements of the sanitation project should be pursued by CRDC during this transitional period between the USAID-sponsored Housing Guaranty program and the credit enhancement activities. At a later date, when the program concept and basic parameters have been set, CRDC will need technical assistance on the financial aspects of the loan and guarantee mechanism. Additional support is also likely to be needed in the legal matters of setting up a financial conduit and a trust to administer the guarantee instruments.

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Appendix A Individuals Contacted

Organizations Contacted	Contact
Environmental Health Project	Eddy Perez, Technical Director for Engineering and Technology John H. Austin, Consultant
USAID - Urban Environment Development Office - Washington DC	David Painter, Assistant Director Priscilla Felts, Program Officer
AID General Counsel Office - Washington DC	Michael Kitey, General Counsel Lorenzo Rasetti, Consultant
USAID/Mission Jamaica Office of Environment and Health	Gary Lewis, Program Director Eric Richardson, Program Officer Howard Batson, Program Officer Gregg A. Booth, Environmental Advisor
USAID/Jamaica Program Office	Joanne Felman, Program Officer
USAID/Jamaica Office of Micro and Small Enterprises	Valerie Tate, Assistant Program Officer
Construction Resource Development Centre	Stephen Hodges, Executive Director Indeok Oak, SSU - Project Director
Caribbean Housing Finance Corp.	Sandra Jackson, Managing Director
Inter-American Development Bank	John Yates, Deputy Representative
Jamaica Mortgage Bank	Everton Hanson, General Manager Frank E. Panton, Financial Director
Jamaica Social Investment Fund	Courtney Douse, Managing Director
Environmental Foundation of Jamaica	Marlene Lewis, Acting Executive Director
Jamaican Credit Union League	Sam O'B Chambers, Housing Development Manager Ivan Gibbs, Program Manager
Victoria Mutual Building Society	Frank W. Harrison, Sr. Vice President Building Society Operations
European Union	Patrick Collins, Program Manager
Ministry of Environment and Housing	Permanent Secretary Hardware Cherri Lee, Director of Community Social Services Clive Lavily, Advisor to the Minister
Workers Bank	Norma A. Russell, General Manager - Micro/Small Enterprise Operations
Montego Bay Chamber of Commerce	Lloyd B. Smith, President
Hotel & Tourism Association of Montego Bay	Joseph Fortmayer, General Manager Round Hill Hotel & Resort
National Housing Trust	Patrick Brown, Senior Director Technical Services
Habitat for Humanity	Gerard MacLaughlin, National Coordinator

