

BELIZE SOLID WASTE PROGRAM

STRATEGIC DEVELOPMENT PLAN FOR THE Solid Waste Management Authority

ATN/KB-8501-BL. Non-reimbursable TC for the strengthening of local governments and SWMA in their capacity to manage municipal solid wastes.

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Consultants:

Olga Samper

Stephen Pereira

Monica Ramirez

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EXECUTIVE SUMMARY

The following Strategic Development Plan for SWMA is based on 3 main principles: A) Creating an institution with strong technical leadership to ensure SWM sector governance, B) Harmonizing and coordinating existing operating institutions within or outside the Sector that can somehow supplement SWMA's functions to ensure sustainable systems in the sector; C) Minimizing the need of further legal modifications that may compromise SWMA's commencement of operations.

Inter-institutional arrangements: The basic inter-institutional set up attempts to distribute major roles among institutions concerned or potentially related to the Solid Waste Management sector as follows: i) The DOE will continue to be the regulating and supervising agency concerned with environmental contamination controls. Its connection to the SWM sector stems from controls and fines imposed on solid waste contamination. A proposal is made to make Local Authorities also liable to fines from the DOE whenever there is no compliance with solid waste control, as an incentive to induce more responsibility on their control and enforcement over littering behaviours and service providers; ii) The Ministry, with technical support from SWMA, should issue within the next 2 years a comprehensive regulatory framework – namely an Act - for Solid Waste Management Services, including rules applicable to Public Sector Participation in service delivery. The SWMA will be the agency in charge of enforcing these regulations by way of complaint and appeals procedures that should be developed similar to those applied by the PUC; iii) SWMA will become an independent advising agency to the Ministry and a technical body in charge of taking the leadership in the sector and of implementing the Solid Waste Management Program. For that purpose SWMA may engage in monitoring and evaluation of SWM service performance throughout the country, feeding the design of sector policies, promote legal reforms, implement projects and programs including the necessary resource mobilization, inter-institutional arrangements, and technical assistance to local councils as partners in such endeavours; iv) Local Governments and SWMA will share responsibilities in regard to project implementations and service delivery. While there are advantages in joint ventures for SWM service delivery, either SWMA or the LG's may choose to do it on its own; either case -jointly or individually- they may resort to Private Sector Participation in Service delivery. When national priorities call for a joint venture SWMA may declare a Service Area to assume full or partial control on service delivery. Yet such declaration requires previous negotiations and agreements with local councils within the area that set up the conditions for participation and the financial and institutional commitments involved for both parties; v) The Ministry of Local Governments will be in charge of financial strengthening programs while SWMA will assume responsibility for assisting local councils in improving its Solid Waste Management performance.

Specific arrangements for implementation of the Western Corridor Project: The Project will be implemented under SWMA leadership and with participation of the local governments of San Pedro, San Ignacio, Belize City and Caye Caulker Village thru a Service Area Declaration. The initial financing of the project will be secured thru a PSP arrangement which will assume responsibility for its construction and operation. Cost recovery of both will be thru a system of municipal charges for waste disposal based on a tariff applicable to the volume of wastes produced by each town or village, and disposed by

the Landfill Operator. The charges will be paid by each local council and in case of defaulting will be deducted from their Subvention. Each Municipality can choose its own internal cost recovery mechanism in consultation with the community, and decide on the combination of direct user fees, municipal contributions from general revenues and the use of subsidies (subvention) to pay for final disposal charges. They can also decide the billing and collecting procedures for user charges which can be collected either thru the private operator, thru surcharges on property tax, or directly collected by the municipality, etc. The degree of financial commitment from each and all municipalities and their own internal consensus should be negotiated and agreed upon prior to SWMA issuing of a Service Area Declaration for the final Disposal in the Western Corridor Area. The provisions of the Declaration should be compulsory and will ensure the minimum feasibility conditions to appeal Private Sector Participation in the project .

Coordination and Communication Mechanisms with Local Authorities: SWMA shall implement an Advisory Committee with participation of members of the central government from the SWMA Board, representatives from Local Councils (mayors and chair persons) and representatives from community and civil organizations. The Committee should become an arena for policy consultation and consensus building, and to communicate and diffuse progress made in the SWM sector. Particular Ad-hoc Committees can be adopted in the case of joint venture projects between SWMA and municipalities like in the case of the Western Corridor Area, to follow-up on project progress and to discuss issues related to service delivery and performance. Furthermore SWMA must develop an on-going Information and Communication Strategy to inform citizens about progress made in the sector and to raise awareness about issues related to sustainability of SWM services.

SWMA's Mission is to establish sustainable Solid Waste management Systems which meet the needs of all citizens including the poor. For that purpose SWMA must perform the following and **Strategic Functions:** a) Sector Planning and Policy design, b) Inter-institutional Coordination; c) Project Implementation; d) Resource Mobilization, e) Technical Assistance to Local Governments, and f) Monitoring of the SWM sector.

A schedule of 3 **implementation phases for SWMA's institutional development** are proposed which are closely related to the viability stages of the Western Corridor Project. SWMA should gradually establish those capacities and functions necessary: first for implementation of the Project, and later on for the rest of the National SWM Program. Thus the implementation phases are designed such that each one should result in a major milestone that triggers the feasibility of the following phase.

Prior to beginning operations a **Start Up Phase** will aim at hiring SWMA's CEO, and ensuring an operational allocation within the national Budget of an estimate equivalent to US\$312.550, to cover the first fiscal year of operations. **Phase 1: Structuring of Implementation Conditions** will last approximately one year and should end in securing technical, institutional, and financial conditions that render feasibility of the Western corridor Project based on a PSP arrangement. As an indicator of results the Declaration of a Service Area for the Western Corridor Final Disposal, must have been issued by SWMA with all the necessary supports. The main functional capacities compromised and required on this phase are: Sector Planning to structuring the Project, Resource Mobilization, and Inter-institutional Coordination **Phase 2: Implementation of the Western Corridor**

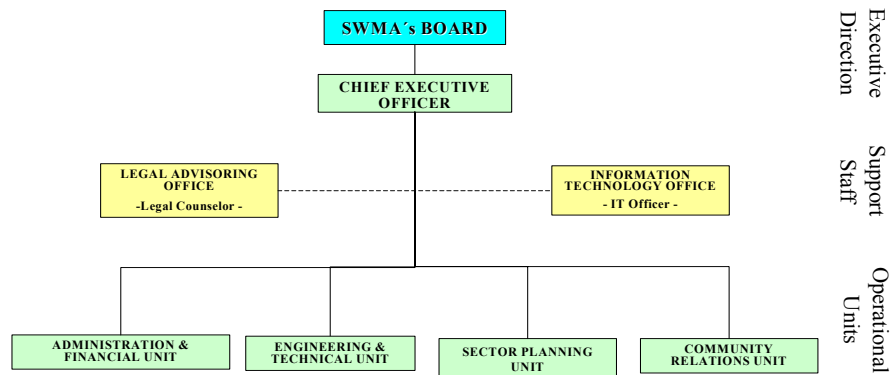
Project is expected to last one year and a half and involves all activities connected with implementing the project and preparing its operational stage. Among others, SWMA will focus on preparing the terms for the contract bidding, conducting the procurement process, selecting and contracting the private operator, and monitoring the construction of the project ensuring compliance with the contractual terms. On the other hand SWMA will assist local governments in preparing the scenario for the rational use of the new facilities by the community and raise awareness on the need to pay user fees. The milestone proposed is: Facilities of the Western Corridor will be ready for operation and community ready for its use. Functional capacities required for this phase besides the ones developed on previous phase, involve introducing : Project Implementation, Technical Assistance and Monitoring and Evaluation **Phase 3: Management of the Solid Waste Management Program**: requires that all functions and units within SWMA be fully operational to implement the rest of the NSWMP Program. Based on experience from the previous phases SWMA should be in a position to decide at this point the scope of internal capacities and outsourcing required for an ongoing sustainable operation.

The **Organizational Development Plan** establishes the gradual evolution of capacities that SWMA should acquire, and therefore the organizational structure and the human and financial requirements to implement each phase. Building Management Capacity to perform the set of functions assigned to SWMA requires: Specialized skills (governance skills facilitation skills, and management and administrative skills); management information systems and processes; capacity to support PSP Service Delivery arrangements; and capacity to support Local Councils in SWM governance. Annex 1 develops the set of procedures that SWMA should command to implement a PSP for a BOT project. Annex 2 explains the set of issues involved in improving local councils SWM governance.

Following the implementation phases there is a proposal of **Organizational Phases** associated. Each phase displays the required organizational structure and strategy.. Thus **Phase 1** proposes a **Basic Organizational Structure**, and an institutional strategy based on outsourcing specialized technical capabilities. **Phase 2** considers a **Transitional Structure** still supported on a wide degree of external advisors and consultants. **Phase 3** will display the **Final Organizational Structure** and capabilities that SWMA should acquire. Even though the organizational structure is much the same as in Phase 2, the degree of internal and permanent resources for each is still a matter of decision depending on experience in the previous phases.

The **financial requirements** for implementation of the proposed Strategic development Phases involve two groups of costs: a) Costs associated with performing institutional operations, and b) Costs associated with construction of the Project and Service delivery depending on the final financing and cost recovery mechanisms decided for its implementation. This document only presents **budget projections** for the first set of costs. According to the proposed institutional strategy for each phase until fiscal year 2009-2010 (a total of 5 years) involve annual operational budgets of: US\$312.550 for Year 1; US\$ 779.200 for year 2; and a steady US\$689.200 estimate for each of the following 3 years and onward. Such costs should be financed by the central government budget based on the Environmental Tax revenues.

SWMA's Final Organization Structure



Finally a **set of Performance and Progress Indicators** is presented for each phase which shows the specific goals and milestones that SWMA should attain at the end of each phase and for each of its functional responsibilities.

Attachment 1 (SWMA Strategic Development Plan- A.xls) contains:

1. SWMA's Annual Operating Program and Budget for the next 5 years
2. A Workplan schedule with times and responsible persons within SWMA for each activity
3. performance and Progress Indicator
4. A Budget Summary
5. Quarterly Budget estimates as a cash flow.

SWMA's STRATEGIC DEVELOPMENT PLAN

1 Introduction

The present Strategic Development Plan for SWMA attempts to lay down the key principles and guidelines that will serve as a basis for a discussion with the SWMA Board and the concerned stakeholders in the implementation of the Solid Waste Management Program.

In response to the Terms of reference the Plan aims at:

- (1) Defining SWMA's functions, with a clear indication of when each function will need to become operational and the associated human and financial requirements;
- (2) Describing SWMA's basic organizational structure required to manage the Solid Waste Management Program (BL-0021) as currently conceived;
- (3) Propose inter-institutional arrangements that can supplement SWMA's functions or improve its effectiveness;
- (4) Also establish mechanisms to achieve adequate coordination between central and local governments, or active participation when deemed appropriate; and
- (5) Introduce a set of progress and performance indicators that can be measured and monitored to evaluate SWMA's progress in attaining institutional and technical goals.

This document is submitted to the top management authorities in Belize to comply with the TC contract pre-requisite of obtaining initial approval of a Draft Strategic Development Plan. The principles, key issues and guidelines proposed here should serve as the basis for a consensus building workshop with authorities and stakeholders which views and observations will be reflected in a final version of the Plan. It should be noted though that this document also contains elements of an Action Plan such as Annual Operating Program and Budgets for the next five years until fiscal year 2009-2010.

2 Principles

The definition of a Strategic Development Plan for SWMA is based on the following principles and objectives

- A. The need to establish an institution with strong technical leadership capable of ensuring sustainable solid waste management systems in Belize. According to the SWOT analysis governance of the SWM sector currently depends on:
 - The promotion of national awareness about solid waste management through community participation activities and stakeholders consultation
 - The improvement and strengthening of solid waste service delivery in urban and rural areas

- The promotion of municipal and community participation in financing solid waste management activities.
 - The enforcement of control measures to reduce solid waste contamination, littering and uncontained waste as the basis to ensure sustainability of solid waste management services in the long run.
 - The implementation of a National Solid Waste Information System to support the decision making process of policies, regulations and projects.
 - The introduction of an adequate regulatory framework for Private Sector Participation –PSP- in Solid Waste Service delivery and also to regulate service performance standards, tariffs and quality throughout the country.
- B. Acknowledgement of existing and operating institutions within or outside the SWM sector such as the DOE, the Ministry of Local Governments or the Municipalities and Local Councils, which somehow can supplement SWMA's functions and activities to ensure governance on the sector. SWMA should have the capacity to harmonize and coordinate roles and activities with these institutions towards sustainable SWM services.
- C. Convenience of minimizing to the best possible the need of introducing further legal modifications or enactments, that may compromise SWMA's initiation of operations. Yet SWMA will actively promote the introduction of a coherent regulatory framework for PSP and SWM services; also regulations to enabling Local Councils to better manage and govern SWM services at the local level.

3 Sector Institutional Arrangements

3.1 *Responsibilities of sector agencies*

As stated in the "Assessment of SWM in Belize - National and Local Level" document, environmental control and solid waste management responsibilities are shared between the local and the central governments. Here is a proposal of re-arrangement of roles among institutions that could lead to a better performance of the Solid Waste management Sector.

REGULATORY AND CONTROLLING AGENCIES

Environmental Control and Regulations:

The DOE should continue to be the control and supervising agency charged with enforcing environmental control regulations. Beyond issues concerned with preservation of natural resources, the DOE's main connection with the SWM sector relates with its responsibility to control contamination from solid wastes by establishing and enforcing strict regulations. Strengthening of the DOE enforcement and supervision functions is absolutely necessary. According to the Environmental Tax Act the DOE is entitled to an allocation of funds from the Levy aimed at strengthening its control and enforcement capacities.

