

DRAFT

Terminal Evaluation

**Testing a Prototype Caribbean Regional Fund for
Wastewater Management (CReW)**

IDB/UNEP/GEF Project

June 2016

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Abbreviations

BSP	Bali Strategic Plan
BWSL	Belize Water Supply Limited
CAR/RCU	Caribbean Environment Programme /Regional Co-ordination Unit
CARSEA	Caribbean Sea Ecosystem Assessment
CDB	Caribbean Development Bank
CEO	(GEF) Chief Executive Officer
CoP	Community of Practice
CRew	Caribbean Regional Fund for Wastewater Management
EA	Executing Agency
EPA	Environmental Protection Agency
FAO	UN Food and Agriculture Organisation
GEF	Global Environment Facility
GEFSEC	The GEF Secretariat
GPA	Global
HS	Highly Satisfactory
HU	Highly Unsatisfactory
IA	Implementing Agency
IACG	Inter-Agency Co-ordination Group
IDB	Inter-American Development Bank
IW	(GEF) International Waters Focal Area
LBS	Land-Based Sources
LME	Large Marine Ecosystem
M&E	Monitoring and Evaluation
MS	Moderately Satisfactory
MTE	Mid-term Evaluation
MU	Moderately Unsatisfactory
NEPA	(Jamaica) National Environmental Protection Agency
OUR	(Jamaica) Office of Utility Regulation
PCG	Project Co-ordination Group
PFM	Pilot financing Mechanism
PIR	Project Implementation Report
PMU	Project Management Unit
POW	UNEP Programme of Work
PPP	Public-Private Partnership
PR	Public Relations
ProDoc	Project Document
PSC	Project Steering Committee
ROtI	Review of Outcomes to Impact
S	Satisfactory
SAP	Strategic Action Programme
SIDS	Small Island Developing States
SMART	Specific, Measurable, Achievable, Relevant, Testable (with respect to indicators/targets)
SSFA	Small Scale Financial Agreements (UNEP)
TE	Terminal Evaluation
ToR	Terms of Reference
TT	(GEF IW) Tracking Tool
U	Unsatisfactory
UNEP	United Nations Environment Programme
US\$	United States dollar
UTech	University of Technology (Jamaica)
WASA	(Trinidad and Tobago) Water and Sewerage Agency
WCR	Wider Caribbean Region
WRI	World Resources Institute
WW	Wastewater
WWT	Wastewater Treatment
WWTW	Wastewater Treatment Works

Executive Summary

A Terminal Evaluation of the IDB/UNEP/GEF project '*Testing a Prototype Caribbean Regional Fund for Wastewater Management*' (the IDB/UNEP/GEF CReW project) has been undertaken, consistent with the expectations of the GEF, IDB and UNEP. The purpose of the Terminal Evaluation is to enable the GEF Agencies (IDB and UNEP), the countries¹ and other stakeholders: i) to assess the achievement of the project against the expectations of the Project Document endorsed by the GEF CEO; ii) to draw lessons that can both improve the sustainability of the benefits from this project; and, iii) to aid IDB and UNEP with the development of follow-on project to up-scale the CReW.

Key Achievements of the CReW

The TE has assessed the CReW project as **Successful** and that the main achievements include:

- As a pilot project 'testing' approaches to wastewater treatment management, the CReW has identified many lessons and experiences that are applicable widely on: financing issues; importance of enabling conditions; policies; capacity development; awareness; etc. that can be fully exploited in a potential follow-on project.
- The CReW has successfully raised the awareness and importance of wastewater management in the Caribbean region, increasing the level of interest within countries to investigate innovative financing mechanisms linked with strong supportive actions to increase capacity to meet national and regional legislation and agreements.
- The project has tested a number of innovative approaches to financing and two are already, *in this pilot testing phase*, replenishing the initial seed funds established by the GEF Grant.
- The project has highlighted the essential and symbiotic role of 'institutional capacity building' to support wastewater management to ensure that required enabling conditions are in-place to allow effective exploitation of the investments.
- The proposed follow-on project has received considerable interest from the countries *to be involved with innovative financing mechanisms*, contrasting with the relatively limited interest in this project. This further demonstrates the overall success of the project in engaging the region on wastewater issues and the benefits that can be accrued locally, nationally and regionally.

These multiple achievements, delivering significant lessons and experiences, can be fully exploited and up-scaled through the proposed follow-on project.

General Conclusions

- Overall the CReW has achieved the planned objective in testing innovative approaches to financing wastewater infrastructure (in four pilot countries) supported by essential enabling activities to strengthen capacity to address policy/legislation issues and technical needs in all 13 countries. The project has also highlighted the significance of these 'enabling' conditions and the need for ensuring that these are adequate prior to investments. Feedback from the countries to the TE demonstrated that all components were appreciated, complementary and undertaken to high quality level.
- Whilst only two PFMs are nearing completion and are in the process of replenishing the fund or repaying the loan, in Belize and Jamaica respectively, all four PFMs and components 2/3 have provided numerous lessons and experiences that will be of benefit to the planned

¹ Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Cuba, Dominica, Dominican Republic, Grenada, Haiti, Jamaica, Montserrat, Netherlands Antilles, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, and United States Virgin Islands.

follow-on project. Importantly these lessons have been identified and formulated, *collectively*, by the main stakeholders of the CReW at the 4th PSC Meeting in 2015, ensuring that ownership and awareness of these lessons is high across the WCR.

- In all countries visited, the concept of the CReW project in testing options for wastewater financing, underpinned by essential national or regional drivers (e.g. the LBS Protocol, national policies etc.) was seen as good or excellent. A strength of the project has been in highlighting the essential elements of the 'enabling conditions' that are required. Not only is it important to have the appropriate legislations, policies *and* enforcement, but it has also highlighted the need for sustainable financing through fees, tariffs, etc. to operate and maintain wastewater infrastructures.
- A key lesson from the CReW is that the *purpose* of the project (testing of the financial mechanisms) was not initially appreciated by all stakeholders. Hence a conclusion is that more attention must be devoted to better explaining the project at inception. An important (and highly beneficial) output has been the development of national Operational Manuals for the PFMs. Whilst it is clear that even with these manuals not all understood the purpose, the TE considers this an excellent concept and vehicle to implement project across all project countries.
- All stakeholders involved in the project underestimated the time and effort to initiate this project, particularly the PFMs. The level of preparedness at the country level (ensuring that enabling conditions of institutions and policies are in-place, that potential projects are prepared and evaluated, etc.) needs to be enhanced. The PFMs countries appear also to have underestimated the capacity needs of the PMUs established in the initial stages, slowly building the staffing levels to be able to provide the necessary management at a local level. In addition, the ability of the GEF Implementing Agencies to adequately respond to evolving needs and provide flexible and innovative approaches, especially to small private sector companies, should be better considered prior to the follow-on project.
- As a regional project addressing the multiple languages of the partner countries, translation (including proofing, etc.) of material (results, guidance, experiences, etc.) was not adequately resourced. Availability of project outputs in all languages is considered by the TE to be an essential element in encouraging the up-take and up-scaling by the countries and ensuring the maximum benefits are obtained from the GEF investments. In addition, the design of the project with four PFMs and the PCG all located in English speaking countries appears to many a very unbalanced approach for a regional project. This should be also be recognized as an essential requirement for consideration in the follow-on project.
- In the latter stages of the project, a system-wide change in UNEP's Administrative and Financial Management System had a significant negative impact on project execution by the lead regional Executing Agency.
- There was a lack of understanding how the PFM fund will (or could) be managed post project. Whilst training on revolving funds has been provided early in the project, opportunities should be found before the conclusion of the CReW to refresh these experiences. This could be linked to the PFMs development of reports on finalizing the project that are underway.

Specific Conclusions include:

1. Building national and regional capacity for the long-term management of the Wastewater Sector

- The project has undertaken multiple training workshops at regional and national levels. About 500 stakeholders from the WCR have participated in CReW workshops;
- A wide range of SSFAs have been supported, linked to specific country interest e.g. resource valuation, assisting with water quality monitoring, updating national standards, development of wastewater management strategies, communication strategies, etc.
- The PFMs have supported strengthening of management capacities to enable future monitoring and evaluation of the interventions to be assessed. The project has catalysed both the improved understanding of wastewater management and options for financing strategic infrastructure projects;
- Collectively the project stakeholders have identified and shared lessons and experiences to enhance future projects. The TE views the lessons and how they were agreed as a significant success of this project. These lessons will also be of benefit to the wider GEF IW community;
- The CReW through a wide range of communication and awareness raising events across the WCR has increased the understanding of the need for, and options to implement wastewater treatment solutions;
- Through the project's active participation at regional meetings (e.g. CWWA, High Level Forum, etc.) awareness of wastewater issues and the role of the CReW in seeking innovative solution was highlighted. These events also help to promote partnerships and willingness to participate in a follow-on and up-scaled project to further reduce untreated wastewater in the region.

2. Progress towards the development of regional policy, legal and regulatory frameworks for addressing wastewater management and creating regional wastewater management reforms for the long-term management of the Wastewater Sector

- At the regional level the CReW has assisted with raising the profile of the Cartagena Convention and the LBS Protocol. Evidence was seen through interviews with most stakeholders indicating the importance of LBS Protocol as a significant driver for enhancing wastewater treatment.
- At the national level the project is seen as demonstrating alternative ways of financing wastewater treatment that has multiple benefits, including assisting with meeting and reporting progress on relevant SDGs.
- The project has increased the understanding of tariffs as a result of the PFMs. Both through the k-factor approach in Jamaica and the community support in Belize.
- As reported in the 2015 PIR three countries identified as having enhanced policies and more countries were working to improve policies/legislation relating to wastewater. The process of undertaking the project has also assisted countries appreciate the importance of the 'right' enabling conditions to promote introduction of improved wastewater (e.g. as seen in Guyana);
- Importantly, the LBS Protocol has been ratified by Jamaica.

3. Project's impact on regional dialogue and knowledge exchange amongst key stakeholders in the wider Caribbean Region

The project has encouraged and actively promoted the sharing of information, for example through:

- Through regional face-to-face meetings developing and sharing lessons from PFMs, sharing of policies and legislation on wastewater through the UNEP CAR/RCU shared file system enabling national authorities to compare and contrast different approaches;
- Participation in the annual CWWA conferences and exhibitions and associated High Level Forum of Ministers, providing opportunities to highlight the innovative financing mechanisms and capacity strengthening activities.
- Co-operation with the Caribbean Water and Sewerage Association to provide training for operators and other groups, building on existing regional capacity strengthening institutions.
- At the national levels, Guyana and Jamaica successfully reached out to national stakeholders and decision makers through participation at inter-sectoral committees and various consultations.
- Participation at Technical and Inter-Governmental Meetings of the Cartagena Convention and LBS Protocols.
- Participation at regional IDB meetings.
- Participation in GEF IW:LEARN sponsored regional and global events;
- Publications in the project newsletter (CReWs Lines) and online;

4. Improving sensitisation, awareness and capacity throughout all sectors with respect to wastewater management

The project has successfully sensitised and raised awareness on wastewater throughout the WCR, including:

- Sensitising the media to issues associated with wastewater, encouraging more publications and civil society (and wider) interests;
- In partnership with UTech (Jamaica) the project has supported the training of wastewater operators and the preparation of training programmes (in person and online) in Spanish and English;
- The clearest result has been the level of understanding of the LBS Protocol as a key driver for wastewater treatment (demonstrated throughout the TE's mission but notable in Guyana with small private sector companies);

Key Lessons

- Ensuring that enabling conditions are established prior to investments. In particular, the 'drivers' to motivate organisations to implement wastewater management strategies, and appropriate tariff structures are implemented to ensure a revenue to replenish/repay loans and sustain operations.
- The importance of linking national actions to a wider regional policy objective (e.g. the compliance with the LBS Protocol);
- Ensuring a balance between capacity development (institutional and policy related) and the needs/drivers of the PFMs. It is important to ensure (as part of the enabling conditions) that

adequate capacity of institutions is in-place to provide baseline water quality data to enable appropriate enforcement actions to be taken.

- Ensuring that the project *objective* is fully understood prior to launch (CReW suffered delays due to many stakeholders thinking the purpose was a wastewater construction project rather than ‘testing’ of innovative financial mechanism).
- The PFM in Guyana suffered from inadequate enabling conditions and also a significant lack of awareness and capabilities that restricted small private sector companies from providing compliant proposals. The IDB’s rules also further restricted uptake of small loans due to a lack of in-country understanding of the details associated with the loans (e.g. rates, duration, etc.). and a more significantly requirement with regards to land ownership. The conditions needed land to be owned or leased prior to loan finalisation, however small companies were unable/unwilling to invest if the loan was not guaranteed. When dealing with small loans and small private sector (or community groups) the project should provide more technical assistance in preparing proposals and adopt a more flexible (and innovative) and innovative approach to the loan conditions.
- A key benefit of application of the IDB’s approach to loans has been the in-country Operations Manual’. The TE believes such an approach of providing a clearly document account of the project and the countries obligations/inputs would serve all project partners.

