



INTER-AMERICAN DEVELOPMENT BANK

Project Completion Report – PCR

Informe de Terminación de Proyecto

Bank Memorandum

Project Name: Georgetown Disposal Site Environmental Improvement

Project Number: GY0059

Loan Number(s): 1052/SF-GY

Table of Contents

	Page
1. General Information	
1.1. Development Objective	
1.2. Basic data	
1.3. Summary of ratings	
1.4. Project timeline	
1.5. Reference documents	
2. Bank Memorandum	
2.1. Results analysis (outputs, outcomes, and impacts)	
2.1.1. Outputs attained	
2.1.2. Project outcomes and impacts	
2.2. Implementation analysis	
2.2.1. Project's performance measurement	
2.2.2. Factors affecting project implementation (according to PPMR)	
2.2.3. Analysis of factors affecting output delivery and outcome achievement	
2.2.4. Analysis of project management and lessons learned	
2.3. Sustainability analysis	
2.3.1. Institutional / Organizational Strengthening (IOS)	
2.3.2. Project sustainability	
2.4. Executing Agency Performance	
2.5. Foundations for the Ex-post Evaluation	
2.6. Other lessons learned and recommendations	
5. Annexes	
Annex 1A - Source of Financing	
Annex 1B - Schedule of Investments	
Annex 1C – Financial Information and Audited Financial Statements	

General Information

1.1. Development Objective

Improved environmental and sanitary standards for Solid Waste Management (SWM) in Georgetown, Guyana.

1.2. Basic Data

Project name: Georgetown Disposal Site Environmental Improvement

Project number: GY0059

Loan /TC number: 1052/SF-GY (1)

Executing Agency: Municipality of Georgetown

Loan / TC amount (original): \$900,000

Loan / TC amount (current): \$886,787.76

Loan / TC Cumulative cancellations: \$ 13,212.24

Total cost of the project (BID) (Original): \$1,000,000 (1)

Total cost of the project (BID) (Current): \$1,495,781.76 (1)

Author of the Bank Memorandum: James Campbell and Javier Grau (COF/CGY)

Start up workshop date: N/A

Mid-term evaluation date: N/A

Exit workshop date: July 7, 2005

(1) PROPEF-1487/SF-GY, aimed at the design of a program to develop a new solid waste landfill for Georgetown, GY-0055 "Georgetown Solid Waste Management Program", included an amount of US\$500,000 to support the appropriate closure of the Mandela Avenue dumpsite.

Bank Memorandum

2.0 PRESENTATION OF THE PROJECT

2.0.1. The problems, the project and its context

In 1999, one of the most visible environmental problems in Guyana, and Georgetown in particular, was improper solid waste management and disposal. This problem became more acute over time and, a part from creating unpleasant esthetic conditions; it ended up becoming a serious health threat to affected populations in Georgetown and environs.

At the request of the Government of Guyana (GOG), the Bank decided to assist to improve solid waste management in Georgetown and environs. While a more comprehensive operation was being discussed and prepared, the Bank approved TC/Loan 1052/SF-GY for the amount of US\$ 900,000 as a remedial operation to improve and expand the management at the Georgetown disposal site located in Mandela Avenue, which had started out as a temporary landfill site in 1993. However, by 1999 that landfill had outlived its effective life by three years and had ended up becoming a dumpsite posing a serious health hazard to the neighbouring community of Lodge, located less than 100 meters away.

In the case of TC/Loan 1052/SF-GY, the Bank was requested to fast track the operation, which was conceived as an emergency measure intended to provide a transitional solution to Georgetown's solid waste disposal problem until the "Georgetown Solid Waste Management Project (GY-0055)" would be approved. The project's execution period was estimated to be from 18 to 24 months.

From an institutional point of view, at the time of project design, solid waste collection and disposal was responsibility of the Georgetown Municipality through the Public Health Department (PHD) of the Mayor and City Council. However, not only was the PHD's institutional capacity weak, but the Municipality did not charge any fee for collection and disposal and, therefore, no revenues were raised to cover recurrent expenditures. The Municipality had to rely on subsidies and capital grants from the GOG.

The Bank approved this remedial operation in 1999 and, at the same time, started the design of the more comprehensive operation to address one of the most critical problems affecting the well-being, health and sanitary conditions of Georgetown and fifteen Neighborhood Democratic Councils (NDCs). This new and more comprehensive operation was approved in May 2006 and addresses i) the environmental and health impacts of inadequate solid waste management through the construction of a modern sanitary landfill outside of the city and ii) the GOG's financial and institutional constraints to manage and dispose solid waste through the introduction of mechanisms to raise revenue collection for this type of operations and through the strengthening of the executing agency.

Because of insufficient budget to rehabilitate the Mandela site under TC/Loan 1052/SF-GY, an additional amount of US\$ 500,000 was allocated to these works through a PROPEF (1487/SF-GY), which had been previously approved to support the preparation of the more comprehensive solid waste operation.

The execution of the TC/Loan (to which this PCR refers) suffered from execution delays due to problems associated with: i) the hiring of a consultant to assist in the contracting of the works associated to the new infrastructure and new cell development, ii) the hiring of the supervision consultant, a condition to be met prior to the commencement of the rehabilitation works, and iii) the bidding process itself. While there were preliminary designs for the works, which were suitable to the landfill situation at the time, they were not adequate for bidding. Additionally, it took two years to hire a consultant to assist the PEU to complete the bidding documents including final engineering designs for the rehabilitation of the site. On the other hand, the first bidding process was delayed by problems associated to the hiring of the supervision consultant at Guyana's National Tender Board and also by the high cost of the bids received for the works. As a result of this, a new consultant was hired in 2003 to prepare new designs and the civil works were finally awarded in November 2004.

2.1 RESULTS ANALYSIS (OUTPUTS, OUTCOMES AND FUTURE IMPACTS)

2.1.1 Outputs attained.

2.1.1.1. Output Indicators Analysis.

COMPONENT 1 – Mandela Avenue disposal site rehabilitation	
PLANNED	ACHIEVED
Site office, gatehouse and other facilities constructed; site extended by five acres westward; general site drainage and other improvements completed; environmental control implemented; training in solid waste disposal conducted; and new cell development activities completed.	Site office and other facilities built; site extension five acres westward completed, leachate collection system built; gas emission pipes installed; groundwater monitoring well constructed; covering of original site completed; cell development activities in the expanded area in progress.
<p>A number of factors have contributed to delays in completion of the project within the period of disbursement. These include:</p> <ol style="list-style-type: none"> 1. The weak institutional capacity of the executing agency. 2. The engineer's estimate indicated that the amount approved in the Loan was inadequate. Additional funding for the Mandela Site rehabilitation was subsequently included in the PROPEF (1487/SF-GY) that was approved for the preparation of a more radical and comprehensive intervention (GY-0055) in solid waste management in Guyana that requires the environmentally safe closure of the Mandela Avenue site by 2007. Consequently, the rehabilitation and improvement works were not complete when the final disbursement of the loan was made. These activities are being completed with the resources of the PROPEF 1487/SF-GY and are projected to be completed by September 2006. 3. The first design that was technically more complex than required, resulted in bids that far exceeded the available budget. A new and more adequate design was therefore commissioned and completed in 2004. This resulted in delays in the start of the civil works. 4. Poor site supervision and project management by the Executing Agency have also contributed to the delays in execution. 5. A 100-year storm and flooding event in Jan/Feb, 2005 hampered the Contractor's timing and overall performance. 	

COMPONENT 2 – Public Awareness Campaign	
PLANNED	ACHIEVED
By March 2005, media production with TV, newspaper and radio ads, posters and brochures and workshops activities carried out; containers for solid waste collection provided; and community clean-up programs conducted in Lodge and the commercial area of Regent Street.	Public Awareness programme designed and implemented. Pilot projects conducted in Lodge and commercial area of Regent Street. Media campaigns in electronic and print media conducted; Community clean-up activity organized and implemented in Lodge. Solid waste containers - 206 litterbins and 58 community bins – supplied by two contractors.
<p>Only 10 of the Community Bins and 30 of the litter bins have been installed for the following reasons:</p> <ol style="list-style-type: none"> 1. No budgetary allocation was made for the clearing of additional 58 community bins. The Municipal Solid Waste Management Department is negotiating this with the collection contractors. 2. Vagrants have been (i) rummaging through the litterbins and scattering the waste back on the streets and (ii) stealing the inner mesh containers. The MSWMD is therefore looking at ways to make these bins more secure before installing any additional bins. 	

2.1.1.2. Identification of achieved outputs. Bearing in mind the output indicators in the different project components, describe briefly the key outputs achieved by this project

1. A remediation plan for the Mandela site was designed using appropriate ideas and technologies. Remediation work is on going and will be completed by September 2006. The construction of a leachate collection system, the installation of gas emission pipes and the daily cover applied as well as the capping of the old dumpsite areas with clay have contributed to a substantial reduction of the pollution levels in the surrounding areas and a virtual elimination of fires in the dumpsite (illustrative pictures are shown in the attachment to this file).
2. The Municipal Solid Waste Management Department of the Municipality of Georgetown has been strengthened through on-the-job training, participation in conferences and study tours.
3. A 2-year site expansion to the Mandela site was designed using the operating principles of a modern sanitary landfill site.
4. Environmental improvements to the neighbourhood in which the landfill is located include a reduction of the number of illegal mini dumpsites from 47 at the start of the Public Awareness Programme to 20 by the end of the Programme.
5. Television and radio spots were prepared and run. Community clean-up programmes were conducted in Lodge and the commercial area of Regent Street and the Municipal Solid Waste Management Department provided with solid waste containers.
6. The Municipality ceased operations of the old incinerator in November 2004.

2.1.2. Project outcomes and impacts.

2.1.2.1. Outcome Indicators Analysis.

DEVELOPMENT OBJECTIVE	
PLANNED	ACHIEVED
<p>Improved environmental and sanitary standards for solid waste management in Georgetown.</p> <ol style="list-style-type: none"> 1. By the end of 2005, detection of odors in communities adjacent to the Mandela Avenue site significantly reduced and no longer a major concern. 2. By June 2006, no increase in baseline concentration of Total Dissolved Solids from an average of 20,000 mg/l and Chemical Oxygen Demand (COD) from 1,000 mg/l in groundwater monitoring wells; and Total Dissolved Solids from 9,000 mg/l and COD from 2,000 mg/l in the Princess Street Canal. 3. By September 2005, compaction levels at Mandela reached and exceeded 600kg/m³. 4. There have been no fires at the Mandela Avenue site since May 2004. 	<ol style="list-style-type: none"> 1. A survey was conducted in February 2006 to obtain whether odors were still a major concern affecting the quality of life of the residents living in close proximity to the Mandela Avenue site. Results of this survey indicate that when asked about identifying the major/main concern over the last ten years, out of 710 respondents, 405, or 57%, indicated that the Mandela dumpsite had been their main/major concern (other responses were cost of living with 26%, crime with 7% and other with the remaining 10%). However, when asked what were the effects of the Mandela site after it was capped in 2004, while 582 respondents, or 82% of the total, responded "no problem" (41%) or "less odor" (41%), only 68 respondents, or 10% of the total, responded "more odors". 2. In December 2005, groundwater and surface water samples were taken to assess water quality in the Mandela Avenue site. The results of the surface water samples indicate an overall improvement in water quality between October 2004 and December 2005 in the Princess Street canal, which is located within the landfill limits (COD concentrations down to 1,248 mg/l from 1,960mg/l and Total Dissolved Solids down to 260 mg/l from 8,975mg/l). As for the results in the Sussex Street canal, located outside the landfill, while the Total dissolved solids value decreased from 1,810 mg/l to 386 mg/l, the results for COD reached a value of 2,784 mg/l, which might be due to external factors not related to the leachate from the Mandela site. As for groundwater water quality levels, the samples taken in January 2006 from wells located one upstream and one downstream from the landfill site show values of 12,460 mg/l

DEVELOPMENT OBJECTIVE	
PLANNED	ACHIEVED
	<p>and 5,100 mg/l for Total Dissolved Solids and 480 mg/l and 384 mg/l for COD, respectively. These groundwater parameter values show an improvement compared to the baseline data (20,000 mg/l for total dissolved solids and 1,000 mg/l for COD). Further water quality samples are to be taken in May and October of 2006 to confirm the improving water quality trends.</p> <p>3. Compaction levels improved as a result of the use of appropriate solid waste disposal technologies. In October 2005, a consultant hired by the Bank to provide technical services in solid waste management, environmental protection, landfill design, and site rehabilitation assessed that “<i>compaction process is being done in an adequate fashion. The compaction density that is being achieved is adequate and is likely greater than 600 kg/m³ density</i>”. Mathematical calculations made by other consultants indicate that compaction density is even higher, indicating a possible overestimate of the amount of waste received at the site, which makes the use of weight scale essential in this type of operations.</p> <p>4. As a result of the improvements in the daily operations at the Mandela Avenue site, there have been no fires since May 2004. This has resulted in better air quality and odor levels as reflected in bullet 1 in this section.</p>

2.1.2.2. Identification of intermediate outcomes and initial impacts. (Considering the achieved project outputs, to the extent possible, identify intermediate outcomes and initial impacts achieved by this project so far)

1. Significantly less litter in Lodge and the commercial area of Regent Street as evidenced by the reduction in the number of illegal dumpsites.
2. No fires at Mandela site.
3. In the surveys conducted in residential areas in the vicinity of the Mandela site, residents report improvements in the health conditions.
4. Groundwater and surface water quality levels improved in the Mandela Avenue site as a result of improved solid waste management technologies.

