# REIMBURSABLE TECHNICAL COOPERATION PROFILE

### **BARBADOS**

## **FEBRUARY 4, 2004**

### I. BASIC DATA

**Project name:** Institutional Strengthening for the Water and Sanitation Sector

and Studies for the West Coast Sewerage Project

**Project number:** BA-L1001

**Project team:** Sergio Campos (RE3/EN3); other members: Efraín Rueda,

(RE3/EN3), Manuel Pizarro, (RE3/EN3), Fernando S. Bretas, (RE3/EN3), Rubén D. Avendaño (RE3/EN3), L. Víctor Traverso

(RE3/EN3), and Adelina Perez del Castillo(RE3/EN3).

**Borrowe r:** The Government of Barbados

**Date of Request:** September 29, 2003

**Beneficiaries:** The Barbados Water Authority and the Fair Trading Commission

**Executing agency:** Ministry of Finance and Economic Affairs

Financing plan: IDB: (OC) US\$ 2.200.000

Local: US\$ 500.000 Total: US\$ 2.700.000

**Tentative dates:** LCD: February 3, 2004

COW: February 25, 2004

## II. BACKGROUND AND PROBLEM STATEMENT

2.1 Barbados is ranked among the top fifteen countries in the world in terms of water scarcity with only 390 m³ of fresh water available per capita per year. Further development, as is currently the case with a proliferation of requests for tourist developments (golf courses, hotels, etc) is constrained by the scarcity of fresh water. Hence the Public Utility, the Barbados Water Authority, water losses have escalated to more than 50% as a result of deferred infrastructure maintenance, unplanned growth in the network, and inadequacies in the operation of the system.

In addition, concerns over public health resulting from the deterioration of bathing beach water quality on west coast beaches and its impacts on tourism - the number one economic generator for Barbados - in conjunction with eutrophication of nearshore waters and destruction of coral reefs have caused the Government to consider building the West Coast Sewerage System. Consequently, there is a pressing need for an efficient use of the existing water available, given the increasing demands for water, as well as a thorough review of the West Coast sewerage project which is part of the Bank's pipeline for 2004.

- 2.2 The Bank's involvement in Barbados in the water and sanitation sector has been traditionally focused on the sewerage sector. Initially the Bank financed the Bridgetown Sewerage Project in 1975 (network infrastructure and a treatment plant in downtown Barbados). Following the execution of this project, the Bank and the European Investment Bank supported development of the South Coast Sewerage Project in 1992 (network infrastructure and a treatment plant). At that time the Bank had agreed to consider financing the West Coast Sewerage Project upon completion of the South Cost Sewerage Project. A Profile I for the West Coast Sewerage Project (BA 0037) was approved in October 1991. Unfortunately the execution of the South Coast Project faced numerous setbacks that resulted in a seven-year delay in completion and approximately a 90% cost overrun along with the non-compliance of certain. That notwithstanding, the project was completed early this year. Conditions in non-compliance include: the tariff clause, requirements of internal cash generation, collection efficiency targets, and a revaluation of fixed assets and the transfer of South Coast of assets and liabilities to the public utility. This TC will address the non-compliance with these conditions and will assist the government in their achievement before considering financing for the West Coast Sewerage Project.
- 2.3 In June 2002, the Government requested that the Bank express its interest in financing the cost benefit analysis for the review of the outfall location in preparation for the Sewerage West Coast project. However, in lieu of the problems that the South Coast Sewerage project encountered and other structural problems that became self-evident during the execution of this project such as the underperformance of the water utility the lack of a functioning regulator, and weaknesses in the Policy framework<sup>1</sup>, the Bank and the Government agreed on taking the appropriate steps to address some of the major problems that the sector is facing today before considering the financing and construction of the West Coast Sewerage Project. In this regard, the Government informed the Bank its decision to have the FTC, as an independent entity, conduct a review of BWA's performance and to regulate the sector along with its decision to explore the possibility of creating a Water Management Agency responsible for the sector

<sup>1</sup> The Barbados water and sanitation sector policy, under the responsibility of the Ministry of Energy and Public Utilities, is mainly provided through the Integrated Water Resource Management Draft Policy Framework (1998) and the Barbados Water Authority Act (1980). The Draft Policy Framework among

Framework (1998) and the Barbados Water Authority Act (1980). The Draft Policy Framework among many of its recommendations included the development of a long term monitoring program and the establishment of facilities for the adequate control and protection of the water resources. However, the implementation process has been very slow and many of the main recommendations are still pending.

policy, leaving BWA as the operating company. During the preparation of this operation, the project team will discuss with the Government the best alternative to separate from the public utility the policy responsibilities currently under its functions. All of the above would represent the first step towards the definition and implementation of an integrated approach for the water sector through the review of the institutional setting, and the existing sources and uses of water including consumption, agriculture, as well effect of its use and discharge into the environment. During the Bank's programming mission of December 2002, the Bank and the Government agreed in principle with this integrated approach as is reflected in this Technical Cooperation along with an exercise of lessons learned from the previous two projects.

