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Third Meeting of the Contracting Parties (COP) to the Protocol Concerning Pollution from Land-Based Sources and Activities (LBS Protocol) in the Wider Caribbean Region

Cayenne, French Guiana, 15-17 March 2017

TERMINAL EVALUATION – GEF FUNDED PROJECT

"TESTING A PROTOTYPE CARIBBEAN REGIONAL FUND FOR WASTEWATER MANAGEMENT" (GEF CREW)

Terminal Evaluation

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

IDB/UNEP/GEF Project

June - December 2016

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This independent Terminal Evaluation has been prepared by Dr Peter Whalley. The views expressed and comments made are his own. He would like to thank all those that have participated in the Evaluation, especially national and regional stakeholders in the Wider Caribbean Region. He would also like to than the staff of the Project Co-ordination Group and UNEP CAR/RCU who greatly facilitated the process, especially the travel and meeting arrangements. He would also like to acknowledge the open discussions held with IDB and UNEP in their role as GEF Agencies.

Contents

Α	cknowle	edgei	ments	iv
Α	bbrevia	tions		. vii
E	kecutive	Sum	nmary	ix
1	Intro	oduct	ion and Background	1
	1.1	Con	text	1
	1.2	Rele	vance to the GEF Programme	1
	1.3	The	Project	1
	1.3.	1	Background	1
	1.3.2	2	The Project Components	3
	1.4	Exe	cuting arrangements	4
	1.5	Gov	ernance and management arrangements	4
	1.6	Proj	ect Budget	4
2	Eval	uatio	n objectives, scope and methodology	6
	2.1	Obje	ectives of the Terminal Evaluation	6
	2.2	Eval	uation design, execution and analyses	7
	2.3	Stru	cture of the TE Report	8
	2.4	Limi	tations of this Terminal Evaluation	8
3	Proj	ect P	erformance and Impact	9
	3.1	Intro	oduction	9
	3.2	Atta	inment of objectives and planned results	9
	3.2.	1	Achievement of outputs and activities	. 10
	3.2.2	2	Relevance	. 19
	3.2.3	3	Effectiveness	.20
	3.2.4	4	Efficiency	.20
	3.2.	5	Review of Outcomes to Impacts (ROtI)	. 22
	3.3	Sust	ainability	. 22
	3.3.	1	Socio-political Sustainability	. 22
	3.3.2	2	Financial Sustainability	. 22
	3.3.3	3	Institutional Sustainability	. 23
	3.3.4	4	Environmental Sustainability	. 23
	3.4	Cata	lytic Role and Replication	.23
	3.5	Prod	esses affecting attainment of project results	.24
	3.5.3	1	Preparation and readiness	.24
	3.5.2	2	Implementation approach and adaptive management	. 25

3.5.3	Stakeholder participation and public awareness	27
3.5.4	Country Ownership	28
3.5.5	Financial planning and management	28
3.5.6	IDB and UNEP supervision and backstopping	30
3.5.7	Monitoring and Evaluation	31
3.6	Complementarity with UNEP programmes and strategies	32
3.6.1 2017	Linkages to UNEP's expected accomplishments and Programme of Work (PC 32)W) 2016 -
3.6.2	Alignment with the Bali Strategic Plan (BSP)	32
3.6.3	Gender	32
3.6.4	South-South Co-operation	32
4 Concl	usions and Recommendations	33
4.1 7	erminal Evaluator's Ratings	33
4.2	Conclusions	34
4.3 L	essons learned	37
4.4 F	lecommendations	38
ANNEXES .		42
Annex 1	Terms of Reference for this TE	43
Annex 2	Stakeholders involved in the TE	53
Annex 3	Documents Reviewed	55
Annex 4	Evaluation Matrix	56
Annex 5	Outline Interview Guide	68
Annex 6	Project Management Responses to MTE Recommendations	69
Annex 7	Project costs and Co-financing	78
Annex 8	Progress towards achieving the project objective, outcomes and objectives	81
Annex 9	Review of Outcomes to Impacts (ROtI)	96
Annex 10 -	The CReW Project – an important lesson for the future follow-on action	101
Annex 11	Brief CV of TE Consultant	102
Annex 12	Responses to Comments on the Draft TE Report	103

Abbreviations

BSP Bali Strategic Plan

BWSL Belize Water Supply Limited BOD Biochemical Oxygen Demand

CAR/RCU Caribbean Environment Programme / Regional Co-ordination Unit

CARSEA Caribbean Sea Ecosystem Assessment
CDB Caribbean Development Bank
CEO (GEF) Chief Executive Officer

CLME+ UNDP/GEF Caribbean Large Marine Ecosystem Project (phase 2)

CoP Community of Practice

CReW Caribbean Regional Fund for Wastewater Management

CWWA Caribbean Wastewater Association

EA Executing Agency

EPA Environmental Protection Agency
FAO UN Food and Agriculture Organisation

GEF Global Environment Facility

GEFSEC The GEF Secretariat

GPA Global Programme of Action for the Protection of the Marine Environment from Land-Based

Activities

GWRF Guyana Wastewater Revolving Fund

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

IWEco (UNEP/GEF) Integrating Water, Land and Ecosystem Management in Caribbean Small Island

Developing States Project

IW:LEARN (GEF/UNEP/UNDP) International Waters Learning Exchange and Resource Network

JCEF Jamaica Credit Enhancement Facility KAP Knowledge, Attitudes and Practices

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

NFP National Focal Point

NWL (Jamaica) National Water Commission
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
SDG Sustainable Development Goal
SIDS Small Island Developing States

SMART Specific, Measurable, Achievable, Relevant, Testable (with respect to indicators/targets)

SSFA Small Scale Financial Agreements (UNEP)

SS Suspended Solids
TE Terminal Evaluation
TOR Terms of Reference
TT (GEF IW) Tracking Tool

U Unsatisfactory

UNEP United Nations Environment Programme

US\$ / USD United States dollar

UTech University of Technology (Jamaica)

UV Ultra Violet

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 successful 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 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 <u>all</u> 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 considered 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. Even with these manuals not all stakeholders understood the purpose of the CReW however, the TE considers these manuals 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.
 Over 580 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. Active participation at meetings in the region by the CReW project team has been a consistent feature throughout this project.

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 successful 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 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.

The key lesson on the importance of the 'enabling environment', as illustrated through several examples from the project, is included in annex 10.

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 are 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 has addressed 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 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 to the TE 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 interagency 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 <u>and</u> 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 not 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 addition 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 Coordination 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 (e.g. 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)	
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	S
management	3
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:

- The design and execution of financial innovative mechanisms for supporting stakeholders to
 establish or expand domestic wastewater management systems based on realistic, costeffective 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

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.

significant source of both income and subsistence." Yet both of these sectors are directly threatened 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.

 $^{^{\}rm 5}$ 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 finances (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 UNEP's 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 costeffective 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 final series of interviews (email/telephone) were conducted with key project stakeholders following a further extension of Component 1 activities on the pilot financing mechanisms in January 2017.

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 12 (there were no disputed comments).

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 whole project. 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 during the mission not all key stakeholders were available.

3 Project Performance and Impact

3.1 Introduction

The project implementation is nearing the revised project completion date, at the time of the TE mission, (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. In December 2016, an internal IDB decision was taken to further extend the project for Component 1 (pilot financing mechanisms) to enable unallocated resources to be committed and to support the further development of plans to incorporate plans to sustain the revolving fund in national mechanisms. The need and activities for each PFM extension is presented below for the four pilots.

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 if 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 <u>all</u> 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 summarises 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.

The project has prepared detailed 'case notes' on the PFMs summarising the steps taken, the benefits and lessons from the approach in each pilot. These are detailed below (Component 3 – Communications, Outreach and Information Exchange). Three common lessons from the pilots were identified:

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

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

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

The adaptive management decision taken to prolong the four PFMs taken by IDB will enable Guyana and Trinidad and Tobago pilots to advance their work to test the financing mechanisms and to deliver further beneficial lessons and experiences that will assist the next phase of the CReW.

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 BWSL 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 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 May2016	
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)

The extension of the CReW project (to September 2017) will enable further progress towards the completion of the phase 2 of the Belmopan WWTW (with an estimated 3.8 MUSD of financing), assisting to sustain the repayment back into the revolving fund to support future actions. The extension was considered to be highly beneficial by the Government of Belize and BWSL through the generation of further experiences and helping to formulate approaches to both the long-term sustainability of the fund and identify potential future investments addressing small/community scale investments including the involvement of the private sector.

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 <u>prior to finalising the loan</u>. 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 essential to strengthen the capacity of institutions
 and polices to ensure regulations are operational <u>prior</u> 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.

The need for a further extension was essential as although the loan had been agreed in 2015 with Splashmins no disbursement had taken place (December 2016) due to the continuing difficulties to obtain a commercial bank guarantee. The extension is enabling addition PFM proposals through Guyana Water Incorporated (although not a private company) to install constructed wetlands treatment facility and drying beds, and considering the re-engineering of the Tucville receiving station into a wastewater treatment works. In addition, additional work will be undertaken (until the revised closing date of June/July 2017) to further develop a draft business and financial plan pf the Guyana Wastewater Revolving Fund to assist the restructuring of national financial mechanisms to accommodate and sustain the he revolving fund in future.

This will provide additional national and regional benefits by meeting obligations to the Cartagena Convention through the reduction of septic waste discharged to rivers by treatment in the constructed wetlands and the re-engineered treatment works.

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 bask (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.

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.

The project extension to enable the PFM actions in Jamaica to be further progressed is considered to be beneficial by the TE. A number of key activities will be undertaken during the additional project extension, including: monitoring of wastewater treated by the newly renovated WWTW; undertaking stakeholder meetings; engaging a consultant to draft policy to institutionalise a sustainable financing mechanism in Jamaica that will assess strategies for financing, legislative frameworks (from the perspective of stakeholders in wastewater, sludge management and commercial banking) and contribute to the sustainability to the approach adopted in Jamaica. The extension will contribute to stakeholders from the wastewater and financial management sectors understanding of the PFM concepts to better position Jamaica to address wastewater issues and thereby contribute to the goals of the Cartagena Convention.

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 (WASA). 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 Trinidad and Tobago.

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.

The GORTT agreed on a change of the national Executing Agency from the Ministry of Finance to the Ministry of Public Utilities (MPU). The MPU is developing on a mechanism for the operation of the revolving fund. A design and build contract was launched in September 2016 for revised rehabilitation of the Scarborough WWTW with an expected completion in July/August 2017. The completion of the Scarborough WWTP will benefit approximately 10,000 people and meet the requirements of the Water Pollution Rules (2001) or Trinidad and Tobago. The PFM extension is also the permitting the GORTT to generate more internal support for the application of innovative financing options for WW through seeking cabinet approval for the fund and a developing policy position on private-public partnerships to allow private entities to access the fund. Post-project a long-term monitoring and evaluation on the funds achievements will be established.