2.1.2.3. Identification of future outcomes and impacts. (Considering the achieved outputs, identify expected future outcomes and impacts and describe how these outputs are critical towards the achievement of outcomes and impacts)

1. The significant reduction and possible eventual elimination of illegal dumpsites in the community as well as the closure and capping of the Mandela Site will contribute to further improvements in the health of residents in communities adjacent to Mandela site through the reduction in the occurrence of respiratory diseases.
2. The construction and proper adequate maintenance of the leachate treatment pond is essential for sustaining improved quality of surface water in canals adjacent to the Mandela site. Once the site is closed, fully capped and grassed, the percolation through the landfill will be reduced and the major inflows to the canals will be from surface runoff, which would not increase the contamination of the water in the canals.
3. The utilization of the landfill gas for generating electricity and the benefits associated with carbon credits.
4. The closed landfill at Mandela Avenue, when grassed, will provide a recreational area for the residents in the neighbouring area.

2.1.2.4. Analysis of assumptions (from outputs to outcomes). (Identify the necessary conditions towards the achievement of the project outcome and explain why they are necessary)

In order to achieve the above-mentioned outcomes, it is essential that the program of public education related to all aspects of solid waste management and public health is continued. Further, given the estimated life of 2 more years for the Mandela site, the new site at Haags Bosch must be fully operational by that time.

2.1.2.5. Pilot question No. 1 – (Under construction). This question is optional for operations with a PCR due date prior to February 1, 2005. Before this date, answers to this question will only be required for those operations selected in a pilot group for completing the full version of the PCR. Have you observed inequalities in the access of the target population to project benefits based on gender, location, ethnicity, rural/urban sector, income group or other reason? If so, what are the reasons behind them?

No inequalities identified.

2.1.2.6. Pilot question No. 2 – (Under construction). This question is optional for operations with a PCR due date prior to February 1, 2005. Before this date, answers to this question will only be required for those operations selected in a pilot group for completing the full version of the PCR. Were any unintended adverse effects produced by this project to the population or to the environment? If so, what measures have been taken?

No adverse effects were produced by this project to either the population or the environment. In fact, the impacts on the population and the environment are strongly positive.

2.1.2.7. Pilot question No. 3 – (Under construction). This question is optional for operations with a PCR due date prior to February 1, 2005. Before this date, answers to this question will only be required for those operations selected in a pilot group for completing the full version of the PCR. The results of the project have most likely contributed to the attainment either of the established goals of the Borrowing Country's sectoral or national strategies or to the indicators of the Bank's Country Strategy. If this has been the case, specify which objective or result indicator the project has contributed towards and explain how and to what extent it does.

Upon completion, the project will have provided short-term waste disposal services to Georgetown thereby mitigating a major set of environmental impacts related to solid waste management in Guyana which is consistent with the Country's Environmental Sector Strategy as well as the Bank's Country Strategy.

2.1.2.8. Pilot question No. 4 – (Under construction). This question is optional for operations with a PCR due date prior to February 1, 2005. Before this date, answers to this question will only be required for those operations selected in a pilot group for completing the full version of the PCR. Were there any significant changes in the project context and in sectoral/national policies and/or development strategies? If so, explain how the project was adapted to respond to these changes.

There were no changes in these factors.

2.1.2.9. Recalculation of the Internal Rate of Return (IRR). If the project included ex-ante a calculation of the project's expected rate of return, what was the expected rate of return and what is the observed rate of return?

Not Applicable

2.1.2.10. Recalculation of other cost analysis indicators. If the project included ex-ante any other economic evaluation estimates (cost-effectiveness, efficiency-efficiency and/or cost-benefit analysis), what was the expected indicator and what is the observed indicator?

Not Applicable

2.1.2.11. Rating of project effectiveness in terms of the development objective (DO). Bearing in mind the analysis in sections 2.1.1 and 2.1.2, rate the project effectiveness in terms of attainment of the development objective.

☐ Very Effective (VE) ☒ Effective (E) ☐ Marginally Effective (ME) ☐ Ineffective (I)

The project is considered "effective" in that the Development Objective is already being achieved although the project was not completed on time and has required additional IDB supervision and management and funds.

2.2. IMPLEMENTATION ANALYSIS

2.2.1. Project's performance measurement

2.2.1.1. Elements for monitoring and evaluation. In a scale from 1 a 4 assess the quality of the following elements required for project monitoring and evaluation:

1. Problem analysis	Low	←	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	→	High	<input type="checkbox"/>	N/A
2. Intervention Strategy in response to the problem (rationale)	Low	←	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	→	High	<input type="checkbox"/>	N/A
3. Identification of expected outcomes and impacts	Low	←	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	→	High	<input type="checkbox"/>	N/A
4. Identification of expected outputs	Low	←	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	→	High	<input type="checkbox"/>	N/A
5. Indicators of expected outcomes	Low	←	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	→	High	<input type="checkbox"/>	N/A
6. Indicators of expected outputs	Low	←	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	→	High	<input type="checkbox"/>	N/A
7. Baseline for expected outcomes	Low	←	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	→	High	<input type="checkbox"/>	N/A
8. Baseline for expected outputs	Low	←	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	→	High	<input type="checkbox"/>	N/A
9. Assumptions from outputs to outcomes	Low	←	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	→	High	<input type="checkbox"/>	N/A
10. Monitoring Plan	Low	←	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	→	High	<input type="checkbox"/>	N/A
11. Procurement Plan	Low	←	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	→	High	<input type="checkbox"/>	N/A
12. Schedule of Investments	Low	←	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	→	High	<input type="checkbox"/>	N/A

2.2.1.2. Critical factors analysis in the project design. Considering the elements assessed above, describe which were the main factors (maximum 3) that had a major influence (negatively or positively) in the project performance measurement.

- Of the elements described above, the following design factors had a negative influence on the measurement of performance.
 - No clearly defined indicators of outcomes at the Goal level
 - Baseline data for outputs and outcomes not defined
- Although there were no indicators to measure the achievement of the outcomes at the Goal level, it has been demonstrated that the clear identification of outputs at the project purpose level had a positive influence on the measurement of performance.

2.2.1.3. Lessons learned for the project design (adopted measures). Describe in a concise way what measures were adopted to improve the project design in those aspects related with performance measurement.

- Indicators for evaluating the achievement of the project outputs and outcomes were developed and agreed during implementation.
- The complete baseline data for assessing the achievement of the development objectives were only identified in 2004 and a consultant contracted to complete water samples prior to the initiation of the civil works. The Consultant for the Public Awareness also conducted a survey at the start of the consultancy to provide baseline data on the number of illegal dumpsites.

2.2.1.4. Lessons learned for the project design (alternative measures). Based on your experience in this project, describe in a concise way what alternative measures you recommend to improve project performance measurement in the design of future operations.

Include in the project, a component for Monitoring and Evaluation (including a complete baseline) with clearly defined responsibilities and the appropriate budgetary allocation.

2.2.1.5. Available information during project implementation. In a scale from 1 to 4 rate the level and quality of compliance of the following tasks that should be undertaken by the Executing Agency to obtain the necessary information for project performance measurement:

- | | | | | | | | | | | | |
|---|-----|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---|------|--------------------------|-----|
| 1. Establishment of processes and mechanisms for data gathering and data analysis (sources of data, responsibilities, periodicity and characteristics of the information) | Low | ← | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | → | High | <input type="checkbox"/> | N/A |
| 2. Data gathering for the outcomes base line | Low | ← | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | → | High | <input type="checkbox"/> | N/A |
| 3. Data gathering for the outputs base line | Low | ← | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | → | High | <input type="checkbox"/> | N/A |
| 4. Data gathering, data analysis and reporting of information on available resources (inputs) and undertaking activities | Low | ← | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | → | High | <input type="checkbox"/> | N/A |
| 5. Data gathering, data analysis and reporting of information on project outputs and their contribution to the achievement of expected outcomes | Low | ← | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | → | High | <input type="checkbox"/> | N/A |
| 6. Data gathering, data analysis and reporting of information on project outcomes and impacts and their contribution to sectoral and national goals | Low | ← | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | → | High | <input type="checkbox"/> | N/A |

2.2.1.6. Critical factors analysis for performance measurement during implementation. Considering the elements assessed above, describe which were the main factors (maximum 3) that had a major influence (negatively or positively) in the project performance measurement during its implementation.

The project contemplated that the Environmental Protection Agency (EPA) would carry out the environmental monitoring of groundwater wells and other landfill effluents. Even though EPA collected initial groundwater samples, it indicated that, as a regulatory body, its role was not to undertake sampling and testing but instead to review the test results. As a result of this situation, no complete initial baseline water quality data was gathered and hence data gathering, data analysis and reporting of information on project outputs and their construction to the achievement of expected outcomes was regarded as a negative factor influencing project performance measurement.

2.2.1.7. Lessons learned during project implementation (adopted measures). Describe in a concise way what measures were adopted to obtain the required information (in the expected quantity and quality) for the project performance measurement.

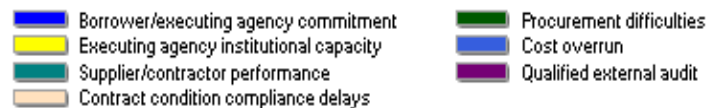
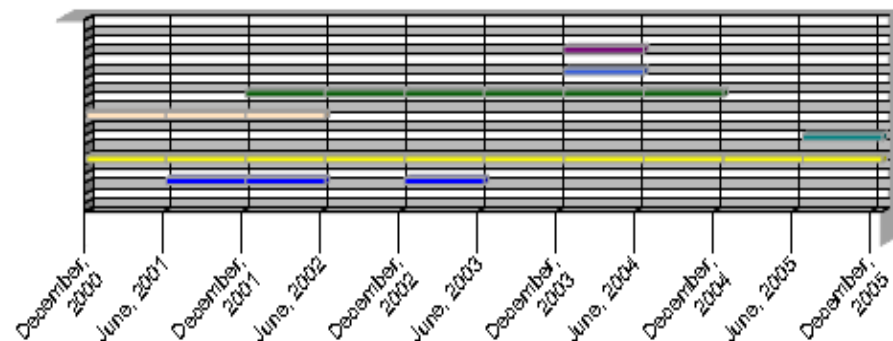
A consultant was contracted to complete the groundwater and surface water sampling to generate a complete set of baseline data on water quality. It was agreed that the PEU would arrange to have samples taken at the same locations for comparative analysis both during and after project implementation. To date, samples have been collected (in December 2004 and December / January 2006) and additional samples are to be taken in May and October 2006.

2.2.1.8. Lessons learned for the implementation (alternative measures). Based on your experience in this project, describe in a concise way what alternative measures you recommend to improve project performance measurement in the implementation of future operations.

1. In order to improve project performance monitoring, the collection of data should be included in the civil works and other contracts awarded by the Executing Agency. This would be supervised by the PEU either directly or through consultants.
2. The data thus collected should be analyzed by the PEU in coordination with the appropriate authorities

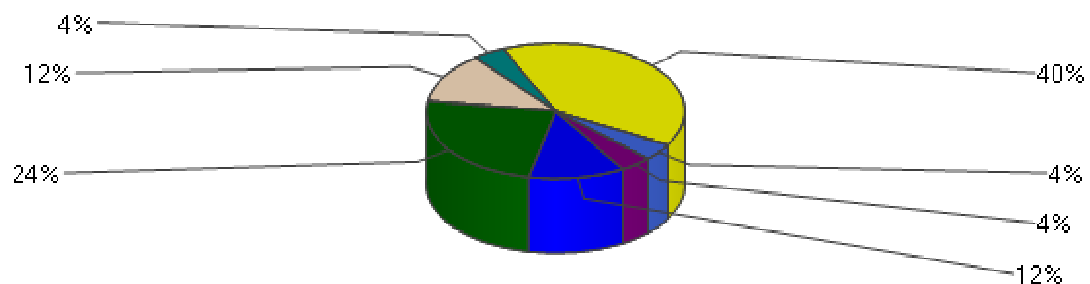
2.2.2. Factors affecting project implementation (according to PPMR)

Factors affecting project implementation by time period reported in the PPMR



This graph has been automatically generated based on information stored in the PPMR system throughout project execution

Factors affecting project implementation by frequency of occurrence in the PPMR



This graph has been automatically generated based on information stored in the PPMR system throughout project execution

2.2.3. Analysis of critical factors affecting project success

Critical factors affecting output delivery

2.2.3.1. Identification of negative factors to produce outputs. Describe which were the main factors (maximum 3), which affected negatively the implementation of project components and the delivery of products (outputs) in terms of quantity, quality and timeliness, and explain why.

The major factors that affected negatively the implementation of the components were:

1. Executing Agency institutional capacity – The project contemplated supervision of the civil works by a consultant as the PEU did not have the technical capacity to supervise those works. However, due to budgetary constraints, the consultant was not contracted. The civil works contractor also lacked the requisite experience and hence works progressed slowly and often not in adherence with the technical specifications set out in the contract.
2. Procurement Difficulties – The Executing Agency has no prior experience in executing of Bank-financed project and was therefore not familiar with the procurement policies and procedures. This resulted in significant delays in the preparation of bidding documents and in the review and evaluation procedures at various stages of the process. Additionally, errors at the opening of bids at the National Tender Board delayed the start of key activities thus delaying the overall project's execution.
3. Lack of coordination between the Central Government and the Municipality resulted in delays in approval of various activities and processes, which contributed to the delays in execution.

2.2.3.2. Identification of positive factors to produce outputs. Describe which were the main factors (maximum 3), which contributed positively to the implementation of project components and the delivery of products (outputs) in terms of quantity, quality and timeliness, and explain why.