2.4 Finally on September 29 the government formally requested the Bank's financial support through a reimbursable Technical Cooperation for the financing of the following studies: (i) Institutional Strengthening of the Barbados Water Authority, (ii) The Institutional Strengthening of the Fair Trading Commission and (iii) several studies for the preparation of the West Coast Sewerage Project including traffic alternatives during construction. This program is consistent with the Bank's Strategy and Focus Areas in Barbados as it contributes to the strengthening for the environmental infrastructure and natural resource conservation and the improvement public sector management (points "ii" and "iv" of the primary elements of the Bank's Strategy and Focus Areas "ii").

## III. PROGRAM OBJECTIVE AND DESCRIPTION

3.1 The objective of this TC is to support the Government of Barbados' efforts to adopt an integrated approach for the sector, further adcance in the definition of sector policies and modernize the institutional setting of the water and sanitation sector by strengthening the public utility, the Barbados Water Authority (BWA) and its regulator, the Fair Trading Commission (FTC), as well as to further review the West Coast Sewerage Project. Therefore, contributing to a better and more efficient institutional setting responsible for the management of the water and sanitation sector by providing BWA with a detailed action plan and longterm strategic planning designed to (i) improve its operational and financial performance and (ii) to further develop principles to preserve water quality and the hydrological balance island wide. In addition, the fostering of the regulator (FTC) will ensure more economically efficient water pricing and will contribute to ensuring that BWA remains on track. Finally review of the West Coast Sewerage Project will ensure that the country addresses sewage and sewage treatment in the most effective fashion by improving the quality of the project, reviewing additional alternatives for sewerage treatment taking into account the development of new technologies for sewerage treatment and incorporating lessons learned from the execution of the previous sewage projects.

- 3.2 This technical cooperation will embrace three main components:
  - a. Institutional Strengthening of the Barbados Water Authority. As indicated before, BWA is facing the challenge of improving its operations efficiencies and revert its very weak financial position along with preserving the quality and sustainability of its water resources. Thus, the government wishes the Bank's assistance with BWA in the preparation of a corporate business plan and in the preparation of a tariff application to the regulator. This assistance should address the following areas: (a) balance of water resources, review of the demand and supply sources for consumption, agriculture, and other uses throughout the island, (b) development of a capital expenditure plan including a program for unaccounted for water, and the development of an efficient energy usage, (c) review of BWA's tariff structure, (d) corporate governance and adequacy of its organizational structure, (e) modernization of its information systems and review of BWA's operation, (f) identifications of areas for outsourcing and efficiency gains though private sector participation.
  - b. <u>Institutional Strengthening of the Fair Trading Commission</u> The Barbados Cabinet provided full regulatory powers to the FTC in order to pursue the objective of separation of the roles among the policy-maker, service provider, and regulator. Currently the FTC, responsible for the consumer protection as well as the regulation of the Communications and Energy Sector, lacks of a regulatory framework for the water and sanitation sector. Thus, the government wishes the Bank's assistance in developing a comprehensive regulatory framework for the water and sanitation sector which includes: (a) specific regulations for the sector, (b) methods and procedures for the implementation of such regulations, and (c) provisions for capacity building for the FTC personnel.
  - Studies for the preparation of the West Coast Sewerage Project including studies for traffic alternatives during project execution The west coast sewerage project is one of the most important projects because of its potential impact on tourism - the number one economic generator for Barbados. The main reasons are two fold: a) its proximity and potential disruption to one of the major tourist areas of the island during project execution (short-term effect) and b) contamination effects as a result of the outfall location once the sewerage treatment plant is in operation (long-term effect). As a result, the Coastal Zone Management Unit at a meeting of the Planning and Priorities Committee raised some issues regarding the location of a marine outfall, the government intends to minimize disruption effects during construction and desires to explore the reuse of wastewater. Thus the government wishes the Bank to finance: (a) an update of the alternatives for the west coast sewerage treatment and disposal (b) a full cost benefit analysis of the selected alternatives taking into account social, economic, and environmental factors, and further oceanographic studies to assess project options; (c) a full evaluation of the upgrading of the South Coast Sewerage Project to meet the standards of international conventions; and (d) the evaluations of traffic

patterns and alternative during project executions. In addition, BWA and the Bank will organize a lessons learned exercise from the execution of the South Cost and the Bridgetown sewerage projects.

