

## WASTE MANAGEMENT

EHS recognizes the significance of waste management due to an expanding tourism sector, changing consumption patterns and resultant increase in food packaging material, as well as electronic waste such as computers and cellular phones. The lifespan of landfills is shrinking with the increasing volume of solid waste. The EHS promotes the idea of waste diversion from the landfills using a variety of strategies such as reduction, reuse and recycling of waste products.

The holistic concept of sustainable production and consumption, advocates efficient use of resources and process inputs for livelihoods and wellbeing, while optimising energy consumption and minimising waste generation, across all economic sectors. EHS has provided awareness and training in this concept, through case studies in the tourism, agricultural and manufacturing sectors.

The reuse of wastewater provides an opportunity to minimize the application of potable water for non-potable purposes. Water used for cooling industrial equipment for example, can be used for shop floor sanitaton, or irrigation and landscaping.



## EMERGENCY RESPONSE

With climate change, it is anticipated that the Region will see more frequent major hurricanes and storms, and more periods of drought. Both represent health and safety, as well as livelihood threats, particularly as they relate to water and food security.

EHS supports Member States in various areas of disaster management - from planning and preparation to post disaster support in many ways, including:

- Deployment of teams to assess shelters and verify suitability of water supplies and assistance with use of test kits.
- Development of training materials for environmental contingency planning for floods.
- Development of a rapid assessment tool for data gathering in the field after a flood event.
- Championing implementation of rainwater harvesting, which does not replace the municipal supply entirely, but is a lifeline in post disaster and drought situations.

EHS supports the implementation of Water Safety Planning (WSP) which is consistent with the WHO protocol for water supply management. Although not primarily focused on disaster management, WSP is very comprehensive and includes assessment of vulnerability and preparation for various disaster scenarios, which can have implications for water management.



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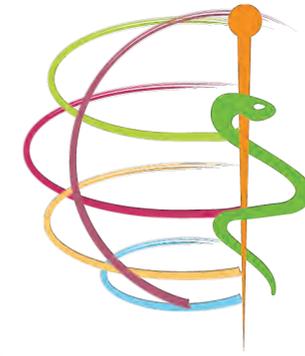
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Environmental Health and Sustainable Development Department

## THE ENVIRONMENTAL HEALTH AND SUSTAINABLE DEVELOPMENT (EHS) DEPARTMENT

*Protecting the environment, preserving health and well being*

The Environmental Health and Sustainable Development (EHS) Department of the Caribbean Public Health Agency (CARPHA) supports the Caribbean's sustainable development agenda by playing a lead role in key areas related to environmental management for optimal public health.

CARPHA Member States include a number of vulnerable Small Island Developing States (SIDS) and low-lying coastal states. These SIDS face significant challenges to their sustainable development as a result of climate change, natural and environmental disasters and other global threats. EHS is committed to becoming the Caribbean's centre of excellence for Environmental Health and Sustainable Development, through its dedicated pursuit of sustainable solutions to environmental problems within the Region.



### ENVIRONMENTAL MONITORING SERVICES

The Environmental Health Laboratory (EHL) located within the EHS is accredited to ISO 17025 by the Canadian Association for Laboratory Accreditation (CALA). This full-service microbiological and analytical laboratory provides environmental analyses, including water quality monitoring, plant, soil and tissue analyses, food microbiological testing, indoor environmental quality monitoring and noise testing. The laboratory is operated by certified professional and technical staff trained to consistently deliver to quality standards. The laboratory provides testing services to CARPHA Member States and private sector clients, and offers the following technical and advisory services:

- Implementation of an ISO 17025 compliant Quality Management System (QMS);
- Pre-assessment audits for ISO 17025;
- Implementation of ISO 14001 Environmental Management Systems (EMS);
- Establishment of environmental monitoring programmes at the national level;
- Training in:
  - all of EHL testing areas
  - sample collection
  - quality assurance/control
  - environmentally sound management of laboratory chemicals
  - preliminary indoor environmental quality monitoring and use of testing equipment
  - environmental hygiene
  - drinking water treatment

### INDOOR ENVIRONMENTAL QUALITY

Indoor environmental quality is a major concern because it can impact health, comfort, wellbeing and productivity. It has been estimated that people spend up to 90% of their time indoors. EHS conducts assessments of indoor environments to evaluate and make recommendations for addressing potential hazards and indicators associated with ill-health, comfort and safety including:

Indoor air	Carbon dioxide
Water migration	Carbon monoxide
Mould	Particulate matter
Dust	Volatile organic compounds
Dust mites	Ergonomic factors
Temperature	Lighting
Relative humidity	Noise

### ENVIRONMENTAL ASSESSMENTS AND ENVIRONMENTAL AUDITING

A substantial component of the work of the EHS is environmental assessments. These can range from visual inspections to multidisciplinary environmental assessments.

EHS supports Member States in:

- Conducting Environment Impact Assessments (EIAs)
- Developing terms of reference for EIAs
- Environmental auditing services led by certified ISO 14001 lead auditors
- Evaluate Environmental Impact Statements
- Environmental auditing services led by certified ISO 14001 lead auditors.

### HEALTHY WORK AND SCHOOL ENVIRONMENTS

Healthy work and school environments have emerged as an area of particular concern. EHS endorses the WHO Global Plan of Action on Workers' Health, which can guide Member States as follows:

- Development of the healthy workplace initiatives, to address issues related to physical structure, air, machinery, furniture, products, chemicals and materials found in the workplace
- Support development of eco-innovative processes. Areas typically addressed would be hazards associated with:

Air quality  
Water quality  
Food borne hazards  
Poisoning  
Unintentional injury  
Ionization  
Radiation  
Noise  
Structural hazards