1. Political will of the Government and the Mayor and City Council. The commitment at the highest levels ensured that an adequate and affordable design was produced and the civil works contract awarded within the specified time frame thereby avoiding a possible cancellation of the resources.
2. The success of the public awareness campaign was a key element for meeting the project's objectives in the Lodge community and Regent Street areas.
3. The institutional strengthening provided by international consultants with financing from the PROPEF led to the establishment of the Municipal Solid Waste Management Department. This in turn provided strong motivation for its Director who conducted his job in an effective and professional manner ensuring that the Public Awareness component was smoothly implemented. The MSWMD is the first and only such department in Guyana, and its operations have outlived the project. The Department is currently operating with funding from the GOG. This department is to continue being strengthened through the new operation "Georgetown Solid Waste Management Program", which includes the hiring of an Institutional Support Consulting Firm to support both the MSWMD and the new PEU.

Critical factors for achieving project outcomes

2.2.3.3. Identification of negative factors for the achievement of outcomes. Describe which were, the main factors (maximum 3), which affected negatively the achievement of project outcomes and explain why.

The cleaning up after the flood of January/February 2005 resulted in significantly larger volumes of waste being brought to the Mandela Site. This contributed to delays in the civil works and hampered all other operations on the site. This was compounded by the fact that cover material on site was water-logged and there was difficulty obtaining dry cover material within close proximity to Georgetown.

2.2.3.4. Identification of positive factors for the achievement of outcomes. Describe which were the main factors (maximum 3), which contributed positively to the achievement of project outcomes and explain why.

1. A positive factor to achieve the project impact has been the level of support received from the Mayor and City Council of Georgetown whose commitment to improving the physical environment of the city, in particular solid waste management ensured that the outputs and thereby the outcomes were partially achieved.
2. The heightened public awareness immediately after the flood also contributed positively to the achievement of the project outcomes.

2.2.4. Analysis of project management and lessons learned

2.2.4.1. Project Management Analysis. Identify and analyze the effectiveness of adopted measures to address the problems and capitalize on the opportunities related with the critical factor analysis and explain how they were put into practice.

1. One measure adopted to address the problem of slow pace of execution was to link the processing of the new operation for Haags Bosch (GY-0055) to the achievement of certain targets under the present project. This was very effective in that the new operation has a high priority for the Government.
2. When problems arose during execution, the Bank contracted a Consultant to carry out an evaluation of the remediation works and to make recommendations for improvement to ensure that the objective would be met.
3. The high level of commitment was capitalized on in the creation of the Steering Committee chaired by the Permanent Secretary in the Ministry of Local Government. This Committee comprised the major stakeholders and convened monthly to review progress on both the implementation aspects and preparation of the new operation.
4. One of the outputs of the institutional strengthening consultants was a monthly operational report, which provided a means of keeping track of project implementation and the related issues.

2.2.4.2. Lessons learned on project management. Based on your experience with this project, and considering the effectiveness of adopted measures mentioned in the project management analysis, describe in a concise way what alternative measures you recommend to address the problems that may arise during the implementation of similar future projects.

1. The Bank should seek expertise to assess the urgency of emergency situations to design efficient responses. In the present case, to gain time and attend the urgent call from the Government of Guyana, the Bank approved an operation with preliminary engineering designs, for which complete bidding documents were to be prepared, along with the final designs, during project execution. Nevertheless, due to the weakness of both the PEU and the Central Tender Board, the consultant to prepare the bidding documents was contracted much later than originally planned and at a higher cost. For future projects, including the case of emergencies, it would be necessary to have complete set of bid documents ready at the time of project approval.
2. The project had preliminary designs for the works, which were prepared by a team of consultants; however, while these were suitable for the landfill situation at the time, they were not adequate for bidding. As a result of the delays suffered in the project's execution, which include the delays in hiring the consultant to assist the PEU in the preparation of the final bidding documents due to problems with the PEU and the Central Tender Board, the preliminary designs ended up needing to be adjusted in order to be suitable for the new landfill situation and to the completion of the bidding documents.
3. The Environmental Protection Agency should be consulted to ensure that environmental requirements are fully understood and incorporated into the design being submitted for funding.
4. All consultants should work with counterparts to permit a transfer of technology to local professionals.

Rating project implementation (IP)

2.2.4.3. Rating project implementation. Rate the project implementation considering the above management analysis and the obtained project outputs in the expected quantity and quality, reasonable timeframe, and reasonable costs.

☐ Very Satisfactory (VS) ☐ Satisfactory (S) ☒ Unsatisfactory (U) ☐ Very Unsatisfactory (VU)

The project faced many constraints that resulted in components not being completed on time and in an efficient manner, the project is therefore rated unsatisfactory. Constraints that jeopardized the project implementation include i) the lack of an adequate budget, ii) the lack of complete bidding documents with final designs at the beginning of the project, iii) the errors made by the National Tender Board in the early stages of the project which delayed the project by requiring the PEU to repeat the tender process for key activities, and iv) the fact that the technical specifications for the civil works were not often conformed with. However, these constraints were corrected and allowed the project to achieve its development objective in terms of environmental health, water quality, and engineering performance.

2.3. SUSTAINABILITY ANALYSIS

2.3.1. Institutional / Organizational Strengthening (IOS)

2.3.1.1. Areas strengthened or improved by the project. Identify those institutional / organizational areas strengthened or improved by the project, directly or indirectly, and indicate the level of influence (national, regional, local).

Institutional / Organizational Area	Yes	No	N/A	Level		
				National	Regional	Local
1. Legal and regulatory framework	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Procedures, manuals, operational guidelines	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3. Capacity						
3.1. Top-level managerial capacity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2. Mid-level managerial capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3.3. Information Systems capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.4. Performance measurement (M&E capacity)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.5. Service delivery	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Functional structure and organization	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Planning	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Budgeting / Financial management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Intra- / Inter-sectoral coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Intra- / Inter-organizational coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Staffing / Human resources development	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. Procurement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. Self-evaluation, auditing & accountability	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.3.1.2. I/O Strengthening achieved by the project in the country. Describe the project's most significant contributions (maximum 3) to the institutional / organizational strengthening in the country.

The Contractor and the Municipal Government are learning modern waste management practices through this project, and will be in a better position to provide these services when the Haags Bosch landfill site is constructed and operational.

2.3.1.3. I/O Strengthening achieved by the project in the Executing Agency. Describe the project's most significant contributions (maximum 3) to the institutional / organizational strengthening in the Executing Agency. Compare the current situation with the situation before the project.

1. The Executing Agency staff has learned a great deal about modern waste management practices and is applying to their work on an on-going basis.
2. Training in budget and contract preparation was also provided to the Executing Agency.
3. It is important to take into account that the MSWMD, created through the project, has outlived the project and is still operating with funding from the GOG. It is envisaged that further strengthening will occur under the "Georgetown Solid Waste Management Program".

2.3.1.4. Rating the project's contributions to Institutional / Organizational Strengthening.

☐ Very Relevant (VR) ☒ Relevant (R) ☐ Partially Relevant (PR) ☐ Irrelevant (I)

Integrated solid waste management is multidisciplinary with institutional, legal, financial, social, public education and technical components. The project has provided training and guidance in all of these areas, to a Municipal Government with very little capability in this field.

2.3.2. Project Sustainability

2.3.2.1. Scope of project sustainability. Through consultation with the Executing Agency, define what actions, services and/or outputs should be sustained, and for how long, to ensure the sustainability of the expected project's outcomes and future impacts.

Project sustainability is guaranteed by continuing operating Mandela in a satisfactory way, a proper closure of Mandela and the prompt implementation of GY-0055 by the GOG.

2.3.2.2. Basis for sustainability analysis. In a 1 to 4 scale estimate the probability of the existence during the first year after project completion (and the termination of Bank financing) of the following institutional and organizational settings, arrangements or resources in the country, needed to sustain the products, actions, services, outputs, outcomes and future impacts initiated by the project and described in 2.3.2.1.

Institutional / Organizational arrangements and resources	Probability
1. Executing Agency top management's support	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> → High <input type="checkbox"/> N/A
2. Legal and regulatory framework	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> → High <input type="checkbox"/> N/A
3. Organizational preparedness and capacity	Low ← <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
4. Inter-organizational coordination	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
5. Availability of financial resources	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
6. Key personnel	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
7. Resources for infrastructure maintenance	Low ← <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
8. Support from project beneficiaries	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High <input checked="" type="checkbox"/> N/A
9. Support from national government	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A

2.3.2.3. Root-cause analysis of factors affecting negatively the project sustainability. Considering the estimates described in the previous question and the factors, which may affect the project sustainability, identify concrete reasons why the future impacts, immediate outcomes, products, actions and/or services described in 2.3.2.1. may not be sustainable, and explain why.

Even though the design of the new project (GY-0055) includes appropriate cost recovery considerations, the major factor likely to negatively affect the project's sustainability is the current lack of resources for funding on-going solid waste management operations at the Mandela site. This is evidenced by the problems being experienced with putting the additional bins in place and may result in illegal dumpsites returning.

2.3.2.4. Root-cause analysis of factors contributing positively to the project sustainability.

Considering the previous analysis, and the factors, which may affect the project sustainability, identify concrete reasons why the future impacts, immediate outcomes, products, actions and/or services described in 2.3.2.1 may be sustainable, and explain why.

1. After the January 2005 floods, public awareness of solid waste management issues was heightened and the Government placed a higher priority on the management of solid waste.
2. The Municipal Government's understanding of the importance of adequate waste management to the health and quality of life in the Georgetown community.
3. Public education campaigns, especially those targeted at school children, have had positive impacts on solid waste management operations.

2.3.2.5. Lessons learned on sustainability (adopted measures). Based on your experience with this project, and considering the previous analysis, describe as precisely as possible what measures adopted in the project design and/or implementation were effective towards project sustainability, and explain how they were put into practice.

1. Institutional strengthening through counterpart training. A consulting firm was contracted with the PROPEF resources to provide this training to the newly created MSWMD.
2. The creation of the MSWMD itself and the establishment of a separate account for solid waste management represented additional important achievements towards project sustainability. In fact, the MSWMD has outlived the project and is still operating with funding from the GOG. It is envisaged that it will be further strengthened through the new operation "Georgetown Solid Waste Management Program", which includes the hiring of an Institutional Support Consulting Firm to support both the MSWMD and the new PEU.

2.3.2.6. Lessons learned on sustainability (alternative measures). Based on your experience with this project, and considering the previous analysis, describe as precisely as possible what alternative measures could have been adopted during project design and/or implementation to improve the sustainability of this project, and explain how they could be put into practice.

1. Increased funding for institutional strengthening and public education could have been provided had the design taken into consideration the limited technical and institutional capacity of the Project Executing Unit.
2. Measures to involve and sensitize politicians in environmental, social and public health issues related to SWM in Guyana could have been incorporated into the implementation phase, if the necessary resources could have been identified.
3. The preparation of a Solid Waste Master Plan prior to the design of the project to properly define the institutional and legal framework for Solid Waste Management in Guyana.

2.3.2.7. Sustainability action plan. Considering the previous analysis, describe the significant actions that the Borrowing Country and/or the Bank should undertake during the next year to ensure sustainability of future impacts, outcomes, products, actions and/ or services identified in 2.3.2.1.

1. With regard to the civil engineering component of this project, the Executing Agency should increase supervision of the Mandela project to insure its satisfactory conclusion.
2. Continue the Public Awareness and Education programmes.
3. Implement immediately a cost recovery mechanism
4. Develop a Solid Waste Master Plan for the country.

2.3.2.8. Rating project sustainability. Considering the previous analysis and the probability of implementing the Sustainability Action Plan, rate the probability for the sustainability of this project during the next three (3) years:

☐ Very Probable (VP) ☒ Probable (P) ☐ Low Probability (LP) ☐ Improbable (I)

Based on the current assessment, the Mandela site has the capacity for continued operations until early 2007. New assessments are to be made to assess new options to increase the capacity of Mandela in case the new sanitary landfill at Haags Bosch was delayed. These options are to take into account engineering, environmental and economic variables, it is therefore expected that the achievements at Mandela should be sustained.

2.4. EXECUTING AGENCY PERFORMANCE

2.4.1. Executing Agency performance in key areas. Assess the Executing Agency Performance (including co-executors and the Project Executing /Coordinating Unit) in the following areas:

1. Participation and quality of its contributions during project design	Low ← [] [x] [] [] → High [] N/A
2. Organization for project execution (Executing/Coordinating Unit's staff, infrastructure, coordination, communication, etc.)	Low ← [] [x] [] [] → High [] N/A
3. Coordination and integration of the Project Executing/Coordinating Unit with the Executing Agency	Low ← [] [] [] [x] → High [] N/A
4. Establishing a monitoring and results framework (baseline data, systems, procedures, data analysis and reporting, etc.)	Low ← [] [x] [] [] → High [] N/A
5. Executing/Coordinating Unit's management capacity	Low ← [x] [] [] [] → High [] N/A
6. Timeliness in the fulfillment of the Bank's policies, procedures and contractual clauses	Low ← [x] [] [] [] → High [] N/A
7. Financial management (securing counterpart resources, disbursements, quality and timeliness of AFS, etc.)	Low ← [x] [] [] [] → High [] N/A
8. Timeliness and efficiency for procurement of goods, works and consulting services	Low ← [x] [] [] [] → High [] N/A
9. Executing Agency top-level management's leadership, ownership and support to project execution	Low ← [] [] [x] [] → High [] N/A
10. Effort to secure project sustainability	Low ← [x] [] [] [] → High [] N/A

2.4.2. Lessons learned on organization and management of the PCU (adopted measures). Based on your experience with this project, identify what adopted measures regarding the structure, organization and processes of the Coordination/Executing Unit, as well as the personnel profiles, were effective and analyze how they were put into practice.

