

SOLID WASTE MANAGEMENT OUTREACH PROGRAMME

BARBADOS

THE SOLID WASTE MANAGEMENT PROGRAMME



**Sewerage and Solid Waste Project Unit
Ministry of Health**

DEFINITIONS

Solid Waste: All refuse, bulky waste, special waste and yard waste.

Refuse/Garbage: This refers to all non-combustible material resulting from the handling, preparation, cooking, consumption and storage of food, along with the following materials:

Broken dishes, glass, rags, cast-off clothing, wastepaper, food containers, sawdust, grass cuttings, plastic, shrubbery, weeds, tree prunings, garden waste or such waste material as may accumulate as a result of construction or repairs.

Bulky Waste: Furniture, old appliances, discarded automobiles and auto parts, rubber, or such matter as may accumulate as a result of building construction, renovations or repairs.

Special waste: grease, blood, sewage, sludge and offal.

Yard waste: Include grass, shrubbery, weeds, tree prunings and garden waste.

Solid Waste Management: Solid waste management addresses not only the generation of these wastes but also seeks to address the conduct and regulation of the storage, collection transportation, processing, recovery and disposal of the wastes.

Municipal Solid Waste: The combined residential and commercial waste material generated in a given municipal area.

INTRODUCTION

The Integrated Solid Waste Management Programme is an infrastructural project critical to the social and economic development of Barbados. Recognizing the need for a comprehensive solid waste management programme in Barbados, the government of Barbados entered into an agreement with the Inter-American Development Bank to undertake an Integrated Solid Waste Management Programme (ISWMP).

This programme which is a major component of the general policy of the Health Sector Development Plan 1993-2000, encompasses the whole island of Barbados, and provides for the preparation of a long term (20 year) vision of managing solid waste in Barbados. This programme commenced in 1993 with a feasibility study.

THE MAIN OBJECTIVE OF THE ISWMP

The main objective of the ISWMP is to develop a modern, dependable and efficient waste management system which would be accessible to all citizens, which would protect the environment, improve the standard of public health in Barbados and foster the participation of the private sector in a structured manner.

This Integrated Solid Waste Management Programme comprises both physical and non-physical components.

THE PROGRAMME

The two components of the Integrated Solid Waste Management Programme are summarized below:-

- **Physical component comprises:**
 - ❖ **National Sanitary Landfill:** This sanitary engineered landfill is located in a disused quarry at Greenland, St. Andrew.
 - ❖ **Solid Waste Management Center:** These include Transfer Station, Chemical Waste Storage Facility and Composting Facility. These facilities will be jointly housed at Vaocluse, St. Thomas.
 - ❖ **Bulky Waste Facility:** This facility is located at a disused quarry at Bagatelle, St. Thomas.
 - ❖ **Upgrading of Road Infrastructure:** In order to improve efficiency it will be necessary to implement road improvements along routes where vehicles associated with the ISWMP will travel on a regular basis. The affected roads are:
 - Mile-and-Quarter to Alleynedale;
 - Benn Hill;
 - Vaocluse to Highway 2A (Mangrove Road);
 - Hoytes Village Main Road; and
 - Hoytes Village Tenantry Rd./Access to Bulky Waste Site.
- **The non-physical component includes:**
 - ❖ **Institutional Strengthening** of key government agencies within the Ministry of Health (e.g. Sanitation Service Authority, Environmental Engineering Division) and associated Ministries (e.g. the Ministry of Environment, Public Investment Unit);
 - ❖ **A Public Education/ Awareness Programme**, that is, consumer education, formal education and technical assistance in waste management for the business and manufacturing sectors;
 - ❖ **An Economic** aspect which would include cost recovery measures e.g. taxes, levies, tipping fees and export of recyclable materials;
 - ❖ **Policy development** to provide for mechanisms for the proper implementation of the Programme;
 - ❖ **Drafting of relevant legislation** to facilitate this new thrust in solid waste management.

THE NEED FOR THE PROGRAMME

For Small Island Developing States (SIDS) like Barbados, the disposal of waste is a serious constraint to sustainable development. The limited land area and resources for safe disposal, growing population, unsustainable consumption patterns and increasing imports of polluting and hazardous substances combine to make pollution prevention and the management of waste a critical issue. Long-term disposal options being limited, Barbados is looking for ways to minimize waste and/or convert waste into resources (eg. composting). The ISWMP addresses all aspects of solid waste management with a view to improving the existing system for solid waste management through the provision of physical and non-physical components that will enhance the Island approach to solid waste management.

EFFECTING THE NON-PHYSICAL COMPONENT OF THE PROGRAMME.

In order to maximize the benefits of the non-physical component, the elements of this component are being implemented in a structured manner.

The first line of approach is through the implementation of a waste minimization programme supported by a strong education programme. While this is underway an improved collection service will be established backed by appropriate regulatory and economic instruments to ensure the best possible results from the program. The necessary institutional strengthening will accompany these changes.

➤ **Waste minimization**

The overall waste minimization programme is based on the principal of the 3 R's:

- (i) Waste Reduction
- (ii) Reuse of waste
- (iii) Recycling

and is intended to be supported by a dynamic education programme and to be conducted to reflect the hierarchy listed above in order to achieve the best possible results.

This hierarchy assumes that once an individual makes every effort to reduce the amount of solid waste produced, that individual should then seek to reuse as much of the waste that is produced as is possible. The remaining waste should then either be composted, set out in a prescribed manner for recycling, or for final disposal.

➤ **Waste Minimization Practices**

It is estimated that the private sector diverts 13,600 tons of recyclable, or less than 10% of the total waste stream. Of the total recycled waste, about 11,340 tons are paper (including newspaper), 910 tons are glass, 530 tons are non-ferrous metals, 500 tons are ferrous metals, 220 tons are polyethylene terephthalate (PET), and 100 tons are lead acid batteries. Depending on the market for the specific products, most of the recyclables are being shipped overseas.

