Board of Executive Directors
Simplified Procedure
On or after 25 May 2016

PR-4393
10 May 2016
Original: English
Public
Simultaneous Disclosure

To: The Executive Directors

From: The Secretary

Subject: Belize. Proposal for a loan for the "Solid Waste Management Project II"

Basic Information:

Loan type ..... Specific Investment Operation (ESP)
Borrower ..... Belize
Amount ..... up to US$10,000,000
Source ..... Ordinary Capital

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Remarks: Under the provisions set forth in document AB-2990, "Enhancing Macroeconomic Safeguards at the Inter-American Development Bank" (paragraph 2.4), the disbursement of Bank financing will be subject to the restrictions indicated in this loan proposal.

Management has determined that this loan proposal meets the requirements for presentation by Simplified Procedure, in accordance with Part III, Section 2 (paragraph 3.29(b)) of the Regulations of the Board of Executive Directors and document GN-1838-1, paragraph 2.

Reference: AB-2990(5/14), AG-9/14, GN-1838-1(7/94), DR-398-17(1/15), GN-2849(3/16), PR-3331(11/08), DE-152/08, PR-3334(11/08), DE-157/08, PR-4328(10/15),DE-101/15

PUBLIC
SIMULTANEOUS DISCLOSURE

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

BELIZE

SOLID WASTE MANAGEMENT PROJECT II

BL-L1021

LOAN PROPOSAL

This document was prepared by the project team consisting of: Javier Grau Benaiges, Project Team Leader (WSA/CPN); Alfredo Rihm (INE/WSA), Alternate Team Leader; María Julia Bocco, Diana M. Rodríguez, Keisuke Sasaki, Hubert Quille, and Irene Cartin (INE/WSA); Sybille Nuenninghoff (RND/CBL); Andrea Monje (SCL/GDI); Stefanie Brackmann (VPS/ESG); Taos Aliouat (LEG/SGO); Graham Burns Williams and John Primo (FMP/CBL); and Venetia Eck-Salazar (CID/CBL)

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REQUIRED

1. Pluriannual Execution Plan (PEP)
2. Annual Operational Plan (POA)
3. Monitoring and Evaluation Arrangements
4. Environmental and Social Management Report (ESMR)
5. Procurement Plan

OPTIONAL

1. Technical Options and Design
2. Analysis of Project Cost and Economic Viability
3. Financial Viability
4. Institutional Analysis/Personnel, Procedures Other Aspects Of Implementation Capacity
5. Land Acquisition
6. Environmental Assessment / Environmental and Social Management Plan
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ABBREVIATIONS	
AOP	Annual Operating Plan
DOE	Department of the Environment
EA	Environmental Assessment
E&S	Environmental and Social
ESMP	Environmental and Social Management Plan
ESMR	Environmental and Social Management Report
ESMS	Environmental and Social Management System
GOB	Government of Belize
GSDS	Growth and Sustainable Development Strategy for Belize 2016 - 2019
ICAS	Institutional Capacity Assessment System
IDB	Inter-American Development Bank
MNRA	Ministry of Natural Resources and Agriculture
MNRI	Ministry of Natural Resources and Immigration
MSW	Municipal Solid Waste
NSTMP	National Sustainable Tourism Master Plan
OC	Ordinary Capital
OFID	OPEC Fund for International Development
O&M	Operations and Maintenance
PEP	Project Execution Plan
PMR	Project Monitoring Report
POM	Program Operations Manual
PP	Procurement Plan
RM	Results Matrix
SIP	Social Inclusion Plan
STP	Sustainable Tourism Project
SWaMA	Solid Waste Management Authority
SWM	Solid Waste Management
SWMP I	Solid Waste Management Project I
TC	Technical Cooperation

PROJECT SUMMARY
BELIZE
SOLID WASTE MANAGEMENT PROJECT II
(BL-L1021)

<table>
<tr><th colspan="5">Financial Terms and Conditions</th></tr>
<tr><td colspan="3" rowspan="2">Borrower: Belize</td><td colspan="2">Flexible Financing Facility[a]</td></tr>
<tr><td>Amortization Period:</td><td>25 years</td></tr>
<tr><td colspan="3" rowspan="2">Executing Agency: Solid Waste Management Authority (SWaMA), with the support of the Ministry of Natural Resources and Immigration (MNRI)</td><td>Original WAL:</td><td>15.25 years</td></tr>
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<tr><td>IDB (OC): [e]</td><td>10,000,000</td><td>98</td><td>Supervision and Inspection Fee:</td><td>[b]</td></tr>
<tr><td rowspan="2">Local:</td><td rowspan="2">200,000</td><td rowspan="2">2</td><td>Interest rate:</td><td>LIBOR BASED</td></tr>
<tr><td>Credit Fee:</td><td>[b]</td></tr>
<tr><td rowspan="2">Total:</td><td rowspan="2">10,200,000</td><td rowspan="2">100</td><td rowspan="2">Currency of Approval:</td><td rowspan="2">Dollars of the United States of America chargeable to the Ordinary Capital (OC)</td></tr>
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Project at a Glance

Project Objective/Description:
The objective of the project is to support Belize in its efforts to reduce environmental pollution through the improvement of solid waste management practices in emerging tourism destinations in northern and southern Belize. Specifically, the project will finance investments to improve solid waste transport, recovery, and final disposal in towns and villages in the Northern (Orange Walk and Corozal) and Southern (Stann Creek and Toledo) Corridors and in Belmopan, and to strengthen SWaMA as the lead agency in the waste management sector.

Special contractual clauses prior to the first disbursement of the loan: (i) The Borrower shall present an agreement signed between the Borrower and SWaMA whereby the latter assumes the obligations regarding the execution of the project (see ¶3.1); and (ii) the Project Operations Manual (POM) shall be approved by the Borrower and be in effect, and shall include fiduciary aspects as well as the environmental and social requirements described in the Environmental and Social Management Report (ESMR) (see ¶3.2).

Special contractual clauses prior to other disbursements of the loan:

(i) Prior to issuing the bidding documents for the works under Component 1:

(a) the Borrower shall present for the Bank's review and approval the final draft of the Environmental Assessment (EA) and the Environmental Social Management Plan (ESMP) (see ¶2.8); and

(b) the Borrower shall submit evidence, acceptable to the Bank, that it has the legal possession, easements or other rights regarding the land where the works will take place, as well as the riparian rights required for the respective works (see ¶2.12);

(ii) prior to starting the works under Component 1, the Borrower shall present to the Bank the Environmental Compliance Plan (ECP), which includes the corresponding environmental permits issued by the Department of Environment (DOE) (see ¶2.8);

(iii) prior to starting to close dumpsites, the Borrower shall present for the Bank's review and approval the final draft of the Social Inclusion Plan (SIP) (see ¶2.8);

(iv) prior to the award of the contract for the works of the additional cell at the Mile 24 Regional Sanitary Landfill, the Borrower shall conduct public consultations for the implementation of a cost recovery mechanism that covers, at least gradually, the cost of operation, maintenance and administration of solid waste management facilities financed with the resources of the project (see ¶2.17); and

(v) prior to the disbursement of the retention under the contract for the works of the additional cell of the Mile 24 Regional Sanitary Landfill, the Borrower shall make effective the cost recovery mechanism, adjusted as per public consultations, by approving a cabinet decree or taking any appropriate legal action for its implementation, and if the revenues from such cost recovery mechanism do not generate sufficient resources to cover the operation, maintenance and administration of the solid waste management facilities financed with the resources of the loan, the Borrower undertakes to allocate additional resources to those of the loan to cover these costs (see ¶2.17). **Other condition for project execution:** Prior to starting operations of the first transfer station constructed with resources of the project, the Borrower shall submit the corresponding Environmental and Social Management System (ESMS) (see ¶2.8). **Environmental and social clauses**: The Borrower shall ensure compliance with all other environmental, social and health and safety requirements set forth in Sections 5.8 through 5.15 of the ESMR (see ¶2.8).
Exceptions to Bank Policies: None

Strategic Alignment						
Challenges[(c)]:	SI	☑	PI	☐	EI	☐
Cross-Cutting Themes[(d)]:	GD	☑	CC	☑	IC	☐

[(a)] Under the Flexible Financing Facility (FN-655-1), the borrower has the option to request modifications to the amortization schedule as well as currency and interest rate conversions. In considering such requests, the Bank will take into account operational and risk management considerations.

[(b)] The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors during its review of the Bank's lending charges, in accordance with the relevant policies.

[(c)] SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

[(d)] GD (Gender Equality and Diversity); CC (Climate Change and Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

[(e)] Pursuant to Document AB-2990, the disbursement of Bank financing will be subject to the following maximum limits: (i) up to 15% during the first 12 months; (ii) up to 30% during the first 24 months; and (iii) up to 50% during the first 36 months. All these periods will be counted from the time the Loan operation is approved by the Board of Executive Directors (see ¶2.2).

I. DESCRIPTION AND RESULTS MONITORING

A. Background, Problem Addressed, Justification

1.1 **Sector Diagnosis**. In 2014, Belize's estimated population was 358,996 inhabitants, 45% of whom lived in urban areas. Belize is divided into six districts: Orange Walk and Corozal in the north, Belize and Cayo in the center, and Stann Creek and Toledo in the south. According to the 2010 census, the northern and southern regions accounted for 48% of Belize's total population while the two central districts, which include Belize City, Belize's main urban area, and Belmopan, Belize's capital, accounted for the remaining 52%. With a total Municipal Solid Waste (MSW) generation estimated to be 130,000 tons per year,[1] access to proper solid waste collection and disposal services varies significantly between regions. Belize's only sanitary landfill covers most areas in the central districts, while the northern and southern regions dispose of their MSW in open dumps with little or no environmental and health control.

1.2 Historically, Solid Waste Management (SWM) in Belize did not meet the needs of the country. The absence of proper transfer and final disposal facilities became a risk for the environment, the health[2] of the growing population, and the tourism industry. At the same time, growing numbers of tourist arrivals have recently placed increased pressure on existing solid waste collection and disposal services.[3] Until 2009, solid waste collected in cities and towns throughout the country was discharged in open or partially controlled dumps. These facilities used to lack the appropriate technical and environmental controls and operated without adequate equipment or sufficient cover material. In coastal areas and in the islands, the inadequacy of waste disposal practices has been a matter of concern due to the environmental vulnerability, the occurrence of natural disasters, and the proximity of the islands to coral reefs.

