

PART 1 : PROJECT IDENTIFICATION

CRew Project Results Framework

Project Components	Type	Expected Outcomes	Expected Outputs	Indicative GEF Financing (\$)	%	Indicative Co-Financing (\$)	%	TOTALS
Financial Mechanism for Funding Wastewater Projects in the Caribbean		Development of Proposals and Options for Funding Mechanism's Design and Criteria for its Functions	Pre-Feasibility Study to estimate financial resources in the region			30,000		
		Establishment of Caribbean Revolving Fund for Wastewater Management (CRew)	Design of Institutional Set-Up and Capacity					
		Stakeholders fully participatory in CRew Final Design	Stakeholder Forums throughout the Region					
Sustainable Capacity for Management of Projects Financed by CRew**		Increased capacity and skills developed and maintained for managing CRew projects	Training, technical assistance, horizontal exchanges and strengthening coordination among diverse stakeholders					
Monitoring and Evaluation to Capture Best Practices		Replication of successful projects on the ground.	Monitoring of performance and impact to provide information in terms of best practices and lessons learned.					100,000,000

PART II : PROJECT JUSTIFICATION

A. THE ISSUE : HOW THE PROJECT SEEKS TO SOLVE IT, AND GLOBAL ENVIRONMENTAL BENEFITS

The degradation of the Caribbean marine environment is a serious concern for those countries whose livelihoods depend heavily on its resources. UNEP-GPA's October, 2006 Report on the "State of the Marine Environment" singled out untreated wastewater entering the world's oceans and seas as the most serious problem contributing to marine pollution, putting at risk human health and wildlife and livelihoods from fisheries to tourism. According to the report, in Latin American and the Caribbean, it is estimated that the percentage of wastewater entering the Sea untreated is as high as 85%¹. High rates of sedimentation and pollution (including municipal, industrial and agricultural wastes and run-off, as well as atmospheric deposition emanating from such land-based activities), affect the ecosystems' health, and together with untreated wastewater, have been identified as the most serious threats to the above mentioned degradation.

Efforts to install cost efficient wastewater facilities at different scales have been hampered –among others— by the lack of adequate financial resources specifically dedicated to this purpose. Therefore, there is an urgent need to now develop and / or strengthen innovative financial mechanisms for financing projects and activities for addressing these critical issues.

In response to the above mentioned situation, and taking into account some successes and failures of experiences supported by the GEF and other internationally financed programs regarding land-based pollution of coastal and marine environments, the Inter American Development Bank (IDB) and the United Nations Environment Program (UNEP) are proposing the creation of a Caribbean Revolving Fund for Wastewater Management (CReW) to include 3 components: (i) the establishment of an innovative financial mechanism that enables the national / local governments as well as private sector / civil society stakeholders of the Caribbean Basin to co-finance projects / activities aimed at helping them to address wastewater management (the Caribbean Revolving Fund for Wastewater Treatment or "CReW"); (ii) a regional coordination, communications and capacity building component for promoting learning, information exchange and institutional strengthening at the regional level; and (iii) a monitoring and evaluation component that will produce and analyze the information necessary to measure the performance of the CReW towards achieving its global environmental objectives, encouraging at the same time direct and indirect financial support as a result of documented good practices and lessons learned.

Sewage related issues are a major trans-boundary concern of the countries in the region, and addressing such a major issue could include the following global environmental benefits among others: (i) an overall improvement in the status of the Caribbean Basin's marine and coastal resources, including improving the well-being of people who depend on the conservation of habitats which sustain fisheries production, tourism and other sectors; (ii) an enhancement of pollution control in the Caribbean Basin (coastal and marine waters) by leveraging resources for investments in land-based pollution reduction as well as through the removal of technical, institutional and financial barriers; (iii) reduction in the incidence of disease caused by waterborne pathogens; (iv) an advance in the assessment of marine and coastal ecosystems' health as a result of investments as a fundamental basis for sound decision-making. The combined actions of the Project will reduce marine environmental degradation, strengthening long-term, sustainable protection of strategic and coastal ecosystems such as wetlands, interior estuaries, mangroves, as well as their associated watersheds, drainage basins and near-shore coastal waters that have been declared to be of global importance.

