

# CREW's Lines

Newsletter of the Caribbean Regional Fund for Wastewater Management

Vol. 3, Issue 1

March 2014

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## Is funding available for the Caribbean's wastewater sector?

*...and if so, why aren't more countries benefiting?*

Simply providing funds may not be enough to solve the challenges participating countries face in managing wastewater treatment. In August 2013 the GEF CREW Project commissioned a study to find out if participating countries currently have access to wastewater funding, and if so, under what conditions. The study also analysed whether or not the countries have the organizational and absorptive capacity to effectively use the available funding.

The study was conducted by Nils Janson, Senior Vice President of Castalia LLC, who has many years of experience in water sector economics and financing in the region. In his report, the Consultant also proposed an approach on how to help the countries achieve their objectives in the wastewater sector. Fol-

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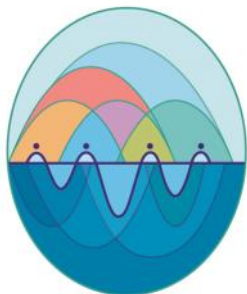
*Georgetown, capital of Guyana*

## Making sanitation more affordable for households in Guyana

In Guyana, sewers exist only in the central part of the capital, Georgetown. These were built as long ago as 1929 and currently serve only about 13% of the population. Guyana is devoid of sewerage treatment plants for domestic waste treatment. However, by no means is this status quo reflective of a lack of focus on domestic sanitation.

The country has, in fact, made significant pro-

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International Year of  
Small Island  
Developing States  
— 2014 —

The United Nations has declared 2014 International Year of Small Island Developing States (SIDS) to highlight the economic, social and cultural contributions of SIDS as well as the unique challenges which they face due to their small size and geographic isolation.

For more information and to find out how you can get involved visit:  
<http://www.un.org/islands2014>

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***“A preliminary assessment of the essential elements in each participating country indicates that access to finance may be the best-developed element in almost all the countries. However, financing alone will not improve the wastewater sector in participating countries.”***

***- Nils Janson***

Following is a summary of the main conclusions of the report, taken from the Report's Executive Summary:

1. **To meet their objectives for increasing the collection and treatment of wastewater and improving the quality of wastewater effluent, the governments in participating countries need to make the wastewater sector a higher priority on their agendas.** The current state of the wastewater sector in participating countries is a direct result of the priority the governments have assigned to wastewater. Investment in wastewater is low compared to investments in the water sector. Further, the lack of government commitment to improving the wastewater sector can be seen in the lack of the necessary legal and regulatory framework. Commitment from the governments in the participating countries is extremely important for ensuring the improvement of the wastewater sector. Without it, only marginal improvements can be made in the sector.
2. **Although most participating countries have access to funding for wastewater infrastructure from development banks, they do not have the organizational readiness and absorptive capacity to effectively use the available funding opportunities.** Most countries cannot effectively use wastewater funding, even when it is available. The entities responsible for developing and operating the wastewater systems — in this case, the water utilities in each country — are struggling to provide adequate access to and quality of water service. In fact, most water utilities in the Caribbean do not have tariffs that are sufficient for covering the cost of providing water services. Furthermore, since water is an essential service with direct benefits, water utilities must focus on improving water services before dedicating adequate attention and resources to wastewater. This means that most water utilities in the Caribbean do not have the personnel, financial resources, and technical capacity for developing and operating the wastewater assets necessary to meet the objectives of the respective governments in the wastewater sector.
3. **All loans for wastewater sector improvements are concessional and include institutional strengthening components as well as legal and institutional prerequisites that are aimed at improving the absorptive capacity of the borrowers to effectively use available funding.** Institutional prerequisites require the borrowers, for example, to adequately operate and maintain wastewater assets that are financed by the loans. Some loans also include measures for raising revenues required for adequate operation and management of the wastewater assets. Although these loan components are intended to address critical issues for improving the absorptive capacity of the participating countries, in practice, they have not accomplished their objectives. The challenges of imple-

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gress in improving access to sanitation services through the provision of on-site treatment via septic tanks. As a prerequisite to the construction of a new home, a building plan must be prepared showing, inter alia, location of a septic tank along with the direction of drainage of the septic effluent and grey water. This testifies to the movement away from pit latrines as a means of domestic fecal disposal, especially on the coastal plain. The high incidence of septic tank use however poses another problem that, until now, has never been carefully analyzed in Guyana — the question of financing.