1.3 The Solid Waste Management Authority Act of 2000 is the most important legal instrument governing the solid waste sector.[4] It establishes the structure and functions of the Solid Waste Management Authority (SWaMA), a corporate body with independent legal status under the purview of the Ministry of Natural Resources and Immigration (MNRI). SWaMA is responsible for providing arrangements for the collection and disposal of solid waste within a service area. One of SWaMA's main responsibilities is to assist local councils and their

[1] Studies conducted in 2011 show that solid waste generation in San Ignacio, Belize City, San Pedro and Caye Caulker varies between 0.99 and 1.24 kilograms per capita per day. Assuming a generation of one kilogram per capita per day, the MSW generated in Belize is approximately 130,000 tons per year.

[2] According to UN Habitat (Solid Waste Management in the World's Cities, 2010 United Nations Human Settlements Programme), acute respiratory infections are significantly higher for children living in households where solid waste is dumped, or burned in the yard, compared to households in the same cities that receive a regular waste collection service.

[3] According to figures from the Belize Tourism Board, overnight tourist arrivals in Belize increased by 38% between 2006 and 2015, from 247,309 to 341,125.

[4] The Act focuses on residential and commercial solid waste, defining solid waste as waste that "includes garbage and refuse but shall not include derelict vehicles, construction waste material, limbs of trees, soil, lumber, packaging materials and chemical by-products."

sanitation departments on a range of activities, including design and enforcement of regulatory requirements for solid waste management systems; legal support and advice on drafting and renewal of contractual agreements with service providers; design and implementation of waste separation programs at the source; and advice on marketing strategies for waste recycling, among others. SWaMA remained weak and understaffed until 2008.[5] However, starting in the fiscal year 2008-2009, and as part of the Government of Belize's (GOB) commitment to improve the performance of the sector, SWaMA has received more adequate resources to carry out its mandate. Presently, SWaMA functions with a team of eight professionals and a Board of Directors. The creation of SWaMA has improved the institutional framework for the sector, allowing for improvements in waste transport and final disposal (see ¶1.6 to ¶1.9), better coordination among key actors, and developing a strategy to address the challenges faced by the sector.

1.4 The highest level in the governance structure of SWaMA rests in the Board of Directors, which is responsible for the policy and general administration of the affairs of the Authority. The Board is comprised of seven members including a Chairman, Vice-Chairman and five members, all appointed by the Minister of Natural Resources and Immigration. The Executive Director of SWaMA participates in the meeting without voting rights, and is the Secretary of the Board. It must be noted that in 2015, the Board of SWaMA was reconstituted with the Chief Executive Officer of MNRI as Chairman, and a private sector representative holding the Vice-Chairman position. Under this new structure, the Board is comprised by five public sector representatives and two private sector representatives.

1.5 Residential and commercial solid wastes are also governed by the Town Council Act Chapter 87 of 2000 ('the Town Council Act'), and the Village Council Act. The Town Council Act establishes the structure and duties of the town councils in Belize, and Article 30 (b) of the Town Councils Act assigns town councils the responsibility for coordinating and managing the "collection and removal of all garbage material from all residential or commercial areas in its town." At the village level, Section 23 of the Village Council Act provides that the Council may make by-laws for the cleanliness of streets and other public places. According to the recently completed National Solid Waste Management Strategy, the existing institutional arrangements for municipal SWM collection and street cleaning services are under-resourced and unreliable, which has a negative impact on service coverage and quality.[6] In recent years, SWaMA and as part of its mandate, has started working with the Town Councils on improving the quality of the services they provide.

1.6 **The first Solid Waste Management Project (SWMP I)**. In 2009, the Bank approved the SWMP (BL-L1006), a US$14.9 million project with financing from the Bank, the OPEC Fund for International Development (OFID), and the GOB. This project created the basis for significant improvements in the sector by

[5] In 2008, only the Board of Directors of SWaMA was functioning. The SWaMA had no operational staff; the first positions were created in 2009. The first budget allocation to cover SWaMA's.operational costs was approved in the fiscal year 2008-9.

[6] Integrated Skills: National Solid Waste Management Strategy and Implementation Plan, June 2015.

strengthening the SWaMA and by improving infrastructure for solid waste transfer and final disposal.

1.7 The SWMP I, which concluded in 2015 and was executed by SWaMA, has resulted in the construction of the first sanitary landfill in Belize, located at Mile 24 of the George Price Highway, the highway connecting Belize City, Belmopan and San Ignacio on the border with Guatemala. This sanitary landfill, which began operations in August 2013, is already benefiting urban areas in the districts of Belize and Cayo, including Belize City, San Ignacio and Santa Elena, and Benque Viejo. By the last quarter of 2015, the landfill started benefiting San Pedro, Belize's main tourist destination, Caye Caulker, another important tourist destination, and areas north of Belize City through the completion of three new transfer stations. Dumpsites in the Western Corridor (Belize City, San Ignacio, and Burrell Boom) have been closed and replaced with transfer stations, from where solid waste is being safely transported to the Mile 24 Regional Sanitary Landfill.

1.8 Prior to SWMP I, there was no facility in Belize for safe disposal of MSW. By the end of the project, the main result of SWMP I has been that 30,653 households in Belize have access to safe disposal in a sanitary landfill. This represents an increase from 0% of all households in Belize in 2009 to 39% by 2015. In terms of MSW disposal, between August 2013 (when the new sanitary landfill at Mile 24 was inaugurated) and October 2015, a total of 56,711 metric tons of MSW have been safely disposed at the sanitary landfill, thus eliminating the burden on the dumpsites in Belize City and San Ignacio and more recently in Caye Caulker, San Pedro and in areas north of Belize City. Benefits of the project have also included the absence of fire incidents, and the related environmental and health impacts at the sites of the former dumpsites in Belize City and San Ignacio. The SWMP I has also contributed to reducing vulnerability and increasing resilience to natural disasters and the impacts of climate change. This is reflected in the closure of dumpsites in coastal areas, located in unsuitable, low-lying mangrove areas prone to flooding and in very close proximity to urban areas. Finally, the project contributed to improving SWM in key tourist destinations: as part of the project, three key tourist destinations in Belize have now access to a sanitary landfill. These are Central Belize, Western Belize and the Northern Islands.[7]

1.9 On the institutional side, during the implementation of SWMP I, SWaMA staff participated in over ten training programs both in Belize and abroad. As part of the project, three guidelines for proper construction, operation, and closure of SWM facilities were developed. Key contributions also included the preparation of the SWM Policy and Strategy and the review of the legal and regulatory framework for SWM in Belize. A key result of the project has been the improvement of the working conditions of 38 informal recyclers, who used to recover recyclables in the former dumpsites of Belize City and San Ignacio. These recyclers are now working in the new transfer stations under improved working conditions including: (i) access to sanitary facilities designed for males and females, including shower stalls; (ii) work carried out following operational

[7] The 2011 National Sustainable Tourism Master Plan for Belize 2030 divides Belize in seven tourism regions (Western Belize, Central Belize, Northern Belize, Northern Islands, Southeastern Coast Belize, Southern Belize, and Belize Reef).

rules at the sites within an enclosed building which provides shelter from the sun and rain and which also provides a proper space to store the recovered material; (iii) access to personal protective equipment to safeguard themselves while handling the waste; and (iv) training in First Aid, Occupational Health and Safety.

1.10 **Remaining Sector Challenges**. Despite these improvements, there are still outstanding challenges that must be addressed to advance in the performance of the sector, including improving final disposal in the southern (Stann Creek and Toledo districts) and northern (Corozal and Orange Walk districts) regions as well as in Belmopan, Belize's capital, all of which are also projected to see significant increases in overnight tourist arrivals in the near future. Furthermore, as regards to the strategic development of the sector, improving the management of special wastes such as hazardous and medical waste, ensuring financial sustainability of the solid waste sector, and a continued education of the public about the importance of reduction, recycling, and reuse are essential towards the goal of an efficient and effective SWM.

1.11 In relation to MSW transport and disposal, the 2010 census provides detailed information about collection and disposal practices in northern and southern Belize. As shown in Table 1, of the various ways of improper disposal of solid waste, burning is the most commonly used. The districts of Corozal (36.5%) and Orange Walk (39.4%) in northern Belize and Toledo (52%) in southern Belize have the highest percentages of burning as the main disposal type. With the adverse impact on human health, in addition to the degradation of Belize's natural resources, these indications of improper disposal signal the need for the expansion of the current transfer and disposal system from the Western Corridor to the Northern and Southern Corridors, as well as the need to promote the reduction of generation of solid waste at the source and recycling.

Table 1: Solid Waste Disposal by Household in Northern and Southern Belize (% in 2010)

	Dump on land	Take to dumpsite	Compost	Burn	Throw in river, sea or pond	Bury	Municipal Collection for final disposal in dumpsite	Garbage Truck – Private for final disposal in dumpsite	Other	Don't Know/Not Sure
Corozal	1.9	23.5	0.2	36.5	0.0	0.5	27.3	8.6	0.0	1.5
Orange Walk	2.7	21.4	0.2	39.4	0.1	0.4	32.2	2.4	0.1	1.1
Stann Creek	2.8	10.0	0.2	22.4	0.1	2.9	45.4	14.4	1.2	0.5
Toledo	4.4	11.8	1.0	52.0	0.1	2.8	21.4	5.8	0.4	0.3

Source: SIB and UNFPA (2012) "Belize Population and Housing Census, 2010, Country Report".

1.12 In relation to recycling, establishing improved recycling practices requires addressing the situation of the recyclers working informally on material recovery at the dumpsites. This population is being directly exposed to waste and

emissions from burning activities. Of the fifty permanent informal recyclers working in the dumpsites in the northern and southern regions and in Belmopan, 26% are women. Additionally, a group of about ten women are irregular recyclers in three dumpsites[8]. The southern and northern districts have significant poverty rates (see ¶1.24) and women's situation is particularly vulnerable in Belize, since the burden of poverty falls heavily on them (especially on women head of households[9]) due to low participation in the labor force,[10] over-representation in the informal sector and low paying jobs.[11] Female heads of households are more likely to be poorer than male heads of households (30.5% vs 23.6%, respectively),[12] less than half of females participate in the labor force compared to 80% of men, and women's unemployment rate is over half of men's (22% vs 11%, respectively).[13]

1.13 The National Sustainable Tourism Master Plan for Belize 2030 (NSTMP), approved in 2012, identifies "insufficient waste disposal" as a key constraint on tourism growth. For each major tourist destination, the Master Plan described the problems caused by improper waste disposal, such as environmental damage, health hazards, and visual pollution. The NSTMP reports that in the southern region, the transport of inadequately disposed waste by runoff water during high rainfall events is a main concern since the waste ultimately ends up in the recreational waters of Placencia and in the coastline of Punta Gorda. Also, according to the NSTMP, Punta Gorda has one of the highest incidences of mosquito infestation, which is enhanced by the presence of standing water trapped within waste, which acts as an enabling environment for the reproduction of vectors that cause diseases such as malaria and dengue. In the northern region, the NSTMP reports that touristic destinations are being affected mainly by littering and dumping practices, which are visible by tourists particularly on road sides and outside of the town's boundaries.