B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL PRIORITIES/PLANS

¹ GPA State of the Marine Environment Report – October, 2006

The Countries of the Wider Caribbean Basin² (the "*Caribbean Basin*") demonstrated their support for efficient and effective domestic waste water management by ratifying the Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region, also known as the Cartagena Convention, adopted in Cartagena, Colombia on 24 March 1983, and signing the Protocol on Land based Sources of Marine pollution (LBS Protocol), which was adopted on October 6, 1999. Both of these legal instruments set ambitious goals to govern domestic sewage discharges into the waters of the wider Caribbean. Accordingly, Annex III of the LBS Protocol was designed to meet these goals by providing sewage effluent quality guidelines, criteria for classification of receiving waters, and timetables for countries to implement appropriate wastewater treatment services.

The countries in the region recently publicly recognized the need to strengthen mechanisms for financing projects and activities designed to meet these obligations. During the 12 Intergovernmental Meeting (IGM) on the Action Plan for the Caribbean Environment Programme, held in Jamaica on December 2, 2006, a specific decision was approved, requesting the Secretariat: "*to continue efforts to develop innovative financial mechanisms such as the Caribbean Revolving Fund for Wastewater Management to assist countries in meeting the obligations of the Cartagena Convention and in particular the Land Based Sources of Marine Pollution Protocol*".

C. CONSISTENCY OF THE PROJECT WITH GEF STRATEGIES AND FIT WITH STRATEGIC PROGRAMMES

The project will contribute to the GEF 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*) and the Strategic Program II (*reducing nutrient over-enrichment and oxygen depletion from land-based pollution of coastal waters in LMEs consistent with GPA*) for GEF-4 within this focal area via: (i) the design and execution of financial innovative mechanism(s) for supporting stakeholders to establish or expand domestic wastewater management systems based on realistic, cost-effective and environmentally sound means, by filling financing gaps not covered by other sources; (ii) within the previous point, the possibility of leveraging additional financial resources for scaling-up the implementation of activities and projects for pollution control whose cost/effectiveness have been monitored, therefore contributing to the recovery of regional fisheries and other coastal resources needed for the health, well-being and, in some cases, the very survival of coastal populations; (iii) the support for national/local policy, legal and institutional reforms aimed at expanding foundational capacity building to reduce land-based pollution through integrated approaches, as well as foster replication through targeted learning for the IW portfolio by means of promoting the dissemination and adoption of emerging issues for managing transboundary waters in a cross-sectoral manner.

D. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES

E. DESCRIBE THE INCREMENTAL REASONING BEHIND THE PROJECT

According to the Pan American Health Organization (2001), 51.5% of households in the Caribbean Region lack sewer connection and only 17% of these are connected to acceptable disposal systems (without considering the pollution and sedimentation provided by the tributary watersheds). The most severe consequences that have been recognized are: (i) public health threat due to microbial contamination which contributes to at least a half-million cases of illness a year from impure drinking water; and (ii) negative affectation of the marine environment, which includes pollution of coastal waters and damage of fragile coastal resources such as coral reefs.

Despite the recognition of the need to address domestic wastewater management issues in the Wider Caribbean, small communities in particular, often find it difficult to obtain affordable financing for wastewater infrastructure improvements. Many low-technology wastewater treatment systems suitable to the needs of the region do require some capital investment. However, there is a lack of regional commitment to marshaling the assets of both the public and private sectors and directing them to the reduction of water pollution in the region. Moreover, donor

² *Wider Caribbean Basin*, for the purposes of the present discussion, commonly refers to those countries having ratified the Cartagena Convention (Antigua, Barbuda, Barbados, Belize, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Grenada, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Saint Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, and Venezuela)

countries and international development have historically favored wastewater projects in major metropolitan areas, and have not mounted any significant programs to deal with the wastewater treatment needs of secondary cities and rural areas. Furthermore, other than a few exceptions (i.e. International Finance Corporation which deals with the private sector, the European Bank for Reconstruction and Development and the Inter American Development Bank) these institutions do not have the capability of making loans to sub-sovereign entities.

