

**PRELIMINARY ASSESSMENT OF TOURISM SECTOR IN THE CONTEXT OF  
PHYSICAL ALTERATIONS AND DESTRUCTION OF HABITATS (PADH)  
IN THE WIDER CARIBBEAN REGION**

Report Prepared By  
Lloyd Gardner  
July 2003.



*This document is produced by the GPA Coordination Office, The Hague, The Netherlands. The UNEP/GPA Coordination office gratefully acknowledges the financial contribution of the Government of Belgium for enabling UNEP/GPA to undertake this review study and produce this report under the Physical Alterations and Destruction of Habitats (PADH) programme.*

# PRELIMINARY ASSESSMENT OF TOURISM SECTOR IN THE CONTEXT OF PHYSICAL ALTERATIONS AND DESTRUCTION OF HABITATS (PADH) IN THE WIDER CARIBBEAN REGION

## INTRODUCTION

Tourism has become the dominant sector in Caribbean economies, generating one-fifth of all jobs and accounting for one-fourth of foreign exchange earnings (UNEP 1999(a)). In a number of Caribbean economies, tourism receipts account for more than 75% of total exports.

This is based on the fact that, with very few exceptions (e.g. Anguilla and St. Barts), the tourism strategy pursued by Caribbean countries is mass tourism. This strategy has resulted in a steady increase in the number of tourist arrivals over the past decade, from slightly more than 13 million in 1991 to more than 20 million in 2001 (Caribbean Tourism Organisation 2003)

(<http://www.onecaribbean.org/information/categorybrowse.php?categoryid=45>).

Data compiled by the Caribbean Tourism Organization (Silva 2002) shows that in 2000:

- The hotel room capacity in the Caribbean was 251,300 rooms;
- Earnings from tourism was estimated at US\$19.6 billion; and
- Visitor expenditure as a percentage of GDP ranged from 25% (Jamaica) to 75% (Anguilla).

Though the tourism industry has generated significant benefits for Caribbean countries, the combination of large number of tourists (compared to the resident populations), inadequate management systems, and other systemic problems has also produced significant negative social and environmental impacts in many instances.

Island Resources Foundation (1996) developed a matrix showing benefits and costs of tourism across different geographic zones, from offshore waters to upland areas (Table 1).

It should be noted that while any development activity will produce some level of negative impact, many tourism-related activities in the Caribbean generate a higher-than-expected level of negative impact. This high level of negative effects results from a number of factors, including:

- Uncaring attitudes;
- Design deficiencies;
- Regulatory and resource deficiencies;
- Inadequate infrastructure; and
- Deficiencies in the planning processes.

Physical alterations and destruction of habitats from tourism-related activities include construction and operation of facilities, as well as recreational activities (UNEP 1997). The results of such activities include **physical changes** (land-clearing, soil erosion, beach

erosion, littoral changes, boat anchoring and groundings), **ecological impacts** (habitat loss or degradation, reduced integrity of sand dunes and other coastal barrier systems, reduced species populations, reduced and changed species diversity, decline in productivity, chronic pollution inputs), and **hydrological impacts** (modification of stream flows, increased percentage of impermeable surfaces, reduced groundwater recharge, increased sedimentation).

In order to correct the above situation, there has been a large level of investment in physical infrastructure (central sewerage systems, roads, airports, seaports), tourism planning, and training. Additionally, the public, private, and civil society sectors in the Caribbean have developed a number of initiatives, including the identification of best management practices, to be implemented at all levels throughout the tourism and related industries.