1. In an attempt to strengthen the PEU, the Bank requested that an Accountant be appointed. However, the person appointed by the EA was not suitably qualified and experienced. Consequently, the Bank processed most of the disbursements as direct payments to suppliers/contractors after validation of the supporting documents.
2. Training in Bank procedures for disbursement and procurement as well as contract preparation and budgeting was provided to staff of the PEU.
3. The project budget only included an allocation for supervision of the civil works but did not contemplate designs for the civil works. Given that the designs had to be done twice to arrive at an affordable solution, there were no funds left for supervision. This issue was recognized by the Bank who contracted a consultant to provide technical support and guidance through two missions.

2.4.3. Lessons learned on organization and management of the PCU (alternative measures). Considering the above assessment, if in a future project you would have the opportunity to re-design the structure, organization and processes of the Coordination/ Executing Unit, as well as the personnel profiles, describe the alternative measures you would propose to improve their performance.

1. Terms of Reference for the key technical and administrative personnel should be prepared and included as an Annex to the Technical Cooperation/ Loan Proposal.
2. Key technical and administrative positions within the Project Executing Unit should be funded with Bank resources. This would provide the necessary resources to contract suitable qualified personnel. However, actions need to be designed in order to retain the staff once the Bank-funded project is over; the project financial sustainability is a key element to ensure that the staff paid with Bank's resources stays after the project.

2.4.4. Rating the Executing Agency performance. Based on the above performance assessment made in this section, on the achieved project results, as well as on the Executing Agency's efficiency during project implementation, rate the Executing Agency performance:

☐ Very Satisfactory (VS) ☐ Satisfactory (S) ☐ Satisfactory (S) ☒ Very Unsatisfactory (VU)

1. The project was not carried out on time.
2. The engineer from the executing agency changed technical elements of the remediation in the field without consulting or advising the Bank or the design consultant. Furthermore, the PEU did not adequately regulate and control the activities of the contractor.
3. The Executing Agency demonstrated a lack of capacity in the financial, administrative and technical aspects of the implementation of this operation.

2.5. FOUNDATIONS FOR THE EX-POST EVALUATION

2.5.1. Provisions for ex-post evaluation. Establish if this operation requires an ex-post evaluation according to the Loan Agreement. If applicable, provide the following information about the provisions taken (see agreements among the Bank, Borrower and Executing Agency in the Project Completion Workshop Aide Memoire):

1. Does the Loan Agreement require an ex-post evaluation for this operation? ☒ No ☐ Yes
2. What will be its schedule? Start up date: DD MM YY
Submission date: DD MM YY
3. Who are the responsible parties for carrying out the evaluation? ☐ Bank ☐ Borrower
4. What is the estimate of the costs involved? USD\$
5. How the cost involved will be financed? ☐ Bank loan's funds
☐ Borrower financing
☐ Other source

If financing comes from other source, please specify:



2.5.2. Analysis of the ex post evaluation capacity. Review the capacity of the Executing Agency, as well as its infrastructure and information systems to collect, review and report information on the achievement of future outcomes and impacts, and the main negative and positive factors that may affect this evaluation.

2.6. OTHER LESSONS LEARNED AND RECOMMENDATIONS

In addition to the lessons learned and recommendations recorded in previous sections of this report, this section offers users the opportunity to state the lessons learned and recommendation that may be helpful in the design and/or implementation of new projects.

1. In cases such as this one, where the loan was a result of an emergency situation related to the threats caused by inappropriate solid waste management, the Bank needs to assess carefully the capacity of the Government to implement the project in an adequate, but yet effective and efficient, manner. In emergencies like in this one, the Bank needs to ensure that the Government acts in a proactive manner during the execution of the project, the Bank has to support the Government to ensure that project includes adequate engineering designs.
2. A proper baseline should be developed during project preparation to allow for an appropriate monitoring and evaluation during project execution. Sufficient resources for monitoring and evaluation need to be included in the project budget.
3. The project contemplated supervision of the civil works by a consultant. However, the budget allocated was inadequate for both design and supervision and the PEU did not have the capacity to supervise those works. It is recommended that a proper assessment of the cost for supervision be carried out and that the budget for consultants to supervise the design, hiring of consultants and implementation of the various components of the project is determined from that assessment.
4. The Executing Agency must be strengthened to the point where they can operate a modern integrated solid waste management system. This includes an understanding of waste production, storage, transport, street cleaning and public health, waste minimization and the operation of a modern sanitary landfill facility. The Executing Agency requires a significant level of additional training, and financial support before this can happen. The completion of the Mandela project is only an initial step in this direction.
5. The lack of important social indicators in the health sector does not allow the real impact of this project on the health conditions (incidence of respiratory diseases) in the communities surrounding the waste disposal site to be measured. Continuous surveys on health impacts among residents in nearby communities need to be taken during project design and implementation in order to allow for corrective measures if needed.

Annexes 1A and 1B
Project Financing

Annex 1A
Source of Financing
(Amounts in thousands of US Dollars)

Category	Original				Actual				Gap as % of Original			
	IDB	Borrower	Other Sources	Total	IDB	Borrower	Other Sources	Total	IDB	Borrower	Other Sources	Total
1.1 Administration	\$40	\$10	\$0	\$50	\$39	\$110	\$0	\$150	-25%	1007.0%		201.22%
1.2 Supervision	\$40	\$0	\$0	\$40	\$87	\$0	\$0	\$87	119.86%			119.86%
2.1 Works Landfill	\$300	\$0	\$0	\$300	\$300	\$0	\$0	\$300	%			5
2.2 Operation New Cells	\$250	\$80	\$0	\$330	\$236	\$0	\$0	\$236	-5.47%	-100%		-23.39%
2.3 Training	\$30	\$0	\$0	\$30	\$0	\$0	\$0	\$0	-100%			-100%
2.4 Public Awareness	\$200	\$0	\$0	\$200	\$211	\$0	\$0	\$211	5.91%			5.91%
3.01 Contingencies	\$16	\$5	\$0	\$21	\$0	\$0	\$0	\$0	-100%	-100%		-100%
87.01 F.I.V	\$9	\$0	\$0	\$9	\$9	\$0	\$0	\$9	%			%
87.02 Interest	\$15	\$0	\$0	\$15	\$1	\$3	\$0	\$5	-88.08%			-65.65%
87.03 Commitment Fees	\$0	\$4	\$0	\$4	\$0	\$15	\$0	\$15		247.3%		247.3%
	\$900	\$100	\$0	\$1,000	\$886	\$129	\$0	\$1,016	-1.4%	29.7%		1.65%

Annex 1B
Schedule of Investments
(Amounts in thousands of US Dollars)

Years	Original				Actual				Gap
	IDB	Borrower	Other	Total	IDB	Borrower	Other	Total	
1999	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2000	\$0	\$0	\$0	\$0	\$2	\$0	\$0	\$2	
2001	\$0	\$0	\$0	\$0	\$42	\$0	\$0	\$40	
2002	\$0	\$0	\$0	\$0	\$15	\$0	\$0	\$15	
2003	\$0	\$0	\$0	\$0	\$51	\$1	\$0	\$52	
2004	\$0	\$0	\$0	\$0	\$392	\$106	\$0	\$498	
2005	\$0	\$0	\$0	\$0	\$382	\$22	\$0	\$404	
	\$0	\$0	\$0	\$0	\$886	\$129	\$0	\$1,016	

ANNEX 1-C

Financial Information and Audited Financial Statements

(To be completed by the Financial Specialist in the Country Office)

1. Capacity of the Executing Agency: Evaluate in general the Executing Agency's capacity to manage efficiently and transparently the project resources (information systems, procedures, capacity of staff, etc.)

The Executing Agency's capacity to efficiently and transparently manage the financial resources of the project was extremely weak due to the lack of qualified and experienced accounting personnel dedicated to the Project. This weakness was brought to the attention of the Borrower on several occasions but little effort was made to allay the problem. In this regard, the Bank could not place much reliance on the financial accounting capacity of the Executing Agency and as such chose not to increase the amount of the revolving fund, which was initially disbursed (1.8% of the loan); make the majority of disbursements by way of direct payments and provide constant support and guidance to the accounting personnel.

2. Accounting System and Internal Control: Evaluate the efficiency of the accounting and internal control systems used by the Executing Agency during the implementation of the project to produce trustworthy financial information in a timely fashion.

The accounting system of the PEU was weak; hence much reliance could not be placed on the financial information generated by the Executing Agency. Instead, greater reliance had to be placed on supporting documentation in order to verify and supplement financial information provided to the Bank. As indicated in Item 1 above, this weakness was due to the lack of qualified and experienced accounting personnel dedicated to the Project. Furthermore the problem was complicated due to the lack of supervision of the accounting personnel.

Internal control for financial transactions was adequate, however the general internal control system was weak due to lack of supervision.

3. Quality of the financial Information: Evaluate the quality of the financial information presented to the Bank by the Executing Agency during the implementation of the project (Progress Reports, Reports on the Revolving Fund, Financial Statements, etc.)

The quality of financial information submitted to the Bank did not generally meet the Bank requirements and in many cases requests reports had to be returned for correction. In these instances the Bank met with the Executing Agency to review the reports and provide recommendations where necessary.

4. Audited Financial Statements: Taking into consideration the track record appearing in the LMS about the ratings of the Audited Financial Statements (Unqualified, Qualified, Adverse, Disclaimer), evaluate in general terms the quality and timeliness of presentation of the Audited Financial Statements.

All Audited Financial Statements submitted for the Project had unqualified opinions and were submitted in a timely manner. However the quality of these AFS had occasional problems due to lack of adequate information, such as notes, reconciliations and required supplementary information. In the majority of cases, compliance with Article 7.03 (a)(iii) had to be withheld pending submission of additional information by the Executing Agency and External Auditor.

5. Lessons learned: Identify principal lessons learned from the execution of this operation, which could be used to improve financial and accounting management in future operations.

Key personnel involved in the execution of projects, specifically for Loans, such as Project Coordinators and Project Accountants, should have suitable qualification and experience. Furthermore these personnel should be dedicated to the project on a full time basis so that sufficient time can be spent on the administration of the Project. In order to enforce this, Bank funding should be made available in the relevant budgets for PEU personnel so that the Bank can monitor the hiring and performance of these individuals and where necessary prompt remedial actions. In cases where key personnel are hired using counterpart funds, the Bank should insist (eg. conditions prior to 1st disbursement) or implement harsh measures to ensure that competent and dedicated personnel are hired for projects.

**ENVIRONMENTAL IMPROVEMENT OF THE GEORGETOWN
INTERIM DISPOSAL SITE**

LO-1052/SF-GY

PROJECT COMPLETION REPORT – PCR

**Executing Agency
Memorandum**

Submitted to the Inter-American Development Bank (IADB)

(November 2005)

The ability of this report to reflect project results at completion, foster sustainability of projects benefits and capitalize on lessons learned depends on the participation of the Borrowing Institution, the Executing Agencies, and the project beneficiaries in the preparation of this report.

Therefore, your contribution as author of the Executing Agency Memorandum will be of great value to the extent that project implementation knowledge and experience, the analysis of information on results and the views of beneficiaries can be transmitted objectively and independently.

Instructions to complete the Memorandum

To complete this memorandum, please bear in mind the following recommendations:

- ☐ Do not forget to complete the cover page and the box regarding basic data by providing the necessary information.
- ☐ It is very important that you review the PCR Guidelines that will be provided to you by the Bank's Country Office, in particular, the technical annex on "Practical guidelines to prepare the PCR". This annex includes guidance, tips and practical examples to assist you in completing the required information. Remember that the questions for the Bank and for the Executing Agency, as well as the appropriate numbering are the same, except for the first digit (for the Bank they start with number 2, i.e. 2.1.1.1., while for the executing Agency they start with number 3, i.e. 3.1.1.1.)
- ☐ Answer the open questions in a concise manner. The desired length for each response is 10 lines maximum. Please do not exceed 15 lines per response. Should you need to attach important relevant information documenting project results, please use Annex 5, "Documental Annex". This optional material can be sent to the Bank's Country Office as a separate document (see PCR guidelines for a description of this annex).
- ☐ Please check with an X inside the corresponding bracket your response in those questions where options are available. Examples:

☐ Very Effective (VE)

☒ Effective (E)

☐ Marginally Effective (ME)

☐ Ineffective (I)

1. Problem analysis

Low ← ☐ ☐ ☒ ☐ → High ☐ N/A

Project Basic Data
Project Name: Environmental Improvement of the Georgetown Interim Disposal Site.
Project Number: GY0059
Loan Number /TC: LO-1052/SF-GY
Executing Agency: Municipality of Georgetown
Name of the Author of the Executing Agency Memorandum: Mr. Rufus Lewis
Position in the Executing Agency: Director

3. EXECUTING AGENCY MEMORANDUM

3.1 RESULTS ANALYSIS (OUTPUTS, OUTCOMES AND FUTURE IMPACTS)

2.1.2 Outputs attained. Description of project outputs by components and analysis of factors that influenced project execution.

3.1.1.1. Output Indicators Analysis. Complete the indicators of the outputs attained in this component using the same output indicators retrieved from the PPMR. Compare the indicators in the Achieved and Planned columns. If there is a significant gap between them, briefly explain the factors responsible for the gap.