Recommendations

- **Project Design:** The CReW suffered from an underestimation of the importance of the enabling conditions with regards to the pilot financing mechanisms projects (policies, legislation, institutions, pilot preparation, etc.) by all involved. The design of any future project also needs to be clearer on the selection criteria for pilot projects to ensure there is a balance between the Spanish and English speaking countries. **The Terminal Evaluation recommends that the Countries, IDB and UNEP,** as project proponents, consider:
 - In developing the follow-on project PIF, the recognition of the importance of the relevant enabling conditions should be acknowledged and means to address these taken (for example, ensuring that any necessary capacity developments or policy enhancements are initiated early in the project);
 - Despite a wide call for interest there was not many positive responses by countries to participate in pilots. A future project should ensure that there is a clarity on the identification and selection of pilot countries (and other national interventions) to avoid the current situation where all the pilots and the Project Co-ordination Group are in English speaking countries.
 - The demand for community actions within the countries visited by the Terminal Evaluation was high. Appropriate wastewater solutions (for example the low maintenance, low energy cost approach adopted in Belize, consistent with the IDB’s policy of seeking high efficiency infrastructure) should continue to be actively promoted and technically supported by IDB/UNEP specialists.
- **The PFMs:** The testing of the PFMs has led to many lessons to guide the follow-on project which reflects the objective of the CReW. The Terminal Evaluation suggest three aspects that

are specific to the implementation of the pilot financing mechanisms in-country. The **Terminal Evaluation recommends that the IDB** considers:

- Technical support to small private sector companies has been highlighted in this report as an essential requirement to overcome problems of low capacity and experience in preparing compliant proposals. A number of solutions could be possible: providing open training sessions for interested companies followed by an open bidding; an open call for expressions of interest and then providing direct technical assistance to companies (a similar mechanism was used on the UNDP/GEF Tisza project to support NGOs preparing proposals); etc.;
- A follow-on project should consider means to encourage and implement greater innovation (and potentially risk taking) to address the desire from some countries to have multiple community project with small loans. Currently (as seen in Guyana with the private sector) the conditions expected for loans are a challenge to small organisations. For a large organisation familiar with preparing and managing loans for large infra-structure projects, IDB may not be best suited to the role of directly dealing with many 100 k\$ loans. Options need to be explored on potential modalities (e.g. strengthening the national Executing Agency's capacity and capability) to perform the service at a country level. There is also a need to explore options to simplifying the loan conditions, reflecting the magnitude of the loan amount. Links with the GEF Small Grants Programme should also be explored as a means of delivering community level wastewater solutions.
- A strength of the IDB are their national offices, and whilst they have been utilised to advise national Executing Agencies, there may be opportunities to devolve some authority from the IDB's Team Leader (based in Washington, DC) to the national level to provide more direct involvement on a day-to-day basis.
- **Information and results in all languages:** As a regional project addressing a multi-cultural and multi-language region, it has been disappointing that so little information and results are available in a language other than English at the time of the evaluation, although the TE appreciates that the PCG is endeavouring to address these gaps by the project's conclusion. Whilst the project co-ordination group is addressing the translation of results, at the end of the project, the need to have all information (in a timely fashion) in all main languages is essential to increase the inclusiveness and ownership of the project. **The Terminal Evaluation recommends** that an adequate budget is allocated to translation in the follow-on project as an integral and important element to the future project.
- **A functional and timely financial management system** is considered to be a prerequisite for all organisations. From the project inception until mid-2015 UNEP had an effective financial management system. However, the failure of UNEP's current system to adequately support project activities, *in a timely fashion*, has been a significant handicap to this project. UNEP's ability to issue SSFAs, reimburse participants or pay consultants,. These problems did not manifest themselves in the first part of the project (prior to the change of the financial management system). It is clear that the UNEP staff working in the region are highly dedicated to the work (and their organisation) but have clearly spent more time than necessary addressing these problems and defending the organisation. **The Terminal Evaluation recommends that UNEP** provides assurances that these problems will not occur in future or find alternative means to provide payments and contracting (for example,

through inter-agency agreement with UNDP Country Offices – recognising that this will come with additional costs)

- **Creating ‘one project’:** The CReW is clearly designed around the comparative advantages of the two GEF Agencies and they are both responsible for the implementation and supervising the execution of their respective components. Unfortunately, this has created a perception of a disjointed project at the country level and a lack of clarity who countries need to deal with. This problem is compounded by a perception that the project co-ordination group ‘just’ deals with Component 1 and for Components 2/3 countries deal with UNEP CAR/RCU. Part of this problem, in the view of the Terminal Evaluation, is that the regional co-ordinator is not seen by the country as the overall project manager as the IDB’s Team Leader is supervising the project co-ordination group (as is the UNEP’s Task Manager). The role of the ‘Project Manager’ is important in creating a focal point in GEF projects. **The Terminal Evaluation recommends that IDB and UNEP** review the management structures prior to developing the follow-on CEO Endorsement Document and consider:
 - Means to ensure that a ‘figure head’ role of the project manager is established (and as with all GEF projects this person is responsible to the two GEF Agencies or via an implementing agency such as UNEP CAR/RCU) with similar responsibilities as the current regional co-ordinator. The IDB Team Leader and UNEP Task Manager role would not change.
 - Ensuring that the project management body established is representative of the two GEF Agencies and have a common email address (as with most GEF IW projects);
 - Ensure that the countries are clear about the structure and have a ‘common’ national focal point that oversees all aspects of the project and that the selected focal point has sufficient authority and responsibility to ensure national clarity on a complex project.
- **Final results workshop:** The Terminal Evaluation appreciates that the no-cost project extension did not have resources to support an additional PSC meeting. However, there is undoubtedly demand, and in the Terminal Evaluations experience, significant benefits, to holding a ‘final results workshop’. This could form a vital part of the project’s exit strategy by celebrating the many achievements of the CReW and ensuring all key stakeholders are aware and involved in any sustainability planning of the results, and as a pre-launch for the planned follow-on project. This pre-launch could start the important discussions that will be expected to be finalised in the follow-on project’s PPG phase, such as discussions on future pilot financing mechanisms, location of ‘project management’, etc. **The Terminal Evaluation recommends that IDB and UNEP**, in the absence of sufficient CReW budget, should explore creative means to convene a meeting to benefit the countries and the follow-on project. For example, other GEF regional projects (e.g. IWEco, CLME+, etc.) may be holding meetings with some/all the CReW project steering group members and it could be possible to add a 1/2-day meeting back-to-back for the CReW as a ‘final meeting’.
- The IDB process of preparing **operational manuals** to govern their loans in-country are admirable and would serve as a good example for all project partners. **The Terminal Evaluation recommends that the GEF Secretariat and the GEF Agencies** take note of this good practice and promote the use of this concept to all participating countries and partners in GEF IW projects.

- A functional M&E system is an essential component of all projects. Clearly the involving multiple agencies having differing needs will place additional burdens on a project, but it would be highly beneficial if as part of the PPG phase Agencies could agree a common reporting system. **The Terminal Evaluation recommends that the GEF Agencies** consider how streamlining of essential M&E procedures can be undertaken ensuring that a common set of information is used by all, rather than each organisation requiring their own data set.
- A follow-on Project: The countries, GEF Agencies, Executing Partners and Project Co-ordination Group are well-advanced in the development of a follow-on GEF project. The **TE recommends that the GEF Agencies** devote continuing effort to obtaining the GEF CEO Endorsement to enable the many lessons, experiences and good-will generated by this project to be fully capitalised.
 - The lessons developed *collectively* through the project meetings with the countries should guide the new project on actions that have worked well and where additional effort is required (for example, seeking additional funds to sustain and expand the initial investments).
 - Ensuring that knowledge on required enabling conditions are exploited in selecting future up-scaling of pilots.
 - That national and regional capacity building and specialist studies (similar to the resource valuation activities undertaken in Panama and Trinidad and Tobago) are further encouraged.
 - The demand for community actions within the countries visited by the TE was high. Appropriate wastewater solutions (for example the low maintenance, low energy cost approach adopted in Belize, consistent with the IDB's policy of seeking high efficiency infrastructure) should continue to be actively promoted and technically supported by IDB/UNEP specialists, and where appropriate, considering links with the GEF Small Grants Programme on community actions.

Terminal Evaluation Ratings

Criterion	TE's Rating
Attainment of project objectives and results (overall rating)	S
Sub criteria (below)	
Achievement of outputs and activities	S
Relevance	HS
Effectiveness	S
Efficiency	MS
Sustainability of Project outcomes (overall rating)	L
Sub criteria (below)	
Socio Political	HL
Financial	L
Institutional framework	HL
Environmental	HL
Catalytic Role & Replication	S
Preparation and readiness	S
Implementation approach and adaptive management	S
Stakeholders participation and public awareness	S
Country ownership	HS
Financial planning and Management	S
IDB/UNEP Supervision and backstopping	S
Monitoring and Evaluation (overall rating)	MS
Sub criteria (below)	
M&E Design	MS
M&E Plan Implementation	S
Overall Rating	S

Notes:

Rating of Attainment of project objectives and results. A compound rating is given to the category based on the assessment of relevance, effectiveness and efficiency. This aggregated rating is not a simple average of the separate ratings given to the evaluation criteria, but an overall judgement by the consultants. Relevance and effectiveness, however, will be considered as critical criteria. This means that the aggregated rating for Attainment of objectives and results may not be higher than the lowest rating on either of these two criteria.

Ratings on sustainability. According to the GEF Office of Evaluation, all the dimensions of sustainability are deemed critical. Therefore, the overall rating for sustainability will not be higher than the lowest rating on the separate dimensions.

Ratings of monitoring and evaluation. M&E plan implementation will be considered critical for the overall assessment of the M&E system. Thus, the overall rating for M&E will not be higher than the rating on M&E plan implementation.

Criteria are rated on a six-point scale as follows: Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU). **Sustainability** is rated Highly Likely (HL), Likely (L), Unlikely (U) and Highly Unlikely (HU) on a four-point scale.

1 Introduction and Background

1.1 Context

A Terminal Evaluation (TE) of the IDB/UNEP/GEF project '*Testing a Prototype Caribbean Regional Fund for Wastewater Management*' (the IDB/UNEP/GEF CReW project) has been undertaken, consistent with the expectations of the GEF, IDB and UNEP.

1.2 Relevance to the GEF Programme

The project is wholly consistent with the International Waters Focal Area Strategy of GEF-4. It contributes to:

- **Strategic Objective 1** (*SO 1 – To foster international, multi-state cooperation on priority water concerns*).
- **Strategic Objective 2** (*SO-2 – to play a catalytic role in addressing transboundary water concerns by assisting countries to utilize the full range of technical assistance, economic,*

financial, regulatory and institutional reforms that are needed).

The project was compiled under **Strategic Programme 2** (*reducing nutrient over-enrichment and oxygen depletion from land-based pollution of coastal waters in LMEs consistent with GPA*) through:

1. The design and execution of financial innovative mechanisms for supporting stakeholders to establish or expand domestic wastewater management systems based on realistic, cost-effective and environmentally sound measures therefore reducing stress onto coastal and marine environments and improving ecosystems functioning for increased livelihood of participating nations;
2. Through supporting national and local policy, legal and institutional reforms to reduce land-based pollution.

1.3 The Project

1.3.1 Background

The degradation of the Caribbean's marine environment through discharge of untreated wastewater is a serious concern for those countries, whose livelihoods depend heavily on natural marine resources. Numerous scientific studies, including the United Nations Environment Programme/Global Programme of Action (UNEP/GPA) 2006 report on the State of the Marine Environment ², singled out untreated wastewater entering the oceans and seas as the most serious problem contributing to marine pollution. The recent Caribbean Sea Ecosystem Assessment (CARSEA) study³ found that "sewage pollution from land sources and from ships has been the most pervasive form of contamination of the coastal environment."

Damage from untreated wastewater to the marine environment can have severe economic consequences for the countries in the Caribbean. The CARSEA study found that "the Caribbean is the region in the world most dependent on tourism for jobs and income," while "fishing is also a significant source of both income and subsistence." Yet both of these sectors are directly threatened

² The document can be found at <http://www.unep.org/dewa/assessments/Ecosystems/water/marineassessment/index.asp>.

³ The CARSEA was developed as part of the Millennium Ecosystem Assessment (MA). The MA was called for by the United Nations Secretary-General Kofi Annan in 2000 and initiated in 2001, with the objective of assessing the consequences of ecosystem change for human well-being and determining the scientific basis for action needed to enhance the conservation and sustainable use of those systems and their contribution to human well-being. The document can be found at: <http://www.millenniumassessment.org/en/SGA.Carsea.aspx>.

by environmental degradation due to wastewater discharge. The potential economic losses for the region from further degradation of the marine environment is enormous and is the reason why controlling untreated wastewater discharge has become the top priority for countries in the Wider Caribbean Region (WCR)⁴.

The need to increase wastewater treatment in the wider Caribbean is urgent. UNEP/GPA estimates that as much as 85 percent of wastewater entering the Caribbean is currently untreated. According to the Pan American Health Organization (2001)⁵, 51.5 percent of households in the Caribbean region lack sewer connections of any kind; only 17 percent of households are connected to acceptable collection and treatment systems. Within Caribbean Small Island Developing States⁶, less than two percent of urban sewage is treated before disposal; this is even lower in rural communities.

In recognition of the gravity of this situation, a number of Countries from the WCR have ratified the Convention for the Protection and Development of the Marine Environment in the WCR also known as the Cartagena Convention (adopted in Cartagena, Colombia on March 24, 1983), and signed the Protocol on Land Based Sources (LBS) of Marine Pollution, which was adopted on October 6, 1999. The LBS sets several goals to govern domestic sewage discharges into the waters of the Wider Caribbean.

While countries are beginning to recognize the importance of improving wastewater management, obstacles exist in complying with the LBS. UNEP/GPA reported in their 2006 State of the Marine Environment Report that significant financing constraints exist: there is a lack of adequate, affordable financing available for investments in wastewater management in the WCR. At the same time investment needs in the region are very high⁷, and smaller communities in particular often find it difficult to obtain affordable financing for such improvements. In addition, the level of willingness to pay varies across the region.

In addition to financing constraints, other substantial barriers also exist, including inadequate national policies, laws and regulations; limited enforcement of existing laws and regulations; limited communications and collaboration between various sectors and agencies which contribute to a fragmented approach to wastewater management; and limited knowledge of and analytical capacity regarding appropriate, alternative and low cost wastewater treatment technologies. Other technical capacity limitations, such as project proposals development, operation and maintenance of treatment systems, and monitoring and analysing wastewater discharges and impacts, constrain progress in effectively managing wastewater.

Thus, priorities for the region are to: (i) develop financing mechanisms to provide financing for cost-effective, sustainable, and environmentally acceptable wastewater management facilities, based on community needs; and (ii) assist countries in the WCR to establish or expand domestic wastewater management programs, policies, laws and regulations. The aim of CReW was to address these two priorities.

⁴ In Tobago the World Resources Institute recently estimated that coral reefs provide more than US\$100 million per year in benefits associated with tourism, US\$18-33 million in shoreline protection, and another US\$1 million in benefits to fisheries. These benefits represent about half of the island's annual GDP.

⁵ It refers to countries that have basins draining to the Caribbean Sea.

⁶ CEPIS Virtual Library of Sustainable Development and Environmental Health. <http://www.cepis.ops-oms.org/sde/ops-sde/bvsde.shtml>.

⁷ Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Cuba, Dominica, Dominican Republic, Grenada, Haiti, Jamaica, Montserrat, Netherlands Antilles, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, and United States Virgin Islands.

The CReW project's **Objective** was to: *In the context of the Cartagena Convention and its LBS Protocol, to pilot revolving financing mechanisms and their related wastewater management reforms that can be subsequently established as feasible instruments to provide sustainable financing for the implementation of environmental sound and cost-effective wastewater management measures.*

1.3.2 The Project Components

The project was approved with five interlinked components

Component 1 – Investment and innovative financing for wastewater management: The component was expected to finance (i) the capitalization of four individual Pilot Financing Mechanisms (PFMs) (ii) Project Development Support to provide technical assistance; and (iii) strengthening the technical capacity of executing agencies at the pilot level. This component was executed by IDB

Component 2 – Reforms for wastewater management: This policy, institutional and legislative reform component finances actions for improved wastewater management that are consistent with the UNEP/GPA Strategic Action Plan Guidelines on Municipal Waste Water Management. These included: i) Capacity Building relating to Policy and Institutional Strengthening; ii) Legislative reforms; and iii) Awareness raising. This component is executed by the United Nations Caribbean Regional Coordinating Unit (CAR/RCU).