In order to construct a house, a potential homeowner normally approaches a financing institution to access financing for this purpose. In the local market mortgage rates range from 4.25% for low income homes (costing approximately US\$ 25,000 or less) to in excess of 10%. Even though equity is normally required to the value of approximately 25%, this is seldom used in the actual construction of the septic tank; most often being put towards initiating sub-, and possibly, super-structural work. This means that the financing of on-site treatment, even though a fraction of the final construction cost, becomes astronomical when one considers the amortization of the entire loan portfolio, even if over a minimum of 15 years. As an example, consider a septic treatment system costing USD 1,000.00 at 7.5% per annum over a 20-year mortgage period. At the end of the mortgage approximately USD 933.42 (93% of the initial cost) would have been made in interest payments alone.

The Central Housing and Planning Authority (CH&PA) of the Ministry of Housing and Water, through financing from the European Union and the Inter-American Development Bank (IDB), has piloted a mechanism to reduce the cost of such financing by granting to suitably qualified potential low income home owners the cost of the physical infrastructure of the septic tank, valued at approximately USD 1,200. The homeowner is required to contribute equity in the form of the plumbing and sanitary equipment needed to connect and activate the system.

According to Mrs Donell Bess-Bascom, CH&PA's Senior Community Development Officer, to date under the European Union Low Income Housing Project (EU/LIHP) 348 Tanks have been constructed in Sophia D, Bell West Phase 1, Cummings Lodge C, Cummings Lodge Y and Glasgow New Housing Scheme, whilst under the Second Low Income Settlement Programme (LIS-2), which is funded

***Flooding often occurs after heavy rainfall as Georgetown lies below sea level***



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by the IDB, 285 tanks were constructed in 5 squatter settlements (Sophia D, Binkey Alley, Eliza and Mary, Block 5 Ankerville, Block R Ankerville. Six low income housing settlements also participated in the pilot (Westminster Phases 1 & 2), Onderneeming Phase 1, Recht-dor-zee Phase 1, Area B Lusignan and Block D Bath Phase 1.

Mrs. Bess-Bascom stressed that: "...the beneficiaries were required to provide the toilet

suite and to excavate, under the CHPA's and Central Board of Health's guidance, for the Septic tank. The project supplied all materials and labour for the construction of the tanks. We are now in the process of monitoring the use of the tanks. So far, the general feedback is that the septic tanks are being used. Some persons are still maintaining their pit latrines though so we are working with them and are encouraging them to dismantle same."

The financing of on-site systems through such grants is difficult to sustain in the long-term. Given that the construction of septic tanks is likely to continue to be the most accessible way to treat household wastewater, ways and means to continue this trend are being investigated. The Guyana Wastewater Revolving Fund (GWRF) proposes to use the existing mechanism to loan resources to the CH&PA as a means of supporting this initiative. Currently under development are several Government of Guyana funded housing projects whose units are eventually sold to citizens, again likely financed by a banking institution. The GWRF proposes that a detailed mechanism be worked out through which financing for the wastewater treatment aspect of the housing units be financed exclusively by the revolving fund.

Further, given the growing urgency to increase the level of wastewater treatment in Guyana, we need to milk the resource value of wastewater for all of its worth. Hence, a further proposal is to use these model enterprises of the CH&PA to pilot the treatment of household wastewater for the generation of biogas. This initiative has been successfully tested and patented in South Africa (<http://www.sabiogas.org/>) and requires minimal retrofitting on existing households, that is, once successfully piloted in new establishments. The GWRF has begun discussions with the Guyana Energy Agency (GEA) on a possible merger of its agro-energy initiative to include treatment of household waste for biogas generation. Discussions are also taking place with the local banking sector to leverage the GEF CReW resources towards provision of low cost micro-financing for household wastewater treatment for bio-energy production.