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 Trinidad and Tobago.
- 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 (subsequent to the TE mission the Executing Agency was
 transferred to the Ministry of Public Utilities and the rehabilitation of the WWTW was
 initiated).
- The IDB Operational Manual, although finalised by the loan board in Trinidad and Tobago, was reportedly insufficiently detailed.

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 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 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. There have been delays with SSFAs in Costa Rica (for example) but these will be completed by mid-2017, although the majority of the activities have been completed. In Honduras, the first disbursement of SSFA funds was in September 2016 and the support has been extended until June/July 2017. This work will support coastal management by providing information that will help address the lack of policies and legal instruments on coastal zone protection.

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 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

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

- 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.
- The work of Component 2 helped also to identify gaps at the national level and to prioritise future work activities;
- Targeted support from the SSFAs have assisted in (for example) Costa Rica with raising the importance of alternative approaches to wastewater and providing national officials with the expertise to implement improved treatment approaches.

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.

Six GEF Experience Notes have been prepared describing lessons generated by the project. Many of the project's outputs have been translated into Spanish and will be uploaded to the website by the end of the project. 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 workshops targeted at journalists in Spanish and English, sensitising them to issues surrounding wastewater and have prepared a toolkit to assist the media on this important topic. More information is provided below in the section: 'Stakeholder and Awareness Raising' (Section 3.5.3).

The project has produced seven high-quality summaries of the significant achievements of the project:

- Report on Wastewater and bio-solids/sewage sludge reuse in the Caribbean;
- Case studies on the Belize, Guyana and Jamaica PFMs
- Cross-cutting case study on Resource Valuation in Trinidad and Tobago;
- Cross-cutting study on Barriers and Solutions to Sustainable Financing for Wastewater Management; and,
- Cross-cutting study on Enabling conditions for Wastewater Management;

; ; and,. 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 (CReWs 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.
- o Participation at regional and globally GEF IW events;
- Translation of results and experiences into Spanish (although a positive output the translation was undertaken very late in the project);
- Highlighting the achievements of the CReW and the benefits to countries from innovative financing and policy initiatives to address wastewater issues at multiple regional meetings throughout the project.

The TE rates Component 3 as Satisfactory

Component 4: Monitoring and Evaluation

The M&E approach adopted by 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 streamlined the process. The 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 interview 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

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

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 (the PFMs further extended until June/July 2017 by IDB in December 2016), 14 out of 21 outputs have met their targets (June 16) as specified in the results framework.

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 considered 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 <u>between</u> 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 will be 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 <u>potential</u> 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 followon 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. Baseline studies and LBS Protocol Assessments 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 though 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 PFMs 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 to the TE that the level of assessment at the country level was insufficient. The delays faced by <u>all</u> 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 significantly 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 <u>all</u> 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 Placenia 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.

At the end of the TE process, a decision was taken to further extend the four PFMs until June/July to enable further progress in sustaining the revolving fund (Belize and Jamaica) and to enable works to be completed and the fund fully utilised in Guyana and Trinidad and Tobago. The TE considers this decision to extend the project and fully-utilise the GEF resources to be a valuable addition to the project.

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 for communications was only less than 5% of the project budget to address the needs of 13 countries in two languages, plus a regional elements (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 (in Spanish and English), 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 information on outputs available in Spanish until the end of the project. Whilst documents and reports have been translated, it is clear to the TE, that insufficient resources were devoted to translating experiences and lessons etc. from the PFMs 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 to meet the 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. 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.

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¹³ http://www.gefcrew.org/

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 <u>all</u> 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 effective 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 mission (June 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 cofinancing 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 completer 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 (as of September 2016).

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 counties, IDB and UNEP have not co-implemented together a GEF project before the CReW. Through this project IDB and UNEP have successful 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 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 suggest 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 <u>all</u> 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 '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 their outputs), the TE considers 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 reduced the reporting for 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.

The two GEF Agencies requirements for M&E differ more in format that substance. IDB's systems is 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 to 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)	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.

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 <u>all</u> 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 considered 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. Even with these manuals not all stakeholders understood the purpose of the CReW however, the TE considers these manuals 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 <u>essential requirement</u> 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.

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.
 Over 580 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. Active participation at meetings in the region by the CReW project team has been a consistent feature throughout this project.

- 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.
 - o Participation in GEF IW:LEARN sponsored regional and global events;
 - o 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 successful 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 to raise awareness within national authorities of the project's activities;
- The PFM in Guyana suffered from inadequate enabling conditions and 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.

The key lesson on the importance of the 'enabling environment', as illustrated through several examples from the project, is included in annex 10.

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.
- 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 are 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 has addressed 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 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 to the TE 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 not 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 Coordination 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 (e.g. 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.

ANNEXES

Annex 1 Terms of Reference for this TE

REGIONAL

"Strengthening & Evaluating the Caribbean Regional Wastewater Fund (CReW)

RG-T2602 ATN/OC-14983-RG

TERMS OF REFERENCE

1. Background

- 1.1 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 ¹⁴, singled out untreated wastewater entering the oceansand seas as the most serious problem contributing to marine pollution. The recent Caribbean Sea Ecosystem Assessment (CARSEA) study ¹⁵ 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 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)¹⁶.

their contribution to human well-being. The document can be found at:http://www.millenniumassessment.org/en/SGA.Carsea.aspx.

about half of the island's annual GDP.

¹⁴ The document can be found at http://www.unep.org/dewa/assessments/Ecosystems/water/marineassessment/index.asp.

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

¹⁶ 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

- 1.3 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)¹⁷, 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 States¹⁸, less than two percent of urban sewage is treated before disposal; this is even lower in rural communities.
- 1.4 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.
- 1.5 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 high¹⁹, 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.
- 1.6 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 analyzing wastewater discharges and impacts, constrain progress in effectively managing wastewater.
- 1.7 Thus, priorities for the region are to: (i) develop financing mechanisms to provide financing for cost-effective, sustainable, and environmentally acceptable wastewater management facilities,

44

¹⁷ It refers to countries that have basins draining to the Caribbean Sea.

¹⁸ CEPIS Virtual Library of Sustainable Development and Environmental Health. http://www.cepis.ops-oms.org/sde/ops-sde/bvsde.shtml.

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.

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 the Caribbean Regional Wastewater Management Fund (CReW) is to address these two priorities.

- 1.8 The CReW facility has a flexible design to give sufficient latitude to shape financing arrangements that meet stakeholders' unique needs. A number of financing mechanisms have been considered, such as concessionary loans, establishment of reserve accounts, ring-fencing of revenue flows and extended liquidity guarantees.
- 1.9 The CReW operates on the basis of collaboration and partnership among the public and private sectors and civil society as an independent, regional financing mechanism. The facility will allow for the mobilization of additional funding from both the private and public sectors for wastewater management and treatment investments at an affordable cost of capital. This was achieved by using the CReW resources through a range of innovative financing mechanisms, to provide sustainable low cost capital in co-financing arrangements with other lenders/investors. The value added by the CreW would be assessed by the potential replicability of the financing mechanisms and their ability to provide funding to existing wastewater management projects in the WCR that currently cannot find sources of financing.

2. Consultancy objective(s)

- 2.1 The Terminal Evaluation (TE) of the Project "Testing a Prototype Caribbean Regional Fund for Wastewater Management (CReW)" is undertaken at the end of the Project and will include an analysis of the attainment of global environmental objectives, project objectives, delivery and completion of project outputs/activities, and outcomes/impacts (based on indicators). Evaluation of project achievements will be done according to GEF Project Review Criteria specifically as this includes the implementation approach; country ownership; stakeholder participation; sustainability, replication approach; financial planning; cost-effectiveness; monitoring and evaluation. The TE will also present and analyze main findings and key lessons, including examples of best practices for future projects in the country, region, and the GEF. The TE will also have an annex explaining any differences or disagreements between the findings of the evaluation team, the EA or the GEF recipient organization.
- 2.2 In line with the Guidelines for GEF Agencies in Conducting Terminal Evaluations²⁰, the terminal evaluation of the Project "Testing a Prototype Caribbean Regional Fund for Wastewater Management (CReW)" will assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among IDB, UNEP, the GEF and their partners. Therefore, the evaluation will identify lessons of operational relevance for future

http://www.thegef.org/gef/sites/thegef.org/files/documents/TE_guidelines7-31.pdf

project formulation and implementation. It will focus on the following sets of **key questions**, based on the project's intended outcomes, which may be expanded by the contractuals as deemed appropriate:

- How far has the project built national and regional capacity (at individual, organizational 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?
- 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?

3. Main activities

3.1 Attainment of Objectives and Planned Results

The evaluation should assess the relevance of the project's objectives and the extent to which these were effectively and efficiently achieved or are expected to be achieved.

- Achievement of Outputs and Activities: Assess, for each component, the project's success in producing the programmed outputs as presented in Table A1.1 (Annex 1), both in quantity and quality, as well as their usefulness and timeliness. Briefly explain the degree of success of the project in achieving its different outputs, cross-referencing as needed to more detailed explanations provided under Section 3 (which covers the processes affecting attainment of project objectives). The achievements under the regional and national demonstration projects will receive particular attention.
- Relevance: Assess, in retrospect, whether the project's objectives and implementation strategies were consistent with: i) Sub-regional and regional environmental issues and needs i.e. such as the OECS St. George's Declaration on Principles for Environmental Sustainability; ii) the UNEP and IDB mandate and policies at the time of design and implementation; and iii) the relevant GEF focal areas, strategic priorities and operational programme(s).
- Effectiveness: Assess to what extent the project has achieved its main objective to strengthen the commitment and capacity of the participating 13 Caribbean countries

to sustainably finance environmentally sound and cost-effective wastewater management solutions and its component objectives. To measure achievement, use as much as appropriate the indicators for achievement proposed in the Logical Framework Matrix (Logframe) of the project, adding other relevant indicators as appropriate. Briefly explain what factors affected the project's success in achieving its objectives, cross-referencing as needed to more detailed explanations provided under Section 3.

• Efficiency: Assess the cost-effectiveness and timeliness of project execution. Describe any cost- or time-saving measures put in place in attempting to bring the project to a successful conclusion within its programmed budget and (extended) time. Analyse how delays, if any, have affected project execution, costs and effectiveness. Wherever possible, compare the cost and time over results ratios of the project with that of other similar projects. Give special attention to efforts by the project teams to make use of / build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency.

3.2 Sustainability and catalytic role

Sustainability is understood as the probability of continued long-term project-derived results and impacts after the external project funding and assistance ends. The evaluation will identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of benefits. Some of these factors might be direct results of the project while others will include contextual circumstances or developments that are not under control of the project but that may condition sustainability of benefits. The evaluation should ascertain to what extent follow-up work has been initiated and how project results will be sustained and enhanced over time. Application of the ROtI method will assist in the evaluation of sustainability.