Component 3 – Communications, Outreach and Information Exchange: This component finances activities related to the dissemination of information related to the CReW to counterpart agencies, implementing partners, related programs (e.g., in integrated water resources management), and relevant stakeholders from the WCR, including the private sector. This component is executed by the UNEP CAR/RCU.

These components were supported by

Component 4 – Monitoring and Evaluation (M&E)

Component 5 – Project Management

At the time of CEO Endorsement, the project had identified ten Outcomes:

- **Component 1:** Improved access to financing for wastewater
- **Component 2:** Successful development of projects
- **Component 3:** Improvements in technical capacity for project implementation
- **Component 4:** Reduced land-based pollution to terrestrial and coastal waters from untreated wastewater in pilot project locations
- **Component 5:** Improved local and national capacity for wastewater management resulting in reduced land-based pollution of terrestrial and coastal waters in the WCR
- **Component 6:** Improved stakeholder awareness about acceptable, sustainable and cost-effective wastewater solutions
- **Component 7:** Increased interest and demands for pilot financing mechanisms in the WCR
- **Component 8:** Increased knowledge dissemination of information and the use of participatory practices by government agencies, private sector and civil society on wastewater management in the WCR
- **Component 9:** Effective project monitoring and oversight
- **Component 10:** Effective project co-ordination

The CEO Endorsement provided details of the expected outcomes and outputs, and their corresponding indicators and targets, in a detailed project results framework against which a

detailed M&E plan was expected to be implemented to assess performance and recommend any corrective actions.

1.4 Executing arrangements

The CREW has been implemented through the GEF agencies of IDB and UNEP. Execution has been performed through (for Component 1) agencies nominated in the pilot countries and (for Component 2 and 3) UNEP CAR/RCU.

1.5 Governance and management arrangements

An Inter-Agency Co-ordination Group (IACG) was formed by IDB and UNEP to provide technical and administrative oversight to the project. The project has been under the supervision of an annual Project Steering Committee (PSC) meeting composed of CREW National Focal Points, representatives of the Pilot Financing Mechanisms, GEF Agencies and selected relevant stakeholders (e.g. Caribbean Development Bank). A Project Co-ordination Group (PCG) provided day-to-day direct management and acted as the secretariat to the PSC.

Each country participating in the testing of the Component 1 Pilot Financing Mechanism (PFM) established a Pilot Executing Agency that was responsible for the IDB loan agreement and overseeing local actions that were managed through four Project Management Units (PMUs). The PFMs also established a board to supervise national loans.

The UNEP Caribbean Regional Co-ordination Unit (CAR/RCU) of the Caribbean Environment Programme (CEP) acted as the regional Executing Agency for UNEP's activities under Component 2 and 3 of the project.

The PCG was responsible to the PSC (and the IACG) for all reporting of periodic reports, Project Implementation Reviews (PIRs), financial reporting, etc. as identified in the Monitoring and Evaluation (M&E) sections presented in the Project Document. The IDB and UNEP shared the responsibilities for supervising the Mid-term and Terminal Evaluations (MTE and TE).

1.6 Project Budget

Table 1: Planned (CEO Endorsement) level of resources for the project

	GEF Grant	Co-Finance	Total
	M USD		
Component 1 - Pilots	15.073	235.991	251.064
Component 2 – Policy reforms	2.5	5.05	7.55
Component 3 – Communications	0.710	0.05	0.76
Component 4 -M&E	0.760	0.84	1.60
Component 5 – Project Management	0.957	9,771,734	10,728,734
TOTAL	20.00	251.702	271.702

At the time of CEO Endorsement, in addition to co-financing provide by IDB and UNEP, the counterpart financing came from a number of different Executing Agencies (EAs). At the national level for Component 1 activities, Jamaica's National Water Commission was providing a total of US\$10 million for infrastructure financing, and US\$1.032 million in in-kind contribution for wastewater treatment plants design, project and monitoring and evaluation (M&E) activities. The Ministry of Finance in Belize was providing over US\$0.30 million in in-kind contribution for project management and M&E; the Ministry of Housing and Water in Guyana was providing over US\$0.56

million in in-kind contribution for project management and M&E. For Components 2 and 3 implemented by UNEP, CAR/RCU was providing US\$0.6 million in in-kind contribution for project management support and technical assistance.

2 Evaluation objectives, scope and methodology

2.1 Objectives of the Terminal Evaluation

The purpose of the TE is to enable the GEF Agencies (IDB and UNEP), the countries⁸ and other stakeholders: i) to assess the achievement of the project against the expectations of the Project Document endorsed by the GEF CEO; ii) to draw lessons that can both improve the sustainability of the benefits from this project; and, iii) to aid IDB and UNEP with the development of follow-on project to up-scale the CReW.

The assessments of these elements of the project would be summarised in conclusions leading to lessons and recommendations for future initiatives. The TE would also provide a 'rating' of the key evaluation criteria of **relevance, effectiveness, efficiency, sustainability and impact** (See Box 1).

Box 1 Evaluation Criteria

- **Relevance** – the extent to which the activity is suited to local and national development priorities and organisational policies, including changes over time, as well as the extent to which the project is in line with the GEF Operational Programmes or the strategic priorities under which the project was funded.
- **Effectiveness** – the extent to which an objective has been achieved or how likely it is to be achieved.
- **Efficiency** – the extent to which results have been delivered with the least costly resources possible.
- **Results** – the positive and negative, and foreseen and unforeseen, changes to and effects produced by a development intervention. In GEF terms, results include direct project outputs, short- to medium term outcomes, and longer-term impact including global environmental benefits, replication effects and other, local effects.
- **Sustainability** – the likely ability of an intervention to continue to deliver benefits for an extended period of time after completion. Projects need to be environmentally as well as financially and socially sustainable.

In addition, the Terms of Reference (ToR) for this TE (Annex 1) identified five specific questions to be addressed:

- How far has the project built national and regional capacity (at individual, organisational and enabling environment level) for the long-term management of the Wastewater Sector?
- What progress has been made on the development of regional policy, legal and regulatory frameworks for addressing wastewater management and creating regional wastewater management reforms for the long-term management of the Wastewater Sector? Where do we stand on the implementation of the LBS Protocol? Has there been the development of national and regional policy and legal frameworks to enable the development of the Sector?

⁸ Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Cuba, Dominica, Dominican Republic, Grenada, Haiti, Jamaica, Montserrat, Netherlands Antilles, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, and United States Virgin Islands.

- To what extent did the project foster regional dialogue and knowledge exchange amongst key stakeholders in the wider Caribbean Region?
- Was the project successful in improving sensitisation, awareness and capacity throughout all sectors with respect to wastewater management?
- Was an effective project management system established and functioning at the national and regional level?

In summary, the objectives of this terminal evaluation are to:

- Identify the strengths and weaknesses of the project design (concept, management arrangements, stakeholder involvement in design, monitoring & evaluation, etc.);
- Assess the achievement of the project in terms of the practical outputs and outcomes expected;
- Document any lessons and good practices that could guide future GEF, IDB and UNEP projects globally and provide any specific lessons that may be of benefit to other projects in the region;
- Assess the responses taken by the project (and related stakeholders) to the Mid-Term Evaluation (MTE) and the impact on project delivery and outcome;
- To make any necessary recommendations that would assist with the development and implementation of the planned follow-on project to upscale the approaches tested by the CREW.

2.2 Evaluation design, execution and analyses

The evaluation was designed to review project outputs, to visit selected sites and discuss the project with stakeholders. Specifically, the evaluation considered material from:

- Desk reviews of material identified by the Project Co-ordination Group (PCG), the TE Consultant and the project website (<http://www.gefcrew.org/>)
- A mission (5th June -23rd June 2016) to Jamaica, Trinidad and Tobago, Guyana, Costa Rica and Belize to discuss the project with key stakeholders, national Project Management Units (PMU), national EAs and the PCG. A detailed programme of meetings and site visits was developed by the PCG, with input from the TE;
- Skype/email discussions with selected stakeholders that were not available during the mission.

A list of the stakeholders interviewed by this TE is presented in Annex 2 and the key documents referred to are presented in Annex 3. The evaluation criteria were further elaborated as questions within an evaluation matrix (submitted for approval in an inception report) is presented as Annex 4. The evaluation matrix was used to provide a guide to stakeholders involved in this TE (Annex 5).

Where possible the evaluation has sought the responses from multiple sources and stakeholders before drawing conclusions to provide a degree of quality assurance. The TE was performed according to UN and GEF principles of evaluations: credibility, utility, impartiality, transparency and participation.

A draft TE report was delivered to IDB Team Leader, UNEP Task Manager and the PCG. Comments are included in Annex 11.

The TE expects to conduct an email survey of key stakeholders near the end of the project (January 2017) to reassess both the delivery of outputs and their impact towards the outcomes/objective and to reassess the overall conclusions of the TE.

2.3 Structure of the TE Report

This evaluation report adheres to the table of contents indicated in the consultant's ToR (Annex 1).

2.4 Limitations of this Terminal Evaluation

As with all evaluations, time has been limited for this evaluation and the project has delivered many and varied outputs that have resulted in only a brief inspection of some documents and reports by the TE. However, the TE considers that those inspected have been representative of the outputs as a whole. Clearly also the limitation applies to the extent of the mission and whilst all four pilot countries were visited only one 'non-pilot' country was visited and not all key stakeholders were available.

In addition, the project is not due to be ended until January 2017, and further activities and results are expected.

3 Project Performance and Impact

3.1 Introduction

The project implementation is nearing the revised project completion date (original date for completion was June 2015 with a revised completion of January 2017), following an extensive testing of revolving financial mechanisms and regional components to strengthen capacity to manage wastewater and disseminate the experiences and lessons from the project. The project was subject to an inception phase resulting in a slight updating and clarification of the project results framework that has subsequently remained largely unchanged. Three additional Outcomes were added during the Inception Phase:

- **Outcome 11:** Improved policy, legal and institutional frameworks;
- **Outcome 12:** Strengthened capacity for wastewater in the Wider Caribbean Region (WCR);
- **Outcome 13:** Increased awareness of wastewater and sanitation by selected target groups.

The project results framework design and use is discussed in the M&E section (3.5.7) of this report.

The project has held extended-duration project steering committee meetings that offered opportunities for training, awareness raising and brainstorming future activities based on lessons from the project, involving a wide range of key regional stakeholders. The project has provided detailed and comprehensive progress reports (including GEF PIRs, IDB and UNEP management reports) offering a continuous record of the progress and difficulties facing the project. A mid-term evaluation was undertaken which highlighted multiple recommendations to strengthen the project and management to these have been reported.

The design of the project was strongly directed to, and benefited from, the regional Cartagena Convention and the Land-Base Sources (LBS) Protocol. This has clearly provided an overarching focus and driver for both the national and regional interests in reducing wastewater pollution. The project has undertaken the planned pilots with varying levels of ‘success’ in terms of progress, however all pilots have delivered invaluable lessons to guide future similar activities.

The following sections follow the requirements specified in the TE consultant’s ToR and present the observations from the mission, review of documents and discussions with stakeholders.

3.2 Attainment of objectives and planned results

The project has successfully achieved the overall objective of the project (*‘.....piloting revolving financing mechanisms and their related wastewater reforms....’*) and in testing approaches to financing delivered considerable experiences and lessons. The occasion of the 4th PSC (July 2015) was used to brainstorm and capture the lessons from all participating countries on all aspects of the project (see minutes of meeting). These lessons were also expected to inform the development of a planned follow-on project to upscale and enhance the CReW.

Annex 8 provides (as of June 2016) a summary of the achievements towards the planned outcomes and outputs together with the TE’s comments on performance.

The TE rates the overall **Attainment of Objectives and Planned Results** as **Satisfactory**.

3.2.1 Achievement of outputs and activities

A summary of the status of the achievements is attached in Annex 8. The project execution has been co-ordinated by the PCG in close cooperation with the four Pilot Execution Agencies⁹ (Component 1) and UNEP CAR/RCU (Component 2 and 3).

The MTE, submitted in January 2014, provides considerable details of the background and financing mechanisms deployed in each of the four pilots and provides recommendations. The management response to these recommendations is summarised in Annex 6. This TE will summarise the achievement, experiences and lessons to inform an anticipated follow-on project to upscale the approaches adopted in the CReW.

The TE rates the **Achievement of Outputs and Activities** as **Satisfactory**

Component 1: Investment and innovative financing for wastewater management.

This component tested approaches to financing mechanisms through the capitalisation of four pilot financing mechanisms (PFMs). The PFMs (sub-component 1.1) were each supported by actions under Project Development Support sub-component (to assist with technical feasibility studies and design consultancies to facilitate the pilots) and a sub-component on the Technical Capacity Strengthening for Wastewater Pilots (funding positions within the national Project Management Units (PMUs) established to implement the works).

Component 1 operated through a designated Executing Agency (in Belize, Guyana, Jamaica and, Trinidad & Tobago that finalised the grant agreements between IDB and the beneficiary country¹⁰). A supervisory Board was identified at the national level to establish oversight and direction to the implementing agency / PMU that undertook the management of WWTW upgrades and/or reconstructions. A strength of the execution of Component 1 has been the development of specific pilot 'Operations Manuals' developed and approved under the supervision of the IDB Water and Sanitation Division.

The national sources and IDB regional sources of co-financing has been essential to the progress of the PFMs and the important lessons generated by the CReW. At the national level the co-financing has supported the Executing Agency and the PMUs with staff, investments on national wastewater schemes, etc. The IDB has a large portfolio of projects and investments in the region that are all adding to the knowledge base and providing further examples of approaches that have worked on WWT. Equally important has been the internal technical support provided by IDB on financial management and through providing wastewater/sanitation specialists where needed.

At the time of this TE the project was preparing detailed 'case notes' on the PFMs summarising the steps taken, the benefits and lessons from the approach in each pilot. Three common lessons from the pilots were identified as:

- Importance of the enabling environment to ensure that wastewater investments are supported by the adequate institutional and legislative infrastructure to act as a driver for investments;
- Importance of awareness on wastewater issues at all levels of society;

⁹ Jamaica, National Water Commission (NWC); Belize – Ministry of Finance; Guyana – Ministry of Housing and Water; and, Trinidad and Tobago – Ministry of Finance

¹⁰ A slightly different model was adopted in Jamaica where the IDB loan was used by a commercial bank to guarantee an operational loan to an implementing agency

- The benefits of an adaptive management approach to enable appropriate changes to be introduced.