**This article was contributed by Marlon Daniels, Project Manager, Guyana's GEF CReW Pilot Project.**

## GEF CReW Pilot Projects - Update

The GEF CReW Pilot Projects all aim to test Pilot Financing Mechanisms (PFMs) in four of the thirteen participating countries – Belize, Guyana, Jamaica and Trinidad and Tobago. The approach is new in the Caribbean and many are the lessons that are being learnt. These will be documented in several ways during the second half of the project. This is a brief status report of the pilots to date.

### National Wastewater Revolving Fund in Belize

#### Objective:

To establish an innovative financing mechanism for cost-effective and sustainable financing of wastewater management in Belize. Specifically, the Project aims to provide subsidized interest rate loans for eligible wastewater treatment plants.

#### Status:

In February 2012, the Government of Belize became eligible to receive the funding for establishment of the Pilot Financing Mechanism (PFM). There were many challenges faced in establishing the PFM, the Belize Wastewater Revolving Fund (BWRF). These included: putting together a mechanism to ensure proper cost recovery and replenishment of the fund; finalizing the Financial Agreement (interest rate, repayment period etc.), and structure of the Revolving Fund. The Cash Flow Model was believed to be the most suitable structure for the BWRF.

Due to its high rate of development and associated sanitation issues, the Placencia Peninsula was selected as the first development area to benefit from the BWRF through the implementation of the Integrated Water and Sanitation Program for the Placencia Peninsula (IWSPPP). This project is being co-financed with a US\$5,000,000.00 loan from the IDB. Its main objective is to construct a sewage collection and treatment system for the Placencia Peninsula.



Existing facultative lagoons, Belmopan WWTP

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1. *Rodrigo, Riquelme, IDB Task Manager, greets participants during the Opening Ceremony.*
2. *Sharmeela Joseph, Pilot Coordinator, Trinidad & Tobago, provides an update on the Pilot project.*
3. *Vivian González-Jiménez, Costa Rica, reports back during facilitation session.*
4. *Participants on Day 1*

## GEF CReW's Third Project Steering Committee Meeting ...

The Project held its Third Steering Committee Meeting in Saint Lucia, 28 - 30 January 2014. It was attended by twelve of the Project's participating countries, the Implementing and Executing Agencies and several partner organizations. In addition to updates on all Project components and reports from participating countries, this meeting was significant because a summary of the Project's Mid-term Evaluation was presented.

The Evaluator acknowledged the Project's complexity and that while it aims to make a change at the policy level, the reform process takes a long time to materialize. Thus far the Project could point to various successes depending upon the country being examined. A number of lessons had been learned already and these were noted. Recommendations of the MTE included:

- Explicit compliance with the LBS Protocol should be a consideration in the selection of project countries. There should be an explicit agenda for compliance with the Protocol.
- Lessons learned need to be documented now.
- There should be amortization plans for PFMs.
- Special support is needed for Public—Private Partnership.
- The IACG should be strengthened.
- Ensure full and equal participation of the Central American Countries.
- Enhance coverage, impact and replicability of training.
- Enhance content of communications and outreach instruments to look at



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## ... at mid-point reflects on experience, lessons-learned and the way forward.

wastewater in general and to include more technical articles.

- Strengthen the capacity of UNEP CAR/RCU.
- Prioritize ENRA and build a framework for wastewater Monitoring & Evaluation.
- Review assumptions on the role of NFPs.
- CRew should dialogue with country decision-makers to integrate PFMs and reforms.
- Pilot countries should identify the resources needed to continue wastewater revolving funds
- Request a one-year extension of CRew
- Conceptualize and design the follow-on project now.