**Table 1: Overview of Environmental Degradation from Tourism Facilities**

FACILITIES IN THE COASTAL ZONE:	UPLANDS	COASTAL PLAIN	SALT PONDS AND ESTUARIES	BEACH AND SHORELINE	NEAR COASTAL WATERS AND FRINGING REEFS	OFFSHORE WATERS
Tourism Complexes and Large Resorts	<i>Physical Change</i> <i>Groundwater Pollution</i> <i>Visual Impacts</i> <i>Displacement</i>	Physical Change (fill) Groundwater Pollution Solid Waste Visual Impacts Displacement	<b>Physical Change (fill)</b> <b>Sediments</b> Toxics & Nitrification <b>Solid Waste</b> Displacement	Physical Change <i>Groundwater Pollution</i> Toxics & Nitrification Solid Waste (litter) Displacement	<b>Physical Change</b> <b>Sediments</b> <b>Toxics &amp; Nitrification</b> Visual Impacts <b>Displacement</b>	<i>Groundwater Pollution</i> Sediments Toxics & Nitrification Displacement
Small Hotels and Resorts	<i>Displacement</i>	<i>Physical Change</i> Groundwater Pollution Solid Waste Displacement	<i>Physical Change</i> <i>Sediments</i> Toxics & Nitrification Solid Waste Displacement	Physical Change <i>Groundwater Pollution</i> Toxics & Nitrification Solid Waste Displacement	Physical Change Sediments Toxics & Nitrification Displacement	[Few identified impacts]
Parks and Protected Areas	<i>Displacement</i>	[Few identified impacts]	Physical Change (anchoring)	Solid Waste	Physical Change (anchoring)	Physical Change
Entertainment & Restaurant Facilities	Displacement (noise)	<i>Physical Change</i> Groundwater Pollution Solid Waste <i>Displacement (noise)</i>	Physical Change Sediments Toxics & Nitrification Solid Waste Displacement	Physical Change <b>Groundwater Pollution</b> Toxics & Nitrification Solid Waste	Sediments Toxics & Nitrification Visual Impacts Displacement	[Few identified impacts]
Shoreside Recreational Facilities	Displacement (noise) Visual Impacts	<i>Physical Change</i> Solid Waste <i>Displacement</i>	Toxics & Nitrification Solid Waste	Physical Change Toxics & Nitrification Solid Waste Displacement	Physical Change <i>Groundwater Pollution</i> Sediments Toxics & Nitrification Visual Impacts Displacement	Physical Change Displacement
Marine Recreational Facilities	<i>Visual Impacts</i>	<i>Physical Change</i> Solid Waste <i>Displacement</i>	<b>Physical Change</b> Sediments <b>Toxics &amp; Nitrification</b> Solid Waste Displacement	<b>Physical Change</b> <i>Groundwater Pollution</i> Toxics & Nitrification Solid Waste Displacement	<b>Physical Change</b> Sediments Toxics & Nitrification Solid Waste Visual Impacts Displacement	Physical Change Solid Waste Displacement

In this table:

- *italics* identify *indirect effects* (e.g., displacement of traditional users in upland areas);
- regular type indicates some level of effect; and
- **bold** type indicates a **major impact** on the area.

Source: Island Resources Foundation, 1996

## SITING OF FACILITIES

The construction phase of tourism facility development is undoubtedly the phase that creates the most dramatic and visible impact on ecosystems. Construction activities include landfills, dredging, mining of sand or other aggregates, clearing sites completely of vegetative cover, and changing the drainage patterns of upland and nearshore areas. Such disturbances range from a few hectares to hundreds of hectares. Sites most targeted for major changes are bays and wetlands.

Many sites cleared of their original vegetation are replanted after the completion of the facilities with exotic species for landscaping purposes. Such sites, while changing the composition of wildlife species on the site, can contain aesthetically pleasing features, and can even retain a semblance of the pre-construction ecology (e.g. Swept Away Resorts, Negril, Jamaica). Some sites remain as impervious surfaces (Photograph 1), permanently changing the ecology and hydrology of those sites.



Photograph 1: Degraded Forest Transformed to a Parking Lot  
“New” Car Park at Dunn’s River Falls, Jamaica, January 15, 2000

The cases where site development conforms to the physical and ecological imperatives of the site are few in number. Notable examples are the ecotourism development at Maho Bay Camps (St. John, U.S. Virgin Islands) and the all-inclusive hotel at Sandals Ocho Rios (Ocho Rios, Jamaica) (Photograph 2).



Photograph 2: Placement of Buildings to Retain Larger Trees  
Sandals Ocho Rios, Ocho Rios, Jamaica, January 1, 2000

Increasingly, the linkages between the environment and tourism are being articulated, and a number of countries are subjecting new developments to environmental screening, usually in the form of an environmental impact assessment (EIA) process. Unfortunately, the socio-economic and political realities of the region act to reduce the effectiveness of the policy and legislative/regulatory frameworks as they relate to tourism development. The major area of positive change involves the initiatives focusing on environmental awards and eco-labels for tourism facilities and areas.

Public sector investments in infrastructure in tourist resorts are normally not referred to as tourism facilities, but are instead placed under some other sector of the economy such as construction or transportation and telecommunications. However, while other sectors benefit from the existence of such infrastructure, the rationale for the selection of areas to construct central sewerage systems, expansion of docks and airports, and development of water supply systems is often based on servicing the main tourist resorts. Given the fact that such areas are often not the sub-regional centres or even the main residential areas, facilities located in tourist resorts to service the tourism industry can be labelled tourism facilities. Such projects often create much larger negative impacts on ecosystems, health,

and local economic activities, and last for a longer duration, than private sector tourism projects. This problem is usually based on the much larger scope and complexity of such projects and the need often to acquire lands.