1.14 These concerns identified by the NSTMP are related to major deficiencies with SWM in tourist destinations in the southern and northern regions of Belize. There is, hence, a need to improve solid waste disposal in these districts, especially given the recent completion of the first Sustainable Tourism Project (STP) and the recent approval of STP II, which have prioritized emerging tourist destinations in both regions and which are expected to see growing numbers of overnight tourist arrivals in the coming years. The results achieved in addressing solid waste transportation and disposal in the Western Corridor and in the islands of Ambergris and Caye Caulker need to be expanded geographically to these other regions. This would allow SWaMA and the GOB to effectively address the challenges posed by improper solid waste management in all districts in Belize.

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[8] Orange Walk Town, Placencia and Dangriga.

[9] Female heads of households are more likely to be poor than male heads of households: 30.5% vs 23.6% in 2002, respectively (Poverty Assessment Report – Belize 2002).

[10] Less than half of females over 14 years old participate in the labor force compared to 80% of men (source: National Gender Policy 2013); and unemployment rate is over half of men's: 22% vs 11% in 2012, respectively (source: David Lindauer (2014). Labor Market Performance in Belize. IDB).

[11] UNICEF (2011). The Situation Analysis of Women and Children in Belize.

[12] Poverty Assessment Report, Belize 2002.

[13] National Gender Policy 2013; and David Lindauer (2014). Labor Market Performance in Belize. IDB.

1.15 As for central Belize, there is a major urban area that was not covered under the first SWMP. Belmopan, Belize´s capital, with a population of 13,931 in 2010, is the fastest growing urban area in Belize (its population increased by 173.8% between 2000 and 2010). At the time of the design of SWMP I, Belmopan was a minor town compared to the other urban areas in the Central Corridor and the dump did not present major operational challenges. However, the current dump, which opened six years ago and is located 4.5 miles south from Belmopan on the Hummingbird Highway, itself a tourist attraction with several tourism establishments along the way and the main route for tourists traveling to the southern region of Belize by road, has deteriorated in recent years and needs to be closed and replaced by a transfer station in order to reduce its environmental and health impacts.

1.16 In relation to the management and final disposal of hazardous waste, industrial waste, and medical waste in Belize, the available information is limited. Hazardous wastes are regulated under the Hazardous Waste Regulation of 2009. The largest generators of industrial waste are the citrus, sugar, banana, shrimp, construction, liquor, and transportation industries. In the 2008 National Plan of Action for the Control of Land-Based Sources of Marine Pollution in Belize, the Department of the Environment (DOE) identified industrial waste as one of the key causes of marine pollution and identified the need to set targets and timetables for managing industrial waste. The Mile 24 sanitary landfill includes a special cell for hazardous waste, which is to start operating as soon as the protocol for its operation is completed.

1.17 On the financial sustainability side, through the first SWMP, the GOB expressed its willingness to move forward in ensuring that there is a clear mechanism to recover a significant part of the cost of providing solid waste services throughout the country. Through different studies conducted under SWMP I, the GOB identified several alternatives for cost recovery, most promising being the following: (i) surcharge on utility bills; (ii) property tax; (iii) tipping fee; and (iv) direct solid waste fee collected by private operator. From previous studies, the proposed tariff range for the Western Corridor (Belize and Cayo Districts and the northern islands of San Pedro and Caye Caulker) was BZ$12-18/household/month (cost recovery for both collection and Operation and Maintenance (O&M) of transfer and disposal). Although all the above have been significant advancements in technically defining a cost recovery mechanism, in the first SWMP, the GOB took the final decision to subsidize the costs of operating all the facilities constructed.[14] A key factor that led to such decision was that of geographical inequity; the GOB would rather implement such a cost recovery mechanism nationally[15] than to target only the users in the area covered by the first operation (i.e. the Western Corridor) for the introduction of a new charge, which is by nature an unpopular measure. An indicator of the GOB's commitment to the implementation of this cost recovery mechanism can be found in the Growth and Sustainable Development Strategy for Belize 2016-2019

[14] Such operational cost of the facilities for 2015 was estimated to be approximately US$1.1 million (or 0.06% of GDP).

[15] As a result of SWMP II, SWaMA will be in a position to cover all major cities and towns in Belize as well as the main tourist areas. SWaMA's coverage is expected to expand from 43% in 2015 to 86% in year 5. This will (i) contribute towards long term financial sustainability by expanding the revenue base; and (ii) mitigate the concern of geographical inequity.

(GSDS), the main planning document for the GOB for the period 2016-2019, which includes the review of cost recovery mechanisms in the sector as a key action achieving the goal of "Sustained or Improved Health of Natural, Environmental, Historical and Cultural Assets".

1.18 **Lessons Learned from previous interventions.** While the execution of SWMP I was successful in achieving the project's objectives, there were lessons learned from that operation and other water and sanitation projects in Belize that have been considered in the design of this second phase.

1.19 The attainment of an effective coverage and impact of SWM investments requires a governance structure that promotes and facilitates the involvement of the Central Government, local/municipal administrations, private sector and local stakeholders by clearly delineating: (i) the sectorial role of the MNRI and of SWaMA -as executing agency- in the planning, infrastructure development and operations of the sector; (ii) the role of local governments in the adequate management of municipal solid waste collection systems, including their proper disposal; and (iii) the potential for private sector involvement in the design, construction and operation of the facilities. An important advance towards a better governance structure is the completion of the National Solid Waste Management Strategy and Plan, prepared as part of the first SWMP and which provides recommendations and actions to improve the governance of the sector.

1.20 The medium and long-term sustainability of SWM infrastructure investments requires the implementation of cost recovery mechanisms, which can only be attained with coordinated efforts for a gradual phase-in of a cost recovery mechanism implemented through institutional strengthening and capacity building, policy development, and public education. The GOB is aware of this and as part of the GSDS, has identified the review of cost recovery mechanisms as a key objective for the sector. The proposed project will assist the GOB in working towards achieving this goal.

1.21 To avoid any major delays in the execution of the project, it is necessary to identify early on the land where the investments are to take place so that the process of land acquisition starts during project design. In addition, the GOB has a large accumulated debt on land purchases which can only be mitigated if the project can finance the acquisition of land with IDB financing (see ¶2.12).

1.22 Finally, data about waste generation and composition is not generally well studied, which can result in an inadequate sizing of the works to be financed, adding unnecessary costs to the project, or alternatively, making facilities too small for the amount of MSW that has to be processed. To mitigate this during project design, waste generation and composition studies are being conducted in all project areas to allow for the proper sizing of the facilities.

1.23 **Proposed Areas of Intervention for the SWMP II**. In order to cover all urban areas in Belize, the proposed project is to cover the northern and southern regions of Belize as well as Belmopan, the only urban area in the Western Corridor not covered under the first SWMP. It is estimated that 34,000 tons of MSW per year are disposed in open dumps in the urban areas and adjacent villages in these regions. These areas were selected for the following reasons:

(i) none of these districts nor Belmopan are served by sanitary landfills; MSW is instead burned or disposed in poorly managed open dumps as shown in Table 2; (ii) these areas have recently experienced increased tourism growth and are anticipated to keep growing as a result of STP II, adding to the challenges of proper MSW disposal; (iii) most dumpsites are located in areas vulnerable to natural disasters and climate change impacts; and (iv) these areas have significant poverty levels as shown in ¶1.24.

1.24 These regions include the districts of Toledo and Corozal, where poverty affects more than half of the population. As shown in Tables 1 and 2, these districts have the lowest solid waste collection and disposal rates in Belize. In Toledo, more than 50% of the households burn their garbage, which represents twice the national average. In Orange Walk, close to 40% of the households use the same burning practice. Municipal collection in these districts is well below national averages and none of these districts has a sanitary landfill; all solid waste collected ends up in poorly managed open dumps that in many cases are adjacent to populated areas, generating health and environmental risks.

Table 2: Indicators for Belize's Southern and Northern Corridors (2010)

District	Population (2000)	Population (2010)	Percentage change (pop)	Population living in poverty	% households who burn the waste
Toledo	24,094	30,785	27.8	60.4%	51.7%
Stann Creek	25,228	34,323	36.1	43.7%	22.2%
Orange Walk	40,132	45,946	14.5	42.8%	39.4%
Corozal	33,846	41,061	21.3	56.2%	36.5%
Country	246,538	322,453	30.8	41.3%	26.9%

Source: Belize Population and Housing Census Country Report 2010 & Belize Basic Indicators 2010, Ministry of Health (Volume 8 Year 2011).

1.25 **Project Design**. This project is part of a phased implementation of the Solid Waste Management Program. The focus of the program is to improve solid waste collection, transport, and final disposal practices. Based on the analysis of risks and lessons learned from SWMP I and from the studies conducted for the sector in recent years, a focused set of interventions have been designed to improve the performance of the sector with a focus in the remaining urban areas in the country. By the end of the project, Belize will have all urban areas and major tourist destinations served by a sanitary landfill, conveniently located in the center of the country. The new operation is to consolidate the SWaMA to allow it to cover the entire country with a focus on improving the management capabilities for all MSW transport and disposal.

1.26 The proposed solutions for SWM transport and disposal are technically sound and proven in Belize and in the region. SWMP I included: (i) the design, construction and operation of a conventional anaerobic sanitary landfill; (ii) the construction and operation of five transfer stations-sorting facilities; and (iii) the closure of dumpsites. The closure of dumpsites included site closure (no additional waste was allowed for disposal), perimeter fencing, and final cover. To

transport the waste to the sanitary landfill, several transfer stations, conveniently located at the sites of the former dumpsites were built. The design of these transfer stations included gravitational discharge operations in a closed building, which significantly reduces odor emissions and lightweight material off site. The design also allows for the implementation of waste separation inside the facilities, allowing for the accomplishment of a hierarchical strategy that promotes recovery prior to final disposal. The Mile 24 sanitary landfill operates as a conventional landfill, with an anaerobic regime, including relevant operational aspects such as: registration and access control, daily cover, weighting of all trucks carrying solid waste, and topographic management to ensure structural stability. Regarding environmental control, the leachate management system includes basal uptake conduction toward a treatment system (ponds operated in series), that allows for the discharge of treated effluent only when preset parameters are reached, or otherwise the leachate is recirculated to the waste mass. Regarding the management of biogas, there is a battery of vertical drains that alleviates the gas accumulation in the system. SWAMA oversees the performance of the system, which has operated continuously since its inauguration; the environmental monitoring program has shown its robustness (Environmental Audit of Mile 24 Regional Sanitary Landfill).