The TE rates **Component 1** as **Satisfactory**

Key observations related to component 1 include:

i) National Wastewater revolving fund in Belize

The Belize PFM has been executed by the Ministry of Finance with the national implementing agency at the Belize Water Services Ltd. (BWSL) with a loan amount of 5 M USD. The initial project site on the Placencia Peninsula encountered problems of potentially insufficient funds (despite a parallel IDB national loan of 5 M USD), lack of public support for the WWTW and a lack of available land for the construction of stabilisation ponds.

After internal discussions the Belmopan Sewer System Upgrade and Expansion was identified, and this project is in the process of being implemented through various phases supported by the PFM financing. This 'adaptive management' response to the delays foreseen by the BWS and PCG enabled the development of this alternative project for the testing of the PFM.

The system is based on an upgrading of an existing site through the renovation and addition of low-maintenance stabilisation ponds (with provisions to by-pass each pond to enable maintenance to be undertaken) with a final UV disinfection of the treated effluent prior to discharge to a river. Power for the UV sources is provided by photovoltaic cells resulting in a low maintenance and low energy demand system. The treatment plant has been designed with land considerations for future extensions to accommodate planned population growth for many years. The planned work programme of BWSL will utilise the full loan amount by the revised end of the project (January 2017).

The TE considers that the approach, design and implementation of this project to be highly satisfactory. In addition, repayments to the revolving fund have been initiated through customer tariffs.

The WWTW is treating approximately 3 Mm³/day with recent (approximately monthly) data provide to the TE demonstrating the reductions achieved by the WWTW in comparisons between samples taken at the inlet and the outlet (after UV disinfection) of the WWTW.

Parameter	Influent	Effluent	Influent	Effluent	Influent	Effluent
Date	1 st March 2016		5 th April 2016		10 th May 2016	
BOD mg/l	250	22	157	21	410	25
BOD % reduction		>90		>85		>90
SS mg/l	320	17	131	40	360	26
Faecal coliforms colonies/100 ml	1430 x 10 ⁴	150	1170 x 10 ⁴	600	4300 x 10 ⁴	40

Key observations from the Belize pilot include:

- The slow start demonstrates the importance of ensuring that national plans are at an advanced stage (including the need to ensure support from local inhabitants, availability of land, adequacy of evaluation studies and consequentially cost estimate reliability);

- The importance of available, qualified and experienced project managers (BWSL) to undertake assessments, design and supervise construction;
- The pilots would have benefited from more 'pilot-to-pilot' communications to share experiences. Especially, to gain experiences from other pilots involving the private sector, small community WW solutions, etc.
- There is strong support for a follow-on project with a need for more innovative solutions on financing particularly for small community level interventions, potentially necessitating the devolution of some of IDB's oversight responsibilities to the National Executing Agency (and a corresponding strengthening of the technical resources within the EA)

ii) **National Wastewater revolving fund in Guyana**

The Guyana Wastewater Revolving Fund (GWRF), targeting private and public operators of WWTW, has been executed through the Ministry of Housing and Water with a loan amount of 3 M USD. Initial plans were to target a large drinks bottler that also held the franchise for bottling Coca-Cola and hence were driven to introduce appropriate wastewater under their global social responsibility concerns to meet or exceed local regulations. However, (as reported in the MTE) the extended negotiations between the bottler, the Government of Guyana and IDB resulted in them withdrawing from the plan.

Despite the Ministry of Housing and Water re-launching the CReW project to attract interest from the private sector there was no expression of interest. The relatively weak state of the regulatory institutions (Environmental Protection Agency) and the lack of baseline water quality monitoring data against which the regulations could be enforced, has resulted in a lack of an 'enforcement' driver for the private/public sectors.

The EPA has been benefited from both regional activities and adaptive management usage of the 'Project Development Fund' from Component 1 (and with Component 2 resources) to further strengthen their capacity and initiate baseline studies to provide receiving water quality information.

Through further public consultation the PMU identified several small private sector operators (or potential operators) of WWTW. At the time of the TE mission only one private sector organisation (Splashmins requesting a loan of 300 k USD) was close to completing negotiations. The planned WWTW will utilise a small package plant treating 64m³ per day with a future expected flow of 139 m³ per day. Another 3-4 companies were in the process of developing proposals after many years of discussions and they raised many issues with the TE on the process of negotiating a contract.

The PMU has prepared options on how the fund could be utilised between June 2016 and the end of the project (and beyond) under national management structures as part of an 'exit strategy'/sustainability plan for the CReW.

The TE observations on the Guyana pilot include:

- The lack of the enabling conditions (policies, legislation, institutions, enforcement, etc.) were considered by all (Project Execution Agency, the EPA, the PMU and the Private Sector) as a barrier in encouraging the installation of WWTW. This is a key issue for any subsequent initiative.
- All the private sector organisations interviewed identified the need for more information on the loan conditions (repayment term, interest rates, bank guarantees) at the initial stages of the loan discussions as a major issue, especially for 'relative small' (100 – 500 k USD 'loans')

- In most cases the small private sector companies had no previous experience and limited capacity to prepare high quality and IDB compliant proposals. This introduced significant delays in the process.
- The question of land ownership became a significant problem in the process of identifying appropriate companies and projects willing to apply for a loan. The conditions of the loan required that there was clarity over the company owning (or having a lease agreement) on the land prior to finalising the loan. However, the small companies were not prepared to risk investing in purchase or lease of land unless the loan was assured.
- Components 2 and 3 of the project were considered to be necessary to strengthen the capacity of institutions and polices to ensure regulations are operational prior to the discussions on encouraging the private sector to invest in WWTW. Stakeholders from the EPA had benefited from the capacity strengthening and are now better placed to implement updated approaches to environmental management.
- Most the private sector solutions to WWT were centred on the provision of 'packaged' treatment plants. The PCG encouraged, where possible, the use of low technology, low power-demand/maintenance systems, such as the example from Belize, which could have been worth further exploration, or explanation to the private sector companies not familiar with the use of stabilisation ponds.

iii) Credit enhancement facility in Jamaica

The approach adopted in Jamaica for a credit enhancement facility (JCEF). The National Water Commission was identified as the implementing agency to access a commercial loan (12 M USD) against the secured guarantee from the GEF (3 M USD). A pre-existing surcharge (K-factor), that had been authorised by the Office of Utility Regulation (OUR), was levied on consumers' water bills to service the commercial loan.

The National Environmental Protection Agency (NEPA) had a long-list of 40+ WWTW in need of upgrading to meet national standards from which the NWC requested support from the CReW credit facility for renovating eight sites with a total wastewater flow pf >3,700 m³ per day serving a population of over 10,000. Only one commercial bank (National Commercial Bank) showed interest in providing the loan and the finalisation of the agreement took a considerable time and together with administrative and management issues within NWC resulted in an overall delay of 33 months.

At the time of the TE mission, construction was well advanced with an expectation that completion (of at least some of the WWTW) would be completed by the end of the project, although, final characterisation and expected M&E actions will happen post-projects following commissioning.

The TE observations on the Jamaican pilot include:

- National authorities could have been more prepared for the start of the project with the design or location of the WWTW
- The PMU was significantly understaffed at the start
- Jamaican authorities are considering future innovative uses of treated wastewater (e.g. artificial recharge of groundwater)
- The importance of a clear and established mechanism for generating resources for repaying the loan (K-factor)
- Additional 'PR' needed at country level to publicise the project activities and wastewater in general

- The EPA played an essential role in the success of CReW through ensuring adequate ‘drivers’ for WWT and requiring operators to be certified (through CReW Component 2, UTech has provided targeted training courses on WW resulting in certificates for successful trainees. This course will be available online for the region in both Spanish and English)
- There was a strong desire by all to further participate in a follow-on project and explore other options, e.g. Public-Private Partnerships.

iv) **National Wastewater revolving fund in Trinidad and Tobago**

The Trinidad and Tobago Revolving Fund is being executed through the Ministry of Finance and executed by the Water and Sewerage Authority (WSSA). Trinidad and Tobago only ‘joined’ the CReW after the project had started. The MTE provides a detailed summary of the difficult history and uncertainty with this PFM, primarily linked to a lack of clarity over the project’s objective (like many participants in this project it was originally thought of as a WWTW project rather than a project testing ‘innovative revolving financing mechanism’) and lack of clarity in the roles and responsibilities of the main agencies involved in TT.

The original plan was a refurbishment of the Scarborough WWTW on Tobago but in late 2014 it became clear that there was inadequate funding to enable the work to be completed. A draft mission report prepared by IDB’s Water Specialist in Trinidad and Tobago stated:

This investment grant was signed in 2014 and attained eligibility for disbursement by Dec 11, 2014. The IDB disbursed the approved US\$2M into the Revolving Fund account but to date these funds have not been accessed by WASA to finance the Rehabilitation of the Scarborough WWTP, the stipulated first generation project. The Ministry of Finance (MOF) indicated that it is unable to repay a loan on behalf of WASA and has not advised on a mechanism to achieve the objective of the financing for it to revolve.

In order to resolve this matter, the GORTT informed the IDB of its plan to change the Executing Agency from the MOF to the MPU. The GORTT also request in subsequent communication an extension of the disbursement period to January 2017. The Bank informed the GORTT that whereas it may have no objection to this change, it requested the GORTT to justify this change. The MPU informed that they are working to make the necessary justification and inform the IDB on the mechanism for the operation of the Revolving Fund under the operation. In the meantime, WASA has confirmed that the contract for the Rehabilitation of the Scarborough WWTP has been executed and only awaits the allocation of the financing. The Mission reminded the GORTT that the IDB has sent a letter informing that an extension up to September 2016 for the GORTT to demonstrate commitment to the change of executing agency as start of works.

Conclusions: the GORTT informed the IDB of its plan to change the Executing Agency from the MOF to the MPU and he Bank requested the GORTT to justify this change. The MPU and MPD will make the necessary justification and inform the IDB on the mechanism for the operation of the Revolving Fund under the operation. The MPU also committed to assuring the allocation of the financing to WASA for the Rehabilitation of the Scarborough WWTP.

At the time of the TE there was still no clear decision on how this PFM would proceed before the effective end of the CReW project (January 2017).

The TE observations on the Trinidad and Tobago pilot include:

- Despite a full explanation of the project’s objective at the start of the CReW by the PCG, there appears to have been misunderstandings on the nature of the project and this appears to have had a significant impact on the PFM in TT.
- Although the line-ministry for WSSA (Ministry of Water and Environment) was reported to be in favour of the project, the Executing Agency appeared to take a disproportionate amount of time to respond to every request. Unfortunately, the TE was not able to meet with the Ministry of Finance.

- The IDB Operational Manual, although finalised by the loan board in TT, was reportedly insufficiently detailed.
- WASA should provide the PCG with a detailed account of what realistically can be done before the end of the project and how the resources could be utilised post-project.

Component 2 – Reforms for Wastewater Management

This component was designed to facilitate the strengthening of the enabling conditions on policies, legislation, and institutions with a direct focus on meeting the requirements of the LBS Protocol that provides the overarching regional framework associated with WWT. This component was executed by UNEP CAR/RCU based in Kingston, Jamaica. The activities undertaken in Component 1 were designed to be strengthened through Components 2 and 3. (An assessment of the outcome and output indicator and targets is presented in Annex 8).

Whilst the support from UNEP CAR/RCU has been considered to be exceptional both in terms of information quality and responsiveness, all countries expressed disappointment at the failure in the second half of the project of the new UNEP financial management system to adequately cope with contracting, disbursement and reimbursement of expenses. This is discussed in a later section (Section 3.5.5)

A range of policy toolkits and templates were developed for the regional partners of the project, country reports on LBS Protocol and wastewater, etc. In addition, these regional activities (prepared through co-operative work and regional workshops, etc.) were complemented with targeted many national actions (SSFAs) to support capacity building related to institutional or policy reforms and to provide national guidance on, for example, resource valuation (in Panama and Trinidad & Tobago), which has been well summarised in a final product of the project¹¹, that highlighted important lessons (enabling environment, a participatory approach and data/information system needs).

The project had a desire to focus SSFA interventions on countries not implementing the PFMs and whilst there has been significant effort by UNEP CAR/RCU to promote SSFAs in the Spanish speaking countries there has been less uptake. Primarily due to concerns on delays resulting from UNEP's financial management system establishing contracts, reimbursing costs and transferring funds to the countries.

This component has also supported the development of a partnership on wastewater training (at UTech on the University of the West Indies Campus in Kingston, Jamaica), linked to material that has been developed by California State University. The course has been driven by the requirements of the NEPA in Jamaica that WWTW operators are certified and to-date has trained 28 operators. This activity was initiated through a professional exchange programme through Component 2 but the delivery of the course was through the Jamaica Component 1, demonstrating the close links between project components. The course is available on the web and will be in both English and Spanish, providing an important regional capacity building resource and a significant benefit to any follow-on project.

The TE observations on Component 2 include:

- Excellent, high quality outputs on issues of national and regional significance that were considered to be of benefit by the countries.
- Clear links between the Cartagena Convention LBS Protocol and the expected outputs
- The component delivered good participation and ownership in the countries visited by the TE
- The experiences and results of Component 2 were shared through UNEP CAR/RCU via a Dropbox. Several comments were provided to the TE that the ability to compare and contrast other countries policies and legislation were considered highly beneficial.

¹¹ Applying Economic Resource Valuation for Improving Wastewater Management – The Case of Trinidad and Tobago

- The work of Component 2 helped also to identify gaps at the national level and to prioritise future work activities;

The TE rates **Component 2** as **Satisfactory**

Component 3 – Communications, Outreach and Information Exchange

This component (also executed by UNEP CAR/RCU) is directed at documenting the outputs and activities of the project, the training workshops and supporting the knowledge management systems of the project. The project has a well-developed (and current) website and also prepares four newsletters a year (CReW's Lines) that is distributed in hard-copy and electronically. The TE noted that copies of the newsletter were evident in several of the partners' offices during the mission.

Two GEF Experience Notes have been prepared to-date and four more are scheduled to be prepared by the end of the project. In addition, at the time of the TE many of the project's outputs are in the process of being translated into Spanish and will be uploaded to the website. Although the TE considers that translation should be done in a timely fashion and not as the project is ending where its value to the current project is limited (although clearly there are long-term benefits).

The project has undertaken a number of workshops, targeted at journalists in both languages, to sensitise them to issues surrounding wastewater and have prepared a toolkit to assist the media on this important topic. More information is provided under the specific ToR requested heading of 'Stakeholder and Awareness Raising', Section 3.5.3).

The project is currently producing final, high-quality, summaries of the significant achievements of the project: Case studies on the Belize, Guyana and Jamaica PFMs; Enabling conditions for Wastewater Management; Barriers and Solutions to Sustainable Financing for Wastewater Management; and, Resource Valuation in Trinidad and Tobago. These documents summarise the activities, benefits, lessons, etc. that will be of great benefit to all involved in the proposed follow-on project in the region.