In addition to limited financial resources, another critical constraint which diminishes the ability of the countries to effectively reduce pollution within the Caribbean Basin, is the lack of capacity of the institutions, as well as inadequate political and regulatory frameworks for managing land-based pollution of coastal and marine waters.

Unless the region can address these issues and find alternative sources of financing, the wastewater treatment needs of secondary cities and smaller towns, villages and communities, will continue to be neglected. The result will be the continued degradation of the region’s marine environment, further damaging its coral reefs, which cover 26,000 km², protect 20% of the Caribbean coastline, and represent 11% of the world’s corals. An inability to reduce pollution discharges in the Caribbean coastal waters will continue to jeopardize the well being of its inhabitants, who are highly dependent on a healthy coastal and marine environment to reduce the incidence of disease caused by waterborne pathogens, to provide their livelihoods (i.e. tourism, fisheries etc.), and to play a role in reducing the impact of extreme events.

The CReW intends to provide a solution through the removal of financial, technical and institutional barriers, in the framework of advancing towards the fulfillment of the obligations of the Cartagena Convention and its Protocols. To contribute to this long-term goal, the objective of this project is to reduce land-based pollution discharge associated with wastewater, that has a negative impact in the Caribbean Basin, through an innovative regional financial mechanism and associated capacity building. The underlying rationale for the Fund is to assist countries to establish or expand domestic wastewater management systems based on realistic, cost-effective and environmentally sound means, and to fill financing gaps not covered by other sources. The CReW will be the focal point for all stakeholders concerned with water quality in the region, and will work with regional NGOs to mobilize government, the private sector and general public support for basic sanitation projects. The CReW will not compete with any international financial institutions, but rather will complement their programs throughout the region. Through the strengthening of the appropriate frameworks (policy, legal, institutional) and the constant monitoring of the effectiveness and impacts of the investments supported by the financial component, stakeholders at different levels (governmental, private, communitarian on the demand side, and donors on the supply side) will have accurate information to enhance their involvement with the Fund either as users of their services, or as providers of support for the financial mechanism.

F. RISKS AND MITIGATION REASONING

Identified Risk	Risk Mitigation
<p>Considering that innovation and testing of new technologies brings certain levels of risk that neither countries nor private investors could bear on their own, the lack of risk mitigation facilities which constrain investment in wastewater treatment and disposal facilities is a major risk. Throughout the developing world, there has been very little private investment in the water and wastewater sector, and one of the major reasons for this is the perceived high risk of loss.</p>	<p>This perception is, in many cases, accurate, but there are many other cases where it is not. In these cases, the perception is based on lack of knowledge or familiarity with wastewater utility finances in general and of the financial condition of a given wastewater system seeking to borrow in specific. One of the key elements of the financial component will be its involvement with the private sector financial services industry in each country or appropriate sub-regional / regional financial institutions. In addition –although it will be refined during the designing stage— the financial component would look for issuing financial guaranties, and it is expected that the private sector investors can participate in the projects approval process. This will directly mitigate the risk of participating private sector lenders, and will indirectly mitigate the risk of private sector investors by diffusing the risk among many investors (including the GEF).</p>