1.27 **Complementarity with other Bank's interventions in Belize.** The operation is designed to build on recent investments made by the Bank to increase tourism in Belize (BL-L1003: Sustainable Tourism Program I) and to work in concert with the new operation in the tourism sector (BL-L1020: Sustainable Tourism Project II). This project is to support the GOB's intention to diversify tourism destinations by ensuring adequate SWM in emerging tourist destinations. Specifically, the proposed project will contribute to one of STP II objectives[16] through the improvement of environmental sustainability in tourism destinations. Of the four proposed tourism destinations under STP II, it is important to note that one (Caye Caulker) is already benefiting from improved solid waste management under SWMP I, and that two (Corozal and Toledo Districts) will benefit under the new project. As for the fourth destination, the Mountain Pine Ridge/Chiquibul/Caracol complex in Cayo District, this area is indirectly benefiting from improved solid waste management due to its proximity to San Ignacio, an area that benefited from SWMP I and that represents a tourism hub for visitors to this destination.

1.28 The Bank is supporting this operation with a Technical Cooperation (TC) "Solid Waste Master Plan for Tourist Areas" (BL-T1067), which is financing all the studies needed to design this operation. These studies have included an analysis of waste generation and an assessment of the options for recycling, reuse and waste reduction. They have also assessed the different options for the location of transfer stations and the designs for closure of open dumps. The preferred option for transport and final disposal has been selected through a least-cost analysis of all alternatives. A subsequent cost benefit analysis of the selected option has been undertaken. These feasibility studies incorporate the required environmental and social assessments and the preliminary engineering designs for the selected option, which ensure the readiness of the operation. Additionally,

[16] STP II includes the following objective: "promote disaster and climate resilience and environmental sustainability in tourism destinations".

the TC has financed an assessment of cost recovery mechanisms in order to ensure the financial sustainability of SWM.

1.29 **Alignment with GOB priorities**. There is a clear consensus by the GOB that the solid waste sector must be strengthened and improved with a view to preserving the delicate balance of Belize's natural resources in an environmentally sustainable and efficient manner. As reflected in the GOB's medium and long term documents: Horizon 2030, National Development Framework for Belize 2010-30, and the GSDS 2016-2019, the GOB has identified improving the management of the solid waste sector as one of its main priorities in its short and medium term development goals. The GOB has requested the Bank a new operation to improve SWM in areas that were not addressed under SWMP I. This is consistent with the GSDS, which has set the goal of continuing implementing the SWMP and develop similar interventions to improve waste disposal within the southern and northern thirds of the country.

1.30 **Strategic Alignment**. The IDB's Country Strategy with Belize 2013-17 (GN-2746) identified the need to improve SWM in tourist areas within one of the four priority areas identified for IDB support. This priority area, tourism, identifies inadequate collection and final disposal of solid waste in emerging tourism destinations as a key variable to support the continued and sustained growth of the tourism sector. The project will contribute to one of the results of the strategy "improved solid waste management in tourism areas" through the expansion of tourism areas that have access to sanitary landfills, which will increase from 50% as of 2015 to 100% by the end of the project.

1.31 The project is consistent with the Update to the Institutional Strategy (UIS) 2010-2020 (GN-2788-5) and is aligned with the development challenge of social inclusion and equality, by benefiting households with better environmental conditions in the poorest areas of the country. The program is also aligned with the cross-cutting themes of: (i) gender equality and diversity; and (ii) climate change and environmental sustainability, by creating equal employment opportunities for women, and the environmental recovery of degraded areas. The project is consistent with: (i) the Sustainable Infrastructure Strategy for Competitiveness and Inclusive Growth (document GN-2710-5), since it helps to: (a) promote access to infrastructure services; and (b) support the construction and maintenance of socially and environmentally sustainable infrastructure; and (ii) the dimensions of success and lines of action of the Water and Sanitation Sector Framework Document (document GN-2781-3) relating to universal access and better quality services, and social and environmental sustainability.

1.32 **Alignment with Bank's policies.** The proposed project and national sector objectives are consistent with the principles of the Public Utilities Policy (GN- 2716-6) and satisfy the conditions for financial sustainability and economic assessment. The works financed by the project are viable from a socioeconomic point of view (¶2.16). In terms of financial sustainability, in order to ensure that the service will generate or receive sufficient funds to cover the operating and maintenance costs of the systems related to the operation, the proposed project will support the GOB's efforts to gradually implement a cost recovery, and if the revenues from such cost recovery mechanism do not generate enough

resources, additional resources will be allocated to SWaMA through the national budget[17] (Compliance with the Public Utilities Policy).

B. Objective, Components and Cost

1.33 The objective of the program is to support Belize in its efforts to reduce environmental pollution through the improvement of solid waste management practices in emerging tourism destinations in northern and southern Belize. Specifically, the project will finance investments to improve solid waste transport, recovery, and final disposal in towns and villages in the Northern (Orange Walk and Corozal) and Southern (Stann Creek and Toledo) Corridors and in Belmopan, and to strengthen SWaMA as the lead agency in the waste management sector. The dumpsites to be closed are those of Corozal Town, Orange Walk Town, Belmopan, Dangriga, Independence/Placencia, and Punta Gorda. In these areas, transfer stations will be built. The objectives of the operation will be achieved through investments in two components.

1.34 **Component 1. Investments to improve solid waste management (US$8.3 million)**. This component aims to improve municipal solid waste transport, recovery, and final disposal in the aforementioned corridors as well as in Belmopan. Using IDB resources, it will finance: (i) closure of six dumpsites including the acquisition of land in those sites where the land is not owned by the Government of Belize; (ii) construction of six transfer stations; (iii) construction of a new cell at Mile 24 Regional Sanitary Landfill; and (iv) engineering designs and supervision of civil works.

1.35 Dumpsite closure will involve the leveling of the terrain, compaction, leachate management, site drainage works, and adequate cover. In accordance to a site plan to be prepared as part of the final designs of the closures, waste transfer and recycling facilities will be sited in some of the former dumpsites to carry out separation of recyclable and non-recyclable waste. Commingled recyclables in the transfer stations will be separated and compacted, using baler, for preparation for shipping to recyclables' end users and buyers. Municipal solid waste not separated for recycling will be long-hauled to the Mile 24 regional sanitary landfill. Localized pilot composting projects will be conducted in selected areas to assess the potential to reduce the transport and final disposal costs and use the end product (compost) as soil conditioner.

1.36 **Component 2. Institutional Strengthening and Capacity Building (US$870,000)**. This component is aimed at ensuring the cost recovery of the entire system, implementing public education and awareness programs and improving the management of waste streams other than MSW. This operation will address innovation in the solid waste sector in Belize by incorporating activities aimed at avoiding and reducing the generation of MSW and

[17] The GoB considers the development of a cost recovery mechanism for the sector as a key action in the attainment of the goals set in the Growth and Sustainable Development Strategy (2016-19). To ensure a successful implementation of the cost recovery mechanism, specific milestones are included in this operation as special contractual clauses during execution (¶2.17). If, as a result of insufficient revenues from the cost recovery mechanism, additional resources are to be allocated to SWaMA, this allocation will be made through the national budget in accordance to the Bank's Public Utilities Policy, which requires that such allocation be made in a transparent manner.

incorporating waste separation at the point of generation. The resources allocated to this component will finance consulting services and activities to strengthen the SWaMA, including: (i) consultancies to support in the design and implementation of a cost recovery mechanism for solid waste transport and disposal, including support to the public consultation process; (ii) consultants and training activities to strengthen the knowledge in landfill and transfer station operations, composting, recycling and management of other waste streams such as hazardous waste, as well as advisory services in areas such as legal support for contracting activities and elaboration of regulatory guidelines; (iii) social communication/public education and awareness activities and materials, including booklets, newspaper/radio/TV, among others; (iv) update and implementation of a Social Inclusion Plan (SIP) for informal recyclers including gender activities for the different sites; and (v) the design and implementation of an Environmental and Social Management System (ESMS) for SWaMA.

1.37 **Project Management Costs.** The project will finance administration, monitoring, evaluation, and audits of the project to be implemented by the Executing Agency, as well as the contracting of consultants to strengthen SWaMA.

1.38 **Cost**. The total estimated cost of the project will be US$10.2 million, as detailed in Table 3. Of this total amount, US$10 million will be financed with resources of the Ordinary Capital (OC) of the IDB and US$0.2 million will be covered through counterpart contribution:

Table 3: Summary of Costs (in 1,000 of US$)

Component/Subcomponent	IDB	Local	Total	%
Component 1: Capital Investments to improve solid waste management	**8,300**	**-**	**8,300**	**81%**
1.1 Closure of dumpsites	1,824		1,824	
1.2 Construction of transfer stations	3,430		3,430	
1.3 Construction of new cell at Mile 24	2,200		2,200	
1.4 Engineering designs and supervision	846		846	
Component 2: Institutional Strengthening and Capacity Building	**870**	**-**	**870**	**9%**
2.1 Cost recovery mechanism	190		190	
2.2 Training and consultancies	190		190	
2.3 Social Communication/ Public Awareness campaigns	230		230	
2.4 Social Inclusion Plan for Informal Recyclers	140		140	
2.5 Environmental and Social Management System	120		120	
Project Management	**830**	**200**	**1,030**	**10%**
Project Executing Agency	700	150	850	
Monitoring and Evaluation	30	50	80	
Audit	100		100	
Total	**10,000**	**200**	**10,200**	

C. Key Results Indicators

1.39 **Expected Results.** The most relevant indicators and expected results of the project are shown in Table 4. The Results Matrix (RM) is included in Annex II.

Table 4: Key Indicators

Outcome Indicator	Baseline	Target
Percentage of tourist destinations with access to sanitary landfills	50%	100%
Households with solid waste disposed in a sanitary landfill in Belize	30,653	75,277
Tons of solid waste disposed in sanitary landfills in Belize (tons per year)	28,861	87,246
Percentage of solid waste separated for recycling in Belize (percentage)	2%	5%

II. Financing Structure and Main Risks

A. Financing Instruments

2.1 This is a specific investment loan with a total estimated cost of US$10,200,000, of which US$10,000,000 will be financed by OC and US$200,000 will be financed by local counterpart. The disbursement period will be 60 months. The table below shows the tentative disbursement schedule for the operation.