### **Linkages to the Caribbean Environment Programme**

The tourism and environment/ecosystem focus of the Caribbean Environment Programme (CEP) is contained in the Regional Programme on Specially Protected Areas and Wildlife (SPA) (<http://www.cep.unep.org/who/spaw.htm>). A major effort to address the environmental impacts of tourism was implemented as the Caribbean Environment Network (CEN). In addition to providing training to a range of natural resource managers and tourism planners across the Wider Caribbean Region, the project produced a number of technical reports and training manuals. Of particular relevance to the construction of tourism facilities is the training manual on “Environmentally Sound Tourist Facility Design and Development for the Tourism Industry” (UNEP/USAID/CAST 1999). The manual is designed both as an educational and instructional manual for environment and development planners. The manual is modular in format, with modules focusing on *“the environmental impacts of tourism facility design, the essential resources of coastal environmental systems, local and regional coastal regulatory systems, sustainable project planning, sustainable infrastructure and development masterplan, building designs, and an outline of operational maintenance and monitoring systems”*.

Additional initiatives planned under CEP-SPA focus on strengthening of human capacities for sustainable tourism, which will include two additional regional training courses using the training manuals developed from the CEN project.

### **Outstanding Issues**

Issues relevant to construction and siting of tourism facilities that still require attention include:

- The need for improved site design in the location of tourism facilities;
- Poor land management practices during construction of facilities;
- The need for application of more environmentally-friendly designs and materials;
- The need for increased awareness of the costs and benefits of environmentally-sound tourism development among private sector developers;
- Better application of environmental impact assessment (EIA) methodologies; and
- More widespread application of post-audits, and increased use of data from environmental audits in EIA scoping exercises.

## OPERATION AND MAINTENANCE

The environmental effects resulting from operation and maintenance activities of tourism facilities are usually not as obvious as the impacts from construction activities. However, the impacts from operation and maintenance are generally ongoing, are felt over a much longer timeframe, and can have human health implications.

The factors generating the negative impacts involve both direct physical disturbances, and ecological impacts that are manifested as physical damage over a longer timeframe. Direct physical disturbance include removal of vegetation (from sand dunes, forested areas, etc.), onsite solid waste and/or debris disposal, sand erosion from beach recreational activities, and canalisation and erosion from hiking trails. Ecological impacts result primarily from pollution inputs; from sewage disposal, use of agro-chemicals, and use of cleaning fluids. These pollutants result in shifts in ecosystems directly through death and disease of species (as with corals) or indirectly through changes in the biochemical environment (as with nutrient enrichment). A significant number of studies catalogue the continuing degradation of the marine environment (UNEP 1999(b)), though few such studies on the terrestrial environment have been conducted.

Paradoxically, most of the initiatives to address the negative impacts from tourism, as well as to improve the quality of the product overall, have been in the area of operation and maintenance. Such initiatives have been undertaken at the levels of the individual facility/operation, resort areas, countries, and the Wider Caribbean. At the site level, most attention has been focused on “greening” of facilities, ranging from waste reduction to improvements in corporate behaviour. At the resort level, initiatives tend to focus primarily on improvement in infrastructure and social services, particularly solid waste management. Other, less known, activities attempt to address issues of carrying capacity, coastal erosion, and housing/settlement. National initiatives cover many of the site-based and resort level actions, but expand these to the policy and planning arenas, particularly in the areas of carrying capacity, development control, and training.

There are a number of regional initiatives that focus directly on the reduction of environmental impacts from the operations and maintenance component of the tourism industry. These initiatives are essentially voluntary compliance schemes, a number of which are linked to international eco-label programmes. The major initiatives are:

- a. CHA/AMEX Green Hotel and Area Award – This programme is a joint initiative sponsored by the Caribbean Hotel Association (CHA), the Caribbean Conservation Association (CCA), American Express, and American Airlines. The programme presents environmental awards to hotels that undertake sound environmental practices by “greening” their hotels, and to areas (such as towns and bays) that promote “unity in environmental efforts” ([http://www.cha-cast.com/2\\_GreenHotelAwards.asp](http://www.cha-cast.com/2_GreenHotelAwards.asp)).

The award contributes to better environmental practices in the area of operation and maintenance by incorporating criteria that focus on:

- Environmental Management and Stewardship – Monitoring & documentation, integration of management structure, "Green Team" performance and future plans/commitment to act;
  - Conservation of Natural Resources – Projects to conserve energy, water, and reduce solid waste;
  - Awareness and Community Activity – Training programmes, policies and information provided to both staff and guests to make them partners in environmental efforts. This criterion also includes the work with communities on beach clean ups, adopt a school, food donations, environmental fairs and other activities;
  - Infrastructure and Technology – The designing, integration and engineering projects undertaken by the property to make its facilities and building services environmentally responsible; and
  - Health and Safety – Water quality, food safety, and disaster preparedness.
- b.** Green Globe 21 Americas – The Green Globe 21 Americas initiative in the Caribbean is coordinated by the Caribbean Alliance for Sustainable Tourism (CAST). The initiative promotes environmentally sustainable tourism through the certification of travel and tourism companies and destinations (<http://www.cha-cast.com/ggamericas.html>).
- c.** Caribbean Hotel Environmental Management Initiative (CHEMI) – CHEMI is a 3-year project (2002-2004) “...to introduce small hoteliers in the eastern Caribbean to the concept of environmental management” ([http://www.cha-cast.com/2\\_chemi.asp](http://www.cha-cast.com/2_chemi.asp)). The project is being implemented by CAST, with financial support from the United States Agency for International Development (USAID). The project focuses on:
- Environmental Awareness – Toolkits for environmental management practices, environmental management materials, environmental best practice training videos;
  - Technical Assistance – Provision of environmental management systems training, environmental assessments, environmental walk-through, Green Certification assistance; and
  - Tools – Register of environmental consultants, environmental product sources and resources, hotel environmental performance monitoring database.
- d.** Caribbean Blue Flag Programme – The Caribbean Blue Flag Programme is being coordinated jointly by the CCA (<http://ccanet.net>), the Caribbean Tourism Organization (CTO) (<http://www.onecaribbean.org>), and CAST ([http://www.cha-cast.com/2\\_blueFlag.asp](http://www.cha-cast.com/2_blueFlag.asp)). Seven countries (Antigua & Barbuda, Bahamas, Dominican Republic, Jamaica, Martinique, Puerto Rico, and Venezuela) are participating in the pilot phase of the programme, which will test the proposed regional criteria on the operations of selected beaches and marinas. Barbados and Trinidad & Tobago are currently undertaking feasibility activities with a view to participating in the pilot phase of the initiative.

The implementation of the above award schemes has resulted in improvements in the operations of the facilities. The most tangible improvements include:

- Reduction of solid waste;
- Reduction of water usage;
- Reduction in energy usage;
- Increased awareness and training;
- Establishment of environmental management systems;
- Increased vegetation cover; and
- Increased revenues from the savings in reduced utility bills and waste disposal costs.

The measurement of the environmental impacts of these changes outside the perimeters of the operations/facilities has not been quantified. The prevailing thinking is that if operations reduce their inputs and waste, they must logically reduce their adverse impacts on the environment.

### **Linkages to the Caribbean Environment Programme**

The Caribbean Environment Programme (CEP) (<http://www.cep.unep.org>) will provide continued support to CTO and CAST in the development and implementation of standards and initiatives for sustainable tourism, specifically:

- Provision of general information and guidance on issues of relevance to SPAW;
- Support to training workshops; and
- Implementation of the Caribbean Blue Flag Campaign. The third meeting of National Campaign Coordinators for the campaign (Ocho Rios, Jamaica, March 13-15, 2003) agreed to revise the water quality criteria to focus more on coral reef conservation. The meeting also agreed to add new criteria related to the conservation of coral reefs. SPAW is expected to play an active role in the revision of the criteria, as well as act as a conduit to the international coral reef community.

### **Outstanding Issues**

Operations and maintenance issues still requiring attention include:

- Incorporating environmental maintenance considerations in site design to a greater degree;
- Establishment of carrying capacity regimes and/or other related methodologies for recreational activities, especially in fragile coastal environments;
- Although bathing water quality criteria and standards exist in most of the countries, the necessary research to develop more relevant standards has not been undertaken. As such, the existing standards to a large degree reflect standards developed by the United States Environmental Protection Agency or the World Health Organization;

- There is a need to link private sector investments and increased physical plant to public sector infrastructure and social services development. The existing large gap between the demand for social services and the available infrastructure is responsible for a large percentage of the existing environmental problems; and
- There is a need for increased use of appropriate technologies, increased application of relevant standards, and increased enforcement of applicable laws.

## **BEST MANAGEMENT PRACTICES**

The development of best management practices (BMPs) for the tourism industry in the Caribbean has been ongoing for several years. Efforts by the CEP to publicise and popularise BMPs for tourism produced two publications (UNEP 1994, & UNEP 1997). The Caribbean Alliance for Sustainable Tourism (CAST) offers a number of publications for sale dealing with best practices, environmental management guidelines, technologies, and other relevant topics ([http://www.cha-cast.com/2\\_Publications.asp](http://www.cha-cast.com/2_Publications.asp)).

Implementation of BMPS by facilities has become widespread, resulting not only from increased awareness, but also from increased watchdog actions on the part of communities. The regional initiatives mentioned above all involve the implementation of BMPS at the site level. Country level initiatives include consultative planning processes for the development of tourism master plans, carrying capacity studies for resorts or regions, and training initiatives.