The TE observations on Component 3 include:

- Multiple high-quality outputs have been prepared that have been well received by the regional community and are considered an asset. These outputs are also available to a global community through the website and close links with the GEF IW:LEARN project, including:
 - Website is active and current and conforming with GEF IW:LEARN guidelines;
 - High-quality newsletter (CReW's Lines) prepared for electronic and hard-copy distribution
 - Development of a media tool-kit and information for media on knowledge, attitudes and practices (KAPs) to catalyse media outputs on WW issues.
 - Release of video documentaries;
 - Draft documents summarising achievements, lessons, recommendations etc. (in conjunction with IDB's Knowledge and Learning Division) learned from the first generation PFMs and Components 2/3 activities. These were discussed by the countries and other stakeholders at the final PSC meeting.
 - Multiple technical presentations throughout the course of the project at national and regional events.
 - Participation at regional and globally GEF IW events

The TE rates **Component 3** as **Satisfactory**

Component 4: Monitoring and Evaluation

The M&E of the project was highlighted by the MTE as being a particular burden on the project. Clearly with two GEF Agencies, each with specific requirements on technical and financial reporting, there is considerable work. However, following the MTE the project and the two GEF Agencies were able to streamline the process. Management responses to the 20 recommendations identified in the MTE are included in Annex 6.

TE observations on Component 4 include:

- The regular and frequent video conferences have been a cost effective means of enabling frequent contact between the PCG and the two GEF Agencies. In addition, regular video conferences were also held between the pilot countries and the PCG. These were considered highly beneficial by all interviewed
- The project has undertaken four PSCs, but unfortunately resources were not available to hold a final PSC when the project duration was extended;
- The PSC meetings are extended, utilising the occasions to include training sessions, brainstorming events, etc. in recognition of the significant cost of travel in the WCR. Inevitable the minutes are very extensive and the TE noted that it was difficult to find key 'PSC' decisions on the progress of the project (for example approval of budget changes, changes to work programme). However, it was clear that these items were discussed from the presentations included in the report. In addition, the speed of preparation of the minutes was considered by the TE to be very slow; for example, the 4th (and final PSC) minutes were only issued in draft 11 months after the meeting was held.

M&E ratings, performance and activities, the MTE and management responses are discussed later in this report (section 3.5.7).

Component 5 – Project Management

The overall project has been managed by the PCG with input from UNEP CAR/RCU and the national Executing Agencies. Operational details are considered later in this report (sub-sections within 3.5).

3.2.2 Relevance

The project has had a slow start, not least because many stakeholders required more explanation about the CReW being a vehicle to test 'innovative financial mechanisms' and not a 'wastewater construction' project. However, once the project was 'understood', there has been overwhelming support for the CReW. The approaches tested by the RFMs, and the national and regional activities, have been designed to be of significant benefit to the countries and the region by supporting national objectives relating to WWT and helping to meet obligations under the regional LBS Protocol. The CReW design and implementation were of relevance to the countries, region, IDB/UNEP and to the GEF IV Strategy. In particular, the delivery of high quality experiences and lessons from the first generation PFMs will be of significant benefit to planned follow-on action to the CReW and to guide the GEF on mechanisms that are effective for other similar projects globally.

All government representatives interviewed spoke highly of the project and the GEF Agencies. They recognised that the project contributed concepts on innovative means to finance infrastructure projects in the region, assisting to develop policies, practices and capacities, and, highlighting future priorities that need to be addressed. The TE also confirms (as specified in the ToR – Annex 1) that the

CRew was relevant to the OECS St. George's Declaration on '*fostering equitable and sustainable improvements in the Quality of Life in the OCES region*'.

The TE observations on relevance include:

- The CRew project greatly benefit from the Cartagena Convention and its LBS Protocol in providing a regional driver to further address the WW issues. In addition, the regional convention was also benefiting from progress by the countries/regions towards its goals.
- The project is relevant to national priorities including meeting relevant SDGs (e.g. 6.2, 6.3, 6.b, 14.1, 14.2, etc.).
- IDB and UNEP have successfully tested an innovative project to encourage investments in wastewater treatment, enhance capacity on regulations/policies associated with WW and to increase on the issues associated with WWT. The lessons and experiences will be invaluable for upscaling the work of the CRew and for replication of the concept outside the region.
- The project has successfully engaged large networks of regional stakeholders (e.g. CWWA) and bring these stakeholders to common meetings.
- The increasing use of WWT involving tertiary treatment, will lead to a reduction of nutrients and BOD levels being discharged into coastal waters and eventually, a gradual reduction of hypoxic events from nutrient pollution. Therefore, addressing a major global concern of the GEF since its inception as indicated in a STAP¹² report.

The TE rates the **Relevance** of the CRew as **Highly Satisfactory**

3.2.3 Effectiveness

The TE considers that the main objective of the CRew has been met through the process of testing innovative financing mechanisms in four pilots. Whilst it is clear that not all pilots achieved the 'successful' implementation of a WWTW, all have generated significant and beneficial lessons that will aid future projects and interventions by the GEF to stimulate construction of WWTW. CRew has also strengthened the commitment and capacity the 13 participating countries in reaching the project's and the LBS Protocol's objectives.

The effectiveness of the project has been further enhanced by the countries' commitment to the regional Cartagena Convention and their readiness to test aspects of the LBS Protocol through the CRew project. The existence of the LBS Protocol, and the capacity strengthening that has been provided by the project (specifically Component 2) will aid the long-term ability of the countries to meet their obligations under the Cartagena Convention, further improving the sustainability of all the project's outputs.

An assessment of progress and achievements against the results framework indicators and targets, provided through the PIRs, and updated for this TE, is presented in Annex 8. Although the project is due for completion in January 2017, 14 out of 21 outputs have met their targets as specified in the results framework. With the exception of 2 outputs (potentially output 6 and output 13) the other targets are expected to be met by the end of the project.

TE observations on project effectiveness include:

- An overarching strength to this project has been the existence and importance, (recognised by all interviewed for this TE) of the Cartagena Convention and LBS Protocol This is

¹² Hypoxia and Nutrient Reduction in the Coastal Zone: Advice for Prevention, Remediation and Research. (2011)

considered to be an essential pre-existing element that has enabled the effectiveness of the project to be attained.

- The CReW has made effective use of the PSC meetings by using these as opportunities over several days to promote the findings, exchange information, training, agree and formulate the key lessons and to brainstorm the way forward.
- Recognising that travel in this region is time consuming and expensive, the project has made extensive use of video conferencing to hold regular management meetings between for example, IAGG and between the PCG and pilot PMUs.

The TE rates the **effectiveness** of the CReW as **Satisfactory**.

3.2.4 Efficiency

Most GEF projects involving more than one GEF Agency appear more difficult to implement, especially in the first few years, as the agencies 'get to know' each other. As this was the first time that the IDB and UNEP (with two very different backgrounds and perspectives as highlighted in the MTE) had worked together, it was inevitable there would be some initial issues. However, following the MTE these issues appear to have been successfully resolved through improved communications (including the regular video conferences) and a better understanding of both Agencies' positions.

The project has been extended to allow the finalisation of all components. The original completion date was December 2015. The 2014 PIR identified that the Component 1 would not be complete and the project was extended (for this component) to January 2017. By the 2015 PIR it was recognised that the slow progress on regional and national activities (largely attributable to the delays and slow performance of UNEP's financial management system) would necessitate the closure of Components 2 and 3 (under UNEP's execution) in December 2016. Resources were made available from UNEP CAR/RCU and IDB to maintain some staff and cover additional overheads at the PCG.

The delays in establishing the pilots clearly had impacts on the 'completion' of the pilots (or in the case of Guyana and Trinidad & Tobago, even initiating the WWTW renovations/constructions). It is not the opinion of the TE that delays in project execution are due to any issues associated with the operation between the two GEF Agencies. In the TE's opinion these delays were multiple and had been highlighted repeatedly by the PCG, the national PMUs and from the lessons derived from stakeholder discussions at the 4th PSC meeting (July 2015). Consequently, these lessons and observations should be seen as a constructive to guide subsequent projects and fully consistent with the CReW's objective to 'test' PFMs and gain experiences.

The PCG and UNEP CAR/RCU worked closely with the countries to try to address issues on the national and regional aspects of Components 2/3. However, a key issue was associated with the introduction of UMOJA in mid-2015 that impacted the recruitment process and more significantly the disbursements made for fees and expenses to SSFA holders and participants attending workshops. Prior to this introduction no significant problems were reported. Not only were participants waiting for excessive periods to be reimbursed for travel/accommodation expenses, but these delays were dissuading regional participation.

There were significant and multiple delays in establishing the PFMs. The causes of these included:

- Lack of initial understanding of the objective of the project by many stakeholders. The CReW was initially considered to be a 'standard' WW construction project rather than the piloting of innovative financing mechanisms;
- At the start of the CReW the pilot countries were not prepared to start the discussions on the specifics of the projects that were to be undertaken, the readiness of their

policy/legislation/institutions, who would be responsible, ‘drivers’ to motivate uptake of the loans, etc. These ‘enabling conditions’ There was a need for a considerable amount of work on the financial agreements and the technical feasibility of the investments proposed.

- Since 2015, some delays also impacted Components 2 and 3 due to problems associated with UNEP’s financial management system. These delays impacted the contracting of SSFAs and disbursements, including the reimbursement of expenses incurred by meeting participants.
- The IDB Operations Manual, although considered highly beneficial by the TE, was not sufficiently elaborated to enable smooth execution by some countries (e.g. Trinidad and Tobago), despite being developed by national loan boards.
- The Guyana PFM highlighted issues that delayed the uptake of loans by small private sector companies. Many of the conditions associated with the loans (repayment period, interest rates, need for bank guarantees, land title requirements, etc.) were insufficiently clear to interested companies. Also the small private sector companies had a considerable lack of experience and expertise to prepare compliant technical and financial proposals.
- In Trinidad and Tobago, time was lost firstly due to a lack of appreciation of the project (testing of financing mechanisms not purely WWT construction) and delays between the national Executing Agency and WASA on the details of the projects to be implemented.

The TE rates the **Efficiency** of project implementation as **Moderately Satisfactory**.

3.2.5 Review of Outcomes to Impacts (ROtI)

The approach of using ‘Theory of Change’ analysis (also known as ROtI in GEF projects) is encouraged to identify potential impacts that are likely to be generated by a project. An analysis of these potential impacts based on expected outcomes is given in Annex 9.

A simple ROtI analysis has been performed on the key aspects of the project outcomes and these are assessed, with all showing a high rating to the outcome and progress to intermediate states. There is direct impact evidence with most project outcomes (and used in this ROtI assessment) indicating that the project is **Highly Likely** that the intended outcomes and desired impacts will be achieved.

3.3 Sustainability

3.3.1 Socio-political Sustainability

All countries that have participated in this TE have highlighted the importance of WW in general and the need for improved treatment. This reflects the understanding of the benefits to health, livelihoods and the environment from better WWT. National authorities also identified the benefits to their ability to report progress on a range of Sustainable Development Goals (SDGs) both nationally and internationally.

Apart from the benefits from WWT, all participating in this TE have highlighted the importance of compliance with the LBS Protocol as a key driver for reducing untreated wastewater discharges.

The PFMs were also introducing to the WCR innovative financing mechanisms that could help compliance with national and regional requirements. Although the PFMs only were tested in four countries the results are expected to assist all countries in the WCR on the potential of these mechanisms and the lessons from the successful and less successful pilots. The TE only visited one ‘non-pilot’ country (Costa Rica) where meetings indicated that, whilst disappointed not to be benefiting from a pilot, they were still very interested in the approaches and lessons.

The TE rates **socio-political sustainability** as **Highly Likely**.

3.3.2 Financial Sustainability

The testing of the PFMs has demonstrated how the approach can work providing the appropriate enabling conditions are present and that mechanisms are established to generate income to repay or replenish the PFM (tariffs replenishing the PFM in Belize and repayment of the commercial loan through agreed k-factor applied to water bills in Jamaica). However, the duration of repayment for other infrastructure projects have been significant; in Belize estimates of between 50 – 75 years were given to the TE, although the repayments for the phase 1 and 2 works in Belize for this project were approximately 6 and 15 years respectively). Consequently, there is a need to seek additional resources to replenish the PFM with external donor or commercial resources that was anticipated in the original project concept, but not actively pursued during the life of the CReW. In any follow-on project this should be an integral part of the project to assist with financial sustainability of the PFM.

In Jamaica there is considerable interest from the private banking sector to be involved in a follow-on project and this competition is to be welcomed (in the first tranche only one commercial bank expressed interest in this initiative).

The TE rates the **financial sustainability** of the RFMs tested by the CReW as **Likely**.

3.3.3 Institutional Sustainability

Lessons from the CReW show the benefit of having clear enabling conditions prior to the testing of PFM including the strength (resources and experiences) of institutions acting as the national Executing Agency and Implementing Agency (and/or PMU). The need for clear drivers to establish wastewater treatment and enforcement of the associated regulations has been shown in Guyana, The CReW's 'adaptive management' response to the lack of capacity and baseline understanding of water quality of receiving water by providing resources to assist with these studies.

The actions of the CReW have also highlighted the importance of the national and regional actions of Component 2 (policy reforms) and Component 3 (awareness raising) in underpinning the work of the PFMs. In addition, it was widely stated to the TE that components 2/3 should be considered prior to implementing the PFMs. The awareness of the importance of the LBS Protocol as a driver to improve WWT was significant, even in small private sector companies.

The TE rates **Institutional Sustainability** of the CReW as **Highly Likely**

3.3.4 Environmental Sustainability

The CReW is consistent with and supportive of the expectations of the regional Cartagena Convention and its Land-Based Sources Protocol. Eight countries have completed (or will have completed by the end of the project) baseline studies aimed at developing policy reforms to support the LBS Protocol under SSFAs. There were both baseline studies and also LBS Protocol Assessments which provided action plans for each country for LBS Protocol Ratification and Implementation with a specific focus on Annex III dealing with wastewater. These actions are expected to further support ratification of the LBS Protocol

While the project has not generated any data on marine environment to indicate possible improvements (and to-date there is limited completion of WWTW), the expectations is that all investments on WW will lead to improvements to health, marine (and terrestrial) environments and livelihoods through improved fish stocks, tourism benefits from enhance water quality and ecosystem status.

The TE rates the **Environmental Sustainability** of the CReW as **Highly Likely**.