Table 5: Disbursement Schedule (US$ million)

Financing	Year 1	Year 2	Year 3	Year 4	Year 5	Total
IDB	0.5	1.5	2.5	3.5	2	10
Local	0.02	0.05	0.05	0.05	0.03	0.2
Total	0.52	1.55	2.55	3.55	2.03	10.2
Percent	5%	15%	25%	35%	20%	100%

2.2 Pursuant to Document AB-2990, the disbursement of Bank financing will be subject to the following maximum limits: (i) up to 15% during the first 12 months; (ii) up to 30% during the first 24 months; and (iii) up to 50% during the first 36 months. All these periods will be counted from the time the loan operation is approved by the Board of Executive Directors. These limits may be rendered inapplicable to the extent that the requirements set forth in the Bank's policy regarding said limitations have been fulfilled, provided that the Borrower has been notified of the same in writing.

B. Environmental and Social Safeguard Risks

2.3 Given that the project is likely to cause mostly local and short-term negative environmental and social impacts and for which effective mitigation measures are readily available, an environmental classification of Category B has been assigned for the project. Improved solid waste management will have a positive impact to the surrounding environment in the respective areas of the project through better collection, recovery, treatment and disposal of solid waste,

presently discharged in open or controlled dumps, and/or burned; and will improve public health and the overall quality of life of local residents.

2.4 Impacts and risks during construction, operation and decommissioning could occur from: inadequate health and safety management; inadequate management of hazardous materials and solid waste; accidental spills, degradation of soil, flora and fauna, and impacts on water quality. During project design, no evidence of permanent dwellings was reported at the dumpsites; therefore, resettlement is not foreseen. In the case of a need for resettlement OP-710 will be applied.

2.5 The following directives of the IDB Environment and Safeguards Compliance Policy (OP-703) are triggered: B.2 (Country Laws and Regulations); B.3 (Screening and Classification); B.5 (Environmental Assessment Requirements); B.6 (Consultation); B.7 (Supervision and Compliance); B.9 (Natural Habitats and Cultural Sites), B.10 (Hazardous Materials); and B.11 (Pollution Prevention and Abatement). Also, following Polices apply: Public Information and Disclosure Policy (OP-102), Disaster Risk Management Policy (OP-704), Gender Equality in Development Policy (OP-761), Indigenous Peoples Policy (OP-765), and the Resettlement Policy (OP-710).

2.6 During the course of the implementation of the first solid waste project, SWaMA demonstrated the ability to effectively manage Environmental and Social (E&S) impacts and risks. SWaMA contracted a qualified operator for the Mile 24 Regional Sanitary Landfill and developed a social inclusion program for recyclers at the transfer stations. The risk of adverse short term economic impacts on informal recyclers has been assessed as medium. The work with the informal recyclers under the SWMP II will incorporate the lessons learned during the implementation of the first SWMP by implementing a SIP, which establishes how to improve the working conditions of the permanent recyclers that are currently informally working at each of the dumpsites that will be closed. The SIP contains different inclusion options for the recyclers to be paired with, according to eligibility criteria. Its implementation consists in activities such as capacity building workshops (on organizational and facility operation related topics) and delivery of equipment which will allow them to perform the recovery of recyclable materials within the sorting facilities at the transfer stations. In relation to natural disasters, the vulnerability has been assessed as medium. The feasibility studies carried out during project preparation have provided careful consideration to site selection through the adoption of technical criteria with respect to risks associated with natural disasters (e.g. flooding, fires) and the site specific studies will incorporate disaster risk management measures.

2.7 To manage E&S impacts and risks, an Environmental AssessmentEnvironmental and Social Environment Plan (EA/ESMP) for the investments in the northern and southern regions, an EA/ESMP[18] for the Belmopan transfer station, a SIP framework, and an Environmental Assessment to assess liabilities of the Mile 24 Regional Sanitary Landfill have been prepared and disclosed on the GOB and IDB websites.[19]

[18] The GOB refers to both the EA and the ESMP as “Limited Level Environmental Study”.
[19] http://www.iadb.org/en/projects/project-description-title,1303.html?id=BL-L1021; http://belizeswama.com/publications/solid-waste-management-project-bl-l1021-ii/.

2.8 Special contractual conditions during execution include: (i) Prior to issuing the bidding documents for the works under Component 1, the Borrower shall present for the Bank's review and approval the final draft of the EA and ESMP; (ii) prior to starting the works under Component 1, the Borrower shall present to the Bank the Environmental Compliance Plan (ECP), which includes the corresponding environmental permits issued by the DOE; (iii) prior to starting to close dumpsites, the Borrower shall present for the Bank's review and approval the final draft of the Social Inclusion Plan; (iv) prior to starting operations of the first transfer station constructed with resources of the project, the Borrower shall submit the corresponding ESMS[20]. In addition, the Borrower shall ensure compliance with all other environmental, social and health and safety requirements set forth in Sections 5.8 through 5.15 of the ESMR. Please refer to the ESMR for further information on E&S management and requirements (¶3.5).

2.9 **Gender Activities**. Taking into account the Bank's Operational Policy on Gender Equality, this project will seek to help close gender gaps by promoting gender equality in the labor market. Given women recyclers' situation (see ¶1.12), special attention will be given to improve their working conditions. Specifically, these women will be trained on activities related to the operation of the different solid waste management facilities and/or the logistical activities to transport the solid waste streams between the facilities so that they can benefit from the new job opportunities created by the project.

C. Fiduciary Risk

2.10 During the preparation of the operation, an in-depth institutional evaluation of SWaMA was conducted based on the application of the Bank's methodology "Institutional Capacity Assessment System" (ICAS). The assessment concluded that the execution of SWMP I provided SWaMA with adequate experience in the execution of Bank-funded investment projects, while building the necessary institutional and fiduciary capacity to adequately comply with the requirements of the Bank from a technical, administrative and fiduciary perspective, and complying with national, sectoral, administrative and control requirements of the GOB. The assessment also concluded that specific actions became a priority in order to address weaknesses in the organizational structure of SWaMA and, specifically with respect to the necessary number of personnel to strengthen the internal control environment along with its operations in direct coordination and under delegation with/by the MNRI. In order to mitigate fiduciary risks during project execution, periodic assessments of the capabilities and internal controls specific to the fiduciary management of the project will be conducted at SWaMA through Bank inspection visits, with the aim of making recommendations for actions for further improvement, if deemed necessary.

D. Other Key Issues and Risks

2.11 A number of risks associated to the implementation of the project along with their mitigation measures were identified during project design, including:

[20] Such special contractual conditions, including those referred to in ¶2.12 and ¶2.17 are all conditions prior to disbursements of Bank resources to finance activities during the execution of the project, except for item (iv) as the operation of transfer stations is not financed by the Bank.

(i) limited capacity of SWaMA to absorb responsibilities related to SWM in the remaining regions in Belize; (ii) absence of implementation of a cost recovery mechanism; and (iii) reluctance of stakeholders to accept the program. The mitigation measures for these risks are: (i) with project resources, SWaMA will contract additional consultants to strengthen, during project execution, the areas of finance, procurement and technical services to adequately address the northern and southern regions; (ii) in the case of the cost recovery mechanism and the acceptance of the project by the beneficiaries, this project includes a thorough communication strategy and the hiring of a specialized firm to assist SWaMA and the GOB through the design and implementation of a stakeholder engagement plan; and (iii) complementing the measures for acceptance by the beneficiaries in (ii) above, and in relation specifically with the informal recyclers, the SIP prepared for this operation reflects the best practices from SWMP I and contains specific consultation activities to enable a collaborative process with the recyclers.

2.12 **Land acquisition.** The execution of SWMP II may require the acquisition of private properties (land) for public use (for the purpose of building transfer stations), either by means of a negotiated purchase agreement or through public expropriation should the former fail.[21] Bank policies permit the use of loan proceeds for land purchases, when essential or necessary to achieve project objectives. The GOB has started identifying suitable locations for the works contemplated under the project and initiated negotiations with the relevant land owners. As a special contractual condition for disbursements of the loan (other than the first disbursement), prior to issuing the bidding documents for the works under Component 1, the Borrower shall submit evidence, acceptable to the Bank, that it has the legal possession, easements or other rights regarding the land where the works will take place, as well as the riparian rights required for the respective works.

2.13 **Technical viability**. During the preparation of the project, the following alternatives for final disposal of MSW in the northern and southern corridors of Belize were analyzed: (i) construction of two new sanitary landfills: one in the northern corridor and one in the southern corridor, each with its respective transfer stations–sorting facilities; (ii) construction of a sanitary landfill in the northern corridor (in this alternative, MSW generated in the southern corridor would be diverted to the existing Mile 24 sanitary landfill); (iii) construction of a sanitary landfill in the southern corridor (in this alternative, MSW generated in the northern corridor would be diverted to the existing Mile 24 sanitary landfill); and (iv) disposal of all solid waste generated in the northern and southern corridors in the existing Mile 24 landfill.

2.14 For the analysis of alternatives, the following aspects were considered: (i) the construction of new sanitary landfills involves significant complexities, including

[21] The operation will involve the closure of six dumpsites and the construction of six transfer stations. These works are essential to reduce environmental pollution of improper solid waste disposal and to allow for municipal solid waste to be transferred to the Mile 24 sanitary landfill. In the event that land acquisition is needed, the land area to be acquired will be minimal and will not represent a substantial portion of the resources of the operation. Land acquisition is not uncommon in projects in Belize; the first SWMP also required the acquisition of land for the purposes of the infrastructure works (sanitary landfill and transfer stations).

finding suitable land with good hydrogeological conditions and community support,[22] (ii) the waste generation rates in the northern and southern corridors are relatively small; (iii) all four alternatives would involve the construction of transfer stations, including sorting facilities. What varies between these alternatives is the travel distance that trucks should cover prior to reaching the sanitary landfill. The maximum required travel distance would occur in Alternative 4, given that the maximum distance from the northern corridor to Mile 24 sanitary landfill is about 150 km, and the maximum distance from the southern corridor to Mile 24 sanitary landfill is close to 250 km; and (iv) there is a broad national road network system in Belize. The primary road network allows acceptable ground connections within the northern and western regions of the country, and the extent of the road network in terms of coverage is adequate.[23] The analysis conducted as part of project design resulted in selection of Alternative 4, on the basis of technical and economic reasons. Alternative 4 represents a scenario with only one sanitary landfill (the existing Mile 24 sanitary landfill) for all MSW generated in Belize, fed by a network of transfer stations. Given the low solid waste generation rates in the southern and northern corridors, this alternative would result in a fairly small number of trips -about two or three per day. According to the EA, this number of trips would not represent a significant additional impact to the road network.