COMPONENT 1 – Output indicators	
PLANNED	ACHIEVED
<p>New works and improved management of the Mandela Avenue site.</p> <p>a) Infrastructure Construction of site office, sanitary blocks, gatehouse, and shed for litter pickers to complete in May 2005</p> <p>b) Site Improvements An extension of the site westward to the five additional acres, correction of grades of outer slopes and stockpile excess material for reuse, desilting and/or cleaning perimeter drains to complete in May 2005</p> <p>c) Environmental Control Installation of pipes for gas emission control and construction of a ground water monitoring well to complete in May 2005</p> <p>d) New Cells Development and Closure</p>	<p>Under this component works are ongoing after the final disbursement date pertaining to the operation of the Mandela Site.</p> <p>a) The Project has successfully achieved its outputs in this area in May 2005.</p> <p>b) The Project was able to achieve about 80% of the works since there are ongoing works to be completed in August 2005.</p> <p>c) 90% installation of pipes for gas emission control was completed in May 2005 the other 10% will be completed in the 5 acre extension by August 2005. Monitoring well has achieved its objectives.</p> <p>d) This component did not achieve its May</p>

<p>Include compaction, and providing daily and interim cover material, closing the site with a final covering, landscaping. Leachate and gas management, slope stability and fire control in May 2005</p> <p>e) Training in Solid Waste Disposal Includes study tour to visit solid waste disposal facilities and on the job training completed in May 2005.</p>	<p>2005 output. These are ongoing works that will last for an additional year and a half funded from a PPF 010-GY</p> <p>e) The Project was able to achieve its output in this component.</p>
<p>In sub-component c) and d) the Project was slow in having programs set. Additionally the Country had a flood situation that had a significant impact of completion of those works.</p>	

COMPONENT 2 – Output indicators	
PLANNED	ACHIEVED
<p>Public Awareness and Cleansing Campaign</p> <p>Educate, inform and increase the awareness of residents in Lodge and Regent Street with two pilot projects through media production with TV, newspaper and radio ads, posters and brochures and workshops activities by March 2005; containers for solid waste collection to be provided by December 2005.</p>	<p>The two pilot projects were completed in April 2005. Litter and community bins were produced have achieved its targets.</p>
<p>Due to the flood situation the two pilot projects in Lodge and Regent street were affect that resulted in a month's delay.</p> <p>➔</p>	

3.1.1.2. Identification of achieved outputs. Bearing in mind the output indicators in the different project components, describe briefly the key outputs achieved by this project

1	The Project signed a contract on October 8, 2004 for the rehabilitation of Mandela Site which included activities of constructing a site office, gatehouse, sanitary block, and shed for litter pickers which completed in May 2005; the site extended by five acres westward, general site drainage and other improvement had a 80% completion in May 2005; installation of pipes for gas emission control and construction of a groundwater monitoring well had a 90% completion in May 2005.
2	The Project was able to have a public awareness program concluded in April 2005 with two pilot projects which included activities of media production with TV, newspaper and radio ads, posters and brochures, and workshops.
3	The Project was able to have the redesign for the construction of Mandela complete in April 2004.
4	The Project has achieved its output in having the baseline data on the water quality complete in January 2005
5	The Project has achieved its output in having two contracts signed on November 1, 2004 for the provision of litter and community bins that were produced in December 2004.
6	The Project has achieved its output in having training in solid waste disposal conducted in May 2005

3.1.2. Project outcomes and impacts. Description of the project results in relation with its Development Objective (DO or purpose in the project logical framework)

3.1.2.1. Outcome Indicators Analysis. Complete the indicators of achievement in the development objective (outcome) using the same outcome indicators retrieved from the PPMR (key performance indicators). Compare the Achieved and Planned outcome indicators. If there is a significant gap between them, briefly explain the factors responsible for the gap.

DEVELOPMENT OBJECTIVE Outcome indicators (purpose)	
PLANNED	ACHIEVED
<ol style="list-style-type: none"> 1. By June 2005, residents in communities adjacent to the site do not detect odors from landfill and sorting activities. 2. By June 2005, the concentration of total dissolved solids reduced from an average of 20,000 mg/l to 17,000 mg/l, chemical oxygen demand reduced from 1,000 mg/l to 800 mg/l in ground water monitoring wells and total dissolved solids reduced from 9,000 to 7,000 and COD reduced from 2,000 mg/l to 1,600 mg/l in the Princes Street canal. 3. reduction in the occurrence of respiratory diseases among families living adjacent and in the prevailing wind direction from the site by November 2005 4. Elimination of fires at site as of January 2005. 	<p>There are some amounts of odors that can be detected at the site but nothing too distressing. Sorting is still an ongoing activity that cannot be rid of immediately, that is done in a fashionable manner.</p> <p>There has been no serious case or an epidemic of any respiratory diseases amount families in the surrounding area of the site.</p> <p>This objective was achieved in that no case of fire was reported on the site.</p>
Factor(s) responsible for the difference (if any): ➔	

3.1.2.2. Identification of intermediate outcomes and initial impacts. Considering the achieved project outputs, to the extent possible, identify intermediate outcomes and initial impacts achieved by this project so far.

The project achieved a better solid waste collection system for Georgetown. Residents would have benefited from a more effective collection of their household waste. Staff would have benefited from the training they received for monitoring of solid waste contractors.

3.1.2.3. Identification of future outcomes and impacts. Considering the achieved outputs, identify expected future outcomes and impacts and describe how these outputs are critical towards the achievement of outcomes and impacts

The future outcomes of the project is to have a model of the first engineered sanitary landfill site, to prove that land filling is the most effective way in the disposal of solid waste. The impact this may have is to set the tone and eliminate the uncertainties of having a bigger and more manageable landfill site in the future.

3.1.2.4. Analysis of assumptions (from outputs to outcomes). Identify the necessary conditions towards the achievement of the project outcome and explain why they are necessary.

The circumstances in the attainment of the project outcome would include an effective public education programme, training in solid waste disposal, rehabilitation of the Mandela Landfill site. These results are necessary because the success of this project is contingent on the development of a new and more scientific landfill site.

3.1.2.5. Pilot question No. 1 – (Under construction). This question is optional for operations with a PCR due date prior to February 1, 2005. Before this date, answers to this question will only be required for those operations selected in a pilot group for completing the full version of the PCR. Have you observed inequalities in the access of the target population to project benefits based on gender, location, ethnicity, rural/urban sector, income group or other reason? If so, what are the reasons behind them?

No

3.1.2.6. Pilot question No. 2 – (Under construction). This question is optional for operations with a PCR due date prior to February 1, 2005. Before this date, answers to this question will only be required for those operations selected in a pilot group for completing the full version of the PCR. Were any unintended adverse effects produced by this project to the population or to the environment? If so, what measures have been taken?

→ No

3.1.2.7. Pilot question No. 3 – (Under construction). This question is optional for operations with a PCR due date prior to February 1, 2005. Before this date, answers to this question will only be required for those operations selected in a pilot group for completing the full version of the PCR. The results of the project have most likely contributed to the attainment either of the established goals of the Borrowing Country's sectoral or national strategies or to the indicators of the Bank's Country Strategy. If this has been the case, specify which objective or result indicator the project has contributed towards and explain how and to what extent it does.

→

3.1.2.8. Pilot question No. 4 – (Under construction). This question is optional for operations with a PCR due date prior to February 1, 2005. Before this date, answers to this question will only be required for those operations selected in a pilot group for completing the full version of the PCR. Where there any significant changes in the project context and in sectoral/national policies and/or development strategies? If so, explain how the project was adapted to respond to these changes.

→

3.1.2.9. Recalculation of the Internal Rate of Return (IRR). If the project included ex-ante a calculation of the project's expected rate of return, what was the expected rate of return and what is the observed rate of return?

→

3.1.2.10. Recalculation of other cost analysis indicators. If the project included ex-ante any other economic evaluation estimates (cost-effectiveness, efficiency-efficiency and/or cost-benefit analysis), what was the expected indicator and what is the observed indicator?

→

3.1.2.11. Rating of project effectiveness in terms of the development objective (DO). Bearing in mind the analysis in sections 2.1.1. and 2.1.2., rate the project effectiveness in terms of attainment of the development objective.

☐ Very Effective (VE) ☒ Effective (E) ☐ Marginally Effective (ME) ☐ Ineffective (I)

The project is classified as being successful in that, it was able to achieve its objective in improving the sanitary conditions through an improved environmentally safer disposal of solid waste at the Mandela Avenue site and a successful public awareness and education campaign.

3.2. IMPLEMENTATION ANALYSIS

3.2.1. Project's performance measurement

3.2.1.1. Elements for monitoring and evaluation. In a scale from 1 a 4 assess the quality of the following elements required for project monitoring and evaluation:

1. Problem analysis	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> →	High	<input type="checkbox"/> N/A
2. Intervention Strategy in response to the problem (rationale)	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> →	High	<input type="checkbox"/> N/A
3. Identification of expected outcomes and impacts	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> →	High	<input type="checkbox"/> N/A
4. Identification of expected outputs	Low	← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> →	High	<input type="checkbox"/> N/A
5. Indicators of expected outcomes	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> →	High	<input type="checkbox"/> N/A
6. Indicators of expected outputs	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> →	High	<input type="checkbox"/> N/A
7. Baseline for expected outcomes	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> →	High	<input type="checkbox"/> N/A
8. Baseline for expected outputs	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> →	High	<input type="checkbox"/> N/A
9. Assumptions from outputs to outcomes	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> →	High	<input type="checkbox"/> N/A
10. Assignment of responsibilities for data collection	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> →	High	<input type="checkbox"/> N/A
11. Project implementation plan	Low	← <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> →	High	<input type="checkbox"/> N/A
12. Procurement plan	Low	← <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> →	High	<input type="checkbox"/> N/A

3.2.1.2. Critical factors analysis in the project design. Considering the elements assessed above, describe which were the main factors (maximum 3) that had a major influence (negatively or positively) in the project performance measurement

The problem analysis and the subsequent identification of expected outputs had a positive impact on the project's performance measurement. The project outputs were clearly stated. Additionally having a baseline for expected outputs served as a reference point on the project.

3.2.1.3. Lessons learned for the project design (adopted measures). Describe in a concise way what measures were adopted to improve the project design in those aspects related with performance measurement

The relationship between the activities and the budget must be realistic; as such the budgets were revised to allow for adequate resourced to achieve the identified outputs.

3.2.1.4. Lessons learned for the project design (alternative measures). Based on your experience in this project, describe in a concise way what alternative measures you recommend to improve project performance measurement in the design of future operations

Ensure that the Executing Unit must be staffed with all the technical personnel for its effective functioning. There must be full borrower commitment.

3.2.1.5. Available information during project implementation. In a scale from 1 to 4 rate the level and quality of compliance of the following tasks that should be undertaken by the Executing Agency to obtain the necessary information for project performance measurement:

1. Establishment of processes and mechanisms for data gathering and data analysis (sources of data, responsibilities, periodicity and characteristics of the information)	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High	<input type="checkbox"/> N/A
2. Data gathering for the outcomes base line	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High	<input type="checkbox"/> N/A
3. Data gathering for the outputs base line	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High	<input type="checkbox"/> N/A
4. Data gathering, data analysis and reporting of information on available resources (inputs) and undertaking activities	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High	<input type="checkbox"/> N/A
5. Data gathering, data analysis and reporting of information on project outputs and their contribution to the achievement of expected outcomes	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High	<input type="checkbox"/> N/A
6. Data gathering, data analysis and reporting of information on project outcomes and impacts and their contribution to sectoral and national goals	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High	<input type="checkbox"/> N/A

3.2.1.6. Critical factors analysis for performance measurement during implementation. Considering the elements assessed above, describe which were the main factors (maximum 3) that had a major influence (negatively or positively) in the project performance measurement during its implementation

Data gathering for the outcomes and outputs had a positive effect on the project performance. In the public awareness programme a pre and post evaluation was conducted testing the knowledge on what is solid waste. The post evaluation indicated that 82% in the information critical area of solid waste.

3.2.1.7. Lessons learned during project implementation (adopted measures). Describe in a concise way what measures were adopted to obtain the required information (in the expected quantity and quality) for the project performance measurement

There is a wide spread public concern about the state of solid waste management in Georgetown. However, there are perplexities about roles and responsibilities.

3.2.1.8. Lessons learned for the implementation (alternative measures). Based on your experience in this project, describe in a concise way what alternative measures you recommend to

improve project performance measurement in the implementation of future operations

There is need for greater diligence and timelines in the procurement process.

2.2.2. Factors affecting project implementation (according to PPMR)

(As useful information to answer section 3.2.3. it is advisable to review the factors affecting project implementation recorded in the PPMR. The Specialist responsible for supervising the project in the Bank's Country Office should be able to provide this information).

3.2.3. Analysis of critical factors affecting project success

Critical factors affecting output delivery

3.2.3.1. Identification of negative factors to produce outputs. Describe which were the main factors (maximum 3) which affected negatively the implementation of project components and the delivery of products (outputs) in terms of quantity, quality and timeliness, and explain why

In spite of the revision of project budget resources some desired features for the effective improved operation of the Mandela Landfill site had to be omitted. The procurement of the required skills on a timely basis as a result of the lack of financial provisions to cover this administrative cost. Bureaucratic delays. The Mandela Avenue waste disposal site rehabilitation and expanded and operating with improved standards. At the end of May 2005 the project was able to have the site office, gatehouse and other facilities completed 100% due to the excessive rainfall and a poor execution plan.

3.2.3.2. Identification of positive factors to produce outputs. Describe which were the main factors (maximum 3), which contributed positively to the implementation of project components and the delivery of products (outputs) in terms of quantity, quality and timeliness, and explain why

The Public Awareness and Education Campaign had a positive implementation of the project. This component was able to complete by March 2005 its activities that include media production with TV, newspaper and radio ads, posters and brochures and workshops, containers for solid waste collection and community clean-up program in Lodge and regent street.

