

TC ABSTRACT

I. Basic project data

▪ Country/Region:	Belize/CID
▪ TC Name:	Solid Waste Master Plan for Tourist Areas
▪ TC Number:	BL-T1067
▪ Team Leader/Members:	Javier Grau (Team Leader, WSA/CDR); Venetia Eck-Salazar (CID/CBL); Alfredo Rihm (INE/WSA); German Sturzenegger, Maria Julia Bocco and Irene Cartin (INE/WSA); and Juan Carlos Perez Segning (LEG/SGO)
▪ Indicate if: OS, CS, or R & D	OS
▪ If Operational Support TC, give number and name of Operation Supported by the TC:	BL-L1021 Solid Waste Management Project II.
▪ Reference to Request: (IDB docs #)	IDBDOCS 38354259 (CPD)
▪ Date of TC Abstract:	24 April 2014
▪ Beneficiary (countries or entities which are the recipient of the technical assistance):	Belize
▪ Executing Agency and contact name	Solid Waste Management Authority (SWaMA)
▪ IDB Funding Requested:	US\$ 400,000
▪ Local counterpart funding, if any:	US\$ 40,000
▪ Disbursement period (which includes execution period):	18 months
▪ Required start date:	July 15, 2014
▪ Types of consultants (firm or individual consultants):	Consulting Firms and Individual Consultants
▪ Prepared by Unit:	INE/WSA
▪ Unit of Disbursement Responsibility:	WSA/CBL
▪ Included in Country Strategy (y/n);	Yes (see IDBDOCS 38275821)
▪ TC included in CPD (y/n):	Yes (see IDBDOCS 38354259)
▪ GCI-9 Sector Priority:	Water and Sanitation Infrastructure

II. Objective and Justification

- 2.1 Historically, solid waste management in Belize has not met the needs of the country. Its poor performance has become a risk for the environment, the health of the growing population and the tourism industry. At the same time, growing numbers of tourist arrivals place pressure on existing solid waste services. The main reasons for the poor performance of the sector have been the lack of clear objectives, a poorly-defined institutional structure, and the lack of predictable and adequate financial resources.
- 2.2 Until recently, 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, the inadequacy of waste disposal practices has been a matter of concern due to the environmental vulnerability of the islands, the occurrence of natural disasters, and the proximity of these islands to coral reefs.

- 2.3 Belize's economic dependence on its rich yet fragile terrestrial and marine ecosystems strengthens the importance of sound environmental management and ensuring that economic growth is environmentally sustainable. This is particularly important in the growing tourism sector, in which ambitious plans for growth in visitor numbers must be accommodated in an environmentally sustainable manner. Improved management of sanitation and waste in tourism destinations is a crucial area that needs urgent attention.
- 2.4 There is a clear consensus by the Government of Belize (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 in the *Belize Medium Term Development Strategy 2010/2013*, 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.
- 2.5 Improvements have already taken place in Central Belize and in the Northern Islands of Ambergris Caye and Caye Caulker. As part of the previous Country Strategy with Belize 2008-2012, in 2009, the Inter-American Development Bank (the Bank) approved the Solid Waste Management Project (SWMP), BL-L1006, with cofinancing from the OPEC Fund for International Development (OFID) and the GOB. This project has resulted in the construction of the first sanitary landfill in Belize, located at Mile 24 of the George Price Highway. This new sanitary landfill, which began operations in August 2013, is already benefiting the main urban areas in the districts of Belize and Cayo¹, including Belize City, the largest urban area in the country. By the first quarter of 2015, the landfill will also benefit San Pedro and Caye Caulker, two major tourism destinations. Dumpsites in the Western Corridor (Belize City, San Ignacio and Santa Elena) and in the islands of Ambergris and Caye Caulker are being closed and replaced by transfer stations, from where solid waste will be safely transported to the Mile 24 Regional Sanitary Landfill.
- 2.6 In addition to these investments, the creation of the Solid Waste Management Authority (SWaMA) has improved the institutional framework for the sector, allowing for improvements in solid waste collection and disposal throughout the country, better coordination among key actors and a better planned strategy to address the challenges faced by the sector.
- 2.7 However, despite these improvements, there are still outstanding challenges that the GOB and SWaMA must address to advance in the performance of the sector, including improving collection, transportation and final disposal in the southern (Stann Creek and Toledo districts) and northern (Corozal and Orange Walk districts) regions of Belize. Furthermore, as regards to strategic development of the sector and its links with tourism, improving the management of special wastes such as cruise ship waste, hazardous, and medical waste, ensuring financial sustainability of the solid waste sector, and educating the public about the importance of proper disposal of solid waste (including recycling) are high on the agenda for an efficient and effective solid waste management in Belize.
- 2.8 The GOB has requested the Bank a new operation to improve solid waste management in key tourist areas in Southern Belize, areas that were not addressed under the first Solid Waste Management Program due to limited financial resources to cover an area larger than Central Belize and the Northern Islands of Ambergris Caye and Caye Caulker.
- 2.9 Belize's southern region comprises the Stann Creek and Toledo districts. According to the 2010 Population and Housing Census, these districts represent over 20% of Belize's population and include the poorest district in Belize, Toledo, with poverty affecting more than half of the population. These districts have very low solid waste collection and disposal rates. In Toledo, more