2.15 The existing Mile 24 sanitary landfill has land available for expansion, allowing it to receive the additional waste coming from the northern and southern corridors. To minimize waste transportation costs, the project will finance the construction of several transfer stations, allowing for a cost-effective waste transportation from the generation sites to the final destination. This approach is practical considering Belize's road network, which allows for a reliable and continuous transport of waste between the transfer stations and the Mile 24 sanitary landfill.

2.16 **Socioeconomic viability**. A cost-benefit analysis for the infrastructure component was performed. The project is economically viable, showing an Economic Rate of Return of 13% and, using a discount rate of 12%, an Economic Net Present Value of US$0.5 million (socioeconomic analysis). The analysis was complemented by appropriate sensitivity assessment. Even though the project is sensitive to variations in the main variables, one important benefit of the project, its impact on tourism, is likely underestimated. Therefore, the results show that the project is viable even under a conservative scenario. The average charge for solid waste collection, transport and disposal services would be approximately BZ$15 per month per household (US$7.5). Based on data obtained from the socioeconomic survey conducted between July and September 2015 as part of the project preparation, this charge represents approximately 1.3% of the average household income, which is an internationally accepted level.

[22] Expansions of existing landfills, such as the Mile 24 sanitary landfill, typically face less community opposition than building an entirely new landfill in a greenfield site. Also, these expansions tend to be more cost effective with regards to shared ancillary facilities and infrastructure such as roads, leachate treatment units, weighing facilities. While the construction of landfills in the Northern and Southern Corridors is technically possible, the hydrogeological conditions of the two corridors do not appear to be favorable for the siting of a landfill. This would require costly precautionary constructional and operational measures to be included in the design and construction phase of those landfills.

[23] IDB Transport Division -INE/TSP-, Technical Note: Transport Sector, Belize. Brian Mc Nish, 2013.

2.17 **Financial viability**. During the preparation of the project, a financial model was prepared to identify the level of tariff that would be necessary for the recovery of SWaMA's Operations, Maintenance and Administration costs (OPEX). The tariff level indicated from the result of the model is considered an internationally accepted level (¶2.16). As to the successful implementation of the cost recovery mechanism, the following activities and tasks must be carried out: (i) selection of specific cost recovery alternative (surcharge/tax/fee); (ii) definition of surcharge/tax/fee structure by segments (household, commercial, etc.); (iii) implementation schedule (gradual implementation is a possibility); and (iv) setting up institutional arrangements regarding collection of surcharge/tax/fee, including how to relate with local governments and other relevant parties (e.g. a utility). All these tasks should require a strong stakeholder engagement effort. Therefore, as a special contractual condition for disbursements of the loan (other than the first disbursement): (i) prior to the award of the contract for the works of the additional cell at the Mile 24 Regional Sanitary Landfill, the Borrower shall conduct public consultations for the implementation of a cost recovery mechanism that covers, at least gradually, the cost of operation, maintenance and administration of solid waste management facilities financed with the resources of the project; and (ii) prior to disbursement of the retention under the contract for the works of the additional cell of the Mile 24 Regional Sanitary Landfill, the Borrower shall make effective the cost recovery mechanism, adjusted as per public consultations, by approving a cabinet decree or taking any appropriate legal action for its implementation, and if the revenues from such cost recovery mechanism do not generate sufficient resources to cover the operation, maintenance and administration of the solid waste management facilities financed with the resources of the loan, the Borrower undertakes to allocate additional resources to those of the loan to cover these costs.

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of Implementation Arrangements

3.1 The SWaMA, with the support of the Ministry of Natural Resources and Immigration, will be responsible for the execution of the project. **As a special contractual condition prior to first disbursement, the Borrower shall present an agreement signed between the Borrower and SWaMA whereby the latter assumes the obligations regarding the execution of the project**. The implementation of the project will be embedded in the current structure of SWaMA which is headed by the Director/Project Director, and will count on the necessary financial, procurement, solid waste management, environmental and social communications personnel to effectively discharge its recurrent operating and incremental investment responsibilities under the SWMP I and SWMP II, respectively. In particular, Bank resources will be allocated to continue supporting the costs of SWaMA's financial specialist and waste management engineer, previously contracted under SWMP I, in addition to covering the costs of four positions under short-term renewable consulting contracts including a procurement officer, accounts officer, and two solid waste officers. These professionals will form part of and add to the authority's existing organizational structure under the Office of the Director/Project Director, while contributing to

the consolidation of a strengthened technical, operating and administrative capacity in SWaMA. The Executive Director, who is also part of SWaMA's Board, will assume responsibility for the implementation of SWMP II and ensure, among others, proper administrative and financial management of the project resources[24].

3.2 The specific responsibilities of SWaMA will include, among others: (i) planning, including the preparation, implementation, coordination and periodic updating of the Project Execution Plan (PEP), Annual Operating Plan (AOP), and Procurement Plan (PP); (ii) financial management, including budgeting, accounting, financial reporting, as well as the preparation of requests for advances of project funds and disbursements; (iii) monitoring, including the preparation of technical reports, as well as progress reports on the physical, environmental, social, and financial progress, and variance reports of actual results against plans; (iv) financial control, including the contracting of the annual external audits of the program; (v) evaluation, comprising the execution of the mid-term and final evaluations of the project; and (vi) inter-institutional coordination with the project's public and private stakeholder institutions including local municipalities, central government institutions and private stakeholders, and serving as the liaising and focal point for the project with the Bank.[25] **As a special contractual condition prior to first disbursement, the Program Operations Manual (POM) shall be approved by the Borrower and be in effect, and shall include fiduciary aspects as well as the environmental and social requirements described in the ESMR.**

3.3 All investments in the proposed infrastructure will start in year 2 and will span over a three-year period, allowing for the final designs to be completed during the first year of execution. Closure of dumpsites and construction of transfer stations will be carried out in years 2, 3, and 4. The expansion of the Mile 24 sanitary landfill is to commence on year 3 and will be completed by year 5 of the program. The current two cells in the sanitary landfill will allow for the landfill to receive MSW during the first year of operation of the transfer stations.

3.4 **Procurement.** All project related procurement activities will be performed following Bank's Procurement Policies: Policies for the Procurement of Goods and Works financed by the Bank (GN-2349-9) and Policies for the Selection and Contracting of Consultants financed by the Bank (GN-2350-9) as applicable.

B. Summary of Arrangements for Monitoring Results

3.5 SWaMA will be in charge of monitoring program performance and progress throughout execution (M&E). Monitoring of the project will be based on the Results Matrix, the Project Monitoring Report (PMR), and the AOP. SWaMA will submit two semi-annual progress reports throughout project execution, which will

[24] The SWaMA, at the operational level, comprises a Director, a Financial Specialist, a Waste Management Engineer, a Senior Solid Waste Officer, a Junior Solid Waste Officer, a Social Communication Officer and a Project Assistant. During project execution, this team will be strengthened through the contracting of a procurement officer, an accounts officer/clerk and two solid waste officers.

[25] SWaMA will organize semiannual meetings with local government and the private sector in each of the regions benefiting through the project. SWaMA has already conducted an initial meeting with the Belize Mayors Association through the Ministry of Labor, Local Government, and Rural Development.

include semi-annual financial reports and environmental and social reports, within 60 days following the end of each semester. With loan resources, a firm of independent public accountants acceptable to the Bank will be contracted to prepare annual financial statements of the project, to be submitted to the Bank within 120 days at the end of each fiscal year, beginning with the fiscal year in which the first project expenditures are incurred.

3.6 Using loan resources, independent evaluators will be contracted by SWaMA to conduct: (i) a mid-term evaluation after 30 months from the date of the signature of the loan contract or after 60% of the resources have been disbursed, whichever occurs first; and (ii) a final evaluation of the project, after 90% of loan resources have been disbursed. An ex post socioeconomic analysis will be conducted as part of the final evaluation. The evaluations will include reporting compliance of the environmental and social safeguards. Annex III presents other fiduciary arrangements and auditing requirements.

Development Effectiveness Matrix			
Summary			
I. Strategic Alignment			
1. IDB Strategic Development Objectives	**Aligned**		
Development Challenges & Cross-cutting Themes	**-Social Inclusion and Equality -Gender Equality and Diversity -Climate Change and Environmental Sustainability**		
Regional Context Indicators			
Country Development Results Indicators			
2. Country Strategy Development Objectives	**Aligned**		
Country Strategy Results Matrix	**GN-2746**	**Increase overnight visitor demand and expenditures in a sustainable manner**	
Country Program Results Matrix	**GN-2849**	**The intervention is included in the 2016 Operational Program.**	
Relevance of this project to country development challenges (If not aligned to country strategy or country program)			
II. Development Outcomes - Evaluability	**Highly Evaluable**	**Weight**	**Maximum Score**
	9.0		**10**
3. Evidence-based Assessment & Solution	**9.4**	**33.33%**	**10**
3.1 Program Diagnosis	**2.4**		
3.2 Proposed Interventions or Solutions	**4.0**		
3.3 Results Matrix Quality	**3.0**		
4. Ex ante Economic Analysis	**10.0**	**33.33%**	**10**
4.1 The program has an ERR/NPV, a Cost-Effectiveness Analysis or a General Economic Analysis	**4.0**		
4.2 Identified and Quantified Benefits	**1.5**		
4.3 Identified and Quantified Costs	**1.5**		
4.4 Reasonable Assumptions	**1.5**		
4.5 Sensitivity Analysis	**1.5**		
5. Monitoring and Evaluation	**7.5**	**33.33%**	**10**
5.1 Monitoring Mechanisms	**2.5**		
5.2 Evaluation Plan	**5.0**		
III. Risks & Mitigation Monitoring Matrix			
Overall risks rate = magnitude of risks*likelihood	**Medium**		
Identified risks have been rated for magnitude and likelihood	**Yes**		
Mitigation measures have been identified for major risks	**Yes**		
Mitigation measures have indicators for tracking their implementation	**Yes**		
Environmental & social risk classification	**B**		
IV. IDB´s Role - Additionality			
The project relies on the use of country systems			
Fiduciary (VPC/FMP Criteria)	**Yes**	**Financial Management: Budget, Accounting and Reporting.**	
Non-Fiduciary			
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:			
Gender Equality			
Labor	**Yes**	**The program will improve the working conditions of recyclers**	
Environment			
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project	**Yes**	**The Bank provided support through the technical cooperation "Solid Waste Master Plan for Tourist Areas" (BL-T1067).**	
The ex-post impact evaluation of the project will produce evidence to close knowledge gaps in the sector that were identified in the project document and/or in the evaluation plan			

Note: (*) Indicates contribution to the corresponding CRF's Country Development Results Indicator.