At the local level such controls may be supplemented by local councils by introducing incentives such as potential fines from the DOE. Fines will have to be imposed by DOE to municipalities whenever there is no compliance with solid waste control which may result

in threats to human health and natural life. Making Local Councils liable to fines from the DOE for poor performance of their SWM responsibilities, may induce them to improve their own control and enforcement both upon littering behaviours and upon service providers. Local Councils have the legal powers to enforce such control and impose fines and penalties. Yet they may need technical assistance to implement comprehensive community education campaigns along with aggressive enforcing of controls.

Solid Waste Management Services Regulation and Control

In view of the lack of a comprehensive regulatory framework for Solid Waste Management Services we propose that within the first 2 years of operation SWMA should promote a SWM Services Act that shall be presented by the Ministry to the House of Representatives. Similar to the other Utilities Acts, the SWM Act should clearly depict the rules governing the provision of SWM services throughout the country either thru public or private providers; it should also specify the rules applicable to any form of PSP within the sector. We propose that the enforcement of the regulations concerned with SWM service provision, and more specifically with any case of PSP service delivery, should be under the **SWMA** responsibility. Having an independent sanctioning body will ensure more transparency in enforcing regulations.

SECTOR POLICY AND PROGRAMS COORDINATION AND IMPLEMENTATION

SWMA is the National Authority called for taking leadership of the sector and for implementing the National Solid Waste Management Program SWMA should become a strong technical and advising body to the Ministry capable of feeding the design of sector policies, promote legal reforms and new regulations, and implement service improvements and strengthening programs either thru technical assistance or thru the implementation of projects, all based on its close monitoring of the sector. To implement the proposed projects and investments of the Program SWMA will develop close coordination and co-financing mechanisms with local governments to ensure its participation and compromise.

PROJECT IMPLEMENTATION AND SERVICE OPERATION

Both responsibilities will be shared by SWMA and the Municipalities. There are important pros in promoting joint ventures between the national and local levels. Introducing economies of scale may enhance the ability of the public sector to provide more efficient services; it may also appeal to the private sector to participate in implementing projects and engage in solid waste management service delivery. Either SWMA and /or Municipalities on its own or thru joint ventures may introduce PSP in Service Delivery.

In cases when national priorities call for a joint venture, such as in the case of the Western corridor Project, SWMA may resort to its power to declare Service Areas, to take total or partial control of service delivery within a territory. This requires though a previous negotiation process and expressed consent of Local Councils within the area. Such agreement will translate into Local Resolutions delegating in SWMA those responsibilities which otherwise would be locally performed. The Resolutions, as well as the Service Area

Declaration, should clearly establish agreements on the tariff setting criteria, the cost distribution criteria among municipalities and the cost recovery schemes. A coordination mechanism to follow up on performance of the joint service must be anticipated in the Service Area Declaration such that both the beneficiaries (municipalities) and the responsible agency (SWMA) may express their mutual complaints or demands to the other and find ways to adjust and solve emerging situation.

Specific arrangements for implementation of the Western Corridor Project

A decision was made by the central government based on macroeconomic restrictions, to avoid further public indebtedness, as it would happen with a multilateral agency loan. Consequently the financing of construction and operation of the Western Corridor Project should come from a private concessionary under a PSP arrangement. SWMA will be responsible for making the necessary arrangements to make it feasible to enter into a PSP Service Delivery. The Authority will be responsible of creating feasibility conditions for its implementation; will take care of the procurement process; it will monitor the construction of the facilities and will supervise its operation ensuring compliance with contract conditions. As part of its project implementation function, SWMA will be responsible of ensuring resource mobilization both for financing of the project and for the cost recovery scheme.

For the cost recovery (of construction and operation) the proposed scheme , calls for SWMA to collect charges directly from each Local Authority. Charges which will be based on a tariff applicable to the volume of wastes generated by each town or village. Waste volumes will be measured at transfer stations assigned to each municipality and they will be reported by the Landfill Operator. Local Authorities may obtain cross check information on solid waste volumes from its private collectors or else form its own waste collection operation. Such that it will become an incentive to take more responsibility and control on local solid waste service performance.

Private companies delivering local solid waste services should improve service performance and report periodical information to the local authorities and to SWMA. Private operators should incorporate volume measurements for improving fees application to commercial waste generators.

Municipalities will define internal recovery mechanisms as a result of community consultations which will define the level of user fees potential, the level of contributions from municipal own general revenues, , and the required subsidies. Local Authorities will also determine billing and collection procedures to recover user fees for disposal. Such fees may either be collected thru the private operator (when present), collected thru a surcharge on property tax or directly collected by the municipality.

To induce compliance with payments to SWMA by Municipalities any default on municipal payments will be deducted from municipal subventions.

All of these cost recovery aspects should be clearly established and negotiated within each municipality and with SWMA in advance such that all together make it feasible to begin implementation of the Project. The commitments assumed by all the parties should be clearly establish in the resolutions issued by each local councils and in the Service Area

Declaration. After such declaration the decisions taken will be compulsory. Otherwise if legal and institutional conditions for sustainability of the project are not sufficiently secured, private companies might be discouraged from participating in the PSP Service delivery arrangement and/or the resulting high risk costs will make it unfeasible.

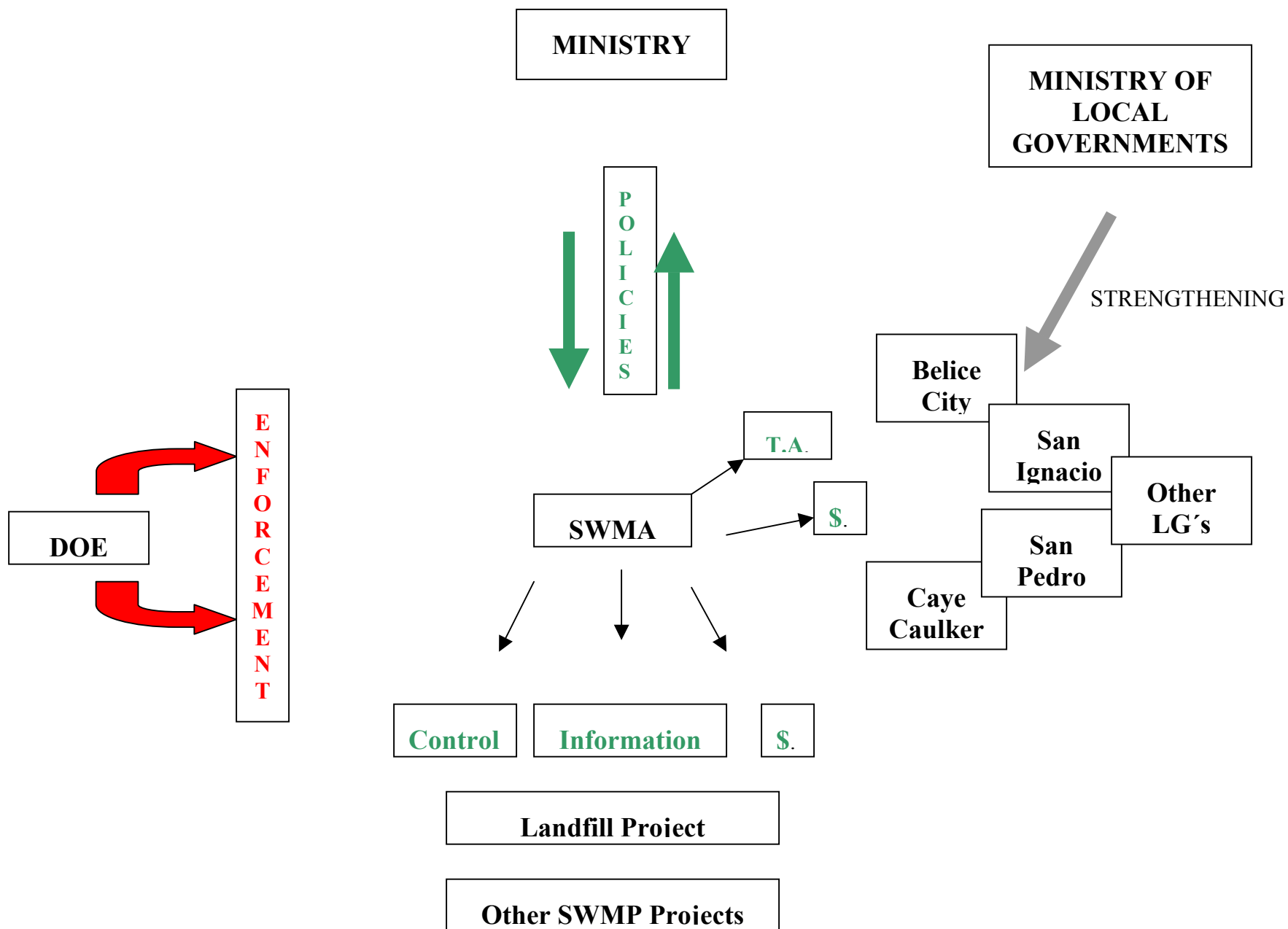
TECHNICAL ASSISTANCE TO LOCAL AUTHORITIES

Local Councils need assistance and strengthening in:

- **Improving its financial management systems and performance** so that they can increase their own revenues. Since local revenues may be an important part of the internal cost recovery mechanism to pay for disposal charges to SWMA, local authorities must be interested in improving financial performance in order to have resources available to subsidize the poor within the city and supplement payments for final disposal fees. The **Ministry of Local Governments** will be responsible for providing technical assistance to Local Councils in matters related to strengthening financial and administrative capacities.
- **Improving its Solid Waste Management Governance**, is also key to ensure operating controls on service providers and individual behaviours. Local Councils must devise a comprehensive strategy to reduce waste littering and contamination by a combination of motivation and punitive measures. On the one hand community participation and education programs should be devised to induce more conscious behaviours towards reducing wastes, recycling, and reduce littering and uncontained wastes. On the other hand strict control and enforcements should force every user and inhabitant to dispose wastes thru the services established or otherwise be subject to a fine. Likewise, Local Councils must strengthen its capacity to manage and control PSP arrangements.

SWMA will assume responsibility of assisting local governments in improving its governance on Solid Waste management systems within each town or village.

The following scheme shows main interrelations between stakeholders for the Solid Waste Management Sector performance.



3.2 *Mechanisms for adequate coordination with Local Authorities*

To ensure adequate and suitable policies for the sector which can be adopted and implemented by Local Governments, SWMA will establish a vertical two ways coordination mechanism with local authorities and community representatives. The degree and scope of coordination required will depend on the Authority's policies and the degree of responsibility given to municipalities.

Two basic coordination mechanisms are proposed:

- An advisory committee to be established to look over local governance issues related to solid waste management in the country. Besides participation of appointed ex-officio members of the SWMA Board, like the DOE and the Ministry of Health Representatives – along with SWMA's authorities, it should also include Local Government representatives (mayors) and participation of civil society organizations and local community leaders..

The advisory body should meet on a regular basis to discuss local/sectoral policy issues and resolve policy differences, along with proposing policy measures on behalf of the member institutions. Such scenarios can be very useful for the implementation of community participation programs and education campaigns oriented to solid waste management improvement. The committee will be able to follow up project implementation and performance.

- A special Advisory Committee could be introduced for the case of Joint ventures, such as the Western Corridor Project, where representatives from concerned local authorities and communities can discuss with SWMA's authorities about the performance of the project and on service delivery issues.

- An Information and Communication Strategy to be designed and implemented in order to provide periodic and updated information to communities and local governments about project implementation and progress. Such a mechanism may also be used for the implementation of recycling and/or waste reduction campaigns, to promote user fees payment, to spread environmental awareness and to bring closer communities, public authorities and service operators. The diffusion strategy will be based on reports and analysis issued from the SWM Sector Information System to be implemented by SWMA.

4 SWMA's Mission and Functions

4.1 *Mission*

The mission of SWMA is to establish sustainable Solid Waste Management systems which meet the needs of all citizens including the poor.

Sustainability will address economic, environmental and social issues. New technologies, financial innovative schedules and thorough participation of national and local agencies as well as of private agents and community will ease the establishment of sustainable systems in close relationship with environmental needs.

4.2 Functions

To facilitate the achievement of SWMA's mission, strategic functions have been defined as a conceptual framework for assuring the sustainable development of the National Solid Waste Management Program.

4.2.1 Sector Planning and Policy Design

SWMA will design and devise technical and financial mechanisms to ensure the implementation of the National Solid Waste Management Program in the country promoting creation of jobs, poverty alleviation and community participation.

Sector planning involves conduction of Solid Waste Management sector studies, preparation of policy recommendations, tariff setting methodologies and design of guidelines and standards to be proposed to the Ministry for Sector regulation definition.

The authority will prepare feasibility studies for the improvement of solid waste service provision in the country and will define a project pipeline to be implemented in the short and long term.

Monitoring of the National Solid Waste Program performance and following of the Sector Policy compliance in the country will be supported with the implementation of a Solid Waste Information System that will cover technical, operational, financial and community strategic information.

4.2.2 Inter-institutional coordination

SWMA will serve as a communication channel between public and private sectors and between environmental, financial, municipal and community stakeholders for the appropriate implementation of the National Solid Waste Management Program.

Inter-institutional coordination will facilitate efficiency in the use of resources and will ease the provision of timely and sufficient funds.