Critical factors for achieving project outcomes

3.2.3.3. Identification of negative factors for the achievement of outcomes. Describe which were, the main factors (maximum 3), which affected negatively the achievement of project outcomes and explain why

➔During some periods of rainfall the contractor experienced difficulty placing daily cover material to mitigate against odors from the landfill.

3.2.3.4. Identification of positive factors for the achievement of outcomes. Describe which were the main factors (maximum 3), which contributed positively to the achievement of project outcomes and explain why

The significant improvement in the management of the operations of the site and the remediation of old site lent to the elimination of fires at the site and the reduction of odor emanating from the site.

3.2.4. Analysis of project management and lessons learned

3.2.4.1. Project Management Analysis. Identify and analyze the effectiveness of adopted measures to address the problems and capitalize on the opportunities related with the critical factor analysis and explain how they were put into practice

→ An established and trained PEU executed all aspects of the project, an improved management of the landfill site and the Public consciousness of the role in fostering a clean environment

3.2.4.2. Lessons learned on project management. Based on your experience with this project, and considering the effectiveness of adopted measures mentioned in the project management analysis describe in a concise way what alternative measures you recommend to address the problems that may arise during the implementation of similar future projects

→ A PEU should be established and trained when the project is designed; public participation in the design stages of the project.

Rating project implementation (IP)

3.2.4.3. Rating project implementation. Rate the project implementation considering the above management analysis and the obtained project outputs in the expected quantity and quality, reasonable timeframe, and reasonable costs

☐ Very Satisfactory (VS) ☒ Satisfactory (S) ☐ Unsatisfactory (U) ☐ Very Unsatisfactory (VU)

Explain your rating

→ The project was able to achieve its objectives though not at the initial benchmarks

3.3. SUSTAINABILITY ANALYSIS

3.3.1. Institutional / Organizational Strengthening (IOS)

3.3.1.1. Areas strengthened or improved by the project. Identify those institutional / organizational areas strengthened or improved by the project, directly or indirectly, and indicate the level of influence (national, regional, local).

Institutional / Organizational Area	Yes	No	N/A	Level		
				National	Regional	Local
1. Legal and regulatory framework	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Procedures, manuals, operational guidelines	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Capacity						
3.1. Top management capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.2. Middle management capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.3. Information Systems capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.4. Performance measurement (M&E capacity)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.5. Client-oriented service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4. Functional and organizational structure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Planning	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Budgeting / Financial management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Intra- / Inter-sectoral coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Intra - / Inter-organizational coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Staffing / Human resources development	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. Procurement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. Self-evaluation, auditing & accountability	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.3.1.2. IOS achieved by the project in the country. Describe the project's most significant contributions (maximum 3) to the institutional / organizational strengthening in the country.

1. The project was able to form the only Municipal Solid Waste Management Department in the country.

3.3.1.3. IOS achieved by the project in the Executing Agency. Describe the project's most significant contributions (maximum 3) to the institutional / organizational strengthening in the Executing Agency. Compare the current situation with the situation before the project.

The Georgetown Municipality had transformed a section into department – Municipal Solid Waste Management Department.

3.3.1.4. Rating the project's contributions to IOS

☐ Very Relevant (VR) ☒ Relevant (R) ☐ Partially Relevant (PR) ☐ Irrelevant (I)

Explain your rating



3.3.2. Project Sustainability

3.3.2.1. Scope of project sustainability. Through consultation with the Executing Agency, define what actions, services and/or outputs should be sustained, and for how long, to ensure the sustainability of the expected project's outcomes and future impacts.

There is no need to sustain this project because the project was designed to close after bank financing would have been exhausted.

3.3.2.2. Basis for sustainability analysis. In a 1 to 4 scale estimate the probability of the existence during the first year after project completion (and the termination of Bank financing) of the following institutional and organizational settings, arrangements or resources in the country, needed to sustain the products, actions, services, outputs, outcomes and future impacts initiated by the project and described in 3.3.2.1.

Institutional / Organizational arrangements and resources	Probability
1. Executing Agency top management's support	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> → High <input type="checkbox"/> N/A

2. Policy, legal and regulatory framework	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High	<input type="checkbox"/> N/A
3. Preparedness and organizational capacity	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High	<input type="checkbox"/> N/A
4. Inter-organizational coordination	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High	<input type="checkbox"/> N/A
5. Availability of financial resources	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High	<input type="checkbox"/> N/A
6. Key personnel	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High	<input type="checkbox"/> N/A
7. Financial resources for infrastructure maintenance	Low	← <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> → High	<input type="checkbox"/> N/A
8. Project beneficiaries' support	Low	← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High	<input type="checkbox"/> N/A
9. National government support	Low	← <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> → High	<input type="checkbox"/> N/A

3.3.2.3. Root-cause analysis of factors affecting negatively the project sustainability.

Considering the estimates described in the previous question and the factors, which may affect the project sustainability, identify concrete reasons why the future impacts, immediate outcomes, products, actions and/or services described in 3.3.2.1. may not be sustainable, and explain why.

→ While there has been an increased awareness of the issues related to Solid Waste Management the availability of adequate financial resources poses one of the greatest treats to the sustainability of the project.

3.3.2.4. Root-cause analysis of factors contributing positively to the project sustainability.

Considering the previous analysis, and the factors, which may affect the project sustainability, identify concrete reasons why the future impacts, immediate outcomes, products, actions and/or services described in 3.3.2.1. may be sustainable, and explain why.

→ The significant impact of Solid waste Management, or the lack thereof on the environment is well appreciated and has served as a catalyst for obtaining commitment form various stakeholders in contributing to the formulation of measures to treat with the issue.

3.3.2.5. Lessons learned on sustainability (adopted measures). Based on your experience with this project, and considering the previous analysis, describe in a concise way what measures adopted in the project design and/or implementation were effective towards project sustainability, and explain how they were put into practice.

→ The provision of and instructional strengthening and capacity building component. Additionally the pilot projects in public awareness component served to educate and bring on board key stakeholders in the whole process and raise their awareness of the SWM issues.

3.3.2.6. Lessons learned on sustainability (alternative measures). Based on your experience with this project, and considering the previous analysis, describe in a concise way what alternative measures you recommend during project design and/or implementation to improve the sustainability of future projects

→ While this project initiated an examination of the cost recovery issues related to waste management it would be useful if future projects could look at the fine tuning and implementation of such measures.

3.3.2.7. Sustainability action plan. Considering the previous analysis, describe the significant actions that the Borrowing Country and/or the Bank should undertake during the next year to

ensure sustainability of future impacts, outcomes, products, actions and/ or services identified in 3.3.2.1.

➔Instructional strengthening and Capacity building (staff training, cost recovery, equipment, enforcement), Public awareness and community participation.

3.3.2.8. Rating project sustainability. Considering the previous analysis and the probability of implementing the Sustainability Action Plan, rate the probability for the sustainability of this project during the next three (3) years:

☐ Very Probable (VP) ☒ Probable (P) ☐ Low Probability (LP) ☐ Improbable (I)

Explain your rating



3.4. BANK PERFORMANCE

3.4.1. Bank Performance in critical areas. Evaluate the Bank's performance in the following areas:

1. Extent to which the Bank facilitated the project design in a participatory manner with the Borrower and Executing Agency	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> → High	<input type="checkbox"/> N/A
2. Technical assistance and training as well as consistent follow-up provided so that the Executing Agency follow the Bank's policies and procedures	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> → High	<input type="checkbox"/> N/A
3. Technical assistance and training provided to the Executing Agency to improve project management	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> → High	<input type="checkbox"/> N/A
4. Benefits of the Bank's supervision and assistance to improve project management	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> → High	<input type="checkbox"/> N/A
5. Timeliness in the Bank's response to the needs of the Executing Agency during project implementation	Low ← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High	<input type="checkbox"/> N/A
6. Bank flexibility to respond to emergencies during project implementation	Low ← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High	<input type="checkbox"/> N/A

3.4.2. Lessons Learned for the organization and operation of the PEU (measures adopted). Based on the project experience, identify the measures adopted in terms of structure, organization and processes of the Project Coordination/Executing Unit, as well as its interaction with the Bank, and the lessons learned. How were those measures put into practice?

➔While this was identified as one of the inputs for the execution of the project the staffing of same was severely delayed.

3.4.3. Lessons Learned for the organization and operation of the PEU (alternative measures). Based on the project experience during its implementation, what do you suggest that the Bank do in future operations in order to support the improvement of the structure, organization and processes of the Project Coordination/Executing Unit and its interaction with the Bank in future operations?

➔For future projects it would be advisable to set aside financial resources to remunerate the staff to be

employed in the PEU and other key department personnel whose input are critical to the successful implementation of the project.

3.4.4. Ratings of Bank Performance. Based on 3.4.1., rate the Bank's performance in monitoring the project, taking into account the experience of the Borrower and your experience as Executing Agency during project design and implementation.

☐ Very Satisfactory (VS) ☒ Satisfactory (S) ☐ Unsatisfactory (U) ☐ Very Unsatisfactory (VU)

Explain your rating

➔ Officials of the Bank were always there to give technical advice to the PEU that was receiving on the job training.

3.5. FOUNDATIONS FOR THE EX-POST EVALUATION

3.5.1. Provisions for ex-post evaluation. Establish if this operation requires an ex-post evaluation according to the Loan Agreement. If applicable, provide the following information about the provisions taken (see agreements among the Bank, Borrower and Executing Agency in the Project Completion Workshop Aide Memoire):

Does the Loan Agreement require an ex-post evaluation for this operation?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
What will be its schedule?	Start up date: DD MM YY Submission date: DD MM YY
Who are the responsible parties for carrying out the evaluation?	<input type="checkbox"/> Bank <input type="checkbox"/> Borrower
What is the estimate of the costs involved?	USDS []
How the cost involved will be financed?	<input type="checkbox"/> IDB Resources <input type="checkbox"/> Borrower Resources <input type="checkbox"/> Other Sources

If financing comes from other source, please specify:

3.5.2. Analysis of the ex post evaluation capacity. Review the capacity of the Executing Agency, as well as its infrastructure and information systems to collect, review and report information on the achievement of future outcomes and impacts, and the main negative and positive factors that may affect this evaluation.

➔

3.6. OTHER LESSONS LEARNED AND RECOMMENDATIONS

In addition to the lessons learned and recommendations recorded in previous sections of this report, this section offers users the opportunity to state the lessons learned and recommendation that may be helpful in the design and/or implementation of new projects.

➔ Before commencing implementation, all the major stakeholders need to have a clear, mutually agreed concept as to exactly what is required to achieve an environmentally safe landfill.

Before implementation of the Project there needs to be a fully functioning PEU with qualified and experienced personnel.

MANAGEMENT REVIEW COMMITTEE (CRG) - MINUTES

Georgetown Disposal Site Environmental Improvement (GY-0059) (LO-1052/SF-GY)

Project Completion Report (PCR) August 22, 2006

I. INVITEES

- 1.1 Members of CRG: Dora Currea (OD6/CHF); Laura Profeta (OPR/LEG); Rafael Hernández (RE3/RE3); Elio Londero (RE3/RE3); Pablo Adam (RE3/RE3); Fidel Jaramillo (RE3/RE3); Sergio Varas-Olea (CGY/REP); Marco Nicola (CGY/DEP); Marguerite Berger (RE3/OD6); and Edna Armendariz (RE3/OD6).
- 1.2 Other invitees: Alicia Ritchie (RE3/MGR); Christian Gomez Fabling (RE3/DEP); Antonio Vives (SDS/MGR a.i.); Camille Gaskin-Reyes (DEV/MGR a.i.); Elizabeth Rice (DEV/PLN); Eduardo Lora (RES); Guillermo Calvo (RES); Jacques Rogozinski (IIC/GEN); Keisuke Nakamura (FSS/DEP); Sixto Aquino (OVE); Asuncion Aguila (EN1/CHF); Robert Kaplan (EN2/CHF); Janine Ferretti (ENV/CHF); Michael Hennessey (RE3/OD6); Fernando Bretas (RE3/EN3); James Campbell (COF/CGY); Javier Grau (COF/CGY); and Javier Reyes (COF/CGY).
- 1.3 Project Team Members: Eduardo Figueroa (COF/GBR); Javier Cayo (LEG/OPR); and Gisella Barreda (RE3/EN3).

II. PARTICIPANTS

- 2.1 Participants: Alvaro Llosa (EN3/CHF), CRG Chairman; Gisella Barreda (RE3/EN3), CRG Secretary, Fernando Bretas (RE3/EN3); Rafael Hernandez (RE3/RE3); Laura Profeta (LEG/OPR); Kebler Machado (RE1/EN1); Eduardo Figueroa (COF/GBR); Sergio Varas-Olea (CGY/REP); Javier Grau (COF/CGY); and James Campbell (COF/CGY).
- 2.2 Level of participation: All participants actively interacted during the CRG meeting, which significantly benefited the quality of the topics covered.
- 2.3 Written comments: Written comments were received prior to the CRG meeting from George Alexandrou (RE2/EN2), which are attached to these minutes.