<p>No effort of any kind to abate water pollution will survive without the political will of the participating governments.</p>	<p>The mere existence of the financial mechanism will not compel any government to participate, but it will offer them a highly efficient, highly-leveraged means of dealing with a growing problem that they have pledged to address through their adherence to the Cartagena Convention and in particular the Land Based Sources of Marine Pollution Protocol. Similarly, considering that many countries in the Caribbean Region now have cadres of NGOs dedicated to improving the life of the people, the involvement of regional environmental NGOs will be also critical to the success of the Project. Efforts will then be expended to provide the NGOs capacity-building assistance and training, so that they can undertake sustainable water/wastewater projects. This will be begun during the PPG phase, when the resources and capabilities of regional NGOs will be assessed. It will be continued when the Project is operational. Moreover, a major focus will be on engaging overall public and community support and also to demonstrate the value of wastewater improvements to human health and economic livelihoods.</p>
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G. EXPECTED COST-EFFECTIVENESS OF THE PROJECT

The project intervention will emphasize cost-effectiveness by: (i) capitalizing on the lessons learned –both positive and negative— derived from other GEF initiatives that have similar execution schemes on LMEs worldwide; (ii) being aligned with the IDB Water and Sanitation Initiative³, which aims at extending access to water and sanitation services and to protect water resources, water decontamination and wastewater treatment, by supporting national and local authorities and other stakeholders in making use of the full range of potential partners, including other bilateral and multilateral organizations, the local and international private sector, bilateral donors and charity organizations, and local and national governments to develop investment plans, address critical needs and priority reforms, and effectively extend coverage for the protection of water resources, water decontamination and wastewater treatment; (iii) taking advantage of the fact that UNEP exerts as the Technical Secretariat of the Convention for the Protection and Development for the Marine Environment for the Wider Caribbean Region, which facilitates specific country-based activities, at the same time that enables a more efficient regional coordination; and (iv) promoting long-term shifts in investments and expenditure by private, public and international cooperation stakeholders, in favor of measures that will counteract the emerging trends towards the Caribbean Basin’s environmental degradation, and thus prevent further negative impacts that are likely to be more costly to mitigate once they appear.

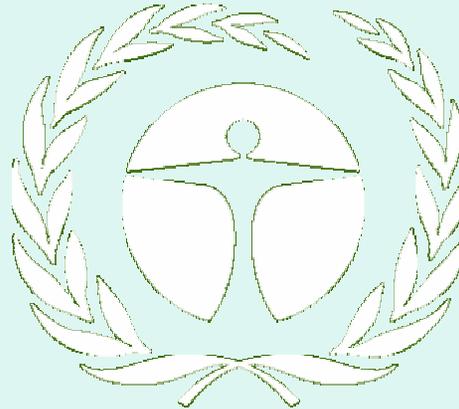
H. JUSTIFY THE GEF AGENCY COMPARATIVE ADVANTAGE

The Agencies’ comparative advantage for implementing this project is: (i) UNEP, due its role within the UNEP/GPA’s Regional Seas Programme in the Wider Caribbean, could provide to this GEF project a range of relevant experiences and testing of ideas to assist the countries in the region in the planning for upgrading of existing sewage treatment needs, as well as in priority setting for new systems; and (ii) IDB, considering its wide experience in financing sewage and treatment water systems in the LAC Region, could provide to this GEF project innovative financial mechanisms and leveraging additional funds to implement these systems.

³ Which also complements the United Nations Hashimoto Action Plan (http://www.unsgab.org/Compendium_of_Actions_en.pdf), that promotes accelerated actions for achieving the MDG water and sanitation targets.



United Nations Environment Programme



Caribbean Revolving Fund for Wastewater Management (CReW)

A Recognized Need

- Untreated wastewater – Most Serious Problem
- 85% in Latin America and the Caribbean is Untreated
- Destruction of essential coastal ecosystems
–mangrove forests, coral reefs and sea grass beds.

[\[i\]](#) *GPA State of the Marine Environment Report – October, 2006*

Region has Set Goals for Domestic Sewage Discharges into the Caribbean Sea

- Annex III of the LBS Protocol:
 - Sewage effluent quality guidelines
 - Criteria for Classification of receiving waters
 - Timetables to implement wastewater treatment.