4.2.3 Project Implementation

SWMA will administrate the implementation of SWM projects in order to guarantee the adequate performance of all stages of the execution process (Contracting, Construction of works, Operation and Maintenance, Financing). The first project to be implemented by SWMA is the Mile 22 Landfill project for the solid waste disposal of 4 municipalities in the Western Corridor.

4.2.4 Resource mobilization

SWMA will support negotiations between local governments, communities, private companies and the Central Government for the allocation of resources for financing of solid waste projects.

The Authority will also verify that selected PSP operators are capable of financing their committed functions and that reasonable return rates are secured on their capital to ensure sustainable service delivery.

4.2.5 Technical Assistance

SWMA will support municipalities and rural communities in design and implementation of Solid Waste Management programs and projects. Assistance will also be given in particular solid waste aspects like landfill permitting, funding, research, on-site surveys, operation and maintenance, planning and implementation, training, and any additional technical assistance that a community or municipality requests.

Technical assistance will be given to public or private entities in order to ensure appropriate knowledge through information campaigns and education programs around solid waste recycling and reducing activities and environmental protection.

Assistance will be given to municipalities and rural areas for the preparation of procurement documents for tendering processes and for supervision of derived contracts.

4.2.6 Monitoring of SWM sector

SWMA will undertake a monitoring function by means of periodic reviews to:

- Collect technical and financial information for the supervision and control of ongoing projects
- Provide feedback of the performance of tariff schemes, quality of service and environmental impact of ongoing projects
- Ensure that the National Solid Waste Management Program is being implemented and that projects under execution fulfil environmental and economic criteria established.
- Secure updated information for technical, operational and financial guidelines for future projects and activities.

5 Implementation Phases:

A series of three phases has been identified for the implementation of SWMA's functions according to the Solid Waste Management Program schedule. For each phase a set of functions has been determined for the different activities to be performed.

Previous to the mentioned phases, a start up step is necessary. A description of the Start Up Step and the following three phases is presented below.

5.1 Start Up

As stated in the Assessment report, the SWMA board has been created and several meetings have been held for the discussion of sector aspects.

For the commencement of functions of SWMA the following basic activities have to be implemented:

- The CEO must be appointed for the run up of the entity. SWMA board will have to propose candidates and perform the required contracting procedures.
- The Minister responsible for Finance will have to introduce an estimated budget for SWMA's initial operation during the first year.

The mentioned activities are specific milestones for Start Up step and they are critical factors to turn SWMA into an operational agency

5.2 Phase 1: Structuring of Implementation Conditions

SWMA activities and organizational structure should evolve gradually to acquire the necessary capacity to carry on the strategic activities.

Phase 1 of the implementation process will allow SWMA to establish technical, financial and institutional conditions for the execution of the Mile 22 Landfill project as the first phase of the Solid Waste Management Program. This decision will require a thorough feasibility analysis of the project and big efforts in consensus building with involved stakeholders.

The activities to be performed during this phase will provide SWMA of a pilot scenario to acquire governance skills and exercise political leadership and decision making for making possible the execution of projects.

Activities to be performed during this phase will require outside assistance mainly because SWMA has not yet been operational and because the Mile 22 Landfill project feasibility has to be clearly established before the final SWMA organization is established. Since these skills may be in a short supply, SWMA will outsource such capabilities thru less than one year consultancies or advisories, preferably with local experts. Consultants and advisors should become trainers and should transfer knowledge and capabilities to SWMA aiming to help building local capacity in the country for managing the sector issues.

Main issues to be addressed in this phase are related to central and local government participation in the project.

Through Technical Assistance function SWMA will assist municipalities in stakeholder consultations and devising recovery mechanism to pay for final disposal and in obtaining approval of By-laws to introduce SWM User fees

These activities will require functional capacity to be applied in financial analysis to determine optimum levels and forms of municipal financial support and levels of user fees according to local conditions.

Facilitation skills will also be required for conducting consultative processes with the community and ensure agreements.

Inter institutional coordination function will be focused on negotiations between municipalities and SWMA on mutual commitments for implementation of the Project. Negotiation of financial commitments for cost recovery between central and local governments will also need Inter institutional coordination.

At the end of Phase 1 it is expected that the required agreements are in place assuring technical, financial social and institutional feasibility conditions for the Mile 22 Landfill project so that a bidding process preparation may start.

If this stage cannot be ensured satisfactorily, SWMA will not be able to continue with the established strategic plan for the implementation of Solid Waste Management Program.

The proposed Phase 1 is planned to start at the beginning of the fiscal year and proposed budgets are structured with this same time schedule. It is expected that Phase 1 take around 1 year for its completion, provided negotiations between central government, local government and communities run normally.

5.3 Phase 2: Implementation of the Western Corridor Project

For envisaging Phase 2, SWMA will have to continue its organizational conformation. The Authority will have to undertake the necessary activities for the preparation of PSP arrangements process for the Mile 22 Landfill project as well as complementary activities to reinforce its institutional capacity.

Building capacity to plan and implement this first PSP will take time. The general structure of SWMA will have to be installed hiring qualified personnel to manage the key areas. Some of the tasks will have to be supported by service contracts to address particular subjects like community education, enforcement, PSP regulation, Solid Waste service performance guidelines and standards, tariff methodology setting, PSP procurement and Information Technology, with expert advisors or consultancies. The development of these tasks will have to be tightly accompanied by SWMA staff in order to acquire functional capacity for the long term operation of the authority.

SWMA will thus begin with SWM activities and will begin extending its action to municipalities and communities looking for the adequate development of the Solid Waste sector.

Management and planning activities also require information for the complete project cycle and for the sector control and performance follow-up. A sector Information System will also be devised during this phase. A first result of this Information System will be a module for monitoring and evaluation of the contract performance and compliance of the PSP for the Western Corridor.

Technical Assistance function will be oriented to address the following issues:

- Assist Municipalities in preparing communities for contributing in Solid Waste Management activities like recycling and reduction of wastes, uncontained wastes control and user fees acceptance.
- Assist Municipalities in reviewing, controlling and enforcing contracts with collection operators establishing tight control requirements on dumping and uncontained wastes.

Through Sector Planning & Inter-institutional Coordination functions SWMA will work in designing and proposing a regulatory framework for Solid Waste Management to be introduced by the Ministry. The proposed regulation and guidelines and standards are expected to be approved during this phase to support further project developments. SWMA will also work in the definition of a pipeline of projects technically and financially feasible for the SWM Program second phase.

The resource mobilization function will be applied for:

- Obtaining National legal warranties for bidding process of the PSP Western Corridor Project

Project implementation function will allow:

- Procurement Process execution for the PSP Western Corridor Project (See Annex 1 Standard Operating Procedures for BOT).
- Monitoring of Mile 22 Landfill Project Execution

Monitoring of SWM Sector function will focus on:

- Design/implementation of information system
- Monitoring of SWM Services in the Country

The final result of this Phase 2 will be the completion of works in the Mile 22 Landfill project and the availability of the project facilities ready for operation.

At this time it is expected that the basic adjustments to the institutional and regulatory framework for the sector be approved and that the technical guidelines are also established. The information system will also provide basic information for the PSP contract execution monitoring. It is expected that Phase 2 of the implementation strategy will take 2 years for its completion.

5.4 Phase 3: Management of the Solid Waste Management Program

In Phase 3 SWMA will become fully operational and management capacity will finally be acquired, based on experience of Phases 1 and 2, to undertake the necessary functions of governance and service provision in a responsible and sustainable manner ensuring effective implementation of the Solid Waste Management Program.

The demand of external capacity will be reduced to particular cases where special skills or time consuming works do require it.

Main issues to be addressed in this phase are related to implementation of the Solid Waste Management Program and to sustainability of the Sector in the long run.

Sector Planning & Inter-institutional coordination functions will be oriented to Project structuring and feasibility for SWM Program second phase and beyond.

Inter-Institutional coordination will be conducted by SWMA for inter-institutional arrangements needed in Solid Waste Management long term planning and execution.

Project Implementation will continue the preparation and implementation of new projects working in the entire project cycle (identification, design, construction and supervision/monitoring). Technical assistance will be provided to municipalities and rural areas for the definition of project needs.

Monitoring of SWM Sector will be a principal task oriented to supervision and control of PSP Western Corridor Contract and, in a more broadly way monitoring of SWM Services in the Country with the support of programmed field inspections and the outputs of Sector Information System. The results of information analysis should be reported periodically and diffused to stakeholders.

Resource Mobilisation will be focused in Management of PSP Western Corridor Contract cash flow. Financial support for particular projects of the Program will also be given in project implementation if needed.

6 SWMA Organizational Development Plan:

6.1 *Building Management Capacity*

Building management capacities is integral to achieving sustainable improvement and expansion of solid waste service delivery in Belize as stated in SWMA's mission. SWMA has been assigned with the responsibility to carry out the Solid Waste Management Program and thus should develop an institutional strategy for implementation of the Program.

Chapter 4 addressed the general strategic plan for SWMA and spelled out 4 distinctive phases to begin implementation of the SWM program; more specifically with emphasis in the First phase concerned with the implementation of the Western Corridor Project.

SWMA's organizational capacities should gradually evolve hand in hand with the strategic phases to enable the institution to achieve the proposed goals and milestones. Furthermore, SWMA will also contribute to local councils strengthening such that local services under municipal governance may also improve over time.

Capacity is defined as the ability of the Authority to undertake the necessary functions of governance and service provision in a responsible and sustainable manner consistent with the processes of democratic governance

Whether SWM services are delivered by traditional direct delivery or through the private sector, SWMA and municipalities require functional capacity for instance to:

1. Determine appropriate service levels;
2. prepare Institutional Development and Strengthening Plans for the services;
3. plan for service delivery
4. marshall management, human, and financial resources to ensure service delivery;
5. determine tariffs and promote effective and efficient tariff collection;
6. monitor service performance and ensure compliance with service delivery goals and standards;
7. manage and conduct stakeholder consultation;
8. coordinate service delivery activity with other spheres of government; and
9. adjust service delivery activities over time.

Management capacity in these areas require:

- Specialized skills
- Management information systems and processes,

- Capacity to support Private Sector Participation- PSP - in Service delivery
- Capacity to support Local Councils SWM governance.

6.1.1 Specialized skills:

Management capacity for the above mentioned functional areas requires many specialized skills, including:

- a) governance skills** – identifying community needs, setting priorities, exercising political leadership, and decision-making;
- b) facilitation skills** – identifying stakeholders, eliciting their views, consensus-building, resolving conflicts, developing and implementing consultative processes, and communicating with shareholders; and
- c) management and administrative skills** – planning, preparing, and reviewing financial analyses, budgeting, accounting, and ensuring legal and regulatory compliance.

6.1.2 Management Information Systems and Processes

Management and planning activities also require information. For example, to determine the cost-effectiveness, information is required on the cost of the service and its performance. Among other things, this requires a cost accounting system that can accurately track and allocate costs to each service, as well as reliable measures of performance such as tons of garbage collected, garbage disposed, and so on. Sound accounting, reporting, and budgeting systems, and systems for collecting and processing performance indicators add to the institution capacity for:

- 1) measuring the cost-effectiveness of service delivery;
- 2) measuring the costs and benefits of alternate approaches to service provision;
- 3) service delivery budgeting and financial management;
- 4) monitoring and regulating service provision performance; and
- 5) fulfilling reporting obligations to the public, provincial government, and national government.

While SWMA needs financial and management systems, processes, and information, it should also consider:

- 1) the diversity in the scope, size, and nature of its operations – whether it may require comprehensive, technology-intensive systems, or be better served by simpler and more accessible systems; and
- 2) whether such systems should be developed "in-house" - developing "in-house" systems will often require outside assistance, training activities, and specialised staff; while contracting with a provider to develop and manage such systems or furnish required information may be more cost-effective

6.1.3 Capacity to support PSP Service delivery

Ensuring effective service delivery through any type of PSP arrangements typically requires SWMA to acquire additional functional capacity in:

Financial analysis to:

- (i.) determine the financial costs and benefits of alternate service delivery options and to structure projects
- (ii.) analyze and determine optimum levels and forms of municipal financial support for such ventures, when appropriate;
- (iii.) carry out the financial evaluation of bids;
- (iv.) establish financial performance standards;
- (v.) monitor the financial performance of private sector service providers; and set and adjust tariffs;

Technical and engineering analysis to:

- (i.) determine the technical viability of alternate service delivery options;
- (ii.) establish technical performance standards;
- (iii.) carry out the technical evaluation of bids; and
- (iv.) monitor technical compliance of service providers;

Contracting and contract management skills to:

- (i.) negotiate contracts that allow for practical monitoring and enforcement;
- (ii.) identify and allocate risks appropriately;
- (iii.) monitor service delivery and ensure contract compliance; and
- (iv.) renegotiate contracts; and

Project management skills to:

- (i.) establish and monitor implementation schedules for all stages of the PSP project life cycle;
- (ii.) design, supervise, and review feasibility studies; and
- (iii.) manage the procurement process.

These skills could be in relatively short supply and will have to be developed over time. Implementing such arrangements over any reasonable time frame will require a balanced approach that both builds capacity, and reduces the demand on capacity - for example, by adopting measures that reduce the complexity of such arrangements.