3.3 Catalytic Role and Replication. The *catalytic role* of GEF-funded interventions is embodied in their approach of supporting the creation of an enabling environment and of investing in pilot activities which are innovative and showing how new approaches can work. UNEP, UNDP and the GEF also aim to support activities that upscale new approaches to a national, regional or global level, with a view to achieve sustainable global environmental benefits.

3.4 Processes affecting attainment of project results

Preparation and Readiness. Were the project's objectives and components clear, practicable and feasible within its timeframe? Were the capacities of executing agencies properly considered when the project was designed? Was the project document clear and realistic to enable effective and efficient implementation? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project implementation? Were counterpart resources (funding, staff, and facilities) and enabling legislation assured? Were adequate project management arrangements in place? Were lessons from other relevant projects properly incorporated in the project design? Were lessons learned and recommendations from Steering Committee meetings adequately integrated in the project approach? What factors influenced the quality-at-entry of the project design, choice of partners, allocation of financial resources etc.?

3.5 Implementation Approach and Adaptive Management. This includes an analysis of approaches used by the project, its management framework, the project's adaptation to changing conditions

(adaptive management), the performance of the implementation arrangements and partnerships, relevance of changes in project design, and overall performance of project management.

- **3.6 Stakeholder**²¹ **Participation and Public Awareness**. The term stakeholder should be considered in the broadest sense, encompassing project partners, government institutions, private interest groups, local communities etc. The assessment will look at three related and often overlapping processes: (1) information dissemination between stakeholders, (2) consultation between stakeholders, and (3) active engagement of stakeholders in project decision making and activities.
- **3.7 Country Ownership and Driven-ness.** The evaluation will assess the performance of the Governments of the countries involved in the project, namely:
 - in how the Governments have assumed responsibility for the project and provided adequate support to project execution, including the degree of cooperation received from the various contact institutions in the countries involved in the project and the timeliness of provision of counter-part funding to project activities;
 - to what extent the political and institutional framework of the participating countries
 has been conducive to project performance. Look, in particular, at the extent of the
 political commitment to enforce (sub-) regional agreements promoted under the
 project;
 - to what extent the Governments have promoted the participation of communities and their non-governmental organisations in the project; and
 - how responsive the Governments were to UNEP and IDB coordination and guidance,
 to IDB and UNEP supervision and Mid-Term Evaluation recommendations.
- **3.8 Financial Planning and Management**. Evaluation of financial planning requires assessment of the quality and effectiveness of financial planning and control of financial resources throughout the project's lifetime. The assessment will look at actual project costs by activities compared to budget (variances), financial management (including disbursement issues), and co-financing.
- **3.9 IDB and UNEP Supervision and Backstopping.** The purpose of supervision is to verify the quality and timeliness of project execution in terms of finances, administration and achievement of outputs and outcomes, in order to identify and recommend ways to deal with problems which arise during project execution. Such problems may be related to project management but may also involve technical/institutional substantive issues in which IDB and UNEP have a major contribution to make
- **3.10 Monitoring and Evaluation**. The evaluation will include an assessment of the quality, application and effectiveness of project monitoring and evaluation plans and tools, including an assessment of risk management based on the assumptions and risks identified in the project document. The evaluation will assess how information generated by the M&E system during project implementation was used to adapt and improve project execution, achievement of outcomes and ensuring sustainability.

3.11 Complementarities with UNEP and IDB strategies and programmes

Stakeholders are the individuals, groups, institutions, or other bodies that have an interest or stake in the outcome of the project. The term also applies to those potentially adversely affected by the project.

UNEP aims to undertake GEF funded projects that are aligned with its own strategies. The evaluation should present a brief narrative on the following issues:

- specifies desired results in six thematic focal areas. The desired results are termed Expected Accomplishments. Using the completed ROtl analysis, the evaluation should comment on whether the project makes a tangible contribution to any of the Expected Accomplishments specified in the UNEP MTS. The magnitude and extent of any contributions and the causal linkages should be fully described. Whilst it is recognised that UNEP GEF projects designed prior to the production of the UNEP Medium Term Strategy (MTS)²²/ Programme of Work (POW) 2010/11 would not necessarily be aligned with the Expected Accomplishments articulated in those documents, complementarities may still exist.
- Alignment with the Bali Strategic Plan (BSP)²³. The outcomes and achievements of the project should be briefly discussed in relation to the objectives of the UNEP BSP.
- Gender. Ascertain to what extent project design, implementation and monitoring have taken into consideration: (i) possible gender inequalities in access to and the control over natural resources; (ii) specific vulnerabilities of women and children to environmental degradation or disasters; and (iii) the role of women in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation. Assess whether the intervention is likely to have any lasting differential impacts on gender equality and the relationship between women and the environment. To what extent do unresolved gender inequalities affect sustainability of project benefits?

South-South Cooperation. This is regarded as the exchange of resources, technology, and knowledge between developing countries. Briefly describe any aspects of the project that could be considered as examples of South-South Cooperation.

4. Reports / Deliverables

Evidence, findings, conclusions and recommendations should be presented in a complete and balanced manner. Any dissident views in response to evaluation findings will be appended in an annex. The evaluation report shall be written in English, be of no more than 50 pages (excluding annexes), use numbered paragraphs and include:

- i) An **executive summary** (no more than 3 pages) providing a brief overview of the main conclusions and recommendations of the evaluation;
- ii) Introduction and background giving a brief overview of the evaluated project, for example, the objective and status of activities, it's relevance and project theory / intervention logic;

²² http://www.unep.org/PDF/FinalMTSGCSS-X-8.pdf

http://www.unep.org/GC/GC23/documents/GC23-6-add-1.pdf

- iii) **Scope, objective and methods** presenting the evaluation's purpose, the evaluation criteria used and questions to be addressed;
- iv) **Project Performance and Impact** providing factual evidence relevant to the questions asked by the evaluator and interpretations of such evidence. This is the main substantive section of the report and should provide a commentary on all evaluation aspects (A K above).
- v) Conclusions and rating of project implementation success giving the evaluator's concluding assessments and ratings of the project against given evaluation criteria and standards of performance. The conclusions should provide answers to questions about whether the project is considered good or bad, and whether the results are considered positive or negative;
- vi) Lessons learned presenting general conclusions from the standpoint of the design and implementation of the project, based on good practices and successes or problems and mistakes. Lessons should have the potential for wider application and use. All lessons should 'stand alone' and should:
 - Specify the context from which they are derived
 - State or imply some prescriptive action;
 - Specify the contexts in which they may be applied (if possible who when and where)
- vii) **Recommendations**. High quality recommendations should be *actionable* proposals that are:
 - Implementable within the timeframe and resources available
 - Commensurate with the available capacities of project team and partners
 - Specific in terms of who would do what and when
 - Contain results-based language (i.e. a measurable performance target)
 - Include a tradeoff analysis, when its implementation may require utilizing significant resources that would have otherwise been used for other project purposes.

Annexes include Terms of Reference, list of interviewees, documents reviewed, brief summary of the expertise of the evaluator / evaluation team, a summary of co-finance information etc. Dissident views or management responses to the evaluation findings may later be appended in an annex.

5. Payment Schedule

- First payment: Upon contract signature 20%
- Second payment: Upon approval of inception report by 27th Sept 2016 20%
- Third payment Upon approval of Working Draft Mid Term Review Report by 1st Nov 2016– 40%

• Final payment Upon approval of the Final Mid Term Review Report by 16 Dec 2016 – 20%

6. Qualifications

A degree in Engineering, Chemical BSc, Environmental Sciences, Economics and/or Social/Politic Science with more than 15 year of experience in project design, planning and design of funding proposals. Experience working with international organizations in program analysis and monitoring. Knowledge of the IDB, GEF or UNEP projects and its systems and processes for approving and implementing operations is a plus.

- 7. Characteristics of the Consultancy
- 7.1 Type of Consultancy: International PEC
- 7.2 **Start-up date, length and duration:** March 2016 to December 2016.
- 7.3 **Place of work:** country of residence of the contractual traveling to Belize, Trinidad and Tobago, Jamaica, Guyana and Costa Rica

There will 22 days of trip to be distributed the following way:

- Kingston 5 days
- Belize 5 days
- Port of Spain 3 days
- Georgetown 5 days
- San José 4 days

8 Coordination

Coordination of this consultancy will be conducted by Rodrigo Riquelme (rodrigor@iadb.org - (202-623-2117) and Yvon Mellinger (Yvonm@iadb.org -) from COF Barbados.

For further information, please go to APPENDIX link

Payment and Conditions: Compensation will be determined in accordance with Bank's policies and procedures. In addition, candidates must be citizens of an IDB member country.

Consanguinity: Pursuant to applicable Bank policy, candidates with relatives (including the fourth degree of consanguinity and the second degree of affinity, including spouse) working for the Bank as staff members or Complementary Workforce contractuals, will not be eligible to provide services for the Bank.

Diversity: The Bank is committed to diversity and inclusion and to providing equal opportunities to all candidates. We embrace diversity on the basis of gender, age, education, national origin, ethnic origin, race, disability, sexual orientation, religion, and HIV/AIDs status. We encourage women, Afrodescendants and persons of indigenous origins to apply.

Annex 2 Stakeholders involved in the TE

Alfredo	Coello Vazquez	Project Co-ordinator	CReW Project Co-ordination Group (PCG)	
Pedro	Moreo Mir	Project Technical Expert	CReW Project Co-ordination Group (PCG)	
Sasheca	Soares	Project Administrator	CReW Project Co-ordination Group (PCG)	
Donna Sue	Spencer	Project Communications	CReW Project Co-ordination Group (PCG)	
Kieran	Cadogan	Pilot co-ordinator	Jamaica National Water Commission	
Mark	Barnett	President	Jamaica National Water Commission	
Lewis	Lakeman	VP Planning	Jamaica National Water Commission	
Vernon	Barrett	VP Investments	Jamaica National Water Commission	
Lorna	Inniss	Co-ordinator	UNEP CAR/RCU	
Chris	Corbin		UNEP CAR/RCU	
Donna	Herandez	Project Administration	UNEP CAR/RCU	
Margaret	Christian	Manager	University of Technology (UTech)	
Paulette	Kolbusch	Senior Manager CReW NFP	Jamaica National Environment and Planning Agency (NEPA)	
Maxia	Fairweather	Senior Relationship Manager	Jamaica National Commercial Bank (NCB)	
Brian	Boothe	General Manager	Jamaica National Commercial Bank (NCB)	
Andrew	Simpson	Assistant General Manager	Jamaica National Commercial Bank (NCB)	
Albert	Gordon	General Manager	Jamaica Office of Utilities Regulations (OUR)	
Hopeton	Heron		Jamaica Office of Utilities Regulations (OUR)	
Peter	Johnson		Jamaica Office of Utilities Regulations (OUR)	
Sashena	Miller		Jamaica Office of Utilities Regulations (OUR)	
Garfield	Bryan		Jamaica Office of Utilities Regulations (OUR)	
Sharmeela	Josephs	Pilot Co-ordinator	TT Water and Sewage Authority	
Gayatri	Maharaj	General Manager/ GEF OFP	TT Environmental Management Authority (EMA)	
Vidjaya	Ramkhalawan	Focal Point	TT Environmental Management Authority (EMA)	
Hayden	Romano	General Manager	TT Environmental Management Authority (EMA)	