III. ISSUES DISCUSSED DURING THE CRG

A. Background

- 3.1 The CRG considered the PCR on November 23, 2005 and concluded that: "...the Project Completion Report should be presented for approval once the works, monitoring and final

evaluation programmed for LO-1052/SF-GY are completed and the additional resources allocated through LO-1487/SF-GY are fully disbursed.” However, the COF/CGY requested that a new CRG be summoned to review an updated version of the PCR document. The Representative in Guyana explained to the CRG that this revised PCR includes the results of the project’s execution correspondent to the disbursement of 100% of the resources from LO-1052/SF-GY and 80% of the resources from the PROPEF (LO-1487/SF-GY), with the remaining 20% being committed. The Representative in Guyana also expressed that the project’s outcomes are not expected to change from the assessment presented in this version of the PCR to the moment disbursement is completed.

- 3.2 In response to the PCR’s assessment regarding the state of preparation of the operation, classified as incomplete, that the CRG established that:
- a. The Bank was requested to fast track the TC loan; which was conceived as an emergency measure intended to provide a transitional solution to Georgetown’s solid waste disposal problem until the “Georgetown Solid Waste Management Project (GY-0055)” was approved. The operation’s execution period was estimated to be from 18 to 24 months.
 - b. There were preliminary designs for the works prepared by the consultant Sandra Countreau-Levine and two local consultants, which were suitable to the landfill situation at the time, but not adequate for bidding. Since project’s initiation was delayed four years and waste continued to be disposed at Mandela, the preliminary designs needed adjustment to be suitable to the new landfill situation and to the completion of the bidding documents.
 - c. The Environmental Protection Agency in Guyana (EPA-Guyana) collected groundwater samples during the design phase that were part of the baseline used for the project.

B. Recommended ammendments to the PCR document

1. Presentation of the project

- 3.3 Include in section 2.01: (i) a paragraph explaining the connection between the PROPEF and this project and a justification for the additional financing of US\$500,000; and (ii) the information gap between project approval in December 1999 and the starting of the execution period in 2004.

2. Results analysis

- 3.4 Development objectives table: include under the outcomes achieved the quantitative results obtained reflected as percentages/numbers compared to a baseline data described in the paragraphs 1, 2, 3 and 4.

3. Implementation analysis

- 3.5 Emphasize in section 2.2.3.2 and in other pertinent sections the positive output of creating the MSWMD.
- 3.6 Lessons learned: restate paragraph 2.2.4.2 to correctly reflect the lessons learned in face of the information presented by Eduardo Figueroa during the CRG and the review of the PPMR.

Clarify paragraph 2 and emphasize the negative role played by the Central Tenders Board as a bottleneck for a timeless project execution.

- 3.7 Rating Project Implementation (IP): Section 2.2.4.3 will be restated to make a more accurate judgment based on the information presented regarding the preparedness of the project's engineering designs.

4. Sustainability analysis

- 3.8 Project sustainability: Section 2.3.2.1 need to be restated to reflect the following: Project sustainability is guaranteed by continuing satisfactorily operating Mandela, it's eventually properly closure and the timeless of the implementation of the GY-0055 by the GOG.

5. Annexes

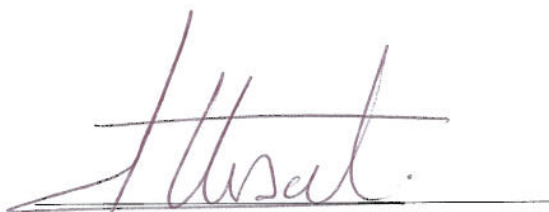
- 3.9 Annex I-A and I-B: Change the amounts in US dollars from millions to thousands.
- 3.10 Annex I-C: rephrase or clarify regarding the quality and opportunity of the financial statement being poor.

IV. UNRESOLVED ISSUES

- 4.1 All issues were addressed.

V. CONCLUSIONS AND RECOMMENDATIONS

- 5.1 The CRG recommended that the Project Completion Report be approved once the agreed amendments discussed above are incorporated into the document.



Alvaro Llosa
CRG Chairman

SEP 15 2006



Gisella Barreda
CRG Secretary

SEP 15 2006



Sergio Varas-Olea
Representative in Guyana

SEP 15 2006

MANAGEMENT REVIEW COMMITTEE (CRG) – MINUTES (ANNEX)

Georgetown Disposal Site Environmental Improvement (GY-0059) (LO-1052/SF-GY)

Project Completion Report (PCR)

August 22, 2006

Veljko Sikirica (DEV/PRM)

Veljko Sikirica (DEV/PRM):

No tengo comentarios.

George Alexandrou (RE2/EN2)

George Alexandrou (RE2/EN2):

The project was rated as unsatisfactory by the Bank due to inadequate funding, wrong designs, not conforming with technical specs and inexistence of a base line. This indicates that the initial evaluation of the project was inadequate, also too much reliance on the executing agency which proved weak. Finally approving a project prior to certain important steps such as the preparation of designs as mentioned in 2.2.4.2 proved unwise.

Preparing a project and leaving a number of important activities to be done during the phase of execution in order to save time requires a very strong and experienced executing unit which in this case did not exist, consequently some of responsibility of these negative results remain with us and the lessons learned for future projects.

In reading the report, I was a little confused in reference to the base line. In 2.1.2.1 we state certain achievements with the exception of an increase in COD for which we did not investigate its causes but later on we state that we did not have any base line data for which a consultant was hired, without any clarification on the outcome. Also a number of problems were detected with the execution agency in 2.2.3.1 The Bank did offer assistance with the hiring of a consultant in the area of evaluation of the remediation works, but it is not clear as to what we did in reference to the procurement area for example which proved to be also a major problem or the follow up of the baseline problem.

Finally, we should mention if the municipality has any intentions to begin charging the users for the collection of waste (2.0.1) in order to cover some of their expenses and improve their services (at least in the new operation).

Having said that we did gain some experience with this project that IF applied we could certainly improve in the results of future similar projects.

I have no further comments.

Fernando Bretas (RE3/EN3):

Thanks for the comments. I will dwell in some aspects of your comments and leave the other parts for COF/CGY to answer.

I agree with your comments and the lessons you could derive from it. We did arrive at the same conclusions and used the lessons learned to design the Georgetown Solid Waste Management Program, approved in early 2006. To amplify your perspective on the project it is important to shed some light on the context in which this project was approved. The president of Guyana came personally to ask the IDB's president to find an urgent solution for the Mandela site that used to catch fire frequently.

The project team at that time was instructed to find the quickest solution to liberate resources to solve the poor management of the site. Hence a reimbursable TC was approved to remediate Mandela without final engineering designs (they did have basic engineering designs that needed to be upgraded during execution). This was supposed to be a very temporary solution until the future sanitary landfill was in operation. As you pointed out the proactiveness of the then project team stopped at the weakness of the execution unit that was accessed, but there was not much to do under such downward pressure to have a solution. There were also a timeless political problem between the Mayor Office and the central Government (GOG is responsible for the Loan) that added to the reported delays. The major lesson for project teams is the need to have, and this is for all IDB staff because this situation keeps repeating in other projects from other Regions), a clear, technical and non-technical, response for emergency situations, to avoid the path followed. This is a theme that has not been given the necessary attention except lately in Natural Disasters preparedness.

**Georgetown Disposal Site Environmental Improvement
(GY-0059) (LO-1052/SF-GY)**

Project Completion Report (PCR)

Management Review Committee (CRG) - MINUTES

November 23, 2005

I. INVITEES

- 1.1 Members of CRG: Juan Manuel Fariña (SO3/CHF); Ana María Rodríguez (FI3/CHF); Xavier Comas (SC3/CHF); Alvaro Llosa (EN3/CHF); Vladimir Radovic (OD5/CHF); Dora Currea (OD6/CHF); Laura Profeta (OPR/LEG); Rafael Hernández (RE3/RE3); Elio Londero (RE3/RE3); Javier León (RE3/RE3); Fidel Jaramillo (RE3/RE3); Sergio Varas-Olea (CGY/REP); Maco Nicola (CGY/DEP); Adrianne Pratt (RE3/OD6); Michael O'Donnell (RE3/OD6).
- 1.2 Other invitees: Ciro De Falco (RE3/MGR); Camille Gaskin-Reyes (RE3/DEP); Carlos Jarque (SDS/MGR); Manuel Rapoport (DEV/MGR); Elizabeth Rice (DEV/PLN); Eduardo Lora (RES); Guillermo Calvo (RES); Jacques Rogozinski (IIC/GEN); Keisuke Nakamura (FSS/DEP); Sixto Aquino (OVE); Asunción Aguilá (EN1/CHF); Robert Kaplan (EN2/CHF); Janine Ferretti (ENV/CHF); Fernando Bretas (RE3/EN3); James Campbell (COF/CGY).
- 1.3 Project Team Members: Eduardo Figueroa (COF/GBR); Javier Cayo (LEG/OPR); and Gisella Barreda (RE3/EN3).

II. PARTICIPANTS

- 2.1 Participants: Alvaro Llosa (EN3/CHF), CRG Chairman; Sergio Varas-Olea (COF/CGY); Marco Nicola (COF/CGY); James Campbell (COF/CGY); Fernando Bretas (RE3/EN3); Kebler Machado (RE1/EN1); Joseph Milewski (SDS/ENV); Marguerite Berger (RE3/OD6); Jacques Roumani (DEV/PMP); Rafael Hernandez (RE3/RE3); Juan Carlos Pérez-Segnini (LEG/OPR); and Gisella Barreda (RE3/EN3), CRG Secretary.

III. ISSUES DISCUSSED DURING THE CRG

- 3.1 The members of the CRG presented constructive comments on how to improve the document and the project evaluation process.
- 3.2 Comments: Written comments were received from Rikke Olivera (RE2/EN2), which are attached to this minutes.

A. Background

- 3.3 The initial budget allocated under LO-1052/SF-GY to rehabilitate the Mandela site and implement an additional operating area, revealed to be insufficient to meet the project objectives. The Country Office of Guyana (COF/CGY) requested complementary funds (US\$500,000) in order to complete the execution of the project. These resources were allocated through a Project Preparation and Execution Facility –PROPEF– (LO-1487/SF-GY) approved to prepare the new operation Georgetown Solid Waste Management Program (GY-0055).

B. Current situation

- 3.4 Resources from LO-1052/SF-GY have been fully disbursed, however, there are still activities to be completed regarding the expansion and rehabilitation of the Mandela site, financed through LO-1487/SF-GY.


C. Outcome indicators and baseline data

- 3.5 The PCR outlines the need to complete the monitoring program in order to obtain the necessary data to compare with the baseline data gathered by Charles Ceres, the consultant hired by the Ministry of Local Government for that purpose. . This baseline was obtained in relation to the civil works to be carried out at Mandela Avenue under the Bank-financed project. There is no record of any baseline data prior to the sampling and testing done prior to October 2004. The PCR also emphasizes that the Executing Agency is having difficulties carrying out this task.

IV. CONCLUSIONS AND RECOMMENDATIONS

- 4.1 The CRG concluded that, given the situation described above, the Project Completion Report should be presented for approval once the works, monitoring and final evaluation programmed for LO-1052/SF-GY are completed and the additional resources allocated through LO-1487/SF-GY are fully disbursed.


Alvaro Llosa
CRG Chairman


Gisella Barreda
CRG Secretary


Marco Nicola
Acting Representative in Guyana

**ENVIRONMENTAL IMPROVEMENT OF THE
GEORGETOWN INTERIM DISPOSAL SITE (1052/SF-GY)**

Aide Memoire

Resulting from

An

Exit Workshop

July 18, 2005

**Sea Breeze Hotel Auditorium
Pere Street, Kitty, Georgetown**

**SPONSORED BY THE
INTER-AMERICAN DEVELOPMENT BANK**

**FACILITATED BY
PHILLIP WALCOTT**

1. INTRODUCTION

1.1 This aide memoire is the result of an Exit Workshop conducted for the Inter-American Development Bank on the project Environmental Improvement of the Georgetown Interim Disposal Site (1052/SF-GY) on Monday July 18 2005. The workshop and resulting aide memoire developed out of the need to take stock of the project involving the major stakeholders of the project. This is a policy requirement of the lending agency the Inter-American Development Bank. This policy was developed in 2003 and requires a participatory approach to the compilation of the project completion report

1.2 The workshop had the following objectives:

- A. Identify and report on project results.
- B. Identify the critical pending actions that have to be taken to guarantee project sustainability,
- C. Make decisions on the necessary provisions to be made to conduct an ex-post evaluation to record and measure future benefits generated by the project

1, 3 The aide memoire reflects the collective analysis of persons representing the following organizations and agencies:

- The Inter- American Development Bank.
- The Georgetown Mayor and City Council
- The Municipal Solid Waste Management Department
- Environmental Protection Agency
- The Pan American Health Organisation
- Guyenterprise Advertising Agency
- The Guyana Safe Injection Project
- Public Communications Consultant Limited
- Lodge Community Development Council
- La Penitence Community Group

The names of the participants are attached in Appendix A

Notably absent were the representatives of The Ministry of Local Government and the Ministry of Finance who had requested that the workshop previously scheduled for July 7 be rescheduled to allow for their

participation. However despite their absence the workshop can be described as a success because all objectives were achieved. This success can be attributed to the useful contributions of the participants.

2. PARTICIPATIVE ASSESSMENT

ASSESSMENT OF OUTCOMES

2.1 The Environmental Improvement of the Georgetown Interim Disposal Site project was designed to achieve an improved and environmentally safer disposal of solid waste in Georgetown and to support public awareness campaigns on proper solid waste disposal. These two objectives were largely achieved. This assessment of success was based on the fact that the project realized most of the objectively verifiable indicators. However, the achievements were not realized within the designated timeframe of the project. The loan was approved in January 2000 and the Loan Contract signed in May of that year for a period of thirty (30) months. Due to problems relating to compliance with preconditionalities disbursements were delayed. The project also suffered from problems of inadequate staffing of the unit managing the execution of the project, the absence of critical skills to manage the project and the slow implementation of the requirements of the Bank related to financial systems and procedures. Some critical members of staff for the unit were only put in place in the last quarter of 2004 while the setting up of a bank account to deposit counterpart project funds was delayed for months.