6.1.4 Capacity to support Local Councils SWM governance

To support and increase municipal capacity for planning, implementing and controlling PSP projects, SWMA should take care of the following measures as part of an integral capacity building program:

- 1) providing advisory guidelines for:
 - i. stakeholder consultation;
 - ii. PSP project identification, feasibility studies and project structuring;
 - iii. financial support for PSP projects;
 - iv. procurement;
 - v. PSP contracting, contract monitoring, and compliance; and
 - vi. municipal council internal management structures and decision-making processes for planning and implementing PSPs;
- 2) establishing a PSP Regulatory Support Unit within SWMA
- 3) providing technical assistance in key aspects of PSP post-contract regulation, including contract monitoring, and compliance; and
- 4) training for university faculty (training of trainers), municipal councillors, and municipal officials in planning and implementing PSPs.

6.2 Organizational Stages

To gradually acquire the necessary capacities here is a proposal of the organizational phases and the specific capacities that SWMA must develop to carry out the activities pertaining to each Phase according to the Proposed Strategy. Bearing in mind the principles of cost efficiency and effectiveness in choosing a suitable organizational strategy for each phase, careful consideration is given to the trade-offs between:

- Costs of permanent personnel vs external advisors
- Discrete activities vs continuous activities
- Capacity building activities vs. permanent functions
- Operational vs. administrative costs
- Volume of business vs. operational cost

6.2.1 Start Up Phase:

The main purpose of this phase is to ensure a basic operational capacity for SWMA by :

- Selecting, appointing and contracting the Chief Executive Officer,
- Obtaining from the Ministry of Finance a budgetary allocation for year 2005-2006 of an estimate of US\$312.550 for the operation of SWMA.

Both activities, particularly the first one are under the SWMA board responsibility.

Timeframe: The estimated time frame for this phase will cover up to the beginning of the next fiscal year, i.e. approximately 4 months starting in December until March next year.

Immediately after taking office the CEO should begin the selection process for contracting out:

- A Senior Economist with experience in SWM or public utilities, preferably with knowledge of PSP processes.
- An Administrative Assistant

6.3 Phase 1: Basic Organizational Structure

During this phase SWMA should attain the social, financial, and institutional conditions that ensure the viability of implementing the Western Corridor Project through a PSP arrangement. The milestone that will trigger the following phase is a Declaration by SWMA of the Service Area for the Western Corridor final disposal Project. Such Declaration entails previous negotiations and consensus-building both at the local level between communities and local authorities, between Local Governments and SWMA in order to issue Municipal Resolutions to delegate in SWMA the service delivery, and ultimately with the central government.

While SWMA's authorities should lead the consensus-building and negotiation process several other legal, financial, social studies and assistance activities will have to support this process.

Time frame: The time estimate for this phase is a 1 year duration (fiscal period 2005-2006) which should end by March 2006 when the implementation conditions for the Western Corridor Project thru a PSP had been secured.

6.3.1 Functions

The strategic activities require that SWMA begins performing and displaying the following functions:

- Inter-institutional Coordination
- Resource Mobilization
- Technical Assistance

To be able to carry out the proposed activities for this phase and exert these functions to reach the expected results, SWMA requires to acquire capacities and skills in the areas of:

- A. Strategic Planning and Coordination:** To conduct the inter-institutional coordination processes both at the national and local levels, aiming at reaching a coherent financial structuring for the implementation of the project. This means one the hand to elaborate the financial feasibility studies for the PSP while negotiating different alternative cost recovery at the municipal level, and consequently determining the needs for supplementary resources from the central government to cover the potential repayment schedule for the PSP. Specialized capacities and skills required to perform this function at this point are:

- Financial and socio-economic feasibility studies on willingness and ability to pay for user fees; and financial simulations for the PSP
- Technical assistance to local-governments in stakeholder-consultations
- Legal capacities to assist local governments in issuing the Resolutions and for preparing SWMA's declaration of a Service Area for the Western Corridor Final Disposal Project.
- Consensus-building and negotiation abilities

B. **Management and Administration:** To support a basic operational structure and mostly to manage several contracts for technical assistance and external advisory services.

6.3.2 Institutional Strategy

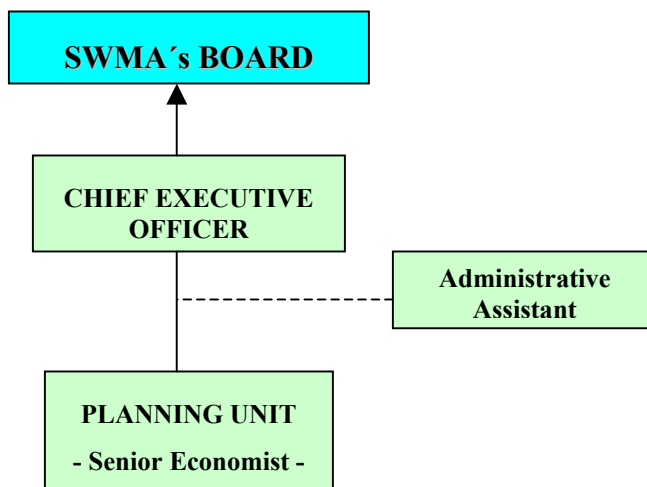
The proposed institutional strategy for this phase is based on the principle of minimizing SWMA's long term financial and labour commitments until assuring the financial and institutional feasibility of the Western Corridor Project. We believe is in the best interest of SWMA and the country to start with a very small and highly skilled Planning unit supported in external technical assistance exclusively intended to ensure conditions for the implementation for the Project. The T.A.s should both provide training, methodology tools and knowledge to SWMA's planning unit, and also carry out the expected results and activities with the municipalities.

A. Internal Structure:

Accordingly, the proposed basic structure for SWMA during this phase consists of:

- **CEO:** Charged with leading inter-institutional negotiations and arrangements for resource mobilization at the national and local levels with support of the Board.
- **A Planning Unit with a Senior Economist** (preferably under a short term service contract for 9 months initially): Responsible for feeding the decision making process by providing information from the feasibility studies and conducting the technical assistance program for the local councils, to create consensus-building conditions for a socially and politically acceptable recovery mechanism at the local level.
- **Administrative Executive Assistant:** in charge of providing the logistics for operation of the institution, and administering the financial aspects of the outsourcing contracts.

BASIC ORGANIZATIONAL STRUCTURE



B. External resources:

Under leadership of the Economist, among others, 4 types of T.A. will be contracted out to supplement SWMA's capacity:

- Technical Assistance with expertise in: Service Tariffs, Community Participation, Municipal Finances and Financial Analysis to conduct the process in the 4 communities involved: Belize City, San Ignacio, San Pedro, and Caye Caulker.
- Legal Advisory Services to advise Local Councils in preparing the terms for the Resolutions delegating in SWMA the provision of final disposal services; and to advise SWMA in preparing the Service Area Declaration. Both legal instruments could become one depending on prevailing legal criteria.
- Legal Advisory Services to assist Local Councils in introducing User fees for Final Disposal thru approval of the Solid Waste Management By-laws.
- Financial/Economic evaluation expert to detail and structure the final financial arrangement for cost recovery and repayment for a PSP Service delivery option for the Western Corridor Project after negotiation with the local councils.

6.4 Phase 2: Transitional Structure

This phase main objectives are:

- To implement the Western Corridor Project thru a PSP up to the point when facilities be ready for operation.
- Promote community education and awareness within municipalities and villages involved in the Western Corridor Project to enable implementation of user fees and/or charges for services thru any other concerted mechanism; promote local conditions (i.e: stringent control and enforcement of uncontained waste and illegal dumping ;

introduction of waste reduction programs) to enforce discipline on disposal at established transfer or final disposal points.

- Strengthen SWMA's internal capacities and promote institutional conditions to begin implementation of the Second phase of the Solid Waste Management Program for the rest of the country., including developing and obtaining approval of a SWM regulatory Act .

Time frame: This phase duration is closely linked to the construction period of the Mile 22 Landfill and the transfer stations, along with other preparing activities for operation, all together expected to last 1 year and a half.

6.4.1 Functions

Starting in this phase all of SWMA's final functions will become operational. Adding to the already existing functions (Inter-institutional Coordination, Technical Assistance, and Resource mobilization), new functions will be introduced during this phase, namely:

- Project management and implementation
- Monitoring of SWM sector
- Strategic Sector Planning for SWM

At this point SWMA should be able to establish those capacities required to carry out the distinctive, although a larger number, of anticipated activities for this phase. Yet it is not necessary to display the full range of expected capacities required to perform permanent and on-going activities expected at the final stage. Specific capacities and skills for this phase include:

Legal and engineering capacities for:

- Procurement and contracting PSP Service delivery
- Supervision of project construction

Technical- Engineering skills and Information Technology instruments to:

- Establishing standard procedures and information systems to monitor Project construction and contract compliance
- Design and begin implementation of Information systems to monitor:
 - Service performance and contract compliance of the PSP Western Corridor according to the contract terms,
 - Service provision and performance indicators for the whole country.

Community participation and legal assistance to local authorities in order to :

- Strengthen local control on PSP service delivery
- Control and enforcement over uncontained waste and illegal dumping
- Community education and awareness campaigns to pay for user fees

Financial and Administration Capacities: At this point requires a more skilled personnel charged with:

- beginning implementation of the repayment schedule by
- collecting charges and contributions from the central and/or local authorities,
- to pay the contractor during the construction period according to and if required in the PSP contract.

6.4.2 Institutional Strategy

The institutional strategy for this phase consists of endowing each of the final operational units at least with a technical officer, and support most activities on external technical assistance and professional advisory services. Thus for each of the strategic activities there will be an internal counterpart acquiring and developing skills while ensuring achieving the results thru external expertise.

A. Internal Structure

At this point the following units and staff areas will be formally created:

Engineering and Technical Unit: Headed by a chief Engineer and supported on external assistance for instance from procurement experts; or during the construction period also resorting to technical supervision contracts.

Community relations unit: with a community participation Officer responsible of organizing a technical assistance program for each municipality based on the available technical resources within SWMA. This area will ensure that the corresponding internal unit provide any technical, legal or social inquiry from the local councils. Furthermore this unit will assist local councils in stakeholder consultations; and will design national communication programs for community education and awareness. Also to promote and implement community participation programs together with local authorities to raise environmental awareness and improve SWM performance overall.

Legal Advisory Office: A legal advisor will be hired on a permanent basis to assist both the SWMA board and the local authorities in issues pertaining to national regulations , implementation of SWMA's legal instruments such as the "Service Areas" and to give advise in control and enforcement measures at the local level both over the PSP contractors and in regard to individual contraveners.

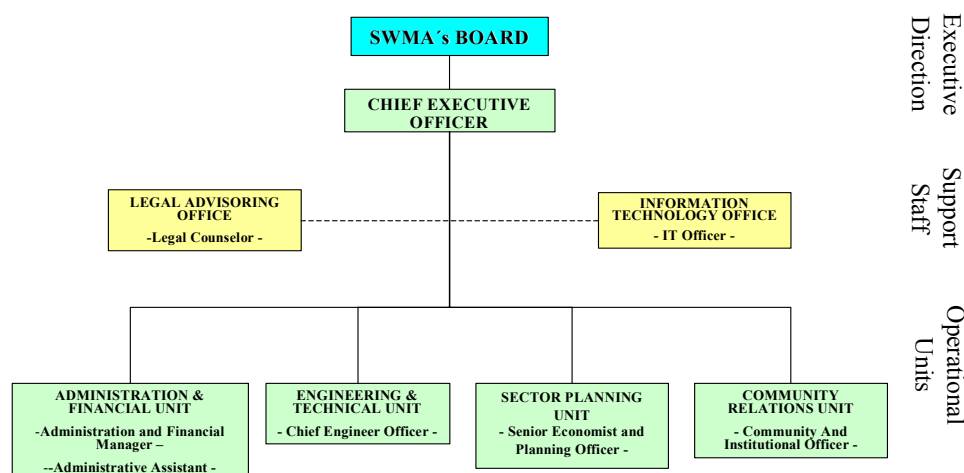
Information technology Office: At this stage an information technology engineer will be hired to design and implement information systems that support the monitoring and evaluation of the PSP Contract, and the overall performance of the SWM sector. For the initial stages of the design and introduction of the systems, the unit may resort to several outsourcing contracts with information technology expertise. Once installed the Information technology unit will be responsible for its operation and maintenance, and supporting the other units in any technical aspects concerned with the information systems within the organization.

The following units will evolve and be upgraded to:

Administration and Financial Unit: with an Administration and Financial Manager still with the support of an administrative assistant. They will be responsible for managing the repayment schedule, collecting the resources from the central and local governments and to timely deliver the payments to the PSP contractor.

Strategic Sector Planning Unit: will have permanent personnel and will become an strategic advisory area to the CEO in SWM policies and planning. During this phase the planning unit will begin structuring the second phase of the SWM Program by securing the resources to implement it and devising its cost recovery mechanisms. Integral to its strategic mission, the unit will carry out a complete baseline study of the SWM service performance throughout the country and will continue to follow its development while introducing and implementing sector policies.

SWMA's Transitional Structure



B. External resources

To accomplish the expected results for this phase several outsourcing services will be contracted out such as:

- A PSP Procurement expert to advise in preparing the terms of reference and procurement documents for the Western Corridor PSP Contracting; and designing and providing standard procedures for future PSP contracts.
- Information Technology consulting firm to design and implement the M&E Information Systems Modules for: a) M&E of contract performance and compliance of PSP; and b) M&E of Service provision performance indicators.

- A comprehensive or a series of T.A.'s for SWMA to provide advice and support in developing a SWM Regulatory Act including:
 - i. Regulatory guidelines for PSP in SWM
 - ii. Establish service performance guidelines and standards
 - iii. Determining a tariff setting methodology
- a. A control and enforcement procedures expert to support SWMA in assisting local councils to implement appropriate systems for governing their PSP service providers and enforce effective controls and enforcement upon uncontained waste and contamination contraveners.
- A sector expert in Waste reduction, separation and recycling with experience in community participation programs that will support SWMA in its technical assistance role to Local Councils to implement community programs intended both to reduce waste volumes (particularly within the cayes), and to enforce disposal of every waste in the pre-establish transfer stations.