A national program for reducing waste at the source is being spearheaded and coordinated by Government, as part of the national waste minimization strategy which has an overall waste minimization goal of 40 % by the year 2007. It is estimated that the reduction of waste at the source in Barbados will reduce the amount of solid waste being generated by about 3,700 tons per year, or about 3% of the total waste flow.

➤ **Solid Waste Management Educational**

Barbados' main tourist attractions are its beaches and natural beauty, and as such, the island depends on a clean environment, including proper waste disposal, to maintain adequate public health standards and its attractiveness to tourists. Indeed, tourist complaints about litter and scattered garbage are common. Residents and visitors together generate more than 150,000 tonnes of solid waste each year. If not efficiently managed environmental and aesthetic degradation can result and persons then face the health risks associated with improper solid waste management. Major contributors to problems associated with solid waste management in Barbados include: (i) current disposal practices of waste; (ii) inefficient collection services and containment practices; and (iii) low waste minimization practices in the country.

➤ **Legislation**

Currently policy is been developed to strengthen existing legislation.

➤ **Regulatory Framework**

The Health Service Act defines the regulatory framework for solid waste management in Barbados and establishes its overall responsibility in the Ministry of Health.

The Health Services Act comprises a large set of regulation. The collection and disposal of Refuse Regulations regulates landfill siting, littering and dumping, waste containment, and waste collection and transportation. Penalties are set for contravention of the Act. In addition, the Nuisance Regulation, the Rodent control Regulation and the Disposal of Offensive Matter Regulation provide control over littering and dumping. Some of these regulations will need to be updated to follow the new environmental standards.

Other pieces of legislation relevant to solid waste management include the Underground Water Control Act which regulates disposal of sewerage or waste into the ground via water wells; and the Returnable Containers Act which creates a system for recycling.



**You can save our environment
and have fun at the same time.**

Try our new Puzzle



C	B	T	S	O	L	I	D	N	H	R
A	O	R	W	A	S	T	E	O	E	E
S	Z	N	B	U	L	K	N	I	G	T
O	P	B	T	E	V	M	V	T	A	T
D	H	A	Z	A	R	D	I	A	R	I
G	U	E	R	I	M	V	R	T	E	L
C	D	M	N	C	H	I	O	I	W	H
S	S	A	P	G	S	P	N	N	E	S
I	L	L	E	G	A	L	M	A	S	A
Y	I	T	O	X	I	C	E	S	N	R
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R	E	C	Y	C	L	E	T	D	B	C

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|----------------|----------------|
| 1. BIN | 10. OIL |
| 2. BULK | 11. RECYCLE |
| 3. CONTAMINANT | 12. SANITATION |
| 4. DUMP | 13. SCRAPS |
| 5. DENGUE | 14. SEWERAGE |
| 6. ENVIROMENT | 15. SOLID |
| 7. HAZARD | 16. TOXIC |
| 8. ILLEGAL | 17. TRASH |
| 9. LITTER | 18. WASTE |

THE BENEFITS OF THE PROGRAMME

The development and implementation of an Integrated Solid Waste Management Programme (ISWMP) will result in a number of benefits. These include, but are not limited to:-

- A reduction in the amount of waste generated
- An increase in reuse and recycling initiatives
- An increase in both the type and quantity of value added products
- Proper disposal of waste by scientific means using current technology
- An improved road infrastructure
- More efficient and effective operation of waste management agencies
- A more comprehensive legislation and policy framework
- Public education materials developed locally and geared specifically to the Barbados situation, and SIDS in general
- A better informed and enabled public
- More community, public and private agency involvement in waste management initiatives
- A better understanding of the real costs of waste disposal
- Efficient cost recovery mechanisms

- A move towards the realization of the vision of Barbados as a sustainable society in the context of Small Island Developing States (SIDS).

KEY PLAYERS INVOLVED IN THE ISWMP.



Government and quasi-government agencies

Several government agencies share responsibilities for the execution of the solid waste management Programme administered by the public sector.

- *The Sewerage and Solid Waste Project Unit* of the Ministry of Health is responsible for establishing the framework for and the initial overall implementation of the ISWMP. This Unit will establish the Programme and hand-over the various components to relevant Government agency that will carry out the long-term implementation/management of that component.
- *The Sanitation Service Authority* of the Ministry of Health has responsibility for the collection and disposal of solid waste. It is however planned that this agency will soon be less involved in the disposal of waste, i.e. manage the private sector agency that will run the disposal facilities, while concentrating primarily on collection of municipal solid waste.
- *The Environmental Engineering Division* of the Ministry of Health is responsible for monitoring and enforcement issues that pertain to overall solid waste management. *The Public Health Inspectorate* of the Ministry of Health assists with the monitoring and enforcement in respect of solid waste management.
- *The Environment Division* of the Ministry of Environment, Energy and Natural Resources has been charged with the responsibility of solid waste management legislation.
- *The Division of Economic Affairs* of the Ministry of Finance and Economic Affairs administers international financing associated with the Programme and offers advice and guidance in respect of economic instruments and research in solid waste management.
- *The Office of the Attorney General* drafts and revises solid waste management legislation and provides legal advice to Government in respect of legal issues in solid waste management.
- *Ministry of Public Works*, has responsibility for road construction and maintenance of roads that service the disposal facilities.

PRIVATE SECTOR AGENCIES

The private sector is currently involved in waste collection and recycling but will soon be involved in solid waste disposal as Government is making a conscious effort to involve them in this aspect of solid waste management in the future.



For Further Information Please Call:-

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