Marlon	Daniels	Pilot Co-ordinator	Guyana Ministry of Housing
Mr	John	Potential borrower	Guyana - Splashmins
Yougini	Singh-Parbu	Financial Specialist	Guyana Central Housing Authority
Emile	McGarrell	Permanent Secretary	Guyana Ministry of Communities
Rensford	Josephs	Technical Specialist	Guyana Water Incorporated
Germaine	Stewart	Board Member	Guyana Central Housing and Planning Authority
Trevor	Charles	Potential Borrower	Guyana Country Wide Disposal
Dr	Ramdass	Head of supporting Agency/GEF OFP	Guyana Environmental Protection Agency (EPA)
Angela	Franklin	Senior Environmental Officer	Guyana Environmental Protection Agency (EPA)
Mr	Puran	Potential Borrower	Guyana Puran Brothers Waste Disposal Service
Audreyann	Thomas	Consultant to Potential Borrow	Guyana (Puran Brothers Waste Disposal Services)
Moses	Archer	Potential Borrower	Guyana Cevons Waste Management
Jose Miguel	Zeldon	Focal Point/ Director	Costa Rica Ministry of Environment and Energy
Vivian	Gonzalez	Engineer	Costa Rica Ministry of Environment and Energy
Maria	Cooper	National Focal Point	Belize Ministry of Finance
Sanjay	Keshwani	Manager	Belize Water Services Limited
Francisco	Gonzalez	Consultant Engineer, National Project Manager	Belize Water Services Limited
Alvan	Haynes	CEO	Belize Water Services Limited
Venetia	Eck-Salazar	Operations Analyst	IDB (Belize)
Jane	Chow	Operations Senior Associate	IDB (Belize)
Javier Grau	Benaiges	Water and Sanitation Senior Specialist	IDB (Panama)
Yvon	Mellinger	Water and Sanitation Specialist	IDB
Rodrigo	Riquelme	Team Leader	IDB
Isabelle	Vanderbeck	Task Manager	UNEP – GEF (RONA)

Annex 3 Documents Reviewed

- 1. Project Documents including PIF (Project Initiation Form), CEO Endorsement and Project Documents
- 2. Project Inception Report and workshop summary
- 3. Assessment of Wastewater Management in the Wider Caribbean Region
- 4. PIRs / IDB Management reports
- 5. GEF Tracking Tool
- 6. PSC reports
- 7. IDB PFMs Operational Manual
- 8. Examples of IDB loans to advance the PFMs
- 9. Monthly analytical data o
- 10. Mid-term Evaluation Report
- 11. Selected outputs from the Project actions
- 12. Papers presented at conferences/meetings
- 13. Budget reports
- 14. Co-financing summaries
- 15. Quarterly Newsletters
- 16. Audit report
- 17. Brochures
- 18. Project videos

Annex 4 Evaluation Matrix

Evaluation Criteria	Question	Indicator	Source	Methodology
Relevance: How does the Waters?	e project relate to the main o	bbjectives of national/regional/internation	nal authorities and the GEF	Focal Area for International
Is the project relevant to the GEF IW Focal Area	How does the project support the IW Focal Area?	Existence of clear relationship between the project objective and GEF IW Focal Area	ProDocGEF 4 IW strategy	 Doc analysis Interviews with RCU / UNEP /IDB representatives
Is the project relevant to the Caribbean Countries environment and sustainability objectives?	 How does the project support the environment and sustainable development objectives of the Caribbean countries (e.g Cartagena Convention and LBS Protocol, OECS St. George's Declaration, etc)? Is the project 'country driven'? What is the level of stakeholder ownership in implementation? How does the project assist with 	 Degree to which project supports national environmental objectives Degree of coherence between project and national priorities etc. Signatories/ratification of LBS Protocol Appreciation from national stakeholders to project design and implementation Level of government involvement in the design of project 	 ProDoc National Policies, priorities and strategies Project partners LBS Secretariat PSC minutes RCU 	 Document analyses Interviews with UNEP/IDB Interviews with project partners and national stakeholders

Evaluation Criteria	Question	Indicator	Source	Methodology
	MDG/SDG delivery?			
Is the project addressing the needs of target beneficiaries at local/national level?	 How does the project support the needs of relevant stakeholders? Has the implementation of the project been inclusive of all relevant stakeholders? Were local beneficiaries and stakeholders adequately involved in project design and implementation? 	 Strength of the link between expected results from the project and the needs of relevant stakeholders Degree of involvement and inclusiveness of stakeholders in project design and implementation 	 Project partners and stakeholders ProDoc Needs assessment studies PSC minutes RCU 	Document analyses Interviews with partners & stakeholders
Is the project internally coherent in design?	Are there logical linkages between expected results of the project (log frame) and the project design (in terms of project components, choice of partners, structure, delivery mechanism, scope, budget, use of	 Level of coherence between project expected results and project design internal logic Level of coherence between project design and project implementation approach 	 ProDoc Project stakeholders PSC minutes RCU 	Document analyses Interviews with partners & stakeholders

Evaluation Criteria	Question	Indicator	Source	Methodology
How is the project relevant to other donor-supported activity?	resources etc)? Is the length of the project sufficient to achieve project outcomes? Does the GEF funding support activities and objectives not addressed by other donors? How do GEF-funds help to fill gaps (or give additional stimulus) that are necessary but are not covered by other donors? Is there coordination and complementarity between donors?	Degree to which program was coherent and complementary to other donor programming nationally and regionally	 Donor representatives and documents ProDoc PSC minutes RCU 	Document analyses Interviews with partners & stakeholders
What lessons and experiences can be drawn regarding relevance for other IW projects?	Has the experience of the project provided relevant lessons for other future projects?		 Data collected from MTE Information from RCU Reports submitted 	Data analyses

Evaluation Criteria	Question	Indicator	Source	Methodology
			to UNEP/IDB (including PIRs)	
Effectiveness: To what ex	xtent have/will the expected ou	tcomes and objectives been achieved?		
Has the project been effective in moving towards achieving the expected outcomes and objectives?	 Has the project been effective in achieving outcomes? To what extent has the project assisted with developing appropriate sustainable financing mechanisms for wastewater treatment? How far has the project strengthened national and regional capacity for the long-term and sustainable wastewater management? What progress has been made in developing and strengthening regional policy, legal and regulatory frameworks for 	indicators from results framework Assessment of output delivery ROtI	 ProDoc RCU Stakeholders PIR/APRs PSC minutes 	 Document analyses Interviews with project, EA and IA staff Interviews with partners & stakeholders

Evaluation Criteria	Question	Indicator	Source	Methodology
How is risk and risk mitigation managed?	addressing wastewater? To what extent did the project foster regional dialogue and knowledge exchange amongst stakeholders in the WCR? How well are risks, assumptions and impact drivers being managed? What was the quality of risk mitigation strategies developed? Were these sufficient? Are there clear strategies for risk mitigation related with long-term sustainability of the	 Completeness of risk identification and assumptions during project planning and design Quality of existing information systems in place to identify emerging risks and other issues Quality of risk mitigations strategies developed and followed • 	 ProDoc RCU Stakeholders PIR/APR PSC minutes 	 Document analyses Interviews with project, EA and IA staff Interviews with partners & stakeholders
What lessons can be drawn regarding effectiveness for other	What lessons have been learned from the project		Data collected through TE	Data analysis

Evaluation Criteria	Question	Indicator	Source	Methodology
IW projects? Efficiency: Was the proj	regarding achievement of outcomes? • What changes could have been made (if any) to the design of the project in order to improve the achievement of the project's expected results? ect implemented efficiently in-	line with international standards?		
Was project support provided in an efficient way?	Was adaptive management used or needed to ensure efficient resource use? Did the project logical framework and work plans and any changes made to them use as management tools during implementation? Were the accounting and financial systems in place adequate for	 Availability and quality of financial and progress reports Timeliness and adequacy of reporting provided Level of discrepancy between planned and utilized financial expenditures Planned vs. actual funds leveraged Cost in view of results achieved compared to costs of similar projects from other organizations Quality of results-based management reporting 	 ProDoc UNEP/IDB Country representatives RCU PSC minutes 	Document analyses Interviews with partners

Evaluation Criteria	Question	Indicator	Source	Methodology
	project management and producing accurate and timely financial information? • Were progress reports produced accurately, timely and responded to reporting requirements including adaptive management changes? • Was project implementation as cost effective as originally proposed (planned vs. actual)? • Did the leveraging of funds (cofinancing) happen as planned? f • Were financial resources utilized efficiently? Could financial resources have been used more efficiently? • Was procurement	 (progress reporting, monitoring and evaluation) Occurrence of change in project design/ implementation approach (i.e. restructuring) when needed to improve project efficiency Cost associated with delivery mechanism and management structure compare to alternatives 		

Evaluation Criteria	Question	Indicator	Source	Methodology
	carried out in a manner making efficient use of project resources? • How was results-based management used during project implementation?			
How efficient are partnership arrangements for the project?	To what extent partnerships/ linkages between institutions/ organizations were encouraged and supported? Which partnerships/linkage s were facilitated? Which ones can be considered sustainable? What was the level of efficiency of cooperation and collaboration arrangements? Which methods were successful or	 Specific activities conducted to support the development of cooperative arrangements between partners, Examples of supported partnerships Evidence that particular partnerships/linkages will be sustained Types/quality of partnership cooperation methods utilized 	 ProDoc Project partners and stakeholders PSC minutes 	Document analysis Interviews

Evaluation Criteria	Question	Indicator	Source	Methodology
Did the project efficiently utilise local capacity in implementation?	 Not and why? Was an appropriate balance struck between utilization of international expertise as well as local capacity? Did the project take into account local capacity in design and implementation of the project? Was there an effective collaboration between institutions responsible for implementing the project? 	 Proportion of expertise utilized from international experts compared to national experts Number/quality of analyses done to assess local capacity potential and absorptive capacity 	 ProDoc UNEP/IDB Country representatives PSC minutes 	Document analysis Interviews
What lessons can be drawn regarding efficiency for other IW projects?	 What lessons can be learnt from the project regarding efficiency? How could the project have more efficiently carried out implementation 		Data collected throughout evaluation	Data analysis