6.5 Phase 3: Final Organization Structure

At this point SWMA should continue carrying out the second phase of the Solid Waste Management Program, deciding a pipeline of projects to implement throughout the country. With information from sector studies and monitoring of SWM services the Authority will continue envisioning the future development stages for improving sector performance in Belize. Becoming the institutional leader to promote sustainable SWM services entails becoming a financial, and institutional facilitator between central and local governments, and the focal point for structuring PSP service delivery at the central or local levels. SWMA will become the main ally of local governments and will give them technical support both to improve service performance and to increase community involvement in ensuring better environmental results from appropriate solid waste management.

Time frame: This phase will begin when the Landfill project starts operations and when the second phase of the SWM Programs begins implementation. It should begin by mid third year and onward lasting indefinitely.

6.5.1 Functions

Starting in this phase all of SWMA's functions will be fully operational and each of the proposed units should be carrying permanent activities and responsibilities. The range of activities concerned with each function will cover at the least the following:

Sector planning and Inter-institutional Coordination:

- Preparing SWM plans and programs
- Structuring projects and feasibility studies
- Conduct stakeholder consultations
- Establish inter-institutional arrangements for implementing the sector programs and plans.

- Design, adjust and evaluate the impact of potential regulatory changes within the SWM sector to be proposed to the Ministry.

Resource Mobilization:

- Analysis and Structuring of alternative financing schemes for projects
- Feasibility analysis and negotiation of cost recovery mechanisms including: user fees or tariffs, municipal sources, central government subventions or grants, etc.
- Design and promote implementation of tariff setting methodologies

Project Management and implementation:

- Establish project and service performance technical standards
- Evaluation of alternative project execution and financing scenarios
- Negotiation of technical, financial and legal terms in PSP Service delivery contracts
- Procurement of Projects
- Supervision of projects execution

Monitoring of SWM sector:

- Monitoring of PSP contracts compliance and performances
- Monitoring solid waste management service performance overall throughout the country
- Conduct sector studies and evaluations that feed-back into policy design

Technical Assistance:

Mainly referred to assist local councils and authorities in

- Implementing SWM projects or programs either directly or through PSP
- Monitoring and controlling SWM service performance
- Conducting stakeholder consultations
- Implementing community awareness and education programs
- Control and enforcement of SWM national and local regulations

6.5.2 Required capacities and skills

To perform the above mentioned functions and responsibilities SWMA should develop and acquire capacities in the areas of:

Engineering and technical standards in SWM

Sector policy strategic planning and evaluation

Regulation for Sector performance

Regulation for PSP contracting and performance operating standards.

Financial analysis and management

Communication, Community participation and education

Information systems for M&E of SWM sector performance.

6.5.3 Institutional Strategy

The adequate balance of internal vs. external resources and the speed SWMA should acquire these capacities is yet to be decided. Much will depend on the implementation strategy for the second and following phases and the resulting volume of project implementation activities involved and for how long. In the long run and for while after constructing and improving the main facilities SWMAs main activities will be reduced to Technical Assistance and Monitoring and Evaluation of SWM performance; and controlling PSP contract compliance when SWMA be the main contractor. This will reduce the pressure on having an strong internal team for project implementation and management while requiring better monitoring and evaluation capacities.

Consequently for this phase a final organizational structure is proposed although without indication as to the precise type or number of human resources required. We expect SWMA will continue at least with the minimum team proposed for phase 3 and gradually evolve to increase or adjust its technical capacities and personnel depending on needs.

7 Costs and Financing

Based on the proposed institutional strategy and action plan SWMA will face two types of costs and financing structures:

- A. Costs associated with performing institutional operations to ensure proper development and implementation of its functions, and
- B. Costs associated with Project implementation and Service delivery depending on how much SWMA will be involved in their implementation and operation.

For the first case, SWMA will require financing from central government sources and more specifically from a national budget allocation supported on the Environmental Tax resources collected.

For the second type of costs the financing structure will depend on the selected financing and cost recovery scenario decided for each project and the degree of involvement of SWMA in its implementation. It may be the case that SWMA will become the institutional vehicle to administer the resources for implementation of projects; in some cases it will also be in charge of managing the resulting cost recovery scheme; and even in others will be responsible to manage the schedule of payments to the contractor when a PSP service delivery arrangement had been selected.

The following budgeting exercise is only related with the first type of costs, i.e to the Operational Costs associated with each of the institutional phases proposed. There is no consideration of the project costs involved in the implementation of the Western Corridor Project. Such financing and cost recovery simulation exercises are presented in the separate Financial Report. Here we only present SWMA's Operational Costs for each phase.

7.1 Budget structure and costing criteria:

Attachment 1 (sheet 5) shows the estimate budget for each phase and its cash flow distribution per quarters and fiscal years. The budgeting exercise covers 5 fiscal years up to March 2010. Cost are estimated in US dollars and no inflation rate was applied for the projected budgets, the assumption being that the Belizean currency will maintain its current exchange rate to the dollar or at best will devaluate respect to the US\$ dollar. Such assumption entails a more conservative scenario for the projected budget.

The budget is developed under the following general chapters. The costing criteria applied for the specific items in each of them are here explained:

Personnel:

Refers to individuals under indefinite contract. For each case the estimate includes a basic salary plus a benefit multiplier of 30%.

Vehicle, equipments and infrastructure:

Includes one vehicle from the beginning of operations and for the whole 3 year period. It is possible that SWMA may require another one but this is will depend on future decisions.

Also includes furniture, computers and communications equipment some of which are for one time, while some others will be in growing demand as the number of SWMA employees increases.

Outsourcing:

When dealing with external personnel under service contracts the estimate is based on a monthly honorarium or periodic fee.

When regarding contractors under product or results contracts the estimate is based on a lump sum with disbursements distributed along the time.

Starting in the third phase in addition to the permanent personnel and activities, a yearly global sum of US\$100.000 is budgeted for external consultancies, studies and/or any kind of required outsourcing.

Administrative Costs

Includes all operational costs such as general supplies and utilities; office rental and travel and allowances which are estimated in proportion to the number of permanent personnel.

Dissemination and communication strategy:

Since most of SWMA's activities will revolve around technical assistance and training to local councils, community education and awareness campaigns along with dissemination of performance indicators and progress in the Solid Waste management sector, an estimate recurrent budget of US\$32400 per year is included after beginning of the second phase. A communication strategy should be develop then to support community preparedness for user fees payment and to induce rational behaviours towards waste reduction, and proper individual disposal.

7.2 SWMA's Budget Projections and financial sources

Start Up Phase:

This is mainly a preparation period expected to last between November 2004 and March 2005- at the beginning of the fiscal year.

The estimated financial requirements for this period amount to US\$19,500 to cover the initial activities of the CEO. His main task is to obtain a budget allocation of US\$312,550 from the central government for fiscal year 2005-2006 to cover operations and strategic activities for the first phase of SWMA.

Since SWMA will not avail a budget on its own until next fiscal year (2005), to cover the salary or honorarium cost of the CEO during these months a technical assistance contract could be requested to any international or multilateral agency. A suggestion is made to request such an external cooperation from a technical assistance agency.

In order to facilitate the CEO activities either the DEO or the City of Belize could support his operation by providing communications, supplies, and transportation during these initial months.

Phase 1: Structuring of Implementation Conditions

This phase is expected to last for a year during the fiscal year 2005-2006 while all the feasibility conditions for implementation of the Western corridor Project are secured.

The estimated budget for this phase includes: a) Operational costs for US\$236,450, and b) Institutional development Investments: US\$ 76,100. These costs should be covered by the central government budget allocated for SWMA. Alternatively, SWMA may request a technical cooperation from an international or multilateral agency to cover the cost of studies and consultancies under Institutional Development investments.

Phase 2: Implementation of the Western Corridor Project

The phase will last a year and a half between beginning of 2005-2006 fiscal year until mid 2006-2007 fiscal year.

Phase 3: Management of the Solid Waste Management Program

The phase will begin at mid 2006-2007 fiscal year and is considered the final and definite institutional situation for SWMA.

Following we present budget estimations per fiscal year and phase until 2009-2010 fiscal year.

TABLE 1

SWMA's BUDGET 2004 - 2010

COST STRUCTURE	START UP	PHASE 1	PHASE 2	PHASE 2 -3	PHASE 3	PHASE 3
	Dec 2004 - March 2005	Year 1 (Apr 2005-Mar 2006)	Year 2 (Apr 2006 - Mar 2007)	Year 3 (Apr 2007 - Mar 2008)	Year 4 (Apr 2008 - Mar 2009)	Year 5 (Apr 2009 - Mar 2010)
ANNUAL BUDGET	19500	312.550	779200	689200	689200	689200
SWMA OPERATION COSTS	19500	236450	616200	689200	689200	689200
Personnel	19500	101400	452400	452400	452400	452400
CEO	19.500	78000	78000	78000	78000	78000
Administrative Assistant		23400	23400	23400	23400	23400
Administrative/Financial Officer		0	54600	54600	54600	54600
Engineering & Technical Unit Officer		0	62400	62400	62400	62400
Community Relations Unit Officer		0	46800	46800	46800	46800
Chief Legal Advising staff		0	62400	62400	62400	62400
Sector Planning Unit Officer		0	62400	62400	62400	62400
Chief Information Technology Staff		0	62400	62400	62400	62400
Vehicles, equipments, infrastructure	0	46500	27000	0	0	0
Vehicles		30000	0	0	0	0
Computer stations (printer included)		7500	15000	0	0	0
Laptop		3000	6000	0	0	0
Furniture		3000	6000	0	0	0
Communication equipments (phones, fax, mobiles)		3000	0	0	0	0
Out-sourcing	0	44000	0	100000	100000	100000
Senior Economist		44000	0	0	0	0
Global annual budget for studies and consultancies after Phase 3		0	0	100000	100000	100000
Administrative Costs	-	44550	104400	104400	104400	104400
General Supplies		24000	24000	24000	24000	24000
Utilities		3150	10800	10800	10800	10800
Travel and subsistence allowances		5400	21600	21600	21600	21600
Office rental		12000	48000	48000	48000	48000
Dissemination and Communication Strategy		0	32400	32400	32400	32400
Publications (Educational brochures, Progress reports, Studies)		0	10800	10800	10800	10800
Workshops, Meetings, Stakeholder consultations, Community events,etc		0	12000	12000	12000	12000
Campaigns (Materials and personnel)		0	9600	9600	9600	9600
INSTITUTIONAL DEVELOPMENT INVESTMENTS		76100	163000	0	0	0
START UP: SWMA becomes Operational		0	0	0	0	0
PHASE 1: Structuring of Implementation Conditions for the Western Corridor Project		76100	0	0	0	0
PHASE 2:Implementation of the Western Corridor Project thru a PSP		0	163000	0	0	0
PHASE 3: All SWMA's functions are fully operational		0	0	0	0	0

7.3 *Annual Operating Program:*

Attachment 1 (sheet 1) shows an Operating Annual Program for SWMA during the next 5 years. It shows in detail the scope and schedule of activities that SWMA should display on each year and within the corresponding phases. It also shows the results and performance indicators for each function and under each major set of activities that SWMA should attain at the end of each phase. The Operating Program also includes an estimate of inputs and capacities which lead to the estimation of annual budgets

8 Monitoring and Evaluation of SWMA's Progress

Monitoring and evaluation of SWMA's progress is based on the proposed Annual Operating Program which summarizes the institutional phases and the corresponding progress indicator and milestones

Following there is a description of performance indicators, which should account for the institutional progress made by SWMA at the end of each phase. A major milestone for each phase will show that SWMA has attained the most important goal for that phase which will trigger the conditions to implement the next stage. A milestone indicator is also the comprehensive outcome resulting from performing the corresponding functions and activities for the phase. A group of performance indicators is also displayed for each type of function at each phase.