### Recommendations of PSC 3 included:

- Endorsement of the need for a Project Extension;
- Approval of the 2014 Work Plan and Budget, subject to any additional changes required;
- Acceptance of the Mid-Term Evaluation Report;
- Establishment of an Open-Ended Working Group on Data and Information;
- Support to the establishment of National Project Steering Committees;
- Enhancing of collaboration with national LBS Focal Points.

The remainder of PSC 3 was devoted to looking forward. To introduce different perspectives, Professor Kalanithy Vairavamoorthy, of the University of South Florida shared new developments in Integrated Urban Water Management and Nils Janson shared the results of a study on organisational readiness for the uptake of funding for the Wastewater Sector in the English-speaking Caribbean.

PSC 3 also included a series of facilitated sessions designed to engage participants in discussion of a replication strategy and necessary elements of project design for a follow-on project based upon experience thus far. Participants engaged in lively sessions which began by envisioning a future where there is improved and effective wastewater management in the Wider Caribbean Region in 2035. This was followed by sessions in which they gave input to the design of a replication strategy and new project design concepts. Booster activities for GEF CRew were also considered.



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5.—8. PSC 3  
Participants  
engaged in  
very lively ses-  
sions.

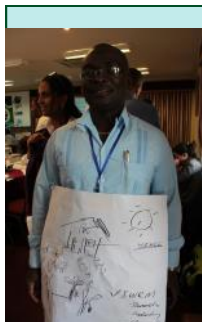
9. Participants on  
Day 3!



8.



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*"Beyond just the implementation of a financing mechanism, the CREW Project will be beneficial for Guyana in that it brings into focus an issue that has long been left in the backwaters of development. Through this project, a National Development Outlook for Wastewater Management could result, that is awareness could be created in Guyana among the Private Sector, communities and government, of the issue of wastewater management."*

- Emil Mc Garrel, Permanent Secretary, Ministry of Housing and Water, Guyana.

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menting these components have proven to be greater than expected.

4. **Access to finance is only one of the important elements required for improving the wastewater sector; other essential elements need to be in place as well in order to meet sector objectives.**

Financing, and the resulting investments in assets, will most likely be ineffective without an adequately prepared utility, an appropriate legal and regulatory framework, a comprehensive Action Plan, and a civil society that actively participates in developing and monitoring the Action Plan. The consultant recommended that in each country, the key stakeholders (in particular the government and utility) develop and agree upon a realistic plan for putting in place all the essential elements for a functioning sector. This wastewater master plan should be comprehensive, integrated and targeted. To ensure accountability and transparency, the plan and the progress of the plan against its objectives should be published on a credible and timely basis.

5. **Jamaica has shown recent advances in wastewater funding. Four factors were instrumental for the uptake of wastewater investments in the country.**

First, to overcome the free-rider problem of customers who are not willing to pay for wastewater systems, Jamaica has a statutory obligation for new housing developments to connect to the national utility's (the National Water Commission, NWC) wastewater system. Second, untreated or poorly treated wastewater affects some households and businesses badly enough to raise pressure on the Government to improve the wastewater services in the country. Third, the Government provided the NWC with the subsidies that it needed to build, operate and maintain its wastewater assets. Lastly, the Government successfully encourages private sector participation. One of the largest wastewater treatment plants in Jamaica is run efficiently by a private operator.

The Report's recommendations were presented and discussed by participating countries at GEF CREW's Third Project Steering Committee Meeting in January.

Some revisions were subsequently made and the Final Report is available on the Project's website at:

<http://www.gefcrew.org/document-center/summary/78-project-implementation-technical-reports/222-gef-crew-assessment-of-access-to-funding-final-report-march-2014>

To begin addressing these deficiencies, under Component 2, CREW is working with all participating countries to address key capacity constraints within their legal, institutional and policy.

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Due to the need for more time to resolve stakeholder issues in Placencia and to identify the location of the wastewater treatment plant, it was decided that the retroactive financing of the Belmopan Sewer Lagoon and the Belmopan Sewer System Expansion would be the Pilot's First Generation Project. The BWRF had developed a pipeline of projects, foremost of which were the retroactive financing for Belmopan's Sewer Lagoons (US \$739,000) expansion of the Belmopan Sewer System (US \$1,500,000) and the Placencia Wastewater Management System (US \$5,000,000).