Evaluation Criteria	Question	Indicator	Source	Methodology
Sustainability – To what	(in terms of management structures and procedures, partnerships arrangements etc)? • What changes could have been made (if any) to the project in order to improve its efficiency? • extent have the countries, with	h the project's support, achieved benefits	for an extended period of tin	ne after completion.
How has the project assisted in delivering socio-political sustainability?	What examples can be provided where socio-political sustainability of actions has been encouraged? (e.g. employment, livelihoods, regional MEAs)	 Increase number of ratifications of LBS Protocol Employment and/or livelihood improvements Gender balance in wastewater treatment management/operation 	 Reports and other outputs PSC minutes Stakeholders PIRs 	 Document analysis Interviews with stakeholders, project staff
How has the project assisted the countries to ensure financial sustainability of the actions?	What examples can be provided where financial sustainability of actions has been encouraged? (e.g. replication of financial	Number of countries indicating replication of financial mechanisms Number of countries introducing new tariffs /enforcement actions that assist sustainability of wastewater	 Reports and other outputs PSC minutes Stakeholders PIRs 	 Document analysis Interviews with stakeholders, project staff

Evaluation Criteria	Question	Indicator	Source	Methodology
	mechanisms tested in CReW) • Although not completed, will the pilot projects be sustained and replicated?	collection and treatment		
How has the project assisted in delivering /strengthening sustainable institutional frameworks	What examples can be provided where institutional frameworks (national and regional) have been sustainability supported? (e.g. through national ratification of LBS Protocol)	 Number of countries providing support for IMC meetings Ratifications of LBS Protocol 	 Reports and other outputs PSC minutes Stakeholders PIRs 	Document analysis Interviews with stakeholders, project staff
How has the project facilitated environmental sustainability?	What examples can be provided where environmental has been supported? (e.g. reduction of untreated wastewater)	Reduction of wastewater loads (e.g. reduction of m³ of untreated waste, BOD, nutrients, etc.)	 Reports and other outputs PSC minutes LBS Secretariat Stakeholders PIRs 	 Document analysis Interviews with stakeholders, project staff
What lessons can be drawn regarding sustainability for other IW projects?	What lessons can be learnt from the project regarding sustainability?	•	PIRsPSC meetings	 Document analysis Interviews with stakeholders, project

Evaluation Criteria	Question	Indicator	Source	Methodology
	What more could the project have more done to encourage sustainability? What changes could have been made (if any) to the project in order to improve the sustainability of actions?		• Stakeholders	staff

Annex 5 Outline Interview Guide

- 1. Name:
- 2. Organisation
- 3. Role/relationship to the Project
- 4. What is your overall perception of the project, its three components, the outputs and the roles of UNEP and IDB?
- 5. What do you think are the main benefits to you?
- 6. How has the work of the project been relevant to your country/organisation?
- 7. What is your perception of the interaction of the project with local/national/regional stakeholders? Were their needs met?
- 8. What have been the benefits of the project to other environmental activities in the Wider Caribbean Region?
- 9. In your view, what have been the main achievements and lessons (positive and negative) of the project?
- 10. Where do you think that the project has been effective in delivering the outputs you expected?
- 11. What has been the most and least beneficial activities from your perspective?
- 12. Have the voices of stakeholders been effectively heard by the project?
- 13. Did the project address the 'right' priorities in your view? If not what should the priority have been done?
- 14. Did the project effective communicate what it was doing and its achievements? If not what more should have been done?
- 15. From your perspective, has the project been efficiently managed? Can you give some examples?
- 16. Did you receive any expected reports on the progress of the project? Were these provided on-time?
- 17. Have you made use of any training, reports, other outputs in your work? Please give examples of the material/information you have utilised?
- 18. Did partnerships/linkages to institutions and government (national and local) deliver good collaboration? What was good/less good in the collaboration?
- 19. Was there a balance between the use of international and national expertise?
- 20. How will the results (or, how should they be) sustained after the project has been ended?

Annex 6 Project Management Responses to MTE Recommendations

	Mid-Term Evaluation recommendations	Project responses to recommendations
1.	Documenting the experiences and lessons learned surrounding the pilot financing mechanisms should begin as soon as possible before institutional memory begins to fade. All four pilot countries have garnered ample experiences that offer analysis and ideas for replication. Documentation and discussions should include strategic issues faced in building the political will to move forward and in maintaining inter-institutional coordination, as well as the factors that contributed to delays and how were they resolved.	 PSC3 immediately following MTE results and recommendations, there was a facilitated replication session Short Case studies: in 2015 the PCG started to carry out interviews to document towards short case studies for each of the pilots, documenting the lessons learnt and following review by countries was then presented and discussed at PSC4 Guatemala. Short videos documentary, Feature articles on pilots in News letters CWWA technical papers Pilots Video conferences increased Policy and enforcement workshop Encouraging Experience notes with project implementation challenges from PMU's project Coordinators
2.	As soon as the respective first-generation wastewater treatment project is underway, each Pilot Executing Agency should prepare a financial status report on actual performance and expected repayments to the fund, which should include a medium-term "amortization" plan covering the initial capital amount provided by CReW. The financial status report should also include any	 The situation is being summarized for the current reporting period:. Belize started the repayment and working to find more funds Guyana is currently preparing a Business Plan that will include some of this information. Jamaica has prepared the terms of reference for a consultancy seeking funds from the PDS to institutionalize the fund.

	Mid-Term Evaluation recommendations	Project responses to recommendations
	changes to the policy for replenishing the wastewater revolving fund and expectations for additional capitalization.	Trinidad and Tobago are too far behind to provide this information.
3.	The Guyana approach through public-private partnerships is facing unique challenges, resulting in four interrelated recommendations: First, the Project Management Unit should develop a robust list of potential projects in both the public and private sectors, to serve as a backup in the event the current projects do not come to fruition.	Completed. The TE discussed the list (and interviewed many potential borrowers) with the PMU
4.	Second, Guyana's unique public-private partnership model requires specific technical inputs to help the PCG structure operations and perform requisite due diligence. The PMU should access conceptual orientation, specialized training and technical advice on developing PPPs through a recognized source of this expertise.	Completed. But the TE considers more effort is needed to strengthen the 'management' capacity to assist specific assistance to small private enterprises
5.	Third, small-scale enterprises that are interested in presenting wastewater treatment projects do not have the skill and capacity to develop technical designs and acceptable project proposals. The IACG should identify and approve an appropriate mechanism to assist Guyana in providing requisite assistance to these small firms. The IDB has several appropriate models for providing technical	Done through consultation with IDB and PCG members working with the PMU. This has never been an IACG responsibility. The TE considers this an issue and further recommends models are investigated that could be of specific help to small private sector organisations (or community groups) wanting to participate in any follow-on project. There are many examples of GEF IW projects working with 'small grants' that can offer examples of models to both train

	Mid-Term Evaluation recommendations	Project responses to recommendations
		prospective companies (through an open training programme) or to call for expressions of interest and then provide direct consultant support to assist the small companies/organisations to deliver compliant proposals
6.	Fourth, to assist the GoG's efforts in building a strong enabling environment to motivate the private sector wastewater pilots, the SSFA should support the Guyana Environmental Protection Authority's efforts in strengthening the framework for enforcing environmental regulations.	The TE discussed the support provided to the EPA
7.	The IACG should continue to meet regularly on a quarterly basis, as set forth in the Memorandum of Understanding, which will allow it to monitor implementation progress and propose timely corrective measures. The effective use of a webbased format will continue to keep transaction costs to a minimum. Formal face-to-face meetings could continue on an annual basis, as needed and appropriate.	Done Meetings are subject to availability and needs. Bilateral meetings as needed via regular telephone or skype calls. Side-meetings of the IACG have also been held alongside regional workshops, conferences etc.
8.	Both IDB and UNEP should each assign an additional permanent representative to the IACG. These individuals should be full-time staff of IDB and UNEP, based in the region, who can bring sufficient on-the-ground familiarity of CReW to contribute to management oversight and decision-making.	IACG additional members Chris Corbin for UNEP CAR RCU and Yvon Mellinger for IDB were assigned after the MTE.
9.	The MTE recommends two actions to bolster CAR/RCU's implementation capacity in order to accelerate the policy reform, capacity building and	Consultancy with Liz Emanuel to assist UNEP CAR RCU re. the SSFAs for a limited period.

	Mid-Term Evaluation recommendations	Project responses to recommendations		
	communications components and, in particular, to expedite the approval and implementation of the SSFAs. First, allocate a specific percentage of the Financial/Administrative Specialist's time to assist the CAR/RCU in specific functions related to administering the SSFAs. Second, transfer necessary financial resources to CAR/RCU to provide for an additional consultant position to provide substantive technical support for implementing the regional level activities under Components 2 and 3.	Implementation of UMOJA has been a challenge and has severely impacted the		
		The TE confirms that the implementation of UNOJA has had an impact on the project and on the willingness of participants to attend meetings (due to long reimbursement periods)		
10.	The MTE recommends that CReW prioritize and commence two activities as soon as possible. The first is the environmental and natural resource assessments (ENRA) that contribute to public policy discussions by demonstrating the economic impact of pollution. The second activity is training in, and preparation of, a detailed implementation plan (resources, budget and timetable) for a regional monitoring, evaluation and reporting (M&E) framework for wastewater management.	Completed: Resource Valuation for Wastewater was conducted by the World Resources Institute between Oct 2014 and August 2015. Outputs all on the Project website. Following internal discussion between the PCG and CAR RCU a decision was taken to prepare a report (GEF CReW Wastewater management platform) summarizing possible regional frameworks for wastewater management. This was subsequently presented at PSC4 for endorsement and following completion, outlined at the Legal and Enforcement Workshop in Trinidad in February 2016.		
11.	The MTE recommends de-emphasizing or dropping two activities that are ancillary to the objectives of CReW. The first is the incorporation of wastewater	Feasibility investigated with visits but there was neither the budget nor adequate time to do this. However, following discussions with the Caribbean Examinations		

	Mid-Term Evaluation recommendations	Project responses to recommendations
	management and sanitation into education curricula throughout the region. The second activity to drop is the development of a communication strategy to build awareness on sanitation issues in rural communities.	Council, upon their recommendation, learning materials were provided. Feasibility investigated with visits in St Vincent and Antigua. SVG proposed activities not possible due to legacy issue with UNEP. Antigua implemented limited scale activities in early 2016 supported by some public awareness.
12.	CReW should make every effort to ensure that the four Central American countries participate as full beneficiaries for the remainder of the project. Specifically, the PCG should assign the Technical Specialist, who is the only native Spanish-speaking staff member, to be the CReW liaison to these four countries. His role will be to ensure agile implementation of the SSFAs, to capture unique and valuable lessons learned from Central American experiences that are applicable to the WCR, establish contact with relevant Central American institutions working in the wastewater sector and identify potential first-generation projects for a possible CReW II.	Technical Specialist very engaged in discussions and regular communications/updates of NFPs and other partners in these countries. Regular communication and follow-up related to development of follow-on project, CReW+. Despite the best efforts UMOJA has affected the implementation of the SSFAs. The TE noted concerns from both English and Spanish countries over the lack of material in Spanish. The TE also noted the problems resulting from UMOJA
13.	Over the remainder of the project, and with the support of outside technical assistance, CReW should consider a broader menu of learning and training approaches, in order to enhance potential impact and replicability of training events, expand opportunities to a larger pool of participants and reduce the cost per participant. Options should consider formal and non-formal learning, on-line and	 Several initiatives with regional and international partners (ref. Quarterly Newsletter) including: The Water Center, Monterrey, Mexico – training for participants in the 4 Spanish-speaking countries in water and wastewater management. CDB, World Bank Group, CAWASA and the Global Water Leaders Group – ten week training programme (ref. Dec 2014 issue)