SWMA's Progress and Performance Indicators

	Activities	Milestones / Results	Indicators
PREPARATION PHASE	START UP OF SWMA	SWMA becomes Operational	
	Contracting of a Chief Executive Officer		CEO Appointed and hired
	Negotiation with MoF for introducing SWMA's budget in the national Budget		2005/2006 US\$312.550 Operational Budget allocated for SWMA
PHASE 1	Structuring of Implementation Conditions for the Western Corridor Project	Institutional, Social and Financial Conditions ensured for implementation of the Western Corridor Project	SWMA's Declaration of a "Final Disposal Service Area for the Western Corridor" in terms of the SWMA Act
Technical Assistance	Assist municipalitites in stakeholder consultations and devising recovery mechanism to pay for final disposal	Establish maximum social-economic feasible contribution per municipality	Agreement between the Municipality and the Community on recovery mechanism to pay for disposal
	Assist Municipalitites in obtaining approval of By-laws to introduce SWM User fees	Establish legal power for municipalities to impose charge fees.	By-laws approved by the House of representatives
Inter-institutional coordination	Negotiate municipal-SWMA mutual commitments for implementation of the Project	Establishing legal /institutional basis for delegating in SWMA implementation of the Project	Resolutions issued by Belize City, San Ignacio, San Pedro and Caye Caulker
Resource Mobilization	Negotiation of financial commitments for cost recovery	Ensuring the cost recovery sources for the Project	Resolutions issued by Belize City, San Ignacio, San Pedro and Caye Caulker contain specifics on their financial commitment for the disposal service payment
PHASE 2	Implementation of the Western Corridor Project thru a PSP	Project ready for Operation	
Technical Assistance	Assist Municipalitites in preparing communities	Communities aware of the need to pay user fees for sustainable SWM services	
	Assist Municipalitites in reviewing, controlling and enforcing contracts with collection operators	Improved local councils SWM governance	Amendments or detailed operation regulations for each municipal service provider
Sector Planning & Inter-institutional coordination	Designing and proposing a regulatory framework for Solid Waste Management to be introduced by the Ministry	SWM regulation Act approved	Publication of SWM regulation Act in the Registry
	Project structuring and feasibility for SWM Program second phase	Implementation strategy for SWM Program Second Phase	Pipeline of Projects
Resource mobilisation	Obtaining National legal warranties for bidding process of the PSP Western Corridor Project		
Project Management	Procurement Process of the for the PSP Western Corridor Project (See Attachment ...: SOP for BOT)	Private Operator selected	BOT contract with private operator signed
	Monitoring of Project Execution	Project facilities ready for operation	Operations start up
Monitoring of SWM Sector	Design/implementation of information systems	M&E Information Systems ready	
	Monitoring of SWM Services in the Country	Compliance with Sector Policy guidelines	Reports on SWM sector performance
PHASE 3	All Swma's function are fully operational		
Sector Planning & Inter-institutional coordination	Project structuring and feasibility for SWM Program second phase	Implementation strategy for SWM Program Second Phase	Pipeline of Projects
Inter-Institutional coordination	Inter-institutional arrangements	Institutional conditions ensured for the SWM second phase projects	
Projet Implementation	Preparation and implementation of new porjects	Progress of SWM Program second Phase implementation	Projects implemented under SWMA
Monitoring of SWM Sector	Monitoring of PSP Western Corridor Contract	Timely and adequate compliance of contract commitments	Reports on Contract Performance
	Monitoring of SWM Services in the Country	Compliance with Sector Policy guidelines	Reports on SWM sector performance
Resource Mobilisation	Management of PSP Western Corridor Contract cash flow	Timely delivery of contract payments	

Annex 1: Standard Operating Procedures for BOT Projects

Standard Operating Procedures for Implementing BOT Projects
Working Paper No. F-1

Prepared by Stephen Pereira

August 8, 2004

Belize Solid Waste Management Project

PREFACE

Background

As established in the Terms of Reference of the present technical cooperation (TC), improved solid waste management is a critical component for a sustainable economic development and for the protection of the environment and public health in Belize.

Local governments and the national Solid Waste Management Authority (SWMA) share legal responsibility for both waste collection and disposal. In practice, however, only local governments provide collection services, as the SWMA has not become completely operational yet.

The Government of Belize requested the support of the IDB through a loan operation for the definition of the Solid Waste Management Program (BL-0021).

The National Solid Waste Management Program in Belize has the following objectives:

Preparation of a Solid Waste Management Plan to assist the Government of Belize to operationalize the Solid Waste Management Authority using a combination of public and private financing.

The preparation of regional site designs for at least 3 waste disposal sites, the location of which will be defined as part of the preparation of the Solid Waste Management Plan.

The preparation of an implementation plan for the outputs of item (1) and item (2), above, based on operationalizing Belize Solid Waste Management Authority.

The preparation of a public awareness campaign in support of improved solid waste management in Belize generally, and in support of the activities to be undertaken by the Solid Waste Management Authority.

Purpose and Scope of Working Paper

The purpose of this working paper is to complement the work of the two consultants as they develop the strategic plan and TA for the targeted beneficiary. The approach for this assistance will :-

- place more emphasis on practical “hands on” advice and training that can have an immediate impact on the organisation and its behaviour,
- work in close collaboration with target groups (in most cases the staff) so that they will feel commitment and ownership for improved procedures and practices,
- and assist within the organisation, rather than advise from outside.

The intention of this working paper is that it should :-

SOLID WASTE MANAGEMENT AUTHORITY: Belize Solid Waste Management Project;

- be used by SWWA to gradually improve their operations and procedures,
- relate to current issues relevant to the scope of assistance,
- document discussions and consultations with relevant departments, sections and other interested persons or organisations,
- be considered as draft recommendations that require endorsement by the Authority.

STANDARD OPERATING PROCEDURES FOR IMPLEMENTING BOT

As SWMA is pursuing the BOT option in the provision and delivery of solid waste, the standard operating procedures outlined in the following chart are intended to establish the critical route, streamline and institutionalize the process.

Although the chart is self explanatory, these standard operating procedures correspond to different steps necessary for the feasibility and project structuring; procurement; and, contracting contract management. Each of the steps addresses the key issues, decisions and process that the officials consider as they embark on the this PSP modality.

The guidelines on which the procedures below are based will facilitate the private sector task force's efforts to bring the different initiatives to market. The salient characteristics are summarized below.

1. PSP Feasibility Studies

A feasibility study is an examination of a potential PSP project's technical and financial viability, its environmental sustainability, and its probable risks and benefits for the municipal council, residents and other key stakeholders. A feasibility study will be more or less detailed and exhaustive, depending on the complexity of the proposed PSP. Council is recommended to prepare more detailed and exhaustive feasibility studies for this BOT transaction, as one of the first being undertaken by the council, or one of the first in a particular sector in the municipality.

The technical assistance will present a useful checklist in developing a feasibility study. The checklist presents the key aspects of project feasibility analysis. This checklist could serve as standard operating procedures for department heads that lead the PSP efforts.

2. PSP Procurement

Procurement is the stage in the PSP cycle when the SWMA takes its proposed PSP "to the market". A sound procurement process will be one that achieves "value for money" for

SOLID WASTE MANAGEMENT AUTHORITY: Belize Solid Waste Management Project;

SWMA and its residents. The checklist outlines the process to be adopted for procurement of PSP projects.¹

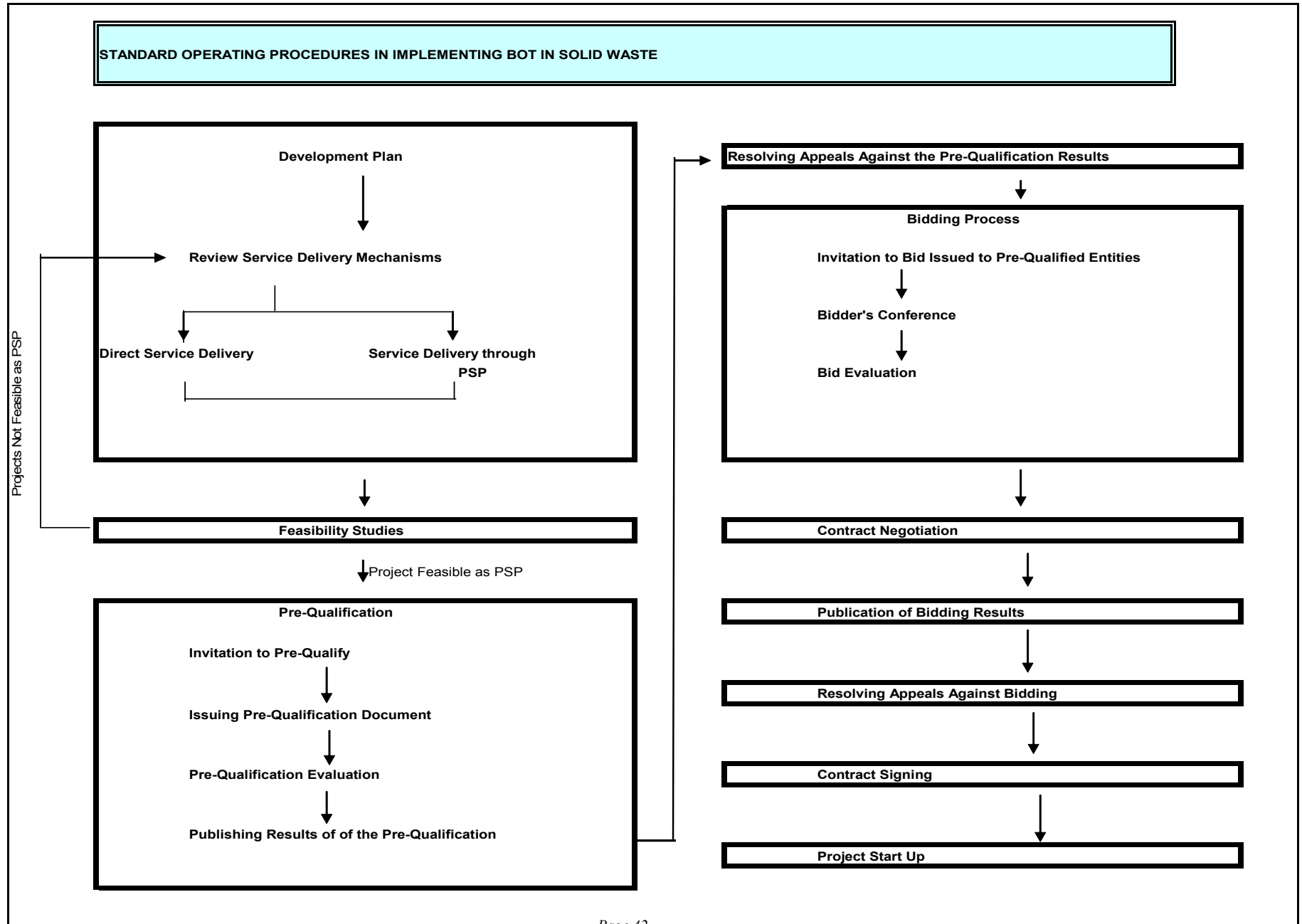
Existing procurement legislation and regulations are geared to conventional procurement activities such as civil works construction and the purchase of equipment and services. The essential difference between these types of conventional procurement and procuring a PSP services provider is that for the former, SWMA **is procuring assets and services** so that it itself can deliver municipal services from those assets and services. In the case of a PSP project, the council is instead, **procuring an arrangement** under which someone else delivers municipal services on behalf of it. Because PSP involves the delegation of a function, the risks to both SWMA and the service provider are much higher than in a conventional procurement. Because of the larger number of risk implications that need to be considered in a BOT arrangement, a correspondingly more sophisticated approach to procurement is required.

3. PSP Contract

PSP agreement allocates between the SWMA and the PSP service provider the risks, responsibilities, rewards, associated with the PSP undertaking. The service agreement allocates these risks, responsibilities, and rewards by defining the **legal rights and obligations** of the parties.

Each PSP contract will present a particular set of risks. Those risks will arise from the nature of the service to be delivered and the financial obligations associated with that service. For example, a twenty-five-year PSP contract calling for the development of the solid waste landfill and the financing and operation of related facilities will present a very different set of risks - for the PSP service provider, the municipality, and service consumers - than a two-year PSP contract calling for refuse removal services for a residential neighbourhood. The rewards for each such arrangement - including payments of fees or permitted profits for the PSP contractor, and levels of service for the municipality and consumers or users of the service - will take into account its particular risks and responsibilities.

¹ See *Chart on Standard Operating Procedures for Implementing PSP Projects in Urban Services*, page 3.



Annex 2: Strengthening Local Councils SWM Governance

Capacity to improve community participation and awareness

Local Councils particularly within the Western Corridor will require to carry out community participation activities regarding Solid Waste Management services. Among other reasons, to:

First of all raise awareness about the environmental implications that inadequate SW individual handling, collection and disposal practices may have upon the environment, the human health and economic activities

Secondly to consult:

- on the desirable level of services,
- the local arrangements to pay for collection services, and final disposal,
- the level of willingness and ability to pay for user fees as the basis for sustainable services.

Later on Local Councils should work with the community to introducing more responsible attitudes towards reducing, separating and recycling domestic or individual wastes, and above all eliminate uncontained wastes and illegal dumping.

Such activities require that local councils develop community mobilization, facilitation and consensus-building capacities. SWMA will assist local councils to device a timely and consistent community participation plan aimed at preparing the way to introduce user fees to pay for disposal, and at the same time attempt to reduce waste production per community overall as a way to saving on disposal costs.

Capacity to control and enforce uncontained waste and illegal dumping

It involves assisting municipalities in establishing a consistent local regulatory framework for waste contamination contraveners. Such regulation should include a structure of fines and penalties. Also a program to supervise behaviours and enforce regulations should be devised to make effective control and enforcement. SWMA will give technical assistance to local governments in implementing such capacities at the local level.

Capacity to govern PSP for SWM service delivery

Building municipal capacity to plan and implement PSPs will take time. While capacity-building programmes are being put into place, municipal councils can take actions to reduce the strain on their existing capacity to utilise PSPs

When SWMA believes it has limited capacity to engage in an PSP, utilizing relatively simple PSP arrangements can reduce the strain on their limited capacity. The sort of options that it may consider are:

- a) selecting PSP projects with a shorter contract duration and a lower monetary value, that can use simpler procurement and contracting;
- b) PSP projects that are less politically sensitive, that can use simpler stakeholder consultation processes;
- c) service contracts and management contracts, that involve less complex contracts than other types of PSP contracts; and
- d) simpler performance criteria, that require simpler contract monitoring and compliance measures.

Illustration compares the main types of PSP contracting arrangements in terms of the typical dimensions that affect their relative complexity.