Regional focus on BMPs has been on development of guidelines and training. For example, with the support of UNESCO's Coasts and Small Islands programme, the University of Puerto Rico (as part of the COSALC Project) has worked with its island partners to produce a number of booklets addressing wise practices for dealing with beach erosion. Booklets have been completed and distributed in Anguilla (<http://www.unesco.org/csi/act/cosalc/angb.pdf>), Grenada (<http://www.unesco.org/csi/act/cosalc/brochgre.htm>), St. Kitts and Nevis. Other booklets are being printed for Antigua and Barbuda, Montserrat, Dominica, St. Lucia, St. Vincent and the Grenadines, and Turks and Caicos Islands.

An initiative to develop standards and systems focusing on healthy and environmentally conscious products and services has been launched as Quality Tourism for the Caribbean (QTC) (<http://www.qtcproject.com>). QTC is a joint venture project involving CAST, the Caribbean Epidemiology Centre (CAREC), and the Pan American Health Organization (PAHO).

A major effort in the promotion of sustainable tourism best practices is the Sustainable Tourism Award initiative of the Caribbean Tourism Organization (CTO). The award "recognizes the person, organization or company in any of the Caribbean Tourism Organization (CTO) Member Countries who/which has developed a unique and attractive tourism product embracing sustainable tourism concepts and core values, and which help

to enhance the country's tourism product offerings" (<http://www.onecaribbean.org/information/categorybrowse.php?categoryid=330>). This award covers all the various types of tourism offerings (Table 2), not just hotels. One of the unique features is that only one product from each country can be nominated, and nomination is by the national tourism organization, not by the individual product directly. The winner is selected by a panel of experts comprised of public and private sector representatives, and non-governmental organizations. This first winner was awarded in 2001, and each winning product becomes part of the Sustainable Tourism Best Practices Database being compiled by the CTO.

Much attention has been focused on ecotourism at the global level, and many of the publications, such as the IUCN publications on tourism and protected areas (Ceballos-Lascuráin 1996 and Eagles et al 2002), are applicable to situations in the Caribbean region. Additional information and best practice guidelines can be obtained from a number of sources, such as the ecotourism website (<http://www.ecotourism.org/membooks/productresults.asp>).

### **Linkages to the Caribbean Environment Programme**

Linkage of regional initiatives dealing with BMPs to the Caribbean Environment Programme (CEP) is through the Specially Protected Areas and Wildlife (SPA) Programme, starting with the Caribbean Environment Network (CEN) project. The CEN project produced a number of publications aimed at improved management of facilities and ecosystems (such as sand dunes) (<http://www.cep.unep.org/issues/tourism.htm>).

Continued CEP support to sustainable tourism best practices will include:

- Publication in Spanish of resource materials from the CEN project (particularly the Green Resource Directory, Case Studies in Best Management Practices in Hotels, Sand Dune Management Manual, and the Manual for Sewage Treatment Operators); and
- Support to the development of national strategies for sustainable tourism through the preparation of diagnostics of key tourism areas and national consultation processes with stakeholders in three pilot countries where preliminary work was undertaken through CEN.

**Table 2: List of Nominees – CTO Sustainable Tourism Award**

2001		2003	
Product/Country	Contact	Product/Country	Contact
Arikok National Park/Aruba	pna@toaruba.com	Caruarina Beach Hotel/Barbados	lotero@casuarina.com www.casuarina.com
Dillet's Guest House, Bed & Breakfast/Bahamas	scox@bahamas.com	TIDE Tours/Belize	info@tidetours.org www.tidetours.org
Casuarina Beach Club/Barbados	casbeach@bajan.com	Sister Islands Heritage and Nature Tourism Development Initiative/Cayman Islands	bracdc@candw.ky www.naturecayman.com www.caymanislands.ky
The Lodge at Chaa Creek/Belize	reservations@chaacreek.com	Portsmouth Indian River Tour Guides Association/Dominica	cobraobrien@hotmail.com
Bonaire National Marine Park/Bonaire	marinepark@bmp.com	Romana-Bayahibe: En Busca de la Sostenibilidad/Dominican Republic	romanabayahibe@codetel.net.do
Cayman Brac Heritage Site and Nature Tourism Development/Cayman Islands	bracdc@candw.ky	La Maison du Bois- Parc Nacional de Guadeloupe/Guadeloupe	Maisondubois.guadeloupe@wanadoo.com www.guadeloupe-parcnational.com
Las Terrazas Tourism Development/Cuba	commercial@terraz.get.cma.net	Hollywell Recreational Area/Blue & John Crow Mountain National Park/Jamaica	jcdt@kasnet.com www.greenjamaica.org
Rancho Baiquate/Dominican Republic	Rancho.baiguante@codetel.net.do	Historic Core Renovation Project/St. Eustatius	euxtour@goldenrock.net
Verte Vallée/Guadeloupe	Ass.verte.vallee@wanadoo.fr		
Y.S. Falls/Jamaica	ysfalls@cwjamaica.com		
St. Christopher Heritage Society	schs@caribsurf.com		
Los Roques Archipelago National Park Area Authority/Venezuela	Fax: 582-484-9081		

Source: Caribbean Tourism Organization

## Outstanding Issues

Issues still to be addressed include:

- Development of carrying capacity theory and practice relevant to small island ecosystems and economies;
- Systematic evaluations of application of BMPs;
- Development of methodologies and criteria for benchmarking; and
- Development of better learning mechanisms/networks.