	Mid-Term Evaluation recommendations	Project responses to recommendations
	face-to-face venues, equivalent content in both English and Spanish, and open access by working professionals and technicians.	 UNITAR the governance and sanitation training including on line course (ref. March 2015 issue) CAWASA - Capacity building workshops English and Spanish Media Sensitization Workshops (Eng- Nov 2013, Guyana; Sp – July 2014, Panama). CIMAB Regional Training in Monitoring and Evaluation (ref. July 2015 issue)
14.	Considering the wealth of information and experience that is available in the Caribbean on wastewater management, the CReW should enhance the content of its communication and outreach instruments. Topics should include the economics of wastewater, sanitation infrastructure financing, sector policy debates, pros and cons of various technological options, and the role of successful regulation, just to name a few. Print media, electronic bulletins, website content and Facebook have an important role to play in networking and dissemination of ideas to set the groundwork for future replication. Content should focus more on wastewater issues and less on CReW-sponsored activities and personalities.	Website redesigned and launched in February 2015 and more project outputs published therein. Facebook updated regularly, including items from around the world re. developments in wastewater research, solutions and wastewater as a resource. A number of information products published both digitally and in print: 6 short video documentaries; 4 poster series; quarterly newsletters; fact sheets; briefing sheets; media briefing package; summary publication; media articles and announcements; knowledge documents. Contribution by CReW and CReW partners of several papers at CWWA Conferences Technical Sessions in 2013, 2014 and 2015. Partners always invited to submit articles to the quarterly newsletter - mixed success.
15.	The IACG with support of the PCG should review the performance of the national focal points during the first two years of CReW to assess whether	The actual evaluation of NFP performance is politically sensitive Partially and indirectly in reviewing the lessons learnt and points made in interviews with NFPs and other country stakeholders in early 2015 to understand gaps between

	Mid-Term Evaluation recommendations	Project responses to recommendations
	assumptions and expectations about their role are still valid. The review should gauge the extent to which NFPs are able to engage effectively in dialogue on wastewater management (often beyond their official mandates) with essential government, media and private sector actors.	country expectations and project realities. Short case studies produced re. lessons learnt in Components 2 and 3, prepared for Knowledge Sharing session at PSC4, July 2015, detail many of the challenges and responses. Efforts to have NFPs more engaged, to encourage them to participate in the community of practice and even the creation of a Dropbox for deposit of legislative and guideline docs re. wastewater in their respective countries. Concerted effort by the PCG to communicate more with the Spanish-speaking countries in particular. Engagement of non-pilot countries has been particularly challenging. The TE notes the above and in particular the engagement of non-pilot countries
16.	To celebrate moving toward compliance with the LBS Protocol or discuss results of technical analysis preformed under an SSFA, or other CReW-related achievement, the PCG and CAR/RCU should conduct a joint high-level mission to at least three CReW countries. The purpose of the missions will be to dialogue with country decision-makers on wastewater challenges, celebrate important progress, and encourage the continued consolidation of an informal national wastewater coalition. Secondarily, these missions will help to create a unified "face" of CReW by publicly linking the financial and policy components, and can help countries consolidate a national message with respect to their wastewater management agenda.	Budget limitations have forced the PCG to do this through joint teleconferences, video conferences, discussions at regional workshops, and shared presentations.
17.	Given the delays in implementing the pilot financing	No cost 18 months extension meaning further co-financing cash and in kind by IDB

	Mid-Term Evaluation recommendations	Project responses to recommendations
	mechanism and rolling out the support for policy, legal and regulatory reforms, the IACG should request at least a one-year extension.	and in kind from UNEP.
18.	To avoid unclear lines of authority and duplicative reporting requirements, in those countries where and IDB loan co-finances the first-generation CReW project, responsibility for oversight and support during the construction phase of sanitation works should be passed from the PCG to the IDB specialist.	We removed the quarterly reports The loan in Belize was cancelled For all project in general the work has been done in close coordination between the IDB water specialists and the CReW Technical Specialist.
19.	Prior to year four of project execution, the Pilot Executing Agencies should identify the financial and human resources required to internalize the operating costs of the wastewater revolving fund once CReW project financing ends.	Work in progress, Jamaica more advanced, Trinidad far behind The TE notes that the 4 th PSC participants highlighted the need for improved preparation with any follow-on project. This project has generated many lessons that will be of significant benefit to a follow-on project
20.	IDB and UNEP, in consultation with the Project Steering Committee, should consider developing a follow-on project to pursue replicating the PFM in additional countries, and to move all countries of the Wider Caribbean Region closer to compliance under the LBS Protocol through policy reform and institutional strengthening. Due to the long gestation period for acquiring funding, activities to conceptualize and design a follow-on project should begin as soon as possible.	Work in progress. The TE has seen an advance draft of the PIF for a new project, the concepts have been discussed with the participants at the 4 th PSC (and other events)

Annex 7 Project costs and Co-financing

Annual Project Costs

	GEF Grant	2012	2013	2014	2015	2016	Total	%
Component 1	14,960,000	203,597	8,306,527	2,138,123	3,330,162	97,056	14,075,465	94.09%
Belize		27,938	5,121,062	-111,750	110,684		5,147,934	
Guyana		22,242	60,465	44,986	3,059,060	32,043	3,218,796	
Jamaica			3,007,212	87,461	65,722	30,114	3,190,509	
TT				2,000,000			2,000,000	
Technical Specialist		153,416	117,789	117,427	94,696	34,899	518,226	
Component 2	2,550,000	215,159	555,344	511,825	913,483	301,272	2,497,083	97.92%
Component 3	760,000	152,956	129,577	111,212	291,242	50,035	735,021	96.71%
Component 4	785,170	22,410	4,932	77,575	25,925	-2,026	128,817	16.41%
Component 5	957,000	310,393	222,292	238,862	129,511	15,255	916,313	95.75%

Totals	20,012,170	904,514	9,218,673	3,077,596	4,690,324	461,592	18,352,699	91.71%

CO-FINANCING AND LEVERAGED RESOURCES

	IA own Financing (mill US\$)		Government (mill US\$)		Other* (mill US\$)		Total (mill US\$)	
Co financing (Type/Source)								
	Planne d	Actual	Planned	Actual	Planned	Actual	Planne d	Actual
- Grants	27.5 ¹	33.3 ¹	75.8 ³	73.9 ³			103.3	107.2
 Loans/Concession al (compared to market rate) 	131.5 ¹	484.6 ¹	29.5	13.4			161.01	498.01
- Credits								
Equity investments								
 In-kind support 	.772 ¹ 1.1 ²	.496 ¹ 1.14 ²			.500 ⁴	.567 ⁴	2.372	2.203
Totals	160.9	519.5	91.4	78.9	0.500	0.567	266.7	606.9

Notes.

- 1 IDB
- 2 UNEP
- 3 Government Grant and in-kind
- * Others include: CWWA, CARPHA, Centro del Agua, CIMAN, CAWASA, CDB, World Resources Institute, Water Leaders, UTech

Annex 8 Progress towards achieving the project objective, outcomes and objectives

Project objective and Outcomes	Description of indicator	Baseline level	End-of-project target	Level at 30 June 2016	TE Comments as of June 2016
Objective In the context of the Cartagena Convention and its LBS Protocol, to pilot revolving financing mechanisms and their related	Pilot Financial Mechanisms Tested (PFM)	0 PFM	4 PFM	4 PFM — achieved in 2014	The objective of this project was the 'testing' of innovative financing mechanisms. CReW has delivered a weather of experiences and lessons that will benefit WCR and the wider IW community. In addition two PFMs have delivered operational (or soon to be operational) WWTW as a result of the CReW.

Project objective and Outcomes	Description of indicator	Baseline level	End-of-project target	Level at 30 June 2016	TE Comments as of June 2016
wastewater management reforms that can be subsequently established as feasible instruments to provide sustainable financing for the implementation of environmentally sound and cost- effective wastewater management measures.	National legal, institutional and policy reforms adopted and implemented.	0 Countries (Limited wastewater management reforms)	5 Countries adopt wastewater management reforms.	3 Countries with improved policy and others in progress	The TE considers this an underestimation based on interviews with the countries. However, the TE recognises the difficulty of specifically targeting an improved 'policy' with the work of the CReW (or indeed, any project). The project has changed the countries understanding of WWT options and in all countries visited there was a clear recognition of the importance of the LBS Protocol in promoting the need for WWT The TE assesses that the project has met the desired objective - S
Outcome 1: Improved access to financing for wastewater management	Number of Pilot Financing Mechanisms created	0 PFMs	4 PFMs Belize Guyana Jamaica Trinidad and Tobago	4 PFMs Belize Guyana Jamaica Trinidad and Tobago	Loan agreements between 4 countries to create the PFMs were completed in 2014.