## IV. COSTAND FINANCING

4.1 Preliminary estimate for consulting services are detailed as follows:

	BID	GoB	Total
Fair Trading Commission technical assistance	500,000	0	500,000
West Coast Sewerage Project, including	1,000,000	500,000	1,500,000
Cost benefit analysis (project's economics review)			
Traffic management study			
BWA technical assistance	700,000	0	700,000
Total	2,200,000	500,000	2,700,000

### V. EXECUTING AGENCY AND EXECUTION STRUCTURE

- 5.1 The execution of the project will be the responsibility of a Project Coordinator, form the Ministry of Finance and Economic Affairs. This project coordinator will have the support of three project managers (two form BWA and one from the FTC). These project managers will be in charge of the execution of each component including the supervision and the day-to-day activities to be carried out by the consultants. Each project manager will be responsible for the quality control in regards to all technical aspects. These managers will report to the Project Coordinator who will coordinate the overall activities of the project execution making sure that there is appropriate feedback and communications among the project managers.
- 5.2 The outputs of these studies will be presented, reviewed, and approved by a Steering Committee to be formed with representatives from the Ministry of Energy and Public Utilities, the Ministry of Finance, the BWA's Board and Administration, the Fair Trading commission, The Ministry of Health, and the Ministry of Housing, Lands and Environment.
- 5.3 The manager in charge of the financial and Institutional Strengthening of the Barbados Water Authority will head the counterpart team with approximately ten of BWA's highly qualified professionals. This counterpart team will provide the consultants with a solid base for the commencement of their undertakings and will ensure that there is a know-how and technology transfer to BWA. The Fair Trading Commission team in charge of the execution of this TC has successfully carried a similar exercise for the electricity and telecommunications sector. Finally, the cost benefit analysis and the traffic studies for the West Coast Sewerage Project will be under the responsibility of BWA. During the last two

- years this unit has been preparing the project execution including the preparation of the terms to reference subject of this technical cooperation.
- During the preparation of this operation, the project team will discuss with the government the possibility of segregating from the public utility a team of experts for the execution and counterpart of policy matters pertaining to the water and sanitation sector to be dealt with this TC. This team of experts will later on be responsible for the setting and structuring of the agency in charge of the policy making.

### VI. ISSUES

- 6.1 <u>Implementation of the Studies</u> This Technical Cooperation does not anticipate any mayor issues during its execution. However, as indicated before, this TC addresses some lessons learned, that became evident during the execution of the South Coast Sewerage Project, related to the strengthening needs of the institutional and regulatory framework within the water and sanitation sector. Therefore, failure to have a simultaneous and adequate implementation of the outputs associated with each component of this TC may hinder the fulfillment of this TC's objectives.
- 6.2 Environment and Social Impacts and mitigation measures This Technical Cooperation does not promote direct negative environmental and social impacts. Nevertheless, the results of the studies to be financed have far reaching implications to the environment as it relates to BWA strengthening and the studies for the preparation of the West Coast Sewerage Project including studies for traffic alternatives during project execution. The Terms of Reference of these studies incorporate the necessary measures to mitigate potential impacts that could result from the implementation of the selected alternative of the outfall location. Furthermore, the Corporate Business Plan considers corporate social and environmental esponsibilities and the possibility to implement the companies environmental management systems (EMS). There will be a public consultation regarding the ocean outfall location.

### VII. ACTION PLAN

7.1 The preparation of this program is near completion. The terms of reference for the studies for the preparation of the West Coast Sewerage Project including studies for traffic alternatives during project execution are in its final review. The first draft of the terms of reference for BWA's institutional strengthening has been reviewed, and the terms of reference for the FTC's institutional strengthening has been prepared. There are some aspects that need to be further discussed as far as the Project executing unit structure and a revised timetable for the execution of this Technical cooperation are concerned.

7.2 The plan of operations would be ready within the next three weeks. Following a CRG meeting the team is scheduled to have a mission to Barbados in order to finalize details of execution and final review and agreement of the terms of reference.