3.4 Catalytic Role and Replication

In all countries visited by the TE, interest in further national exploitation of the approaches from the PFM was expressed. Both in further developing the national pilot but also from utilising mechanisms tested in one of the CReW countries. Examples included:

- The specific interest from the commercial bank in Jamaica (NCB) to be involved in future infrastructure initiatives,
- Willingness and enthusiasm to test their own 'PFM' in Costa Rica (a non-pilot country but interested in participating actively in a follow-on project), utilising some financing options developed locally,
- Implementing the appropriate 'enabling conditions, in Guyana to be able to encourage the private sector to implement wastewater options,
- To further refine the approaches in Belize to implement wastewater treatment solutions for small communities plus scaling up the approaches tested in Belmopan for other cities.
- The options developed in Belize (stabilisation ponds and UV disinfection of discharges) are well suited to replication where land is available in the region as noted by several stakeholders and applicable to community level developments. This would serve as a positive example of a technical solution that could be replicated across the region.
- As the TE was being concluded, 18 endorsement letters had been received in support of a follow-on project with interest being expressed by existing and new countries in participating in a future project.

This has demonstrated the interest that the CReW project (all components) has engendered in a small cross-section of the participating countries, and across both the private and public sectors. The Wider Caribbean Region is already well advanced at taking the lessons and experiences to develop a scale-up version for submission to the GEF of the CReW project.

The clear understanding of the LBS protocol (obligations and benefits) are also a positive indication of the interest to replicate this activity, subject to appropriate national enabling conditions, catalysed by the development of some innovative financing mechanisms.

The TE rates the **Catalytic Role and Replication** of the CReW as **Satisfactory**.

3.5 Processes affecting attainment of project results

3.5.1 Preparation and readiness

The CReW project was developed through a consultative process led by IDB and UNEP. Although efforts were undertaken to select the pilots against agreed criteria and thereby ensure the pilot projects would be 'ready' for execution at the start of the CReW, it is clear that the level of assessment *at the country level* was insufficient. The delays faced by all pilots were significant, however as repeatedly stated, these delays highlight key lessons on preparedness and the importance of the appropriate enabling conditions as precursors to pilot execution.

The TE considers the Project Document (and appendices) to be comprehensive and clear, and built on previous relevant GEF projects, e.g. IWCAM. However, it is also now apparent that the 'objective' of the project (testing of PFMs rather than 'just' WWT construction) was not clear to many stakeholders. Part of this uncertainty could be attributed to the volume of the GEF submission, rendering it unlikely that this was read by many stakeholders. But the clear lesson from this problem (which has contributed to delays in project execution) is to provide a clear statement of what the project will do and what the responsibilities of all parties are. The Project Document also clearly identified key stakeholders and partner agencies and, importantly, their roles in the project.

The GEF Agencies, IDB and UNEP, were complementary and despite this being the first GEF project they were co-implementing, the partnership was considered beneficial by stakeholders interviewed (although having two GEF Agencies did contribute to national uncertainty on who to contact). The national pilot focus (IDB) and the regional and capacity development (UNEP) focus of the agencies was recognised as integral to their comparative advantages as GEF Agencies.

The preparation of the project considered the need for national co-financing and in most cases this was adequate. It took more time to build national PMUs to the expected level (e.g. Jamaica) due to the lack of a full appreciation of the requirements of the project. As repeatedly stressed, the state of national enabling conditions (policies, legislation, institutions, enforcement, etc.) was underestimated, as seen in the Guyana PFM directed at encouraging the participation of the private sector with inadequate drivers to encourage WWT. The PMUs would benefit from a collective training and capacity strengthening workshop at the inception phase to facilitate their important role for addressing the requirements of the pilots.

The structure of the project management, governance and national focal points foreseen at CEO endorsement has been followed. This has largely worked adequately.

The project design could have considered the importance of additional national awareness and 'PR' on wastewater treatment. This could have assisted to overcome some of the difficulties faced in Belize with the reluctance of local inhabitants on the Placenia Peninsula, and raising the profile of the project and potential for attractive loans to the private sector in Guyana.

The TE rates the **Preparedness and Readiness** of the CReW as **Satisfactory**.

3.5.2 Implementation approach and adaptive management

As highlighted in the MTE, the project was designed with multiple co-ordination, supervisory and advisory groups (PSC, IAGG, PCG, UNEP CAR-RCU, national Pilot Execution Agencies, PMUs, national inter-ministerial mechanisms, etc.).

The Project Steering Group (PSC) has met four times in the life of the project. Members included NFPs, pilot project co-ordinators and some regional stakeholders. The PSC prime responsibility has been to approve annual budgets and workplans and, to provide technical guidance where needed. The PSC meetings were used as opportunities to hold additional meetings and workshops addressing a multitude of issues related to the CReW. A significant contribution from the PSC has been to collectively formulate lessons from the CReW that will be of material benefit to proposed follow-on initiatives. The lessons are a key output of the CReW project and reflect the experimental nature of this innovative GEF project testing PFMs.

At the 4th PSC an approximately one-year no-cost extension was approved with a final closure in January 2017 (the original end was Dec 2015). However, there was insufficient funds to hold a 'final' PSC meeting with 18 months between the 4th PSC and the end of the project. The TE considers the lack of a PSC or closure workshop in the final months of the project as unfortunate and a potential risk to widespread uptake of the lessons and experiences of the project.

The Inter-Agency Co-ordination Group (IACG) was created to enable IDB and UNEP to discuss the direction of the project. The IACG has made extensive use of video conference facilities to hold meetings as required with the PCG. Comments from IDB and UNEP (and the PCG) have highlighted the benefits of the video conferences (costs, time, frequency of meetings, etc.).

The Project Co-ordination Group (PCG) was responsible for the day-to-day management of the CReW project working under the direction of the PSC and the IACG. Unusually for a GEF IW project,

the Project Co-ordinator (within the PCG) was not considered as the Project Manager but reported to a Team Leader within IDB and the UNEP Task Manager (the IAGG members). Whilst this arrangement could be considered cumbersome (and indeed the Project Co-ordinator, who was not IDB staff, did not have full access to internal IDB networks) it did offer significant support to the overall project management structure. In addition, the UNEP CAR-RCU provided significant technical support to the project on the regional aspects and on national capacity building under Components 2 and 3. The above statements also highlight the common view (and some of the confusion) of stakeholders; that the PCG was responsible for Component 1 and UNEP CAR-RCU for components 2/3. The TE believes that any future project should try to remove these apparent 'agency' divisions to promote a more unified and integrated project at the regional and national levels. Despite these comments there was overwhelming praise for both PCG and UNEP CAR-RCU in the roles they performed and the support they provided to the countries.

At the country level, the National Focal Points (NFPs) were the government representatives to the PSC. In addition, the pilot activities were supported by National Execution Agencies, loan boards and implementation agencies/PMUs. The MTE noted that the NFPs (whilst highly relevant and important to the overall project) were often too high a level within government structures to devote much time to addressing practical project related issues (SSFAs, travel, priorities, etc.). The TE supports that view and would welcome additional support to the NFPs (either via the project or through national co-financing) to facilitate project specific requests and activities. This would also assist engendering, at the national level, a clearer project identity and integration by having a single 'body' responsible within country.

The national loan boards were considered a good concept, but as the loans had been significantly delayed, in some countries these had not met often and participants were unsure of their roles or responsibilities. A strength of IDB's approach to loans has been the development of *nationally specific* 'Operations manual for the wastewater revolving funds'. These manuals present a summary of the project document and management/governance structures, together with the roles and responsibilities (and inputs) at the national level. The TE considers these manuals to be a significant asset to countries and would recommend that GEF IW projects considered such an approach for all projects at inception. This would ensure all partners have a common view of the project and what it will and will not achieve in a concise and *nationally specific* format.

Adaptive management adjustments were made at the inception phase to provide additional clarity to the Project Results Framework, by *increasing* the number of expected outcomes, and providing details of indicators and targets. The results framework has been monitored by the PCG and progress against the expected results reported annually in the PIR (more information presented in the M&E section below). The PCG and national pilot PMUs have made pragmatic adjustments to their work programme to accommodate delays and responding to clear needs of the countries. For example, in Guyana the Project Development Budget was utilised by the PMU to support the Environmental Protection Agency contract a consultant to determine water quality baselines for receiving waters as an essential precursor to enforcing regulations.

The PCG has also overseen the adaptive management decision to move the Belize pilot from the Placencia Peninsula to the successful testing of the PFM at the Belmopan wastewater treatments system due to long delays, budget issues and 'demand' from local inhabitants. The MTE also prompted changes including the beneficial involvement of support from IDB's Water and Sanitation Specialists, more regular interactions between the PCG and CAR/RCU and rationalising some reporting requirements.

The TE rates the **Implementation Approach and Adaptive Management** of the CReW as **Satisfactory**.

3.5.3 Stakeholder participation and public awareness

The CReW has had a significant focus on 'Communication, Outreach and Information Exchange' with a whole component (out of three main components) devoted to these activities. However, the budget was only less than 5% of the total project budget which considering this is addressing 13 countries in two languages, plus a regional aspect (e.g. participation in regional fora each year, especially CWWA and the High-Level Forum. CWWA 2014 for the first time, had a technical session dedicated to wastewater), does not reflect the importance of this topic. Despite this small budget, the project has had an effective website¹³, quarterly newsletter (printed and electronic), project results, GEF Experience Notes (2 prepared and 6 project to be completed), press releases, meeting and workshop reports, social media (Facebook) page, undertaken studies on knowledge, attitudes and practices (KAPs), eight short videos documentaries (currently being translated from English to Spanish), etc. The project also developed focused brief documents on lessons learned that was discussed at the final PSC meeting.

The only criticism with regards to communications (and this applies to the whole project and not just this component) is the relative lack of outputs and other information that are available in Spanish. Whilst this is understood to be in progress, it is clear that insufficient resources were devoted to translating experiences and lessons etc. from the PFM's and the regional activities funded through SSFAs. It is vitally important that a future regional project should make provisions to enable *timely* translation of material to ensure *all* countries are well informed about the *details* and not just the summaries presented at PSCs (where simultaneous translation has been available).

The project has attempted to implement a Community of Practice (CoP) for interested wastewater operators initiated by IDB's Knowledge and Learning Division. However, this has not been considered to have been very successful due to multiple reasons, including, late initiation, difficulty to have consistent participation, although it still considered to have potential to be an effective tool if introduced earlier in the project. The GEF IW:LEARN has also struggled to make CoPs active and interesting to the intended community, and has too largely been unsuccessful. The TE recommends that a future project explores alternative ways to keep regional dialogue activate, e.g. by having moderated discussions, encouraging more use of one-to-one contacts, a helpdesk role led by the PCG, etc.

The KAPs baseline surveys (introduced during the inception phase as an additional project outcome) is initially targeting media would be worth expanding under a future project to include communities likely to be served by WWT schemes.

All expressed satisfaction at the communication work that had been undertaken, but several recognised that more 'communications' should be done nationally to promote acceptance of improved WWT (e.g. Belize) and better uptake of loans for WWTW (e.g. Jamaica and Guyana).

Stakeholder participation was high at workshops, regional training and through the PSC. In addition, the training provided through UTech (University of West Indies, Jamaica) for wastewater operators is to be encouraged. The material was assembled as a result of demands from national regulators (organised by the Jamaican National Water Commission with resources from Component 1) to ensure that wastewater operators are certified, with the courses available regionally and in Spanish and English (through a ten-week e-learning course), involving all components of the CReW project.

¹³ <http://www.gefcrew.org/>

The training by Water Center, and the joint training with CDB, UNITAR and World Bank were also considered to be beneficial. This should be further promoted as a regional initiative in the planned follow-on project.

The TE rates the **Stakeholder and Public Awareness** of the CReW as **Satisfactory**.

3.5.4 Country Ownership

The TE considers that the country ownership of the CReW is very high. During the mission, all stakeholders expressed high satisfaction with the project execution and were very pleased to have been involved. Comments such as ‘excellent’, ‘very good’, ‘brilliant’ project concept, that the project has been very ‘successful’ and ‘beneficial’ to the countries and that all interviewed wanted to be involved in a follow-on project to upscale/expand the CReW. These comments applied to the whole project and not specifically to PFMs, recognising the need for the CReW to address regional and national policy and capacity issues as well as investments in WWTW.

There was a clear recognition of the benefits to strengthening national capacities and policies related to wastewater, and to assist meeting national obligations under the LBS Protocol, which was universally considered to be an important driver for this project.

A clear concern of the TE that was also highlighted by the MTE and the countries: the heavy bias of the project activities and management structures (location of the PCG in Jamaica) towards the English speaking countries. This has been compounded by a lack of detailed information on PFMs, SSFA outputs in Spanish, although the PSC meetings are conducted in both languages the details contained in reports are only available in English, significantly limiting the uptake of the results. Despite this observation, the TE’s mission to Costa Rica was informed about the enthusiasm and readiness to work on the planned follow-on project. However, the balance of information in both languages and the management location needs to be addressed in the follow-on project.

There was a recognition that, in many cases, those involved initially did not grasp the main objective of the CReW (the testing of PFMs rather than WWTW construction) which contributed to the delays that CReW faced in the first few years. However, with the understanding of this key point established, all were enthusiastic about the project.

Country representatives spoke highly of the roles and inputs of IDB and UNEP. In particular, the assistance from the PCG and UNEP CAR/RCU was praised. Country participation was also high at the PSC meetings, demonstrating active interest and commitment to the project, and, through countries’ participation in the brainstorming activities (especially, to help generate key lessons learnt by the project) at the 4th PSC.

The TE rates the **Country Ownership** of the CReW as **Highly Satisfactory**

3.5.5 Financial planning and management

The project has been effectively financial managed through appropriate day-to-day controls and adequate oversight through the PSC and IACG. IDB and UNEP CAR/RCU had direct responsibilities for managing disbursements and reporting for Components 1 and 2/3 respectively.

The PCG Financial Specialist was responsible maintained financial information and processed data to support disbursements, authorised by the Project Co-ordinator and the Team Leader, paid by IDB. At UNEP CAR/RCU a similar function was performed by the financial assistant that led to disbursements made via UNEP.

The national Executing Agencies (responsible locally for the PFMs) were responsible for the national actions associated with the pilots under the agreements of the IDB grant and reported expenditure to the PCG on a quarterly basis.

Information was reported quarterly (and then every 6 and 12 months following the MTE's recommendations) to IDB and UNEP through their respective management systems by the PCG and UNEP CAR/RCU. The PCG has also been responsible for reporting financial on the project via the annual PIRs, including details of the budget and actual spend per output and activity. This report also contained significant details of the co-financing contributions from countries and other partners to the project. The PSC approved financial reports prepared by the project and authorised planned work programmes and budgets for future years.

Details of the project costs and co-financing contributions is presented in Annex 7. At the time of the TE (June – August 2016) the project cost were approximately 92% of the total grant from GEF. The TE anticipates that the full GEF grant as budgeted will be committed by completion (January 2017). Only Component 4 (M&E) was showing a low expenditure (16%), however it is clear that the activities planned by the project (see section 3.5.7) have been completed.

At the project design stage, it had been anticipated that the project/PFMs would seek additional co-financing to replenish the revolving funds from other donors. This action has not been pursued and should be encouraged in the expected follow-on project as a core activity under the project.