This is the second solid waste management operation aimed at contributing to mitigate the negative effects of inadequate disposal of solid waste in the environment, health and in the tourism sector.

The diagnosis has identified the challenges that are still present in the sector and presents important qualitative information that allows to understand the causal factors related to the specific and overall identified problems. The vertical logic of the operation is clear and identifies the expected benefits of improving the disposal of solid waste and the sustainability of the management system, through the proposed interventions.

The economic analysis presents a cost-benefit assessment estimating willingness to pay using contingent valuation techniques. The expected economic benefits derived directly from the project´s implementation are justified by increasing service quality collection, transportation and disposal of domestic solid waste. The economic indicators are positive with an ERR of 13% and a NPVE of US $ 547,000 with the application of a discount rate of 12%. The sensitivity analysis shows that the project is particularly sensitive to cost overruns on investment and to reductions in the beneficiaries´ willingness to pay.

The evaluation plan proposes a cost-benefit ex post evaluation and a before and after analysis of outcome indicators.

The identified medium risks with a high impact are: (i) SWaMA´s limited capacity to absorb responsibilities related to Waste Management SWM in the remaining regions of Belize; (Ii) vulnerability to natural disasters; and (iii) absence of implementation of a cost recovery mechanism. All risks classified as medium have mitigation measures.

The operation is included in the 2016 Operational Program, which is expected to receive the Board of Executive Directors' approval.

Results Matrix	
Project Name	Solid Waste Management Project II
Project Objective	The objective of the project is to support Belize in its efforts to reduce environmental pollution through the improvement of solid waste management practices in northern and southern Belize. Specifically, the project will finance investments to improve solid waste transport, recovery, and final disposal in towns and villages in the Northern (Orange Walk and Corozal) and Southern (Stann Creek and Toledo) Corridors and in Belmopan, and to strengthen SWaMA as the lead agency in the waste management sector.

Outcomes

Outcome 1: Solid waste disposal improved

Indicator	Unit of Measure	Baseline	Baseline Year	Year 1	Year 2	Year 3	Year 4	Year 5	End of Project	Comments/ Means of Verification
Percentage of tourist destinations[1] with access[2] to sanitary landfills (Country Strategy indicator)	%	50%	2015					100%	100%	Semi-annual progress report
Municipal solid waste disposed inadequately in open dumps in Northern and Southern Belize and in Belmopan	Tons/year	34,540	2015					0	0	Final evaluation of project and environmental and social compliance reports
Households with solid waste disposed in a sanitary landfill in Belize	household	30,653	2015					75,277	75,277	Final evaluation of project based on landfill monthly operational reports
Percentage of households with solid waste disposed in a sanitary landfill in Belize	%	39%	2015					88%	88%	Final evaluation of project based on landfill monthly operational reports
Tons of solid waste disposed in sanitary landfills in Belize	Tons/year	28,861	2015					87,246	87,246	Final evaluation of project and environmental and social compliance reports

[1] The 2011 National Sustainable Tourism Master Plan for Belize 2030 divides Belize in seven tourism regions (Western Belize, Central Belize, Northern Belize, Northern Islands, Southeastern Coast Belize, Southern Belize, and Belize Reef).

[2] Access means that the solid waste generated in these tourist destinations will be transported to a sanitary landfill for final disposal, rather than being dumped in open dumpsites.

Outcome 2: Solid waste management practices improved										
Indicator	**Unit of Measure**	**Baseline**	**Baseline Year**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**End of Project**	**Comments/ Means of Verification**
Percentage of solid waste separated for recycling in transfer stations	(Tons recovered by recyclers / tons received by transfer stations) x 100	2%	2015					5%	5%	Semi-annual progress reports and environmental compliance reports
Outcome 2: Solid waste management practices improved										
Informal recyclers working in recycling activities under improved conditions that are women[3]	Percentage	0%						20%	20%	Semi-annual progress reports and environmental compliance reports
Outcome 3: Solid waste management system financially sustainable										
Indicator	**Unit of Measure**	**Baseline**	**Baseline Year**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**End of Project**	**Comments/ Means of Verification**
Collection efficiency of solid waste fee	% of collection revenues / billing	N/A	2015					25%	25%	Semi-annual reports and final evaluation
Outputs										
Component 1: Capital Investments to improve solid waste management										

Output	Unit of Measure	Associated Outcomes	Cost (US$)	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	End of Project	Comments/ Means of Verification
Works designs formulated	designs	1	846,000	0	0	6	0	0	0	6	Semi-annual reports and design approvals SWaMA
Dumpsites closed	dumpsite	1,2	1,824,000	0	0	0	0	3	3	6	Completion certificate signed by construction supervisor and SWaMA. Semi-annual reports to IDB

[3] 20% of the total number of people working in recycling activities under improved conditions.

Outputs											
Component 1: Capital Investments to improve solid waste management											
Transfer stations built	Transfer Station	1,2	3,430,000	0	0	0	0	3	3	6	Completion certificate signed by construction supervisor and SWaMA. Semi-annual reports to IDB
Mile 24 sanitary landfill expanded	Sanitary landfill	1	2,200,000	0	0	0	0	0	1	1	Completion certificate signed by construction supervisor and SWaMA. Semi-annual reports to IDB
Component 2: Institutional Strengthening and Capacity Building											
Output	**Unit of Measure**	**Associated Outcomes**	**Cost (US$)**	**Baseline**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**End of Project**	**Comments/ Means of Verification**
Cost recovery study completed	study	3	50,000	0	0	0	1	0	0	1	Completion certificate signed by SWaMA. Semi-annual reports to IDB
Stakeholder Engagement Plan implemented	plan	3	140,000	0	0	0	0	0	1	1	Completion certificate signed by SWaMA. Semi-annual reports to IDB
Training activities in solid waste management completed	activities	3	190,000	0	0	2	3	3	3	10	Semi-annual reports
Public awareness campaigns implemented	campaigns	1, 2, 3	230,000	0	0	0	0	1	0	1	Completion certificate signed by SWaMA. Semi-annual reports to IDB
Component 2: Institutional Strengthening and Capacity Building											
Social inclusion plan for informal recyclers implemented [4]	plan	2	140,000	0	0	0	0	3	3	6	Semi-annual reports and Environmental and Social Compliance Reports
Environmental and Social Management System (ESMS) approved [5]	System	1	120,000	0	0	0	1	0	0	1	Semi-annual reports and Environmental and Social Compliance Reports

[4] Implemented implies that the recyclers identified have been matched with the different inclusion options defined on the SIP and that, according to the eligibility criteria in the SIP, the selected recyclers have received the established trainings, the Personal Protective Equipment (PPE) and have started working at the transfer stations recovering recyclable material. The SIP will benefit both men and women recyclers.

[5] Approved– once the ESMS has been approved by the Solid Waste Management Authority.

FIDUCIARY ARRANGEMENTS

Country	Belize
Name	Solid Waste Management Project II (SWMP II).
Project No.	BL-L1021
Executing agency	Solid Waste Management Authority (SWaMA) with the support of the Ministry of Natural Resources and Immigration (MNRI)
Fiduciary team	Graham Williams (FMP/CBL) and John Primo (FMP/CBL)

I. EXECUTIVE SUMMARY

1.1 The Solid Waste Management Project II (SWMP II) will provide a US$10 million loan from the Ordinary Capital (OC) resources to continue the Bank's support for the development of the Solid Waste Management Sector. The program will be executed by the Solid Waste Management Authority (SWaMA) with the support of the Ministry of Natural Resources and Immigration (MNRI). The first solid waste management program, approved in 2009, and closed in June 2015, was successfully managed by the SWaMA and resulted in the construction of the first sanitary landfill in Belize at Mile 24 of the George Price Highway.

II. EXECUTING AGENCY´S FIDUCIARY CONTEXT

2.1 The SWaMA, with the support of the MNRI[1], will be responsible for overall project monitoring and reporting requirements, and therefore, will be tasked with proper record keeping of project documentation, books and accounts, audited financials, development of a project Work Program, semi-annual progress reports, a mid-term independent project evaluation, and a project completion evaluation report three months after the closing date of the project. Additionally, the SWaMA will be equipped with requisite staff headed by an Executive Director who will assume responsibility for the implementation of this SMWP II program and ensure proper administrative and financial management of the project resources.

2.2 It is recommended that the SWaMA: (i) use Smart Stream (SS) for the financial administration of the project; (ii) submits semi-annual progress reports to the Bank, including information on the execution of the budget by category and source of funding; and (iii) ensures that annual financial statements of the program, audited by a firm of independent public accountants acceptable to the Bank, be prepared for presentation to

[1] The MNRI will be responsible for providing the general oversight of the program through its chairmanship and participation in the Board of Directors of the Solid Waste Management Authority (SWaMA). The MNRI will ensure that the program is integrated in the overall social and economic development agenda, policies and plans of the Government of Belize, in addition to ensuring and facilitating the timely and effective disbursement of the funds throughout the project's execution period. In addition, and based on the present administrative arrangements, the MNRI will continue providing SWaMA with shared services for human resources management, management information systems and other, as well as providing for the effective and transparent control of the payment system.

the Bank. While SS will be used for the overall financial administration of the program, it is recommended that an off-shelf accounting program be used as a parallel system.

III. FIDUCIARY RISK EVALUATION AND MITIGATION ACTIONS

3.1 During the course of implementation of the first solid waste project -SWMP I-, SWaMA has demonstrated the ability to effectively manage environmental and social impacts and risks through strong supervision and the application of internationally accepted practices to protect soil, water and air resources. SWaMA has hired a qualified operator for the Mile 24 sanitary landfill and developed a social inclusion program for recyclers. In the current operation, management of environmental, social, health and safety aspects are based on the project's Environmental and Social Management Plan (ESMP), the Environmental Compliance Plan (ECP) and Environmental, Social, Health and Safety Management Procedures of the operator of the Mile 24 sanitary landfill.