Project objective and Outcomes	Description of Baseline level End-of-project target	Level at 30 June 2016	TE Comments as of June 2016		
	Projects generate repayments into the Pilot Financing Mechanisms	0 PFMs generating repayments	3 PFMs generating repayments	2 PFMs generating repayment Belize started repayments in April 2015 Jamaica started repayments in March 2015.	Whilst only 2 PFMs have started repayments, it is likely that agreement in Guyana for a small private sector company will be finalised by the end of the project and repayments will commence as contractually agreed.
Outcome 2: Successful development of first generation projects.	Increase in populations with access to improved wastewater treatment facilities (Final baseline and target to be determined in the first year)	0 Households	Population with improved access to wastewater treatment: Belize – 14,679 Jamaica – 10,318 T&T – 12,044 Guyana – TBD	Population with improved access to wastewater treatment: Belize – 8,037	The construction/commissioning work is still underway in Belize and Jamaica. Construction is expected to be completed by the end of 2016 with the plants being operational shortly afterwards, resulting in approximately 25,000 population having access to improved WWT. The expected investment in Guyana (Splashmins) will result in a further ca. 1000

Project objective and Outcomes	Description of indicator	Baseline level	End-of-project target	Level at 30 June 2016	TE Comments as of June 2016
Outcome 3: Improvements in technical capacity for project implementation.	PEAs develop and apply Operation Manuals(OM)	0 OM	4 OMs	4 OMs Belize Guyana Jamaica T&T	Operational Manuals were delivered by all countries. The concepts of these manuals appear to be highly beneficial and the TE is recommending that adapted forms of these are used in all project countries (and not just those addressing the PFMs)
Outcome 4: Reduced land based pollution to terrestrial and coastal waters from untreated wastewater	Volume: total annual volume (m3) of wastewater treated (compliance with national discharge standards)	Belize - 0 m3 Jamaica – 0m3 T&T 0m3 Guyana – 0m3	Belize - 3,054 m3/d Jamaica -3,723 m3/d T&T - 2,909 m3/d Guyana- TBD	1,675 m3/day – Belize	Belize and Jamaica are still in construction. On completion these will be treating nearly 7,000 m³/day. The Guyana works are still at the final negotiation stage (the private sector company expects to be connecting 50 houses, a hotel and leisure park)

Project objective and Outcomes	Description of indicator	Baseline level	End-of-project target	Level at 30 June 2016	TE Comments as of June 2016
	Number of countries that have developed reforms to support implementation of the LBS Protocol.	0 countries	8 countries.	3 – baseline studies were completed in all the participating countries. Based on this, country specific and capacity support was provided through SSFAs to enable reforms to take place. Countries to benefit include Saint Lucia, Antigua, Trinidad, Barbados and Guyana. Panama, Jamaica and Surinam will be completed by the end of 2016	The baseline studies have been very important in guiding the needs assessments for the CReW countries. The SSFAs have suffered delays (UMOJA) and in some cases the countries have considered the resources too small to enable the countries to undertake the assignments (e.g. Costa Rica and Belize). But in general there have been many benefits from the SSFAs and the regional sharing of information between countries.

Project objective and Outcomes	Description of indicator	Baseline level	End-of-project target	Level at 30 June 2016	TE Comments as of June 2016
	Number or plants complying with effluent standards. (Improvements in the effluent quality indicators) (biological oxygen demand (BOD) levels, nutrient levels, faecal coliforms, and suspended solids)	O plants	7 plants National standards and where absent LBS protocol used for domestic wastewater effluent limits for the appropriate class of water, where appropriate. 24 Class 1 Waters: BOD5 – 30 mg/L TSS – 30 mg/L pH – 5-10 Faecal Coliforms – 200 mpn/100 ml Class 2 Waters: BOD5 – 150 mg/L TSS – 150 mg/L pH – 5-10	Belize Retroactive finance and first phase under contraction. 8 WWTW under construction/ rehabilitation in Jamaica	The Belize WWTW is operational providing monthly data on a range of water quality parameters (summarised in the TE report). Typical monthly data: BOD <25 mg/l; SS <40 mg/l; with a low coliform count after UV disinfection (40 – 500 colonies/100ml) Jamaica – construction is expected to be completed by the end of the project, but commissioning and evaluating the performance of the WWTW will take several months Guyana (subject to final agreement on the loan) – one small WWTW will be constructed within 3 months of the loan (using a packaged plant)
²⁴ Final target for e	ach project to be det	ermined based on lo	Faecal Coliforms – al _{/S} tandards, LBS pr	ptocol and other env	ironmental factors.

Project objective and Outcomes	Description of indicator	Baseline level	End-of-project target	Level at 30 June 2016	TE Comments as of June 2016
Outcome 5: Improved local and national capacity for wastewater management.	Number of institutions participating in capacity building activities for wastewater management	0 Institutions	7 institutions	8 institutions	HS
Outcome 6: Improved stakeholder awareness about acceptable, sustainable and cost-effective wastewater management solutions	Number of participating organizations in awareness building activities	0 organizations	40 organizations.	30 organizations	75% of target achieved MS
Outcome 7: Increased demands for piloting FMs in the WCR.	Requests for establishment for FMs in WCR.	0 Requests	3 Requests	4 (from Costa Rica, Saint Lucia, Panama, Antigua)	Target exceeded. In addition, existing PFM countries also expressed continuing interest in continuing to pilot PFMs

Project objective and Outcomes	Description of indicator	Baseline level	End-of-project target	Level at 30 June 2016	TE Comments as of June 2016
Outcome 8: Increased use and management of information on wastewater management in	Percentage of workshops participants that perceive that their knowledge has increased.	0 %	75%	75%	Target achieved S
the WCR.	Establishment of new information sharing mechanism.	No mechanism.	1 mechanism	A new website developed and launched & currently enhanced with visualization tools	In addition to the website, information on regional /national approaches to WW policies and legislation have been shared through UNEP CAR/RCU with a dedicated Dropbox. Pilot countries visited expressed their satisfaction with the availability of this information
	Number of hits on the web site.	0 hits/year	800 hits/year	5,135 hits/year	Target exceeded HS
Outcome 9: Effective project monitoring and	Timely submission of M&E reports by the EAs	N/A	75% submitted on time	75%	Target achieved S

Project objective and Outcomes	Description of indicator	Baseline level	End-of-project target	Level at 30 June 2016	TE Comments as of June 2016
oversight	Members of the Steering committee participating in the meetings	0 %	75%	93% - PSC meetings are well attended	Target exceeded HS
Outcome 10: Effective project management and coordination	Grade obtained at medium and terminal evaluation.	0	Positive at medium and terminal	Overall Satisfactory	The TE rates the CReW as Satisfactory
Outcome 11: Improved policy, legal and institutional frameworks	Number of countries with improved policy, legal and/or institutional frameworks	0	5 countries	3 Countries with improved policy (Guyana, Barbados and Saint Lucia) and others in progress to be completed by the end of the project (Jamaica and Surinam)	Target met S

Project objective and Outcomes	Description of indicator	Baseline level	End-of-project target	Level at 30 June 2016	TE Comments as of June 2016
Outcome 12: Strengthened Capacity for wastewater management in the WCR	Numbers of persons trained on selected wastewater management issues	0	500	430	>85% of target met
Outcome 13: Increased awareness of wastewater and sanitation issues by selected target groups	Awareness of wastewater issues.	TBD (2013)	TBD	KAP baseline surveys done for 2 different groups (Media, Regional Waste Water fraternity (e.g. CWWA) pending identification of a rural community	It is noted by the TE that neither a baseline nor an end of project target was established for this Outcome. Therefore, it is not possible to assess the achievements in a quantified means. Although the 2015 PIR did qualify the achievement of this outcome as 'S'
					This is discussed in the M&E section
					MU (due to the absence of baseline and target)

Project implementation progress

Outputs	Progre ss rating 12-13	Progre ss rating 13-14	Progres s rating 14-15	TE Comments as of June 2016
	Informa PIRs	tion taker	n from	
Output 1: (SC. I.1) Financing mechanisms established	S	S	S	4 PFMs established. S
Output 2: (SC I.2.1) First generation projects designed	MS	MS	S	Projects designed (3 Belize; 8 Jamaica; 1 Guyana; 1 TT) - S
Output 3: (SC I.3.1) Technical capacity provided	HS	HS	HS	Completed - S
Output 4: (SC II.1.1) Documented policy & legal reforms & institutional strengthening for wastewater management at national and local levels	S	S	S	80% Complete (delays due to UMOJA in four Spanish speaking countries - others completed) - S
Output 5: (SC II.1.2) Country reports demonstrate improved implementation of the LBS Protocol, and in particular its Annex III on domestic wastewater	S	S	S	90% completed – Panama activities will be completed by Dec 2016) - S
Output 6: (SC II.1.3) Valuation for selected coastal resources in two pilot countries	MS	MS	S	100% completed - S

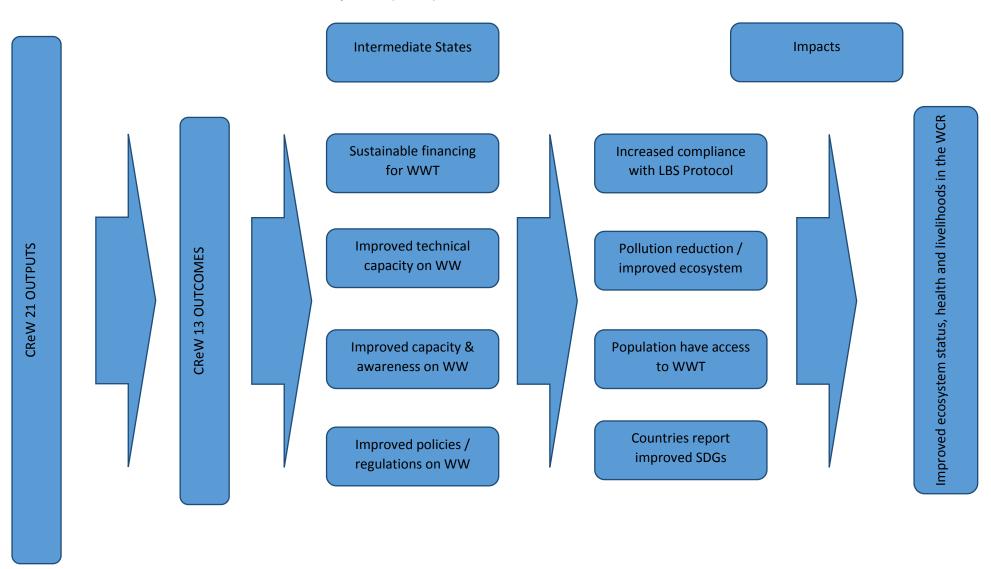
Outputs	Progre ss rating 12-13	Progre ss rating 13-14	Progres s rating 14-15	TE Comments as of June 2016
	Informa PIRs	tion taker	n from	
developed				
Output 7: (SC II.1.4) Documented improvements in financial capacity of wastewater management utilities and service providers	S	S	S	90% Complete SSFA with Antigua and Barbuda to be completed by Aug 2016, with online courses completed in Jamaica delivered in 2015 (together with an online course available in both languages) - S
Output 8: (SC II.1.5) Guidelines and best practice modalities for civil society involvement in wastewater management	S	S	S	100% Completed - S
Output 9: (SC II.1.6) Detailed implementation plan (resources, budget & timetable) for a Monitoring, Evaluation and Reporting (ME&R) system	N/A	N/A	MS	A working group has been established that advised that rather than creating a new database a study of existing platforms should be undertaken with recommendations for future options for the follow-on project. 100% completed - S
Output 10: (SC II.1.7) Training programmes for wastewater professionals	S	S	S	100% completed. All scheduled workshops completed. Training centre at UTECH strengthened with face-to-face training programmes and online courses available for use in follow-on projects. HS
Output 11: (SC II.2.1) Regional toolkit of templates for wastewater management	S	S	S	100% Completed. This was linked with the wastewater templates. SSFA support for direct legislative support. (Countries supported included Antigua, Barbados and