The financial planning and management of Components 2 and 3 were undoubtedly more complicated (and time consuming for both the project staff and those expecting disbursements) due to the problems encountered with the UNEP new financial management system introduced in mid-2015 (UMOJA). As stressed this has had a negative impact on SSFAs and the 'enthusiasm' participants have in attending workshops if there is a protracted period for reimbursement. The TE urges UNEP to either resolve the problems with UMOJA or find alternative means to make disbursements in the region as a contingent.

Project Audits

Audits have been undertaken for the PFMs:

- **Belize:** A no-objection waive was granted to cancel the audit covering the year until 2013 and 2014 as there had been no expenditure. The audit conducted for the year ending March 2015 (covering the period from inception) did not highlight any issues. The audit to the end of March 2016 has yet to be reported and a final audit is expected after January 2017.
- **Guyana:** Audits have been completed for the years ending December 2013, 2014 and 2015 by the state auditor. No issues of concern were identified.
- **Jamaica:** Audits have been completed for the year ending March 2015 and 2016 (a final audit will be complete after January 2017). No issues of concern were identified.
- **Trinidad and Tobago:** A waive was granted as there had been no expenditures under the IDB grant.

In addition, UNEP CAR/RCU has undertaken a financial audit of all the projects and activities in the Caribbean Environment Programme in early 2016, which included the activities of the CReW. The comments of the auditors were: *there was a need to: (a) update the strategy for CEP to assure that programme activities were aligned with strategic goals; (b) review the performance indicators for CEP work plans to ensure that they facilitate objective performance measurement, reporting and evaluation; (c) develop and implement a resource mobilization strategy to raise adequate resources*

for CEP; and (d) monitor the expenditure incurred from the Caribbean Trust Fund to maintain the fund's financial stability.

UNEP accepted these and is in the process of implementing the audit recommendations.

The TE rates the **Financial Planning and Management** of the CReW as **Satisfactory**

3.5.6 IDB and UNEP supervision and backstopping

Despite impressions in the countries, IDB and UNEP have not co-implemented together a GEF project before the CReW. Through this project they have successfully delivered the objectives and created an impression within countries of a long-term co-operation. Apart from some administrative aspects (financial problems caused by UNEP's UMOJA system) all stakeholders commented on the responsive and high quality of the information and assistance from IDB and UNEP when required (IDB Project Management Reports are based on Outcomes/Outputs while UNEP reports are based on activities and categories of expenditure). The TE also considers that there is significant complementary synergy between these two GEF Agencies, with IDB's focus on infrastructure and UNEP's more regional and (clearly) environment focus, offering good links by these agencies to Ministries of finance (IDB) and Environment (UNEP). Through the IACG the two GEF Agencies had frequent formal (and informal) contacts.

However, at the project level within the countries there was confusion as the project was not seen as 'integrated' with IDB delivering Component 1 and UNEP Components 2 and 3. Whilst this is technically correct the lack of a perception of an integrated project is not desirable. This was compounded by the perception that for all aspects connected with Component 1 the PCG was to be contacted and all aspects connected with Components 2 and 4, UNEP CAR/RCU was to be contacted, rather than all through the PCG.

IDB and UNEP oversaw the project through their Team Leader and Task Manager respectively, both based in Washington, DC.

The project was led by a 'co-ordinator' (rather than a GEF IW Project Manager) who unfortunately did not have full access to the internal IDB systems as they were not considered as IDB staff. This may also have had impacts on the timeliness of project actions at times. IDB made excellent use of their internal network of wastewater/sanitation experts and financial experts to provide assistance when needed, but to increase the responsiveness to country needs the TE suggests more 'project management' responsibilities could be delegated to 'deputy' team leaders at each national IDB office to assist the Project Co-ordinator (this is explored further in the Recommendations Section). In addition, willingness to pay studies that have been conducted by IDB in all PFM countries were available but it is unclear if or how these were used by the project and the national Execution Agencies: deeper involvement of IDB's country offices would again be seen by the TE as additional beneficial by making this information more readily available. Finally, the CReW project was implemented through IDB's Water and Sanitation Division. When dealing with the concerns and needs of small private sector companies (as in Guyana) at the relatively small size of the loans involved, the IDB's Private Sector Division may offer some additional innovative solutions that could be considered in the planned follow-on project.

UNEP executed the project through the Caribbean Regional Centre in Jamaica (UNEP CAR/RCU) that also provides the secretariat for the regional Cartagena Convention. Project execution was considered effective and efficient. This is particularly noteworthy due to the very small team involved at UNEP CAR/RCU.

An important output from Component 1 for the PFM countries has been the preparation of nationally specific Operational Manuals for project implementation. Whilst these were heavily focussed on the needs and requirements of Component 1 they provided a short summary of the whole project. Whilst all stakeholders have access to the full GEF CEO package, the complexity and volume of this document dissuades many from reading and understanding the whole project. The TE considers this to be a key guidance document for the countries involved and as such is recommending this standard IDB approach for adoption by all countries involved in the planned follow-on project, and indeed across the GEF IW portfolio as an example of good practice.

The TE rates **IDB and UNEP Supervision and Backstopping** as **Satisfactory**.

3.5.7 Monitoring and Evaluation

a. M&E design

The design elements of the M&E presented in the CEO Endorsement/ Project Documents conforms to 'standard' GEF IW expectations, with an expected 760 kUSD (representing less than 4% of the GEF funding) and 840 kUSD (co-financing). M&E activities were reported to consists of Inception reports, annual operating plans, quarterly technical and financial reports, PIRs, annual audits, co-financing reports, project completion reports and MTE/TE. The PCG was primarily responsible for assembling and reporting this material for the PSC, and IDB/UNEP.

The main means of assessing progress has been via a project results framework that at the time of GEF CEO Endorsement had ten Outcomes which was increased to 13 in the inception phase. The targets identified were considered to be SMART by the MTE with an overall 'SMART-ness' of 66%. In the TE's opinion there was a lack of clarity between some outcomes as stated. For example, similarity between outcomes 3, 5 and 12 (all relating to improved technical capacity) and outcomes 6 and 13 (relating to increased awareness). Whilst there are subtle differences in these outcomes (and in the outputs they relate to), the TE thinks the project results framework over complicates the real outcomes by this fragmentation.

As a project testing experimental concepts for the GEF on innovative financing, it could also be expected that a 'heavy' M&E programme would be desired from a perspective of understanding the processes and ensuring a higher certainty from answers provided by the project.

The TE rates the **M&E Design** of the CReW as **Moderately Satisfactory**.

b. M&E implementation

The Project Results Framework was slightly modified during the inception phase and approved by the 1st PSC meeting. It is the TE's understanding that no further modifications were made and the approved inception report results framework has been the basis for M&E activities subsequently. The PIRs have utilised this information and reported progress (and problems) on annually.

A MTE was conducted in 2014 and the report accepted by the PSC (with relatively minor comments). The MTE made 20 recommendations to enhance the project's delivery and performance. These recommendations, together with the TE's understanding of the management responses undertaken by the PCG, IDB and UNEP are presented in Annex 6.

The GEF Tracking Tool was completed by the project on an annual basis (2012 -2015) which is more than the expectation of at CEO Endorsement, Mid-Term and at the end of project. It provides a good record of the advances of the project over the course of the 4-5 years of project execution.

The MTE considered the amount of 'monitoring and reporting' to be particularly burdensome, despite the involvement of two GEF Agencies. The PCG, together with IDB and UNEP were able to

reduce the monitoring of some quarterly reports and did introduce regular video conferencing with national executing agencies and IDB/UNEP. Despite the significant M&E activities undertaken by the project, the overall Component 4 expenditure is only (at the time of the TE) 16% of planned budget.

It is clear that the two GEF Agencies requirements for M&E differ more in format than substance. IDB's systems are heavily reliant on numeric (e.g. loan disbursement) information and UNEP's PIR requirements are 'relatively' qualitative. Any follow-on project should identify means to satisfy the three organisations (GEF, IDB and UNEP) through a more streamlined approach to M&E and reporting, to establish a more 'common' approach to overall M&E and periodic reporting. In particular, the means to effectively monitor and assess the progress of the PFMs without placing too high a cost on the actions, whilst still maintaining adequate control should be examined. For example, the IDB country offices could provide more technical/financial support at a *local level* (devolving some responsibilities, for example) without necessarily direct involvement of the IDB Team Leader based in Washington DC.

The TE rates the **M&E Implementation** of the CReW as **Satisfactory**.

3.6 Complementarity with UNEP programmes and strategies

3.6.1 Linkages to UNEP's expected accomplishments and Programme of Work (POW) 2016 -2017

The CReW is relevant to the UNEP POW 2016-2017 through its Sub-programme 3: Ecosystem management where progress is monitored on coastal impacts from wastewater.

3.6.2 Alignment with the Bali Strategic Plan (BSP)

The Bali Strategic Plan for Technology Support and Capacity Building (BSP) is an inter-governmentally agreed framework for strengthening the capacity of governments in developing countries and countries with economies in transition to coherently address their needs, priorities and obligations in the field of the environment.

The IDB/UNEP GEF CReW Project is in-line with the BSP through regional partnership activities supported by UNEP CAR/RCU and the practical and effective support provided to the pilot countries by IDB and the PCG.

3.6.3 Gender

The ProDoc does not mention, but the 2014 mid-level managers' workshop included material on the importance of gender mainstreaming. In 2015 UNEP CAR/RCU collaborated with the CDB at a CAWASA workshop to build capacity on gender and climate change on the reuse of wastewater as a resource.

3.6.4 South-South Co-operation

The CReW has collaborated through the GEF IW:LEARN on joint workshops to strengthen south-south co-operation. An example of this collaboration is through the 3rd Latin American & Caribbean Regional Targeted Workshop for GEF IW Projects.

4 Conclusions and Recommendations

4.1 Terminal Evaluator's Ratings

Criterion	TE's Rating
Attainment of project objectives and results (overall rating) Sub criteria (below)	S
Achievement of outputs and activities	S
Relevance	HS
Effectiveness	S
Efficiency	MS
Sustainability of Project outcomes (overall rating) Sub criteria (below)	L
Socio Political	HL
Financial	L
Institutional framework	HL
Environmental	HL
Catalytic Role & Replication	S
Preparation and readiness	S
Implementation approach and adaptive management	S
Stakeholders participation and public awareness	S
Country ownership	HS
Financial planning and Management	S
IDB/UNEP Supervision and backstopping	S
Monitoring and Evaluation (overall rating) Sub criteria (below)	MS
M&E Design	MS
M&E Plan Implementation	S
Overall Rating	S

Notes:

Rating of Attainment of project objectives and results. A compound rating is given to the category based on the assessment of relevance, effectiveness and efficiency. This aggregated rating is not a simple average of the separate ratings given to the evaluation criteria, but an overall judgement by the consultants. Relevance and effectiveness, however, will be considered as critical criteria. This means that the aggregated rating for Attainment of objectives and results may not be higher than the lowest rating on either of these two criteria.

Ratings on sustainability. According to the GEF Office of Evaluation, all the dimensions of sustainability are deemed critical. Therefore, the overall rating for sustainability will not be higher than the lowest rating on the separate dimensions.

Ratings of monitoring and evaluation. M&E plan implementation will be considered critical for the overall assessment of the M&E system. Thus, the overall rating for M&E will not be higher than the rating on M&E plan implementation.

Criteria are rated on a six-point scale as follows: Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU). **Sustainability** is rated Highly Likely (HL), Likely (L), Unlikely (U) and Highly Unlikely (HU) on a four-point scale.

4.2 Conclusions

General points

- Overall the CReW has achieved the planned objective in testing innovative approaches to financing wastewater infrastructure (in four pilot countries) supported by essential enabling activities to strengthen capacity to address policy/legislation issues and technical needs in all 13 countries. The project has also highlighted the significance of these ‘enabling’ conditions and the need for ensuring that these are adequate prior to investments. Feedback from the countries to the TE demonstrated that all components were appreciated, complementary and undertaken to high quality level.
- Whilst only two PFMs are nearing completion and are in the process of replenishing the fund or repaying the loan, in Belize and Jamaica respectively, all four PFMs and components 2/3 have provided numerous lessons and experiences that will be of benefit to the planned follow-on project. Importantly these lessons have been identified and formulated, *collectively*, by the main stakeholders of the CReW at the 4th PSC Meeting in 2015, ensuring that ownership and awareness of these lessons is high across the WCR.
- In all countries visited, the concept of the CReW project in testing options for wastewater financing, underpinned by essential national or regional drivers (e.g. the LBS Protocol, national policies etc.) was seen as good or excellent. A strength of the project has been in highlighting the essential elements of the ‘enabling conditions’ that are required. Not only is it important to have the appropriate legislations, policies *and* enforcement, but it has also highlighted the need for sustainable financing through fees, tariffs, etc. to operate and maintain wastewater infrastructures.
- A key lesson from the CReW is that the *purpose* of the project (testing of the financial mechanisms) was not initially appreciated by all stakeholders. Hence a conclusion is that more attention must be devoted to better explaining the project at inception. An important (and highly beneficial) output has been the development of national Operational Manuals for the PFMs. Whilst it is clear that even with these manuals not all understood the purpose, the TE considers this an excellent concept and vehicle to implement project across all project countries.
- All stakeholders involved in the project underestimated the time and effort to initiate this project, particularly the PFMs. The level of preparedness at the country level (ensuring that enabling conditions of institutions and policies are in-place, that potential projects are prepared and evaluated, etc.) needs to be enhanced. The PFMs countries appear also to have underestimated the capacity needs of the PMUs established in the initial stages, slowly building the staffing levels to be able to provide the necessary management at a local level. In addition, the ability of the GEF Implementing Agencies to adequately respond to evolving needs and provide flexible and innovative approaches, especially to small private sector companies, should be better considered prior to the follow-on project.
- As a regional project addressing the multiple languages of the partner countries, translation (including proofing, etc.) of material (results, guidance, experiences, etc.) was not adequately resourced. Availability of project outputs in all languages is considered by the TE to be an essential element in encouraging the up-take and up-scaling by the countries and

ensuring the maximum benefits are obtained from the GEF investments. In addition, the design of the project with four PFMs and the PCG all located in English speaking countries appears to many a very unbalanced approach for a regional project. This should be also be recognized as an essential requirement for consideration in the follow-on project.

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- In the latter stages of the project, a system-wide change in UNEP's Administrative and Financial Management System had a significant negative impact on project execution by the lead regional Executing Agency.
- There was a lack of understanding how the PFM fund will (or could) be managed post project. Whilst training on revolving funds has been provided early in the project, opportunities should be found before the conclusion of the CReW to refresh these experiences. This could be linked to the PFMs development of reports on finalizing the project that are underway.