¹ The areas to benefit from this project include Belize City, San Pedro, Caye Caulker, Santa Elena, San Ignacio, and Benque Viejo. By the second half of 2014, Belmopan and Burrell Boom are expected to also benefit from this sanitary landfill and from the closure of open dumps and the construction of transfer stations in these two locations.

than 50% of the households burn their garbage, which represents twice the national average. Municipal collection is below national averages and neither of these districts has a sanitary landfill; all solid waste collected ends up in very poorly managed open dumps that in many cases, are adjacent to populated areas with health and environmental risks and in some cases such as in Placencia or Dangriga, are adjacent to major roads, visible to residents and visitors.

- 2.10 In order to reduce poverty levels, the GOB has identified tourism as one of the key sectors to boost economic growth. Presently, key tourist destinations in Belize such as Ambergris Caye, Caye Caulker, Belize City and San Ignacio/Santa Elena are benefiting from the current Solid Waste Management Program. With prospects for tourism expansion in the Northern and Southern Corridors, finding lasting solutions for solid waste management in these areas becomes a priority to realize positive growth in tourism revenues. In this regard, the Sustainable Tourism Master Plan projects an expansion in tourism overnight visitors from 320,967 in 2008 to just over 2 million by 2030 in southern Belize.
- 2.11 The proposed TC is aligned with the Ninth General Increase in the Resources of the IDB (GCI-9) lending target for the 2012-2015 period “Lending to support climate change initiatives, sustainable energy and environmental sustainability.” The related loan would also contribute to the lending target “Support development to small and vulnerable countries.” Lastly, it is aligned with the second GCI-9 sector priority for 2012-2015 “Infrastructure for competitiveness and social welfare.”

III. Description of activities and outputs

- 3.1 **Component 1. Feasibility Studies.** This component will finance the necessary studies to decide on the preferred solid waste collection, transport, treatment and disposal methods for the proposed project. These studies will include a waste generation and composition study, a feasibility study assessing the different options for the locations of transfer stations, treatment facilities where needed, and sanitary landfills for safe disposal and treatment. This feasibility study will incorporate the preliminary engineering designs for the selected option. Additionally, as part of this component a cost benefit analysis of the preferred option will be undertaken.
- 3.2 **Component 2. Environmental and Social Studies.** This component will finance all environmental and social studies to ensure that the program complies with both IDB and GOB’s requirements. Specifically, in relation to the GOB’s requirements, a complete Environmental Impact Assessment is expected to be prepared in accordance to the Department of the Environment (DOE) regulations.
- 3.3 Project Management Unit and Audit costs will be financed using both counterpart and Bank resources. The audit costs will be covered with TC resources while the PEU costs will be financed with GOB resources. GOB has been funding the staff of the Solid Waste Management Authority (SWaMA), the Executing Agency for this TC since 2009. SWaMA is well staffed and its personnel have proved to be technically and administratively capable for managing projects by multilateral funding agencies.
- 3.4 The expected outcome of this operation is the preparation of a program in accordance to the specifications of the studies prepared with financing of this TC. It is expected that all studies, designs and reports completed under the TC will facilitate the implementation for the proposed loan for Belize, scheduled for approval in 2015.
- 3.5 The expected outputs of this TC include the following: i) Master plan prepared for the solid waste management in Southern Belize; and ii) Four studies completed (waste generation and composition study, engineering feasibility study, cost benefit analysis, and environmental and social study).