Illustration : Relative Complexity of PSP Contracting Arrangements

Type of Contract	Duration of Contract	Monetary Value	Political Sensitivity	Complexity of Procurement	Complexity of Contracting	Complexity of Performance Monitoring
Service Contract	Short-term	Low	Low	Low	Low	Low
Management Contract	Short-term	Low to Moderate	Low	Low to Moderate	Low	Low to Moderate
Lease	Medium-term	Moderate to High	Moderate	Moderate	High	Moderate to High
Build/Operate/Transfer	Long-term	High	High	High	Moderate to High	High
Concession	Long-term	High	High	High	High	High

As Illustration indicates, service contracts and management contracts can be relatively simple forms of PSP. BOTs and concessions are typically the most complex of PSP arrangements, and can impose heavy demands on management and systems capacity. Even relatively simple forms of PSPs can deliver services cost-effectively and merit consideration. The main limitation of simple PSPs is that their impact on service delivery and infrastructure backlogs is generally small. In contrast, BOTs and concessions have greater potential for improving and extending services, but are much more complicated to plan and implement.

Reducing the Complexity of PSP Regulation

In the implementation phase of PSPs, significant municipal capacity is required to regulate monopoly service providers. While many municipal services are “natural” monopolies, it may be feasible to de-monopolize some services - for example, refuse dumps. By de-monopolizing such services, a municipality or SWMA can utilise competition rather than regulation to ensure value for money, compliance with performance standards, and to guard against abuse by the service provider of a monopoly position. This can substantially reduce, but not eliminate, the demand on municipal capacity for contract monitoring and compliance.

Where competition in service delivery is not practical, SWMA may consider relatively frequent (for example, every three to five years) re-bidding of those services that do not require substantial capital investments by the service provider. These could include solid waste collection, and cleansing. Periodic re-bidding for the right to provide such services can reduce the service provider’s incentives to abuse its monopoly power and therefore reduce, but not eliminate, the need for municipal capacity to regulate and monitor service delivery.

While the use of frequent re-bidding can reduce the complexity of PSP regulation it can also result in decreased interest on the part of potential bidders. Even in the case of PSP contracts that do not require a substantial capital investment, there is often substantial “up front” expenditure in management and accounting systems, personnel training, and so on. To the extent potential PSP service providers view a proposed PSP contract as having too short a contract term to justify this “up-front” expenditure, they may decide not to bid on the initial tender for the PSP contract. In addition, to the extent the incumbent PSP service provider has already incurred these “up-front” expenditures, other potential PSP service providers may view the incumbent as having a significant competitive advantage, and may therefore decide not to participate in the re-bidding when the PSP contract is renewed. Therefore, SWMA should carefully consider how best to balance the advantages of this technique for reducing the complexity of PSP regulation against its disadvantages.

Policies

SWMA, will prepare and issue advisory guidelines to assist councils in:

- 1) conducting stakeholder consultation;
- 2) identifying PSP projects, preparing feasibility studies and structuring PSP projects;
- 3) optimizing the provision of public support for PSP projects;
- 4) procuring PSP projects;
- 5) negotiating and monitoring PSP contracts to ensure contract compliance;
- 6) developing council institutional structures and decision-making processes for managing PSPs; and
- 7) facilitating NGO/CBO participation in PSPs.

Activities	Inputs	Unit	Quantity	Unit Cost US\$	START UP	PHASE 1					PHASE 2					
					Dec 2004 - March 2005	Year 1 (Apr 2005-Mar 2006)					Year 2 (Apr 2006 - Mar 2007)					Year 3 (Apr 2007 - Mar 2008)
					19500	312550					779300					689
					19500	19500	111600	80650	71250	49050	251,800	182800	177300	167300	172300	172300
	SWMA OPERATION COSTS				19500	89300	49050	49050	49050	174300	147300	147300	147300	172300	172300	
	Personnel															
	Vehicles, equipments, infrastructure															
	Out-sourcing															
	Administrative Costs															
	Dissemination and Communication Strategy															
	Publications (Educational brochures, Progress reports, Studies)	Estimate monthly expenses		900						2,700	2700	2700	2700	2700	2700	
	Workshops, Meetings, Stakeholder consultations, Community events,etc	Estimate monthly expenses		1,000						3,000	3000	3000	3000	3000	3000	
	Campaigns (Materials and personnel)	Estimate monthly expenses		800						2,400	2400	2400	2400	2400	2400	
PREPARATION PHASE	START UP OF SWMA															
	Contracting of a Chief Executive Officer															
	Negotiation with MoF for introducing SWMA's budget in the national Budget															
PHASE 1	Structuring of Implementation Conditions for the Western Corridor Project						22300	31600	22200	0	0	0	0	0	0	
Technical Assistance	Assist municipalities in stakeholder consultations and devising recovery mechanism to pay for final disposal															
	Establish socio-economic ability and willingness to pay for tariffs per community	Out-sourcing of a Technical Assistance with expertise in: Service Tariffs, Community Participation, Municipal Finances and Financial Analysis to conduct the process in the 4 communities involved: Belize City, San Ignacio, San Pedro, and Caye Caulker														
	Estimate waste production per community and associated charges for final disposal															
	Estimate waste reduction potential															
	Estimate potential increase and availability of municipal own sources															
	Establish alternative cost recovery scenarios: a) determining combination of financial sources: Property Tax Sur-charge, Disposal user fee, Subventions, etc.; b) examining potential cross-subsidies between commercial and residential c) selecting collection mechanism: current private operators, municipal collectors, other		T.A. Lump-sum Contract		54,000		16200	21600	16200							
	Consensus-building with community to decide on recovery mechanism to pay for disposal															
	Assist Municipalities in obtaining approval of By-laws to introduce SWM User fees															
	Introduction of the Final Disposal User Fee within the SWM User Fees By-laws draft	Legal advisor	Monthly fee	5,000			4500									
	Consensus-building among Local Governmetns on introduction of Final Disposal User Fees		Workshop meeting per day	4	400		1600									
	Presenting the by-laws for approval to the house of representatives															
Inter-institutional coordination	Negotiate municipal-SWMA mutual commitments for implementation of the Project															
	Obtaining Environmental approval from DOE for the Western Corridor Project (Location of facilities and environmental management plan)															
	Negotiation with Local Authorities in the Western Corridor on terms for Resolutions to delegate in SWMA the Final Disposal	Legal Advisor					10000									
	Preparation of the "Service Area" declaration															
	Approval and Enactment of the Service Area Declaration		Monthly fee	5,000												
Resource Mobilization	Negotiation of financial commitments for cost recovery															
	Financial Feasibility Analysis of alternative cost recovery scenarios	Financial/economic evaluation expert	Monthly honorarium	3,000				6000								
	Negotiation with Local Governments on their contribution to the cost recovery of the Project															
	Negotiation with Central Government on their subsidiary contribution (from Environmental Levy) into the Project															
PHASE 2	Implementation of the Western Corridor Project thru a PSP										77,500	35,500	30,000	20,000	0	
Technical Assistance	Asssit Municipalities in preparing communities														0	
	Strengthening local Control and enforcement	Control and enforcement procedures expert	Monthly honorarium	3,000						9,000	9,000					
	Implementing Waste reduction and recycling Programs	Solid waste reduction and recycling expert	Monthly honorarium	3,000						9,000	9,000					
	Implementing Community education and awareness campaigns on user fees payment	Community education expert	Monthly honorarium	2,500						7,500	7,500					
	Asssit Municipalities in reviwng, controlling and enforcing contracts with collection operators															
	Review and monitoring of PSP collection contracts															
Sector Planning & Inter-institutional coordination	Designing and proposing a regulatory framework for Solid Waste Management to be introduced by the Ministry															
	Regulatory guidelines for PSP in SWM	T.A. On PSP regulation expert	Monthly fee	5,000						15000						
	Establish service performance guidelines and standards	T.A. SWM service expert	Monthly fee	4,500						13500						
	Determining a tariff setting methodology	T.A. Tariff expert	Monthly fee	4,500						13500						
	Stakeholder consultations															
	Drafting of SWM Regulation Act															
	Lobbying and approval of Regulation Act															
	Project structuring and feasibility for SWM Program second phase															
	Implementation timetable															
Resource mobilisation	Obtaining National legal warranties for bidding process of the PSP Western Corridor Project															
Project Management	Procurement Process of the for the PSP Western Corridor Project (See Attachment ...: SOP for BOT)															
	Preparation of Bidding Documents	PSP Procurement expert	Monthly Honorarium	5,000						10000						
	Pre-qualification of firms															
	Bidding Process															
	Contracting Process															
	Monitoring of Project Execution															
	Technical field inspections															
	Construction progress reports															
Monitoring of SWM Sector	Design/implementation of information systems															
	Module for M&E contract performance and compliance of PSP	Information consultancy technology	Monthly Honorarium	5000							5000	15000	10000			
	Module for M&E of Service provision performance indicators		Monthly Honorarium	5000							5000	15000	10000			
	Monitoring of SWM Services in the Country															
	M&E implementation Plan															
	Establishing a baseline for the sector															
PHASE 3	All Swma's function are fully operational															
Sector Planning & Inter-institutional coordination	Project structuring and feasibility for SWM Program second phase															
	Feasibility studies															
	Stakeholder consultations															
	Resource mobilisation															
Inter-institutional coordination	Inter-institutional arrangements															
Project Implementation	Preparation and implementation of new porjects															
	Technical project designs															
	Procurement for Project execution															
	Monitoring of Project Execution															
Monitoring of SWM Sector	Monitoring of PSP Western Corridor Contract															
	Monitoring of service performance technical standards															
	Monitoring of investment schedule commitments															
	Monitoring of SWM Services in the Country															
	Periodical collecting information															
	Analysis and Reporting															
Resource Mobilisation	Management of PSP Western Corridor Contract cash flow															
	Collection of national and local contributions															
	Delivery of Payments according to schedule															

SWMA's BUDGET 2004 - 2010

COST STRUCTURE	START UP	PHASE 1	PHASE 2	PHASE 2 - 3	PHASE 3	PHASE 3
	Dec 2004 - March 2005	Year 1 (Apr 2005-Mar 2006)	Year 2 (Apr 2006 - Mar 2007)	Year 3 (Apr 2007 - Mar 2008)	Year 4 (Apr 2008 - Mar 2009)	Year 5 (Apr 2009 - Mar 2010)
ANNUAL BUDGET	19500	312,550	779200	689200	689200	689200
SWMA OPERATION COSTS	19500	236450	616200	689200	689200	689200
Personnel	19500	101400	452400	452400	452400	452400
CEO	19,500	78000	78000	78000	78000	78000
Administrative Assistant		23400	23400	23400	23400	23400
Administrative/Financial Officer		0	54600	54600	54600	54600
Engineering & Technical Unit Officer		0	62400	62400	62400	62400
Community Relations Unit Officer		0	46800	46800	46800	46800
Chief Legal Advising staff		0	62400	62400	62400	62400
Sector Planning Unit Officer		0	62400	62400	62400	62400
Chief Information Technology Staff		0	62400	62400	62400	62400
Vehicles, equipments, infrastructure	0	46500	27000	0	0	0
Vehicles		30000	0	0	0	0
Computer stations (printer included)		7500	15000	0	0	0
Laptop		3000	6000	0	0	0
Furniture		3000	6000	0	0	0
Communication equipments (phones, fax, mobiles)		3000	0	0	0	0
Out-sourcing	0	44000	0	100000	100000	100000
Senior Economist		44000	0	0	0	0
Global annual budget for studies and consultancies after Phase 3		0	0	100000	100000	100000
Administrative Costs	-	44550	104400	104400	104400	104400
General Supplies		24000	24000	24000	24000	24000
Utilities		3150	10800	10800	10800	10800
Travel and subsistence allowances		5400	21600	21600	21600	21600
Office rental		12000	48000	48000	48000	48000
Dissemination and Communication Strategy		0	32400	32400	32400	32400
Publications (Educational brochures, Progress reports, Studies)		0	10800	10800	10800	10800
Workshops, Meetings, Stakeholder consultations, Community events,etc		0	12000	12000	12000	12000
Campaigns (Materials and personnel)		0	9600	9600	9600	9600
INSTITUTIONAL DEVELOPMENT INVESTMENTS		76100	163000	0	0	0
START UP: SWMA becomes Operational		0	0	0	0	0
PHASE 1: Structuring of Implementation Conditions for the Western Corridor Project		76100	0	0	0	0
PHASE 2:Implementation of the Western Corridor Project thru a PSP		0	163000	0	0	0
PHASE 3: All SWMA's functions are fully operational		0	0	0	0	0