3.2 Based on the institutional assessment, a modification of the current organizational structure of the SWaMA is proposed to further strengthen its capacity and make the execution of SWMP II more efficient. During project execution, consultants will be contracted for the following positions: procurement officer, an accounts officer and two solid waste officers. In order to mitigate fiduciary risks, an assessment of the capabilities and internal controls specific to the fiduciary management of the program will be conducted at the SWaMA through Bank inspection visits, with the aim of making recommendations for actions for further improvement, if deemed necessary. A common risk in this type of investment project is the lack of execution readiness at the time of eligibility. In projects that include civil works, this can be due to problems in the acquisition of land or other regulatory requirements including complex decision making and consultation processes. However, under the first SWMP, SWaMA avoided these risks by planning ahead of time all the requirements needed to procure the construction of the sanitary landfill and transfer stations. For the proposed new operation, SWaMA has already initiated the acquisition of land needed for future infrastructure works.

IV. ASPECTS TO BE CONSIDERED IN THE SPECIAL CONDITIONS OF CONTRACT

4.1 The following fiduciary arrangements that must be considered for including in the special conditions:

a. **Rate of exchange agreed with the Executing Agency (EA)**. The application of the exchange rate has been agreed with the EA as follows: (i) reimbursement of expenses made: the effective rate of exchange on the date of payment of each expenditure, as published by the Central Bank of Belize; (ii) reporting on accounts or justification of the advance of funds: the effective rate of exchange used in the conversion of the currency of the operation to the local currency; and (iii) disbursements in alternate currencies from the US Dollar and the Belize Dollar: in cases of direct payment and reimbursement of a guarantee of letter of credit, the equivalent of the currency of the operation will be fixed in accordance with the amount effectively disbursed by the Bank.

b. **Financial statements and reports, audited or unaudited**. (i) Semi-annual financial reports are to be included in the semi-annual progress report which will be submitted by the SWaMA to the Bank; (ii) annual financial statements of the project, audited by a firm of independent public accountants acceptable to the Bank, are to be submitted to the Bank within 120 days at the end of each fiscal year, beginning with the fiscal

year in which the first project expenditures are incurred; and (iii) final financial statements, audited by a firm of independent public accountants acceptable to the Bank, are to be submitted to the Bank within 120 days following the last disbursement date of the program.

V. FIDUCIARY ARRANGEMENTS FOR PROCUREMENT EXECUTION

5.1 The procurement fiduciary arrangements establish the conditions applicable to all procurement execution activities in the project.

5.2 **Procurement execution**. Procurements for the proposed project will be carried out in accordance with Document GN-2349-9 ("Policies for the Procurement of Works and Goods Financed by the Inter-American Development Bank") dated on March 2011; Document GN-2350-9 ("Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank") dated on March 2011, as well as the provisions established in the loan contract and the Procurement Plan (PP). In addition, for all projects, the Borrower is required to prepare and submit to the Bank a draft General Procurement Notice (GPN). The procurement plan for the program, covering the duration of project execution can be accessed through the following Procurement Plan and indicates the procedure to be used for the procurement of goods, the contracting of works, non-consulting and consulting services and the selection of individual consultants.

a. Selection of individual consultants. Individual consultants are employed on assignments for which: (i) teams of personnel are not required; (ii) no additional outside (home office) professional support is required; and (iii) the experience and qualifications of the individual are the paramount requirement. Individual consultants are selected on the basis of their qualifications for the assignment. Advertisement is not required and consultants do not need to submit proposals. Consultants shall be selected through comparison of qualifications of at least three candidates among those who have expressed interest in the assignment or have been approached directly by the Borrower. Individual consultants may be selected on a sole-source basis with due justification in exceptional cases. This is to be carried out in accordance with Section V (Selection of Individual Consultants) of GN-2350-9 in Paragraphs 5.1- 5.4.

b. Training. The detailed PP indicates to which consultancy services training and workshops are applicable per GN-2350-9 if the assignment includes an important component for training or transfer of knowledge to Borrower staff or national consultants, the TOR shall indicate the objectives, nature, scope, and goals of the training program, including details on trainers and trainees, skills to be transferred, time frame, and monitoring and evaluation arrangements. The cost for the training program shall be included in the consultant's contract and in the budget for the assignment.

c. Other. Use of national or other documents than the Bank standard documents for competitive bidding: none.

Chart 1 - Thresholds (in US$)

International competitive bidding threshold*		National competitive bidding range ** (complex works and non-common goods)		Consulting services
Works	**Goods**	**Works**	**Goods**	**International short list**
>1,000,000	>100,000	100,000 – 1,000,000	25,000 - 100,000	>200,000

* When procuring simple works and common goods and their amount is under the International Competitive Bidding thresholds, shopping may be used.

** When procuring complex works and non-common goods with amounts under the NCB range, shopping shall be used.

5.3 **Procurement supervision – Procurement Plan (PP) and supervision.** The PP for the operation covering the duration of project execution indicates the procedures to be used for the procurement of goods, the contracting of works or services, and the method of selecting consultants, for each contract or group of contracts. It also indicates cases requiring prequalification; the estimated cost of each contract or group of contracts; the requirement for prior or post review by the Bank. The PP will be prepared to cover an initial period of eighteen (18) months and updated annually or whenever necessary, or as required by the Bank (www.iadb.org/procurement).

VI. FINANCIAL MANAGEMENT

6.1 **Programming and budget**. The Borrower has committed to allocate, for each fiscal year of project execution, adequate fiscal space to guarantee the unfettered execution of the project; as determined by normal operative instruments such as the project execution plan, the financial plan and the procurement plan.

6.2 **Accounting and information systems**. Project accounting will be performed using the GOB's financial management system – SS, in accordance with international financial and reporting standards and international public sector accounting standards when applicable. SS will be supplemented with the use of another appropriate accounting system such as Quick Books to facilitate reporting under the project. During project execution, the Bank will monitor the performance of SS and make a recommendation whether to continue using a parallel accounting system. It is expected that SS will: (i) facilitate the recording and classification of all financial transactions according to source of funding and categories of investment; and (ii) provide information related to, planned versus actual financial execution of the project, commitments made under the project, the financial plan for a six-month period, financial statements, performance reports and any other reports that may be required from time to time by the MNRI and/or the IDB.

6.3 **Disbursements and funds flows**. The SWaMA will be responsible for the submission of all disbursement requests to the Bank. Resources requested from Bank financing, through an advance of funds, will be used to settle eligible expenses anticipated for the next 180 days. The funds will be deposited into a special account, denominated in BLD Dollars, established exclusively for the program at the Central Bank of Belize.

6.4 Pursuant to Document AB-2990, the disbursement of Bank financing will be subject to the following maximum limits: (i) up to 15% during the first 12 months; (ii) up to 30% during the first 24 months; and (iii) up to 50% during the first 36 months. All these periods will be counted from the time the loan operation is approved by the Board of Executive Directors. These limits may be rendered inapplicable to the extent that the requirements set forth in the Bank´s policy regarding said limitations have been fulfilled, provided that the borrower has been notified of the same in writing.

6.5 The SWaMA will be responsible for the maintenance of adequate and original documentation to support disbursement requests. Such documentation includes accounting receipts, cancelled invoices, payment receipts, employment contracts, customs duties certificates, certificates of works, shipping, unloading and storage documents, goods/services received reports and any other payment support document acceptable to the Bank.

6.6 The SWaMA commits to maintain strict control over the utilization of the funds advanced in order to ensure the easy verification and reconciliation of balances between the executor's records and the records of the Bank (LMS1 Report).

6.7 For each new advance of funds, the SWaMA shall justify at least 80% of the cumulated advances already received. Advances will normally cover a period not exceeding 180 days.

6.8 In order to request disbursements from the Bank, the EA will present the following forms and supporting documents:

Chart 2 - Forms and supporting documents

Type of disbursement	Mandatory forms	Optional forms/information that can be requested by the Bank
Advance	Disbursement request Financial plan List of commitments	Physical / financial progress reports
Reimbursements of payments made	Disbursement request Project execution status Statement of expenses	List of commitments Physical / financial progress reports
Direct payment to supplier	Disbursement request Acceptable supporting Documentation	List of commitments Physical / financial progress reports

6.9 Generally, supporting documentation for justification of advances and reimbursement of payments made will be kept at the office of the SWaMA. Original support documentation for direct payments will be sent to the Bank for processing. Disbursement supporting documents may be reviewed by the Bank on an ex post basis. These reviews do not entail a blanket approval, of the whole universe of expenditures, based on the samples reviewed.

6.10 **Internal control and audit**. The SWaMA will assume the responsibility for designing and implementing a sound system of internal control for the project. The system to be established should provide reasonable assurance that project funds are used for its intended purpose.

6.11 **External control and reporting**. For each fiscal year during project execution, SWaMA will produce semi-annual financial reports for the project, annual audited financial statements and one final audited financial statement at the end of the project. The financial statements will be audited by a firm of independent public accountants acceptable to the Bank. The firm contracted for the auditing of the program will be selected according to the Bank's procedures outlined in Document AF-200.

6.12 **Financial supervision plan**. Financial supervision will be developed based on the initial and subsequent risk assessments carried out for the SWaMA. Financial, accounting and institutional inspection visits will be performed annually, covering the following: (i) review

of the reconciliation and supporting documentation for advances and justifications; (ii) compliance with procedures; and (iii) conducting ex post review of disbursements.

6.13 **Execution mechanism**. The SWaMA, with the support of the MNRI, will be responsible for the implementation and the administration of all components of the loan, including supervision, disbursements, and all reporting to the Bank. For this purpose, an agreement will be executed between the Borrower and SWaMA whereby the latter assumes the obligations regarding the execution of the project. The SWaMA, at the operational level, comprises a Director, a Financial Specialist, a Waste Management Engineer, a Senior Solid Waste Officer, a Junior Solid Waste Officer, a Social Communication Officer and a Project Assistant. During project execution, this team will be strengthened through the contracting of a procurement officer, an accounts officer and two solid waste officers.

6.14 **Designated account**. The program will have a designated account in the Central Bank of Belize. For day-to-day operations, the SWaMA will make payments from the MNRI's account (Consolidated Fund) and on submission of a memo to the Ministry of Finance and Economic Development (MFED), the funds are then reimbursed to the Consolidated Fund using resources from the Central Bank account established for the program.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/16

Belize. Loan ____/OC-BL to Belize
Solid Waste Management Project II

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with Belize, as borrower, for the purpose of granting it a financing to cooperate in the execution of the Solid Waste Management Project II. Such financing will be for the amount of up to US$10,000,000 from the resources of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on ___ _____ 2016)

LEG/SGO/CID/IDBDOCS#40172781
BL-L1021