The retroactive financing of the Belmopan Sewer Lagoon involved the construction of three facultative lagoons – the financial agreement was signed, and disbursement was made in December 2013 with repayment scheduled to begin in April 2015. Belmopan's Sewer System expansion involves mainly the construction of a wastewater lifting station, a pressure main to transport the sewage from the new lifting station to the existing Belmopan WWTP, construction of a UV disinfection tertiary treatment system and the construction of two new parallel anaerobic ponds in front of the three facultative lagoons mentioned above. The financial agreement has been drafted and disbursement is scheduled for June 2014 with repayment due to begin in June 2015.

## National Revolving Wastewater Fund in Guyana

### Objective:

The Guyana Pilot Project aims to support the efforts of the Government of Guyana (GOG) in improving wastewater management, with specific focus on public-private partnerships. The large commercial and industrial wastewater generators belong to the private sector. Through GEF CREW, the Guyana Wastewater Revolving Fund (GWRF), valued at US\$3 million, was created, with an additional US\$560,000 committed in counterpart funding from the GOG.

In the short term, the Project's objective is to raise awareness of the issues surrounding wastewater management in Guyana. Successful establishment of the GWRF, promotion of the first generation projects, and operationalizing the revolving fund, are seen as important steps in introducing much needed integrated wastewater management.



**Septic waste disposal by trucks, like this one, is common in Georgetown, Guyana**

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### Status:

The Guyana Wastewater Revolving Fund (GWRF) was established in 2012 and the Ministry of Housing and Water is responsible for its operation. It offers loans to private businesses for construction and/or rehabilitation of wastewater treatment facilities at a rate below prevailing market interest rates. Private sector enterprises are encouraged to apply to the fund and thereby to benefit from available local and international technical and financial expertise.

Currently the policy and operational framework of the GWRF is being developed. Potential first generation projects which could be funded by the GWRF are in various stages of preparation and review. In order to encourage more applications to the Fund, its promotion to the national community via a targeted, multi-media campaign began in January 2014.

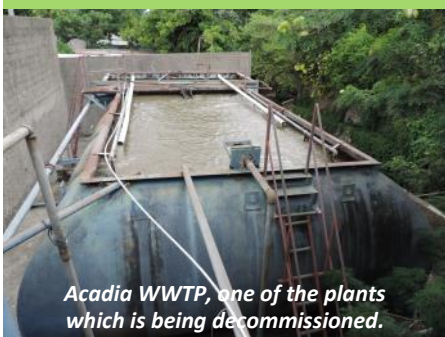
## Credit enhancement support for local commercial bank financing of wastewater projects in Jamaica

### Objective

The Jamaica Pilot project provides credit enhancement support for local commercial bank financing of wastewater projects. The K-factor surcharge currently collected through the water bill on a monthly basis is allocated to a special account for wastewater investment projects. GEF CReW provided US \$3 million as a grant to be placed in a reserve account and pledged for commercial bank financing of US \$12 million in initial wastewater projects by the National Water Commission (NWC) which has responsibility for public sewerage and sewage treatment and is the Pilot Executing Agency.

### Status

The NWC established a Credit Enhancement Facility (CEF) with the National Commercial Bank (NCB), a local commercial bank, in October 2012, after receiving the Ministry of Finance's approval to formalize a loan contract in the sum of US \$12 million. The grant funds of US\$3 million were deposited in that account in 2013. The Loan Contract Agreement with NCB is being finalized and it is anticipated that it will soon be signed. Following this, "Design & Build"



*Acadia WWTP, one of the plants which is being decommissioned.*

Works, already in train, will be finalized, mobilizing selected contractors.