Lack of Financial Resources in the Region for Wastewater Management Facilities

To Meet the Goals of the LBS Protocol:

- Develop and/or strengthen project financing mechanisms:
 - Environmental sanitation
 - Wastewater investment plans

Caribbean Revolving Fund for Wastewater Management (CReW): An Innovative Financing Mechanism for Wastewater Management in the Wider Caribbean

- Public and private sectors and civil society
- Independent, Regional Funding Mechanism
- Community needs
- Cost effective
- Environmentally Acceptable and
- Fill financing gaps

Why A Revolving Fund?

- Key feature: Increase Leverage on Original Investment.
 - Initial grant made
 - Funds lent to wastewater projects
 - Initial funds “revolve” back
 - Funds re-loaned for new projects
 - Leverages more funds than a single project grant.

Characteristics of the CReW

- *Revolving Fund Mechanism*
- *Thematic Specialization*
- *Limitation in Scope*
- *Community-based Appropriate Technologies*
- *Streamlined Structure*

Benefits: Overall Improvement of Caribbean Basin's Marine and Coastal Resources

- ✓ Reduction in the incidence of disease caused by waterborne pathogens;
- ✓ Enhancement of pollution control in the Caribbean;
- ✓ Improvement of habitats which sustain fisheries production, tourism and other livelihoods;
- ✓ Advance in assessment of conditions of marine and coastal ecosystems.

Examples of Projects to Be Funded

- Construction of engineered wetlands;
- Installation of new waste treatment plants;
- Renovation/Replacement of outmoded waste treatment facilities;
- Extension of publicly-owned wastewater treatment facilities to outlying rural areas;
- Design of prevention maintenance programs;
- Development of Operation and Maintenance Manuals.

Political Legitimacy and Support for CReW in the Region

- **Jamaica, December 2, 2006:** At 12th Intergovernmental Meeting (IGM) on the Action Plan for the Caribbean Environment Programme, specific decision approved, requesting the Secretariat:
 - « *To continue efforts to develop innovative financial mechanisms such as the Caribbean Revolving Fund for Wastewater Management to assist countries in meeting the obligations of the Cartagena Convention and in particular the Land Based Sources of Marine Pollution Protocol ... »*

Moving Forward: Pre-Feasibility Study

Assess regional funding needs and options:

- Wastewater Needs Assessment
- Financial Resource Assessment

Moving Forward: Pre-Feasibility Study

End result: Background Information for the Development and Implementation of the Revolving Fund.

Moving Forward: Full Size Joint UNEP/IDB GEF Project

- Proposal: “Testing a Prototype Caribbean Revolving Fund for Wastewater Management (CReW)” with 3 Components:
 - Establishment of an innovative financial mechanism;
 - Regional coordination, communications and capacity building component;
 - Monitoring and evaluation component.

Moving Forward: Full Size Joint UNEP-IDB GEF Project

- Proposal to be submitted to the Global Environment Facility (GEF) in August, 2008, in connection with the GEF International Waters Strategy; Strategic Priority 2 on Nutrient Enrichment and Eutrophication in Coastal Waters.
- In Parallel, Letters of Endorsement to be Solicited from the 28 Countries of the Wider Caribbean.

The Last Word

- **The objective of the Caribbean Revolving Fund for Wastewater Management (CReW) is to work actively towards diminishing land-based pollution discharge associated with wastewater, thereby reducing nutrient loading of the Caribbean Sea, through a regional financial mechanism and associated capacity building.**
- **The (CReW) can provide an option for the financing of environmental and sustainable development actions in the region, and a valuable source of funding, to communities who would otherwise have little chance of building or upgrading their wastewater treatment facilities.**
- **Innovative financing mechanisms are the key to sustainable solutions.**

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