## FINANCING MECHANISMS

Financing for development of tourism-related facilities, management processes, and environmental programmes are derived from a variety of sources, often involving a mixture of private and public sector funding mechanisms.

Financing for hotels and other privately-owned facilities is usually derived from:

- Private financing;
- Bank loans (e.g. the Caribbean Development Bank (<http://caribank.org>) and the Inter-American Development Bank (<http://www.iadb.org/>));
- Mixture of government, private, and bank financing;
- Mixture of asset (land) and equity and financing.

The relative importance of the above sources of financing is not known at this time. However, for privately-owned operations, bank financing is the major source of capital for the initial investment.

Funding for public sector projects and management processes is also derived from a variety of sources. For infrastructure development, financing is derived primarily from government loans from external funding institutions. Regulatory and management processes are supported primarily from government budgetary mechanisms.

In the case of development of environmental management systems (EMS), funding for both private and public projects is currently obtained mainly as grants from external funding institutions (bilateral and multilateral), with a small contribution from private sources. The larger contribution from external sources of financing is based on the fact that the programme is fairly new, and targets smaller hotels for assistance. This is particularly true of the Caribbean Hotel Environmental Management Initiative (CHEMI), which focuses on the Organisation of Eastern Caribbean States and Barbados. In Jamaica, where the initiative was first implemented under the Environmental Audits for Sustainable Tourism (EAST) initiative, continued support to the EMS process is dependent on financing derived from the operation of each facility. In the case of the larger facilities, EMS is supported from the normal operations budget.

As the development of environmental management systems (EMS) for tourism-related operations gain momentum, operations such as tours, beaches, and attractions are increasingly under pressure to incorporate such practices into their normal operations. In such cases, it is anticipated that user fees/normal operations budgets will finance such practices.

It has been suggested that one of the reasons environmental problems result from maintenance operations is that certain sources of funds, primarily the bank loans, require such high rates of return to make the projects viable that sites are overused or badly used. In such scenarios, the necessary re-investment in maintenance of physical plant, management processes, training, and environmental protection tend to be inadequate.

### **Linkage to the Caribbean Environment Programme**

There is no direct link between the CEP and financing mechanisms for tourism development in the Caribbean. The indirect link would be through projects developed by CEP-SPAW to support specific activities, as identified in the various sections of this report.

### **Outstanding Issues**

Issues requiring attention include:

- The cost of “low-cost” financing to undertake environmental improvements, particularly for the installation of appropriate technology to reduce waste.
- The comparative costs and benefits in investments in the tourism product versus advertisement. Most Caribbean countries spend the greater part of their tourism budgets on advertisement in the main markets, leaving little for investment in the product. As a result, the product offering, infrastructure, and social services are often inadequate to meet demand and/or to encourage large levels of repeat visitation. While individual properties in many destinations may have a high percentage of repeat customers, that is not the case for destinations as a whole.
- There is a perception that the Caribbean tourism product is still mass tourism based on sand, sea, and sun, and that the nature-based tourism is a small niche market that is unable to provide the level of benefits demanded of the industry. Detailed analysis of the cost and benefits of both strategies has not been undertaken. Such analysis should influence tourism investment strategies, particularly in economies where tourism is not the main contributor to GDP.

## LEGISLATION

Tourism-specific legislation is not in existence in most Caribbean countries. With very few exceptions, legislation controlling tourism activities are contained in land use planning, environmental management, public health, or other related legislation. A notable exception is Jamaica, which has tourism-specific legislation designating tourism zones, licences for tour operators, and a standards programme for the different sub-sectors of the industry (ecotourism facilities, hotels, tour operators, dive operators, etc.).

Notwithstanding the paucity of tourism legislation, policy development for management of the tourism industry is advancing at a significant pace throughout the Caribbean. At the national level, many countries have prepared tourism master plans for all or part of the particular country. In several instances (e.g. Jamaica, Belize, Suriname), the tourism development zones are identified in the national development plan. At a more basic level, areas designated for resort development are identified in the land use plan for the country.

Environmental laws governing the tourism industry are normally contained within the environmental management framework for that country, and usually affect both the construction and operations phases of tourism facilities.