The ToR for this terminal evaluation sought answers to five questions:

- 1. How far has the project built national and regional capacity (at individual, organisational and enabling environment level) for the long-term management of the Wastewater Sector?**
 - The project has undertaken multiple training workshops at regional and national levels. About 500 stakeholders from the WCR have participated in CReW workshops;
 - A wide range of SSFAs have been supported, linked to specific country interest e.g. resource valuation, assisting with water quality monitoring, updating national standards, development of wastewater management strategies, communication strategies, etc.
 - The PFMs have supported strengthening of management capacities to enable future monitoring and evaluation of the interventions to be assessed. The project has catalysed both the improved understanding of wastewater management and options for financing strategic infrastructure projects;
 - Collectively the project stakeholders have identified and shared lessons and experiences to enhance future projects. The TE views the lessons and how they were agreed as a significant success of this project. These lessons will also be of benefit to the wider GEF IW community;
 - The CReW through a wide range of communication and awareness raising events across the WCR has increased the understanding of the need for, and options to implement wastewater treatment solutions;
 - Through the project's active participation at regional meetings (e.g. CWWA, High Level Forum, etc.) awareness of wastewater issues and the role of the CReW in seeking innovative solution was highlighted. These events also help to promote partnerships and willingness to participate in a follow-on and up-scaled project to further reduce untreated wastewater in the region.
- 2. What progress has been made on the development of regional policy, legal and regulatory frameworks for addressing wastewater management and creating regional wastewater management reforms for the long-term management of the Wastewater Sector? Where**

do we stand on the implementation of the LBS Protocol? Has there been the development of national and regional policy and legal frameworks to enable the development of the Sector?

- At the regional level the CReW has assisted with raising the profile of the Cartagena Convention and the LBS Protocol. Evidence was seen through interviews with most stakeholders indicating the importance of LBS Protocol as a significant driver for enhancing wastewater treatment.
- At the national level the project is seen as demonstrating alternative ways of financing wastewater treatment that has multiple benefits, including assisting with meeting and reporting progress on relevant SDGs.
- The project has increased the understanding of tariffs as a result of the PFMs. Both through the k-factor approach in Jamaica and the community support in Belize.
- As reported in the 2015 PIR three countries identified as having enhanced policies and more countries were working to improve policies/legislation relating to wastewater. The process of undertaking the project has also assisted countries appreciate the importance of the 'right' enabling conditions to promote introduction of improved wastewater (e.g. as seen in Guyana);
- Importantly, the LBS Protocol has been ratified by Jamaica.

3. To what extent did the project foster regional dialogue and knowledge exchange amongst key stakeholders in the wider Caribbean Region?

- The project has encouraged and actively promoted the sharing of information, for example through:
 - Through regional face-to-face meetings developing and sharing lessons from PFMs, sharing of policies and legislation on wastewater through the UNEP CAR/RCU shared file system enabling national authorities to compare and contrast different approaches;
 - Participation in the annual CWWA conferences and exhibitions and associated High Level Forum of Ministers, providing opportunities to highlight the innovative financing mechanisms and capacity strengthening activities.
 - Co-operation with the Caribbean Water and Sewerage Association to provide training for operators and other groups, building on existing regional capacity strengthening institutions.
 - At the national levels, Guyana and Jamaica successfully reached out to national stakeholders and decision makers through participation at inter-sectoral committees and various consultations.
 - Participation at Technical and Inter-Governmental Meetings of the Cartagena Convention and LBS Protocols.
 - Participation at regional IDB meetings.
 - Participation in GEF IW:LEARN sponsored regional and global events;
 - Publications in the project newsletter (CReWs Lines) and online;

4. Was the project successful in improving sensitisation, awareness and capacity throughout all sectors with respect to wastewater management?

- The project has successfully sensitised and raised awareness on wastewater throughout the WCR
 - Sensitising the media to issues associated with wastewater, encouraging more publications and civil society (and wider) interests;
 - In partnership with UTech (Jamaica) the project has supported the training of wastewater operators and the preparation of training programmes (in person and online) in Spanish and English;
 - The clearest result has been the level of understanding of the LBS Protocol as a key driver for wastewater treatment (demonstrated throughout the TE's mission but notable in Guyana with small private sector companies);

5. Was an effective project management system established and functioning at the national and regional level?

- The project developed an effective structure for managing the activities through national PMUs, the regional PCG and inclusive PSC meetings. Areas that could be strengthened in a follow-on project include, for example:
 - At the national level the PFMs had a clear structure but the approach to components 2 and 3 were less clear resulting in a less integrated project, from a country perspective;
 - At the regional level the PCG was perceived as just dealing with Component 1 and UNEP CAR/RCU with components 2 and 3.
- Any future project should try to reduce this apparent split and create a single project as seen from both the national and regional levels.

4.3 Lessons learned

The CReW 4th PSC (2015) devoted a significant part of their meeting to discussing and agreeing lessons for all the activities undertaken by the project, and making recommendations on how any negative issues should be addressed in a follow-on project. Consistent with these lessons, the TE's observations on key lessons (of benefit to the region and targeted at the wider GEF IW community, future GEF IW projects and projects undertaken by IDB/UNEP) include:

- Ensuring that the project is fully understood prior to launch (CReW suffered delays due to many stakeholders thinking the purpose was a wastewater construction project rather than 'testing' of innovative financial mechanism.
- Ensuring that enabling conditions (in particular the 'drivers' to motivate organisations to implement wastewater management strategies are in-place), and appropriate tariff structures are implemented to ensure a revenue to replenish/repay loans;
- The importance of linking national actions to a wider regional policy objective (e.g. the compliance with the LBS Protocol);
- Ensuring a balance between capacity development (institutional and policy related) and the needs/drivers of the PFMs. It is important to ensure (as part of the enabling conditions) that adequate capacity of institutions is in-place to provide baseline water quality data to enable appropriate enforcement actions to be taken.
- An expectation at the project concept was that the PFMs would attract additional funding from other sources to promote replication and upscaling. However, such ambition needs to be clearly defined and adequate resources allocated. There is a need was observed for discussion with donors, commercial banks at an early stage to promote this possibility.

- Countries recognised (e.g. in Guyana and Jamaica) that better national PR activities need to be undertaken to stimulate the private sector (construction companies, commercial banks, etc.) and also to raise awareness within national authorities of the project's activities;
- The PFM in Guyana suffered from inadequate enabling conditions and also a significant lack of awareness and capabilities that restricted small private sector companies from providing compliant proposals. The IDB's rules also further restricted uptake of small loans due to a lack of in-country understanding of the details associated with the loans (e.g. rates, duration, etc.) and a more significantly requirement with regards to land ownership. The conditions needed land to be owned or leased prior to loan finalisation, however small companies were unable/unwilling to invest if the loan was not guaranteed. When dealing with small loans and small private sector (or community groups) the project should provide more technical assistance in preparing proposals and adopt a more flexible (and innovative) and innovative approach to the loan conditions.
- A key benefit of application of the IDB's approach to loans has been the in-country Operations Manual'. The TE believes such an approach of providing a clearly document account of the project and the countries obligations/inputs would serve all project partners.

4.4 Recommendations

- **Project Design:** The CReW suffered from an underestimation of the importance of the enabling conditions with regards to the pilot financing mechanisms projects (policies, legislation, institutions, pilot preparation, etc.) by all involved. Whilst this has been a key lesson from the CReW's 4th PSC, it is important this is clearly addressed in the follow-on project in the PPG phase. The design of any future project also needs to be clearer on the selection criteria for pilot projects to ensure there is a balance between the Spanish and English speaking countries. The **TE recommends that the Countries, IDB and UNEP**, as project proponents, consider:
 - In developing the follow-on project PIF, the recognition of the importance of the relevant enabling conditions should be acknowledged and means to address these taken (for example, ensuring that any necessary capacity developments or policy enhancements are initiated early in the project);
 - Despite a wide call for interest there was not many positive responses by countries to participate in pilots. A future project should ensure that there is a clarity on the identification and selection of pilot countries (and other national interventions) to avoid the current situation where all the pilots and the PCG are in English speaking countries.
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- **The PFMs:** The testing of the PFMs has led to many lessons to guide the follow-on project which reflects the objective of the CReW. The TE suggest three aspects that are specific to the implementation of the PFMs in-country. The **TE recommends that the IDB** considers:
 - Technical support to small private sector companies has been highlighted in this report as an essential requirement to overcome problems of low capacity and experience in preparing compliant proposals. A number of solutions could be possible: providing open training sessions for interested companies followed by an open bidding; an open call for expressions of interest and then providing direct technical assistance to companies (a similar mechanism was used on the UNDP/GEF Tisza project to support NGOs preparing proposals); etc.;

- A follow-on project should consider means to encourage and implement greater innovation (and potentially risk taking) to address the desire from some countries to have multiple community project with small loans. Currently (as seen in Guyana with the private sector) the conditions expected for loans are a challenge to small organisations. For a large organisation familiar with preparing and managing loans for large infra-structure projects, IDB may not be best suited to the role of directly dealing with many 100 k\$ loans. Options need to be explored on potential modalities (e.g. strengthening the national Executing Agency's capacity and capability) to perform the service at a country level. There is also a need to explore options to simplifying the loan conditions, reflecting the magnitude of the loan amount. Links with the GEF Small Grants Programme should also be explored as a means of delivering community level wastewater solutions.
- A strength of the IDB are their national offices, and whilst they have been utilised to advise national Executing Agencies (and the PMUs), there may be opportunities to devolve some authority from the IDB's Team Leader (based in Washington, DC) to the national level to provide more direct involvement on a day-to-day basis.
- **Information and results in all languages:** As a regional project addressing a multi-cultural and multi-language region, it has been disappointing that so little information and results are available in a language other than English at the time of the evaluation, although the TE appreciates that the PCG is endeavouring to address these gaps by the project's conclusion. Whilst the PCG is addressing the translation of results, at the end of the project, the need to have all information (in a timely fashion) in all main languages is essential to increase the inclusiveness and ownership of the project. **The TE recommends** that an adequate budget is allocated to translation in the follow-on project as an integral and important element to the future project.
- **A functional and timely financial management system** is considered to be a prerequisite for all organisations. From the project inception until mid-2015 UNEP had an effective financial management system. However, the failure of UNEP's current system to adequately support project activities, *in a timely fashion*, has been a significant handicap to this project. UNEP's ability to issue SSFAs, reimburse participants or pay consultants. These problems did not manifest themselves in the first part of the project (prior to the change of the financial management system). It is clear that the UNEP staff working in the region are highly dedicated to the work (and their organisation) but have clearly spent more time than necessary addressing these problems and defending the organisation. **The TE recommends that UNEP** provides assurances that these problems will not occur in future or find alternative means to provide payments and contracting (for example, through inter-agency agreement with UNDP Country Offices – recognising that this will come with additional costs)
- **Creating 'one project':** The CReW is clearly designed around the comparative advantages of the two GEF Agencies and they are both responsible for the implementation and supervising the execution of their respective components. Unfortunately, this has created a perception of a disjointed project at the country level and a lack of clarity who countries need to deal with. The problem is compounded by a perception that the PCG 'just' deals with Component 1 and for Components 2/3 countries deal with UNEP CAR/RCU. Part of this problem, in the view of the TE, is that the regional co-ordinator is not seen by the country as the overall

project manager as the IDB's Team Leader is supervising the PCG (as is the UNEP's Task Manager). The role of the 'Project Manager' is important in creating a focal point in GEF projects. The TE recommends that IDB and UNEP review the management structures prior to developing the follow-on CEO Endorsement Document and consider:

- Means to ensure that a 'figure head' role of the project manager is established (and as with all GEF projects this person is responsible to the two GEF Agencies or via an implementing agency such as UNEP CAR/RCU) with similar responsibilities as the current regional co-ordinator. The IDB Team Leader and UNEP Task Manager role would not change.
 - Ensuring that the project management body established is representative of the two GEF Agencies and have a common email address (as with most GEF IW projects);
 - Ensure that the countries are clear about the structure and have a 'common' national focal point that oversees all aspects of the project and that the selected focal point has sufficient authority and responsibility to ensure national clarity on a complex project.
- **Final results workshop:** The TE understands that the no-cost project extension did not have resources to support an additional PSC meeting. However, there is undoubtedly demand, and in the TE's experience, significant benefits, to holding a 'final results workshop'. This could form a vital part of the project's exit strategy by celebrating the many achievements of the CReW and ensuring all key stakeholders are aware and involved in any sustainability planning of the results, and as a pre-launch for the planned follow-on project. This pre-launch could start the important discussions that will be expected to be finalised in the follow-on project's PPG phase, such as discussions on future PFMs, location of 'project management', etc. **The TE recommends that IDB and UNEP**, in the absence of sufficient CReW budget, should explore creative means to convene a meeting to benefit the countries and the follow-on project. For example, other GEF regional projects (e.g. IWEco, CLME+, etc.) may be holding meetings with some/all the CReW PSC members and it could be possible to add a 1/2-day meeting back-to-back for the CReW as a 'final meeting'.
 - The IDB process of preparing **operational manuals** to govern their loans in-country are admirable and would serve as a good example for all project partners. **The TE recommends that the GEF Secretariat and the GEF Agencies** take note of this good practice and promote the use of this concept to all participating countries and partners in GEF IW projects.
 - A functional M&E system is an essential component of all projects. The MTE highlighted the disproportionate amount of effort that this project had to devote to addressing M&E due to multiple GEF Agencies. Clearly the Agencies may have differing needs, but it would be highly beneficial if as part of the PPG phase Agencies could agree a common reporting system. **The TE recommends that the GEF Agencies** consider how streamlining of essential M&E procedures can be undertaken ensuring that a common set of information is used by all, rather than each organisation requiring their own data set.
 - A follow-on Project: The countries, GEF Agencies, Executing Partners and Project Co-ordination Group are well-advanced in the development of a follow-on GEF project. **The TE recommends that the GEF Agencies** devote continuing effort to obtaining the GEF CEO

Endorsement to enable the many lessons, experiences and good-will generated by this project to be fully capitalised.

- The lessons developed *collectively* through the project meetings with the countries should guide the new project on actions that have worked well and where additional effort is required (for example, seeking additional funds to sustain and expand the initial investments).
- Ensuring that knowledge on required enabling conditions are exploited in selecting future up-scaling of pilots.
- That national and regional capacity building and specialist studies (similar to the resource valuation activities undertaken in Panama and Trinidad and Tobago) are further encouraged.
- The demand for community actions within the countries visited by the TE was high. Appropriate wastewater solutions (for example the low maintenance, low energy cost approach adopted in Belize, consistent with the IDB's policy of seeking high efficiency infrastructure) should continue to be actively promoted and technically supported by IDB/UNEP specialists, and where appropriate, considering links with the GEF Small Grants Programme on community actions.