SWMA's Progress and Performance Indicators

	Activities	Milestones / Results	Indicators	Objective verification Source
PREPARATION PHASE	START UP OF SWMA	SWMA becomes Operational		
	Contracting of a Chief Executive Officer		CEO Appointed and hired	CEO Contract
	Negotiation with MoF for introducing SWMA's budget in the national Budget		2005/2006 US\$312.550 Operational Budget allocated for SWMA	2005-2006 Government Budget approved by the House of Representatives
PHASE 1	Structuring of Implementation Conditions for the Western Corridor Project	Institutional, Social and Financial Conditions ensured for implementation of the Western Corridor Project	SWMA's Declaration of a "Final Disposal Service Area for the Western Corridor" in terms of the SWMA Act	
Technical Assistance	Assist municipalitites in stakeholder consultations and devising recovery mechanism to pay for final disposal	Establish maximum social-economic feasible contribution per municipality	Agreement between the Municipality and the Community on recovery mechanism to pay for disposal	Written version of the agreement with corresponding signees
	Assist Municipalitites in obtaining approval of By-laws to introduce SWM User fees	Establish legal power for municipalities to impose charge fees.	By-laws approved by the House of representatives	National Legal Registry
Inter-institutional coordination	Negotiate municipal-SWMA mutual commitments for implementation of the Project	Establishing legal /institutional basis for delegating in SWMA implementation of the Project	Resolutions issued by Belize City, San Ignacio, San Pedro and Caye Caulker	Local Council Acts
Resource Mobilization	Negotiation of financial commitments for cost recovery	Ensuring the cost recovery sources for the Project	Resolutions issued by Belize City, San Ignacio, San Pedro and Caye Caulker contain specifics on their financial commitment for the disposal service payment	Local Council Acts
PHASE 2	Implementation of the Western Corridor Project thru a PSP	Project ready for Operation		
Technical Assistance	Assist Municipalitites in preparing communities	Communities aware of the need to pay user fees for sustainable SWM services		
	Assist Municipalitites in reviewing, controlling and enforcing contracts with collection operators	Improved local councils SWM governance	Ammendments or detailed operation regulations for each municipal service provider	
Sector Planning & Inter-institutional coordination	Designing and proposing a regulatory framework for Solid Waste Management to be introduced by the Ministry	SWM regulation Act approved	Publication of SWM regulation Act in the Registry	
	Project structuring and feasibility for SWM Program second phase	Implementation strategy for SWM Program Second Phase	Pipeline of Projects	
Resource mobilisation	Obtaining National legal warranties for bidding process of the PSP Western Corridor Project			
Project Management	Procurement Process of the for the PSP Western Corridor Project (See Attachment: SOP for BOT)	Private Operator selected	BOT contract with private operator signed	
	Monitoring of Project Execution	Project facilities ready for operation	Operations start up	
Monitoring of SWM Sector	Design/implementation of information systems	M&E Information Systems ready		
	Monitoring of SWM Services in the Country	Compliance with Sector Policy guidelines	Reports on SWM sector performance	
PHASE 3	All Swma's function are fully operational			
Sector Planning & Inter-institutional coordination	Project structuring and feasibility for SWM Program second phase	Implementation strategy for SWM Program Second Phase	Pipeline of Projects	
Inter-Institutional coordination	Inter-institutional arrangements	Institutional conditions ensured for the SWM second phase projects		
Projet Implementation	Preparation and implementation of new porjects	Progress of SWM Program second Phase implementation	Projects implemented under SWMA	
Monitoring of SWM Sector	Monitoring of PSP Western Corridor Contract	Timely and adequate compliance of contract commitments	Reports on Contract Performance	
	Monitoring of SWM Services in the Country	Compliance with Sector Policy guidelines	Reports on SWM sector performance	
Resource Mobilisation	Management of PSP Western Corridor Contract cash flow	Timely delivery of contract payments		

GENERAL TIMETABLE

	Activities	Responsible	Inputs	Dec 2004 March 2005	Year 1 (Apr 2005-Mar 2006)	Year 2 (Apr 2006 - Mar 2007)	Year 3 (Apr 2007 - Mar 2008)	Year 4 (Apr 2008 - Mar 2009)	Year 5 (Apr 2009 - Mar 2010)
PREPARATION PHASE	START UP OF SWMA	SWMAs Board							
	Contracting of a Chief Executive Officer								
	Negotiation with MoF for introducing SWMA's budget in the national Budget								
PHASE 1	Structuring of Implementation Conditions for the Western Corridor Project								
Technical Assistance	Assist municipalities in stakeholder consultations and devising recovery mechanism to pay for final disposal	Sector Planning Unit							
	Establish socio-economic ability and willingness to pay for tariffs per community		Out-sourcing of a Technical Assistance with expertise in: Service Tariffs, Community Participation, Municipal Finances and Financial Analysis to conduct the process in the 4 communities involved: Belize City, San Ignacio, San Pedro, and Caye Caulker						
	Estimate waste production per community and associated charges for final disposal								
	Estimate waste reduction potential								
	Estimate potential increase and availability of municipal own sources								
	Establish alternative cost recovery scenarios: a) determining combination of financial sources: Property Tax Sur-charge, Disposal user fee, Subventions, etc.; b) examining potential cross-subsidies between commercial and residential c) selecting collection mechanism: current private operators, municipal collectors, other								
	Consensus-building with community to decide on recovery mechanism to pay for disposal								
	Assist Municipalities in obtaining approval of By-laws to introduce SWM User fees	Planning Unit							
	Introduction of the Final Disposal User Fee within the SWM User Fees By-laws draft		Legal advisor						
	Consensus-building among Local Governments on introduction of Final Disposal User Fees	With CEO							
	Presenting the by-laws for approval to the house of representatives	Mayors							
Inter-institutional coordination	Negotiate municipal-SWMA mutual commitments for implementation of the Project	CEO - Sector Planning Unit							
	Obtaining Environmental approval from DOE for the Western Corridor Project (Location of facilities and environmental management plan)								
	Negotiation with Local Authorities in the Western Corridor on terms for Resolutions to delegate in SWMA the Final Disposal		Legal Advisor						
	Preparation of the "Service Area" declaration								
	Approval and Enactment of the Service Area Declaration	SWMA Board							
Resource Mobilization	Negotiation of financial commitments for cost recovery	CEO - Sector Planning Unit							
	Financial Feasibility Analysis of alternative cost recovery scenarios		Financial/economic evaluation expert						
	Negotiation with Local Governments on their contribution to the cost recovery of the Project								
	Negotiation with Central Government on their subsidiary contribution (from Environmental Levy) into the Project								
PHASE 2	Implementation of the Western Corridor Project thru a PSP								
Technical Assistance	Assist Municipalities in preparing communities	Community Relations Unit							
	Strengthening local Control and enforcement	with Legal & Technical Units	Control and enforcement procedures expert						
	Implementing Waste reduction and recycling Programs	with Technical Unit	Solid waste reduction and recycling expert						
	Implementing Community education and awareness campaigns on user fees payment		Community education expert						
	Assist Municipalities in reviewing, controlling and enforcing contracts with collection operators	Community relations, Technical & Legal Unit							
	Review and monitoring of PSP collection contracts								
Sector Planning & Inter-institutional coordination	Designing and proposing a regulatory framework for Solid Waste Management to be introduced by the Ministry	Planning Unit & Legal Unit							
	Regulatory guidelines for PSP in SWM		T.A. On PSP regulation expert						
	Establish service performance guidelines and standards		T.A. SWM service expert						

COST STRUCTURE	START UP	PHASE 1					PHASE 2									
	Dec 2004 - March 2005	Year 1 (Apr 2005-Mar 2006)				TOTAL Year 1	Year 2 (Apr 2006 - Mar 2007)				TOTAL Year 2	Year 3 (Apr 2007 - Mar 2008)				TOTAL Year 3
	19500	111,600	80650	71250	49050	312,550	251,800	182800	177300	167300	779200	172300	172300	172300	172300	689200
SWMA OPERATION COSTS	19500	89300	49050	49050	49050	236450	174300	147300	147300	147300	616200	172300	172300	172300	172300	689200
Personnel	19500	25350	25350	25350	25350	101400	113100	113100	113100	113100	452400	113100	113100	113100	113100	452400
CEO	19,500	19,500	19500	19500	19500	78000	19500	19500	19500	19500	78000	19500	19500	19500	19500	78000
Administrative Assistant		5850	5850	5850	5850	23400	5850	5850	5850	5850	23400	5850	5850	5850	5850	23400
Administrative/Financial Officer						0	13650	13650	13650	13650	54600	13650	13650	13650	13650	54600
Engineering & Technical Unit Officer						0	15600	15600	15600	15600	62400	15600	15600	15600	15600	62400
Community Relations Unit Officer						0	11700	11700	11700	11700	46800	11700	11700	11700	11700	46800
Chief Legal Advising staff						0	15600	15600	15600	15600	62400	15600	15600	15600	15600	62400
Sector Planning Unit Officer						0	15600	15600	15600	15600	62400	15600	15600	15600	15600	62400
Chief Information Technology Staff						0	15600	15600	15600	15600	62400	15600	15600	15600	15600	62400
Vehicles, equipments, infrastructure	0	46500	0	0	0	46500	27000	0	0	0	27000	0	0	0	0	0
Vehicles		30,000				30000					0					0
Computer stations (printer included)		7500				7500	15,000				15000					0
Laptop		3000				3000	6,000				6000					0
Furniture		3000				3000	6,000				6000					0
Communication equipments (phones, fax, mobiles)		3,000				3000					0					0
Out-sourcing	0	8000	12000	12000	12000	44000	0	0	0	0	0	25000	25000	25000	25000	100000
Senior Economist		8,000	12,000	12000	12000	44000					0					0
Global annual budget for studies and consultancies after Phase 3						0					0	25000	25000	25000	25000	100000
Administrative Costs	-	9450	11700	11700	11700	44550	26100	26100	26100	26100	104400	26100	26100	26100	26100	104400
General Supplies		6000	6000	6000	6000	24000	6000	6000	6000	6000	24000	6000	6000	6000	6000	24000
Utilities		450	900	900	900	3150	2700	2700	2700	2700	10800	2700	2700	2700	2700	10800
Travel and subsistance allowances			1,800	1800	1800	5400	5,400	5400	5400	5400	21600	5400	5400	5400	5400	21600
Office rental		3000	3000	3000	3000	12000	12,000	12000	12000	12000	48000	12000	12000	12000	12000	48000
Dissemination and Communication Strategy						0	8,100	8100	8100	8100	32400	8100	8100	8100	8100	32400
Publications (Educational brochures, Progress reports, Studies)						0	2,700	2700	2700	2700	10800	2700	2700	2700	2700	10800
Workshops, Meetings, Stakeholder consultations, Community events,etc						0	3,000	3000	3000	3000	12000	3000	3000	3000	3000	12000
Campaigns (Materials and personnel)						0	2,400	2400	2400	2400	9600	2400	2400	2400	2400	9600
INSTITUTIONAL DEVELOPMENT INVESTMENTS		22300	31600	22200	0	76100	77,500	35500	30000	20000	163000	0	0	0	0	0
START UP: SWMA becomes Operational						0					0					0
PHASE 1: Structuring of Implementation Conditions for the Western Corridor Project		22300	31600	22200	0	76100	0	0	0	0	0	0	0	0	0	0
PHASE 2:Implementation of the Western Corridor Project thru a PSP						0	77500	35500	30000	20000	163000	0	0	0	0	0
PHASE 3: All SWMA's functions are fully operational						0					0					0

COST STRUCTURE	PHASE 3									
	Year 4 (Apr 2008 - Mar 2009)				TOTAL Year 4	Year 5 (Apr 2009 - Mar 2010)				TOTAL Year 5
	172300	172300	169300	172300	686200	172300	172300	172300	172300	689200
SWMA OPERATION COSTS	172300	172300	169300	172300	686200	172300	172300	172300	172300	689200
Personnel	113100	113100	113100	113100	452400	113100	113100	113100	113100	452400
CEO	19500	19500	19500	19500	78000	19500	19500	19500	19500	78000
Administrative Assistant	5850	5850	5850	5850	23400	5850	5850	5850	5850	23400
Administrative/Financial Officer	13650	13650	13650	13650	54600	13650	13650	13650	13650	54600
Engineering & Technical Unit Officer	15600	15600	15600	15600	62400	15600	15600	15600	15600	62400
Community Relations Unit Officer	11700	11700	11700	11700	46800	11700	11700	11700	11700	46800
Chief Legal Advising staff	15600	15600	15600	15600	62400	15600	15600	15600	15600	62400
Sector Planning Unit Officer	15600	15600	15600	15600	62400	15600	15600	15600	15600	62400
Chief Information Technology Staff	15600	15600	15600	15600	62400	15600	15600	15600	15600	62400
Vehicles, equipments, infrastructure	0	0	0	0	0	0	0	0	0	0
Vehicles					0					0
Computer stations (printer included)					0					0
Laptop					0					0
Furniture					0					0
Communication equipments (phones, fax, mobiles)					0					0
Out-sourcing	25000	25000	25000	25000	100000	25000	25000	25000	25000	100000
Senior Economist					0					0
Global annual budget for studies and consultancies after Phase 3	25000	25000	25000	25000	100000	25000	25000	25000	25000	100000
Administrative Costs	26100	26100	26100	26100	104400	26100	26100	26100	26100	104400
General Supplies	6000	6000	6000	6000	24000	6000	6000	6000	6000	24000
Utilities	2700	2700	2700	2700	10800	2700	2700	2700	2700	10800
Travel and subsistence allowances	5400	5400	5400	5400	21600	5400	5400	5400	5400	21600
Office rental	12000	12000	12000	12000	48000	12000	12000	12000	12000	48000
Dissemination and Communication Strategy	8100	8100	5100	8100	29400	8100	8100	8100	8100	32400
Publications (Educational brochures, Progress reports, Studies)	2700	2700	2700	2700	10800	2700	2700	2700	2700	10800
Workshops, Meetings, Stakeholder consultations, Community events,etc	3000	3000	0	3000	9000	3000	3000	3000	3000	12000
Campaigns (Materials and personnel)	2400	2400	2400	2400	9600	2400	2400	2400	2400	9600
INSTITUTIONAL DEVELOPMENT INVESTMENTS	0	0	0	0	0	0	0	0	0	0
START UP: SWMA becomes Operational					0					0
PHASE 1: Structuring of Implementation Conditions for the Western Corridor Project	0	0	0	0	0	0	0	0	0	0
PHASE 2:Implementation of the Western Corridor Project thru a PSP	0	0	0	0	0	0	0	0	0	0
PHASE 3: All SWMA's functions are fully operational					0					0