However, site planning, engineering designs, land management and construction, operations and maintenance, and even marketing strategies continue to generate negative environmental, and sometimes social, impacts. The policy frameworks, tourism-specific legislation, development control/land use plans, and environmental laws seem to have little impact on practices in the industry. This is a direct result of the prevailing socio-political processes and economic conditions. At the political level, the tourism lobby in each country is usually fairly strong, and both private and public sector interest groups are quite active in “protecting” the industry. From an economic perspective, regulators and the general public try not to be perceived as being unfriendly to development, particularly in these tough economic times. Additionally, enforcement capacity is usually inadequate, and therefore not very effective in many cases.

These issues are increasingly being discussed at the national and regional levels, in keeping with the evolution of the sustainable tourism policy formulation and planning processes. Additionally, the increasing move towards sustainable development planning and national environmental management systems development places the critical policy and legislative issues more centrally in the development planning process.

At the regional level, there are several policy initiatives dealing with sustainable tourism. These are:

- a. **The Convention establishing the Sustainable Tourism Zone of the Caribbean** – was signed at the 3<sup>rd</sup> Summit of the Association of Caribbean States (ACS), by ACS Member States in December 2001. Article 1 of the Convention states: *“The objective of this Convention is to establish the Sustainable Tourism Zone of the Caribbean, from now on referred to as the*

*Zone, as a geographically determined cultural, socio-economic and biologically rich and diverse unit, in which Tourism development will depend on sustainability and the principles of integration, co-operation and consensus, aimed at facilitating the integrated development of the Greater Caribbean". (<http://www.acs-aec.org/tourism.htm>)*

- b. The Organisation of Eastern Caribbean States (OECS) Strategy for Sustainable Tourism.**
- c. The Sustainable Tourism Strategy and Plan of Action** – developed by the Caribbean Tourism Organization (CTO).
- d. The Regional Sustainable Tourism Policy Framework** – was prepared by CTO in 2000 (McHardy 2000) in order to inform regional discussions aimed at arriving at a consensus on a sustainable tourism policy framework for the Caribbean.

The voluntary award schemes previously mentioned serve a dual purpose. First to fill the gaps left by non-compliance with the regulations; and second to introduce recommended practices and procedures in a flexible and non-threatening manner.

### **Linkages to the Caribbean Environment Programme**

The CEP-SPAW workplan shows that the CEP will be supporting sustainable tourism policy and practices in the Caribbean through the following actions:

- Assistance in promoting the establishment of the Caribbean as a Sustainable Tourism Zone, approved by the member countries of the CTO as the primary output of the Regional Tourism Policy Framework;
- Collaborate with the Organisation of Eastern Caribbean States – Environment and Sustainable Development Unit (OECS-ESDU) as appropriate in the implementation of the OECS Strategy for Sustainable Tourism. The strategy has a special focus on community-based sustainable tourism activities, and is therefore of particular importance to protected areas; and
- Encourage capacity-building for the preparation and implementation of programmes in community-based tourism;

### **Outstanding Issues**

Outstanding issues include the following:

- The need for increased enforcement and improved enforcement capacity. The application of rules and regulations are too often relaxed under pressure from the strong tourism lobby;
- There is a need for improved capacity for tourism planning, a resource/process that is lacking in many countries;
- The process of harmonisation of the regional and sub-regional tourism policies should be completed with expediency; and
- The required research/evaluation of guidelines, practices, incentives, and policies need to be undertaken in an effort to inform the process of formalisation of such guidance into national law and regulations.

## **TECHNICAL OPTIONS**

Technical options to reduce the negative impacts of tourism developments on habitats include a variety of design, management, and assessment tools and planning processes. The design tools should include the following approaches:

- Reduction of the footprint of facilities during both construction and operations. The Regional Coordinating Unit of the Caribbean Environment Programme (UNEP-CAR/RCU), with a number of its partner institutions organized a regional training course in 1998 for tourism and environmental planners to explore the issue of environmentally sound tourist facility design (UNEP/USAID/CAST 1999). One of the follow-up activities to that training course is to be the development of a carrying capacity toolkit for engineers and architects.
- Inclusion of design processes, such as the charettes used by many planners and architects, where sites of significant ecological value or fragility are being considered for development. Such charettes should ensure that the design specialists and the developer work (with the communities and local professionals where appropriate) to reduce major negative impacts on the environment or the development.
- Improvement in the use of assessment and forecasting tools, such as environmental impact assessment, risk assessment, and other forms or site suitability analyses.
- Improvement in the capability of regulatory agencies to conduct meaningful monitoring programmes, including rigorous post-audits.
- Improved management of public sector projects, particularly infrastructure projects.

It should be noted at this juncture that many of the problems caused by development and management of tourism facilities and activities do not result from the absence of technical knowledge, but from the socio-political dynamics and resulting apathy of public sector personnel prevalent in many Caribbean countries. The main solution to this general problem has been identified as strengthening the capabilities (through training and the provision of better tools) of managers and institutions to manage coastal and marine resources (<http://www.cep.unep.org/programmes/cepnet/cepnet-idb.html>).