Outputs	Progre Progre Progres ss ss srating rating rating 14-15 12-13 13-14		s rating	TE Comments as of June 2016
	Informa PIRs	tion taker	from	
drafting instructions				Guyana according to needs of country at this stage) - S
Output 12: (SC II.2.2) Training workshops for enforcement personnel	S	S	MS	80% completed. Training courses in Spanish speaking countries – pending. All workshops targeting judiciary completed. MS- S
Output 13: (SC II.2.3) Regional training on enforcement of wastewater management legislation	S	S	MS	Training delayed due to UMOJA (but anticipated to be completed by end of 2016) Where appropriated, training completed in English speaking countries, however delays in Spanish speaking countries. MS- S
Output 14: (SC II.3.1) Increased focus on wastewater management issues by national leadership from improved awareness of wastewater issues.	S	S	S	100% completed. S
Output 15: (SC II.3.2) Increased coverage of wastewater and sanitation issues in the media from improved awareness of wastewater issues	S	S	S	Significant publications, printed, web and video. HS
Output 16: (SC II.3.3) Increased awareness of wastewater and sanitation issues in selected communities	N/A	N/A	MS	50% completed. Administrative delays in Antigua (due for completion in August) and no activities in SVG. MS

Outputs	Progre ss rating 12-13	Progre ss rating 13-14	Progres s rating 14-15	TE Comments as of June 2016
	Informa PIRs	tion taken	from	
Output 17: (SC II.3.4) Recommendation for enhancing incorporation of wastewater management issues into CXC curricula developed.	S	S	MS	This work has faced lack of interest from countries. However, some material that was considered beneficial aimed enhancing curricula will be completed by the end of the project. MS
Output 18: (SC III.1) PFMs, demos and overall project activities, documented through lessons learned, experience notes, and feature articles, that highlight the potential for replication of the CREW project	S	S	S	100% completed. Case studies and experience notes prepared. S
Output 19: (SC III.1.2) Replication strategy developed	S	S	S	100% completed. The output will greatly benefit follow- on projects (all members of PSC 4 participated in the discussions and material has been generated from all components of the project). S
Output 20: (SC III.1.3) Increased dialogue among regional wastewater stakeholders through a series of stakeholder consultations.	S	S	S	100% Completed. Significant high-level presentations of the CReW at CWWA, Caribbean Association of Water Utilities, High level Ministerial Session, PAHO meeting in Barbados, CARICOM Ministers of Environment meeting, CWWA Conference and High Level Session in Trinidad, LBS STAC in Miami, etc. HS
Output 21: (SC III.2) Increased access to and use of information related to wastewater	S	S	S	100% Completed. Sustainability of material is being assured by transferring website to UNEP and maintained

Outputs	Progre ss rating 12-13	Progre ss rating 13-14	Progres s rating 14-15	TE Comments as of June 2016
	Information taken from PIRs		n from	
management through development of a 'Clearing House Mechanism' (CHM) for the WCR				by CEP. This will serve as a clearing house mechanism for information for future proposed follow-on projects. S

Annex 9 Review of Outcomes to Impacts (ROtl)



Simplified outputs and outcomes

Expected Main Outputs	Expected Outcomes	Rating (D-A)	Drivers and Assumptions	Intermediate States	Rating (D-A)	Anticipated likely Impacts	Evidence of Impacts	Overall Rating
Testing of pilots and generation of lessons Countries express demand for to replicate approaches Documented improvements on financial capacity or WW providers	Improved access and demand to WW financing	A	 Enabling conditions (policies, institutions, etc.) in- place Regional compliance with LBS Protocol 	National strategies for financing WWT	A	 New and improved national policies and practices on WWT Improved compliance with LBS Protocol 	+	AA +
Number of institutions participating in WW capacity building exercises Training programmes for WW professionals PFM operating manuals	Improved technical and policy capacity to address WW issues	В	 Recognition of need for additional capacity Available candidates to be trained 	Trained personnel available	A	 Reduced pollution / improved ecosystems / strengthened livelihoods Informed public /authorities 	+	BA +
• Completion of at	• Reduced LBS	A	National and	Reduced pollution	A		+	AA

Expected Main Outputs		Rating (D-A)	Drivers and Assumptions	Intermediate States	Rating (D-A)	Anticipated likely Impacts	Evidence of Impacts	Overall Rating
least 1 WWTW in Belize and 8 in Jamaica by end of project. Country reports on LBS implementation Training programmes for WW professionals	pollution to coastal waters		regional legislation adopted and enforced					+
 Training on enforcement on WW legislation Toolkits for drafting legislation Sharing of national information on approaches to WW reduction 	Improved policy, legal and institutional frameworks	A	National and regional legislation adopted and enforced	• Increased ratification of Cartagena Convention LBS Protocol	В		+	AB +
Valuation of coastal resources Guidelines for involving civil	Improved awareness on WW issues in WCR	В	 Media willingness to pursue topic Engaged civil 	Civil society, WW operators and authorities better informed to make	В		+	BB +

Expected Main Outputs	Expected Outcomes	Rating (D-A)	Drivers and Assumptions	Intermediate States	Rating (D-A)	Anticipated likely Impacts	Evidence of Impacts	Overall Rating
society in WW management			society • Uptake of lessons	decisions on WW issues				
Increased media coverage of WW			and experiences by wider GEF IW community					
Documenting lessons and experiences from the CReW			Community					
Increased access to WW information								
Overall Rating							+	AB

Table 1. Rating scale for outcomes and progress towards 'intermediate states'

Outcome Rating	Rating on progress toward Intermediate States
D: The project's intended outcomes were	D: No measures taken to move towards
not delivered	intermediate states.
C: The project's intended outcomes were	C: The measures designed to move towards
delivered, but were not designed to feed	intermediate states have started, but have not
into a continuing process after project	produced results.
funding	
B: The project's intended outcomes were	B: The measures designed to move towards
delivered, and were designed to feed into	intermediate states have started and have
a continuing process, but with no prior	produced results, which give no indication that
allocation of responsibilities after project	they can progress towards the intended long term
funding	impact.
A: The project's intended outcomes were	A: The measures designed to move towards
delivered, and were designed to feed into	intermediate states have started and have
a continuing process, with specific	produced results, which clearly indicate that they
allocation of responsibilities after project	can progress towards the intended long term
funding.	impact.

Thus a project will end up with a two letter rating e.g. AB, CD, BB etc. In addition the rating is given a '+' notation if there is evidence of impacts accruing within the life of the project. The possible rating permutations are then translated onto the usual six point rating scale used in all UNEP project evaluations in the following way.

Table 2. Shows how the ratings for 'achievement of outcomes' and 'progress towards intermediate states translate to ratings for the 'Overall likelihood of impact achievement' on a six point scale.

Highly	Likely	Moderately	Moderately	Unlikely	Highly
Likely		Likely	Unlikely		Unlikely
AA AB BA CA	BB CB DA DB	AC BC CC+	CC DC AD+	AD BD CD+	CD DD
BB+ CB+ DA+	AC+ BC+	DC+	BD+	DD+	
DB+					

Annex 10 - The CReW Project – an important lesson for the future followon action.

The CReW project is in the process of capturing and summarising the significant experiences gained from implementing the PFMs, the capacity development actions (including, e.g. resource valuation) and the outreach and communication activities. The documents (The CReW Experience) are being produced in clear and accessible style to maximise their uptake by decision makers, private sector, wastewater operators, public, etc., and will guide the upscaling and replication of the many positive experiences achieved through the CReW project. These summary documents have been prepared with broad input from multiple stakeholders over the last year of the project. The TE highlights specific lessons (section 4.3) that encapsulate the important role of the CReW, as an experimental project testing innovative financial mechanisms, that will assist with the design and implementation of the proposed follow-on project. Several topics were raised during the TE mission and these are well documented by the project (The CReW Experiences), however, in the opinion of the TE, the most significant lesson for the follow-on project relates to the importance of the Enabling Environment for Wastewater Management necessary to ensure the effective utilisation of the innovative financing approaches employed facilitate infrastructure enhancements.

'Enabling Environment' refers to the presence of necessary policies, legislation, governance, institutional structures and capacity, and that the means for addressing on-going financing needs (i.e. tariffing arrangements for services) are in place before infrastructure investments begin. This lesson was most clearly identified in the Guyana PFM with the messages reinforced by experiences in Jamaica and Belize, and reinforces the essential elements of capacity building and awareness raising in support of the investment actions.

- In Guyana the lack of effective policy and legislation (and the corresponding resources to
 monitor and enforce regulations) was considered to be a disincentive for private sector
 organisations implementing wastewater treatment, thereby not creating demand to access the
 revolving fund established by the project.
- In Belize the government has continued to take steps to strengthen the enforcement framework, particularly on effluent standards. The pilot action in Belize demonstrated the clear need for the parallel actions by CReW components 2 and 3 to support policy reforms and strengthen capacity to effectively enable the establishment and successful operation of the pilot financing mechanism.
- Jamaica had an established regulatory process with regards to wastewater management and
 this has been instrumental in the success of the pilot financing mechanism testing. Through the
 CReW (and in particular Component 2) tools have been developed regionally to assist
 wastewater managers (e.g. Wastewater Management Policy Toolkit) to continue to improve
 their capacity in developing and implementing wastewater management policies.
- The TE also notes that pre-existing tariffing arrangements were largely in-place in Belize and Jamaica providing an effective mechanism to replenish the financing fund (in Belize) or to replay the commercial loan (in Jamaica). The presence of the arrangements to charge customers for the service of wastewater treatment provides a clearer route to sustainability for the PFMs in these countries.

Annex 11 Brief CV of TE Consultant

Dr Peter Whalley is a physical chemist who has been working in water and environment management for over 25 years. He has extensive experience of developing appropriate water monitoring networks, nutrient management plans, implementing training programmes and providing trans-boundary support in a range of countries. He has been involved with the development, implementation and compliance checking of the EU Water Framework Directive. For the last ten years he has been working on over 20 GEF funded International Waters programmes.

These have included the Danube Regional Project, Tisza River integrated land-water management, Lake Prespa Strategic Action Programme (SAP), Caribbean Large Marine Ecosystem SAP, Amazon, Nubian Aquifer SAP. In addition, he has assisted with project preparation (development of project documents), mid-term and terminal evaluations for a number of GEF IW projects. Specifically, he has been involved in evaluations for GEF International Waters and the Biodiversity Focal Areas including: UNDP Orange River, UNEP/LOICZ Target Research Project, UNEP IWCAM (Caribbean), UNEP/UNDP Pacific IWRM, UNEP Amazon, UNEP Upper Yangtze Biodiversity, UNEP Amazon, UNDP Albania Marine Protected Areas, in addition to evaluation for EU funded activities. For the last four years he has assisted UNDP's Evaluation Office perform annual quality assessments of terminal evaluations.

Annex 12 Responses to Comments on the Draft TE Report

All comments from the reviewers were accommodated in minor modifications to this report.