IV. Budget

Indicative Budget

Activity/Component	Outputs of component	IDB	Counterpart Funding	Total Funding
Component 1: Feasibility Studies	<ul style="list-style-type: none"> • Master plan prepared for the solid waste management in Southern Belize • Waste generation and composition study • Feasibility study for waste transfer, treatment and disposal • Cost benefit analysis of preferred option 	250,000		250,000
Component 2: Environmental and Social Studies	<ul style="list-style-type: none"> • Environmental Impact Assessment • Social Impact Assessment 	130,000		130,000
Project Executing Unit	<ul style="list-style-type: none"> • Bidding documents prepared • Bidding processes completed with awards of contracts 		40,000	40,000
Audit	<ul style="list-style-type: none"> • Financial audits of the project completed 	20,000		20,000
Total		400,000	40,000	440,000

V. Executing agency and execution structure

- 5.1 The Executing Agency for the program will be the Solid Waste Management Authority –SWaMA, which will be responsible for overall project execution. The Solid Waste Management Authority Act of 2000, the most important legal instrument governing the solid waste sector, establishes the structure and functions of the SWaMA, a corporate body with independent legal personality within the Ministry of Natural Resources and Agriculture (MNRA). 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 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. Presently, SWaMA functions with a fully-staffed team of professionals and a Board of Directors. SWaMA is currently executing the IDB and OFID-financed SWMP². SWaMA has a good track record in executing IDB-funded projects; proof of this is the [BID-FEMSA water and sanitation award](#) that SWaMA received in 2013. The BID-FEMSA awards are presented annually to institutions in Latin America and the Caribbean for their innovative practices in the management of water, sanitation and solid waste. In 2013, SWaMA was recognized in the category of solid waste, thanks to the country's SWMP.

VI. Project Risks and Issues.

- 6.1 The Country Program Evaluation for Belize covering the period 2008-12 and prepared by the Office of Evaluation and Oversight (OVE) identified limited capacity in terms of human resources and institutions as a risk to Bank financed operations in Belize. A need has been identified to ensure that project design matches institutional capacities in Belize, avoiding overly ambitious and complex designs. In this operation, this risk would be mitigated as the TC will be executed by SWaMA, which has ample experience in executing IDB projects, and which, to this date, has successfully implemented the SWMP.
- 6.2 A second risk, usually found in multi-sectorial projects, is related to the lack of coordination among participating agencies. The interventions proposed in this sector note would require proper coordination among various GOB agencies such as SWaMA, DOE, Belize Tourism Board, Ministry

² SWaMA is currently staffed with a Director, a Senior Solid Waste Technician, a Technical and Environmental Specialist, a Financial Specialist, a Social Communications Officer, a Junior Solid Waste Officer, and a Project Assistant.

of Health, the Ports Authority and the Town and Village Councils. In the current SWMP, SWaMA has successfully established proper coordination with other GOB agencies such as the DOE, Ministry of Health, Ministry of Works and the Lands and Surveys Department. This risk is thus not foreseen in a second project executed by SWaMA.

- 6.3 There is a risk that while it does not necessarily affect this TC, it might affect the loan operation that this TC is supporting to design. This particular risk is the lack of execution/disbursement readiness at the time of approval/eligibility. Recent projects in Belize have experienced delays to start execution and disbursement. 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 SWMP, SWaMA avoided these risks by planning ahead of time about all the requirements needed to procure the construction and operation of the sanitary landfill and transfer stations covering the Western Corridor. For the proposed new loan operation in southern Belize, SWaMA has already initiated the acquisition of land for future landfills in key urban and tourist areas.

VII. Environmental and Social Classification

- 7.1 It is not anticipated that the activities to be financed in this TC will have negative direct social or environmental impacts. The Bank's Safeguards Screening Toolkit has classified this operation as Category C. No environmental assessment studies or consultations are required for Category "C" operations.