2.2 Compaction at the Mandela landfill

The project was required to achieve compaction of 600 kg/m³ at the landfill site. This has been achieved with all the waste disposed in dry cells compacted and covered with a thin layer of earth.

2.3 Reduction in the number of fires at the site

Before the project an average of three major fires occurred per month lasting between 7 days and one month. There were also several outbreaks of fires averaging 10 per month that were smothered. The project achieved total success in this area as no fires occurred on the site within the twelve previous months to the

workshop exceeding the target of 90%. The elimination of gas fires was achieved through the installation of 32 gas wells to extract the gas naturally and the overlaying of the compacted garbage with a layer of impervious clay. The latter prevented the methane gas from rising to the surface where combustion could take place. . The controlled extraction is necessary to prevent emissions of the gas. When there are emissions of methane gas in concentrations of between 5-15% in relation to other gases, fires will occur spontaneously.

2.4 **Elimination of detectable odors from the landfill and sorting activities.**

This area also achieved a high degree of success. Only one incident of odors coming from the landfill was reported within the previous six months. This incident stemmed from the use of earth from a section of the landfill where garbage was previously disposed to serve as cover for a newly created disposal area. The earth used gave off unpleasant odours.

2.5 **No increase in the contamination of the groundwater**

This area could not be assessed. While baseline data existed on the level of contamination prior to the start of the civil works no information was available on the current levels of contamination. Work was however done to control the contamination of the ground and surface waters through leachate management control which is in place whereby the ground water is directed to run off into a large pond. Vegetation is also being put to help remove the biological impurities contained in the water. Leakage control mechanisms are also put in place to prevent the seepage of contaminated water into the ground water. This is done by placing layers of clay soil to the bottom and sides of the cells before disposal of contaminated garbage especially bio-medical waste.

2.6 **Decrease in the number of illegal dumpsites**

In April 2004, 47 mini dumpsites were located in various parts of the Lodge community. One year later at the end of the public awareness programme this number was reduced to 20, a reduction of 42.5%. Of some concern however, is that while old sites have

been cleared some new ones have appeared. The biggest reduction of dumpsites was made in Hadfield and Princes Streets and Lodge Housing Scheme.

2.7 **New infrastructure built and operational on the landfill.**

The project was designed to build and have operational by December 2001, a site office, sanitary block, and shed for litter pickers/recyclers but due to a number of delays a new time frame for completion is proposed for September 2005. The site office and the sanitary block have already been completed while the shed for the litter pickers/recyclers is now being constructed and should be completed by the proposed new deadline. The project has also constructed an all weather road leading to the landfill site.

2.8 **Volumes of solid waste covered**

Solid waste disposal in dry cells is covered on a daily basis. Initially, the project utilized an area of 10 acres which has been completely filled and covered. In addition sloping has been done to the northern, southern and eastern sides of the site, of which 85% is completed, to allow for effective drainage. The project is now utilizing an additional 10 acres on the western side with an additional 5 acres identified to be utilized. These will be sloped, leveled and covered after utilization as in the original 10 acres.

2.9 **Number of persons involved in community projects**

A fair amount of success was achieved in this area. In two of the major activities executed that required the involvement of community members, one received the overwhelming support of the community and was an outstanding success while the other received less than expected support and was not as successful as the other. The Company, Guyenterprise Advertising Agency, contracted to promote public awareness and involvement along with the Municipal Solid Waste Management Department was able to effectively involve the community in the cleanup of the Lodge area. So effective was this involvement, the number of trucks identified to dispose the garbage had to be significantly increased to cater for the large volume of garbage generated. The lasting effectiveness of the public awareness campaign and the residents' participation is increased use of garbage bins, also families have become more conscious about the issues of waste management

with a significant increase in a number of calls to the Municipal Solid Waste Management Department reporting on violations of environmental practices.

3 ASSESSMENT OF PROJECT LOGIC

- 3.1** The Workshop agreed that while there were some conceptual difficulties in the main, the project had a clear logic. However, the absence of quantity, quality and time in the construction of the indicators and the absence of baseline data impacted negatively on the ability to monitor and evaluate the project. The indicators for the goal were particularly weak, and with no baseline data measuring the achievement of the goal, would present significant difficulties for evaluation. However, the indicators for purpose and outputs were much clearer though not adhering in every case to the use of quantity, quality and time to construct the indicators.

4. ASSESSMENT OF PROJECT IMPLEMENTATION

- 4.1** The project components were not implemented as planned especially in relation to the time frame of the project. The project was not started on time, and proceeded well beyond the 30 months originally conceptualized. This was due partly to the lack of capacity of the Executing Agency. Another contributing factor to the delay in execution is the fact that bids for the first design for civil works exceeded the budget and hence the designs had to be redone and bids invited a second time.

Another critical issue affecting the project was that while the landfill site was designed to be a temporary site with a permanent one being developed elsewhere, the delay in preparation of the new project site has placed additional burden on the Mandela site and may result in need for more space at Mandela. This problem was further compounded by the floods of January 2005 which catapulted Mandela Landfill Site from being not only a landfill for Georgetown but almost a landfill for Georgetown, East Coast and East Bank.

4.2 **Feasibility of Project**

While the project was sound in conceptualization and feasibility, this project was conceptualized as an interim project. Therefore, it was heavily dependent on the new landfill site being developed and ready to take over the task from the interim site at Mandela at the earliest possible opportunity. Despite the fact that the MSWMD was created to facilitate the implementation of the new project and was expected to benefit from the experiences gained from the Mandela project, this Unit was poorly staffed and ill-equipped and therefore could not initially perform its role. This impacted in the delays in the preparation in the new site and as a consequence impacted negatively with, the Mandela site being required to have numerous extensions beyond its intended life. It was therefore the problems relating to implementation and not lack of feasibility that impacted negatively on the project.

4.3 **Stability and Standardization during Execution**

Since the use of a sanitary landfill for solid waste management is a new area in Guyana, this project was used as a pilot that could be replicated in other councils and as a micro system in NDCs. The project developed best practices and clearly could be replicated in different located and geographical areas. Already under the new Haags Bosch project the experiences learnt from Mandela are being used to help 13 cooperative NDCs to develop effective solid waste management practices.

While the practices developed by the project can be replicated elsewhere and under different circumstances, the main obstacle remains the capacity of the other councils and NDCs to manage a landfill site. To counteract this, a number of holding sites could be developed to assist the NDCs with the lack of capacity. In this regard therefore, the project could be replicated.

4.4 **Aspects of implementation specific to the project**

While the Mandela Landfill site was not originally conceptualized to be developed as a model for other councils and NDCs to follow, this has evolved. Every aspect of this project is being designed to be replicated in NDCs or other councils and therefore there is no area of project implementation that is only specific to this project.

4.5 Interventions or Services to be continued

Two elements critical to the success of the Mandela Landfill project were identified for continuation after the termination of bank financing. These were institutional strengthening through training and capacity building to manage landfill sites and the public awareness to promote best solid waste disposal practices.

It was recommended that a National Solid Waste Management Authority be created through which these two activities should be continued.

4.6 Assessment of Lessons Learnt from Project Implementation

Main lessons learnt from the Project include:

- Solid waste management cannot be effective without effective community relations. It must be recognised that poor solid waste disposal practices in Guyana are a cultural norm and that this can only be overcome with an effective public awareness programme involving community members. In identifying the community members to work with, cognisance must be taken of the fact that while some persons are elected leaders of communities some others are in fact the persons that shape the opinions of the members of the community. The opinion leaders must be involved in the public relations programme.
- **Stakeholder participation.**
All projects must be designed to have full participation of beneficiaries and stakeholders. This participation should not be limited to project implementation but should be extended to project preparation to ensure the appropriateness of the design to the community and that the project objectives are fully understood by all. During implementation care should be taken to ensure that community members are not given superficial recognition but real involvement must be promoted. This is a prerequisite of building trust and confidence of the community.
- Disbursements should be limited until project execution units are effectively staffed. This is demonstrated in the fact that while the Municipal Solid Waste Management Department was set up it was not effectively staffed and therefore could not execute the requisite duties. This contributed to slow implementation and ultimately project delays.

- Special emphasis must be placed on capacity building and that this should commence early enough in the life of the project to ensure that the project benefits from the skills developed. While some capacity building took place in this project, very often it took place very late in the life of the project to have as significant an impact as desired.
- The demonstration of political will is vital for project success.
- **Developing effective project indicators**
Indicators for project monitoring and evaluation at all levels should be measurable. The measurability should be based on effective baseline data and adherence to the rules of indicators construction i.e the use of quantity, quality and time.

4.7 **Disagreement in terms of project implementation**

There were no major areas of disagreement between the Bank and the Borrower/executers of the project.

5. **SUSTAINABILITY**

5.1 **Achievements of Sustainability**

- The most important ingredient in the sustainability mix, i.e. the development of institutional capacity, was achieved. The training of persons in solid waste management in the Municipal Solid Waste Management Department provided the basis for more efficient and effective management of solid waste disposal in Georgetown.
- The sensitization of the communities and the resulting improvement in the solid waste disposal practices testify to the fact that some behavioural change has taken place. This guarantees that the benefits of this project will accrue to the Lodge community for a long time.

5.2 **Challenges**

- Despite the hard work of the Municipal Solid Waste Management Department the financial difficulties being experienced by the M&CC are threatening to undermine all the gains made so far. The financial difficulties have forced the M&CC to allocate less than desired amounts to the Municipal Solid Waste Management Department. This however, comes at a time when there is a significant increase in the amount of solid waste to be disposed. Except this

situation is reversed, solid waste disposal management is likely to be seriously compromised.

- Poor solid waste disposal in Guyana has become entrenched in the behavioural pattern of the citizens. No significant gains can be made in solid waste disposal except this culture is reversed. The reversal of this culture must come through public awareness, effective legislation creation and enforcement. In all of these areas there are significant issues to be addressed.

5.2 Actions necessary for sustainability

There are a number of actions to be taken for the sustainability of the benefits of the project:

- Effective operation of the municipal court to support efforts to penalize violators of good solid waste disposal practices.
- Strengthening of the City Constabulary to enforce the laws governing solid waste disposal.
- Financial systems should be modified to ensure revenue garnered from solid waste disposal go to support solid waste management units to finance their activities.
- The focus on technology to be used in solid waste disposal should be broadened to utilize the latest and cheaper forms of technology relevant to Guyana. Attention should be paid to the baler technology.
- There should be greater involvement of community members and external organisations in the execution of solid waste disposal management programmes.
- Attention should be paid to retaining the skilled staff in the Municipal Solid Waste Management Department through the development of adequate remuneration packages.
- Cost recovery should be built into all solid waste disposal programmes.
- A national solid waste management unit should be set up to oversee the implementation of effective solid waste disposal practices in all areas of the country.
- Special attention should be paid to the disposal of medical waste especially needles.

6. PROVISIONS FOR EX-POST EVALUATION

6.1 **Type of ex-post evaluation to be carried out.**

- It was agreed that the evaluation should examine the contributions of the project to the improvement of health, sanitary and environmental conditions in Georgetown. Concern was however expressed about the correlation between proper waste management and public health. Therefore, it is unsure whether the real impact of the project could be measured. It was felt that greater attention should be paid to the quantitative rather than qualitative evaluation.
- **The time frame and conduct of evaluation**
The time frame for the evaluation should be 6 months after the final completion of the project and should be conducted by a group of independent evaluators contracted and financed by the bank in collaboration with government. The amount to be spent should be determined by the bank.
- **Methodology**
It was decided that the evaluation should examine the conditions existing before and after the project and therefore determine the impact of the project. Involved in the project however, must be extensive consultation with the stakeholders.
- **Measures to be taken for ex-post evaluation**
Since the evaluation was not going to be conducted in-house but by an independent body it was felt that there was little need for the development of capacity of the borrower to carry out the ex-post evaluation.

APPENDIX A

The Inter- American Development Bank

James Campbell	Senior Multi-Sector Specialist
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The Georgetown Mayor and City Council

Hamilton Green	Mayor
Robert Williams	Deputy Mayor
Beverly Johnson	City Engineer (ag)
Laverne Garraway	Assistant Town Clerk

The Municipal Solid Waste Management Department

Rufus Lewis	Director
Hubert Urlin	Deputy Director (ag)
Marlon Hoyte	Snr. Environmental Health Officer
Selwin Grenion	Admin Officer

Environmental Protection Agency

Fiona Holder	Senior Environmental Officer
Conor Fox	Environmental Economist

The Pan American Health Organisation

Teófilo Monteiro	Environmental Health Advisor
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Guyenterprise Advertising Agency

Allan Fenty	Public Relations Specialist
Wynette Oudkerk	Projects Coordinator

The Guyana Safe Injection Project

Claudette Harry	Director (Guyana)
Margaret Lawrence	BCC Officer
Audrey Anderson	Training Officer

Public Communications Consultant Limited

Christopher Nascimento	Managing Director
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Lodge Community Development Council

Ismail Muhammad	Coordinator
Allan Nelson	Vice Chairman
Stella Gray	Secretary

La Penitence Community Group

Marvin Trotman

Chairman

Attachment 1:

Pictures of the Mandela Landfill (Dec. 2005)



Cover of old areas at Mandela Landfill completed. Gas emissions pipes installed.



Slopes and initial vegetation at the old areas at the Mandela landfill.