Under the CReW, thirteen NWC wastewater facilities will be rehabilitated, replaced or decommissioned. These have been grouped into three categories: replacement plants

(those plants which will be retired from service and replaced by newly constructed ones); new conveyance facilities (those plants that will be retired and the flows diverted by new trunk sewers or force mains that will be constructed and transferred ultimately to the Soapberry Wastewater Plant (Central System), and; plants for rehabilitation (wastewater plants that will be refurbished and retained in operation). Project Execution Plans have been prepared for all thirteen facilities.

## National Revolving Wastewater Fund in Trinidad and Tobago

### Objective

The National Wastewater Revolving Fund (NWRF) was established to support the efforts of the Government of Trinidad and Tobago (GORTT) to address the urgent issues confronting the wastewater sector.

### Status

Trinidad and Tobago became a Pilot country in September 2012 and signed the Grant Agreement in June 2013. The Project Executing Agency, and NWRF Manager, is the Ministry of Finance and Economy. The Water and Sewerage Company (WASA) is responsible for the First Generation Project which the Scarborough Wastewater Treatment Plant and construction of 215 property connections to the system.

The GEF CReW grant is US \$2 million. The total cost of the First Generation project is US \$4,792,344. with the Government of the Republic of Trinidad and Tobago (GORTT) funding of US \$625,000, and additional funding from WASA or GORTT of US \$2,167,344.

The National Wastewater Revolving Fund of Trinidad and Tobago (NWRF) has been established by legal notice. The bank account is being established and terms of reimbursement are currently being determined. Although this project began relatively late, much progress has been made. The contract for refurbishment of the Scarborough WWTP was approved by WASA's Board in February 2014 and IDB's "No Objection" was received on May 21<sup>st</sup> 2014. The contract agreement is being prepared and work is expected to begin in July 2014.

With regard to construction of property connections to the Scarborough sewerage network, the final engineering designs and tender documents are expected at the end of May 2014, and evaluation of submissions for prequalification of contractors is underway. The work on the property connections is therefore expected to begin in October 2014.



*Scarborough WWTP*

## 2014 Cartoon Calendar from the Water and Sanitation Programme



Take a look at this neat educational calendar which features illustrations and some great messages from cartoonists around the world!

You can download it at:

<http://www.wsp.org/content/2014-cartoon-calendar>

## Marking World Water Day 2014 in Jamaica!

GEF CReW partnered with UNEP CEP in March as it participated in Jamaica's 2014 celebrations of International Day of Forests, World Water Day and World Meteorological Day under the theme "Partnering for Development by the Ministry of Water, Land, Environment and Climate Change.



*Donna Sue Spencer explains GEF CReW to a visitor.*

On Friday, March 21, an exhibition was mounted at Devon House to promote integrated water resource management and wastewater management to the public. Brochures, posters and promotional material highlighting the GEF CReW Project and UNEP's Caribbean Environment Programme were on display.



## GEF CReW Project Background:

The CReW is a four-year project, funded by the Global Environment Facility (GEF) and implemented by the Inter-American Development Bank (IDB) and United Nations Environment Programme (UNEP). It was established in 2011 and will end in July 2015.

It aims:

- To provide sustainable financing for the wastewater sector
- To support policy and legislative reforms, and
- To foster regional dialogue and knowledge exchange amongst key stakeholders in the WCR.

There are thirteen participating countries: Antigua & Barbuda, Barbados, Belize, Costa Rica, Jamaica, Guatemala, Guyana, Honduras, Panama, Saint Lucia, Saint Vincent & the Grenadines, Suriname, and Trinidad & Tobago.

The Project Coordination Group (PCG) is based in Jamaica, at the offices of the IDB and at UNEP's Caribbean Regional Coordinating Unit which is Secretariat to the Cartagena Convention (UNEP CAR/RCU).

*Please check our website and visit (and like!) our Facebook page: [facebook@gefcrow.org](https://www.facebook.com/gefcrow.org)*

*We also welcome contributions on wastewater issues from within the Wider Caribbean Region.  
Contact Donna Sue Spencer at: [ds@cep.unep.org](mailto:ds@cep.unep.org) for more information.*

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