Notwithstanding the above, there are a number of factors that should improve the environmental performance of the tourism industry in the Caribbean, including:

- The establishment in recent years of a sustainable tourism network, communicating primarily through use of the internet. The network facilitates faster information flows, dealing in information ranging from requests for data for input to environmental impact assessment to mobilising regional support against developments that are perceived to be harmful.
- The growing awareness of, and willingness to apply, carrying capacity techniques. It is anticipated that once the professionals and industry managers grow more comfortable with the theory and practice of carrying capacity assessments, relevant rules will be developed for its use in project evaluation.
- The successful development of the Caribbean Blue Flag Programme will generate added incentive and pressure to improve the performance of both facilities and the environmental management framework in tourism resorts.
- The development of a decision support tool, the Management Information System for Tourism (MIST), coordinated by the CTO (<http://www.oas.org/usde/idsd/>). MIST has been “designed to meet a number of objectives, among them to act as a repository of tourism information, and as a planning, research, and development tool”. However, the need for further development of the tool, “to allow for developing scenarios on the socioeconomic and environmental impacts of planning for tourism facilities at determined locations”, has been identified.

## MARINE PROTECTED AREAS

The role of marine protected areas (MPAs) in both tourism and environmental management has grown significantly during the past decade. Most countries in the Caribbean have established MPAs, a number have protected areas system policies and plans, and all are taking steps to improve the tourism offering through the establishment of new sites. The number of sites in the Caribbean is said to vary between 250 and 350 (<http://www.cep.unep.org/pubs/databases/databases2.html>), though most are inadequately managed, and a small percent have no onsite management. There are a number of regional initiatives to address the problems, while ensuring greater participation of, and benefits to, local communities. The major regional programmes/initiatives include:

- **The Regional Programme for Specially Protected Areas and Wildlife (SPAW)** is one of the sub-programmes of the Caribbean Environment Programme (<http://www.cep.unep.org>). The SPAW Programme (<http://www.cep.unep.org/who/spaw/>) was developed to coordinate the implementation of the Protocol on Specially Protected Areas and Wildlife, one of the three Protocols of the Cartagena Convention. The SPAW Programme provides not only a framework for action, but mechanisms for the development of technical guidance for the establishment of MPAs by member states (<http://www.cep.unep.org/who/spaw/MPA/mpa.htm>).

In addition to the provisions of the SPAW Protocol, the CEP is linked to tourism in the Caribbean through the workplan of the SPAW Programme. The SPAW Secretariat plans to negotiate with IUCN to make documents on tourism and protected areas available to member Governments of the SPAW Protocol.

- **The Caribbean Regional Environmental Programme** (<http://crep.ccanet.net>) is a four-year project supported by the European Union, Executed by the CARIFORUM Secretariat, and implemented by the Caribbean Conservation Association. One of the four sub-components of the project focuses on protected areas as amenity areas through which community benefits are derived.
- **The Organisation of Eastern Caribbean States – Environment and Sustainable Development Unit** (OECS-ESDU) provides technical support to the member states of the OECS (<http://www.oecsnrmu.org>) in the procurement of technical services for the development of protected areas.
- **The IUCN’s World Commission on Protected Areas (WCPA)** (<http://www.iucn.org/themes/wcpa/>) has two programmes under development in the Caribbean. The marine programme focuses on marine reserves, and is being coordinated by the National Oceanic and Atmospheric Administration (NOAA) of the United States of America (USA). The second programme is being coordinated by the Caribbean membership of the WCPA, under the leadership of the WCPA Regional Vice-Chair for the Caribbean.

## **AWARENESS BUILDING**

Awareness building relevant to tourism and the environment is undertaken by a number of institutions through the production of relevant data, materials, annual conferences, and establishment of information networks.

One of the most developed support systems for awareness building was established by the Island Resources Foundation (<http://www.irf.org>). The Island Resources Foundation (IRF) moderates the sustainable tourism network, and its website contains:

- A library catalogue of environmental references for 26 island-states in the Eastern Caribbean (<http://www.irf.org/irlibrar.html>);
- Profiles of information networks in the Caribbean (<http://irf.org/irnetworks.html>);
- Information on environmental mailing lists for the Insular Caribbean (<http://www.irf.org/mailings.htm>);
- Publications on tourism best management practices ([http://irf.org/ir\\_bmp.html](http://irf.org/ir_bmp.html));
- Information on donor groups that can assist with particular environmental problems; and
- A bibliography of coastal zone materials (<http://www.irf.org/irczrefs.html>).

The Caribbean Tourism Organization (CTO) is the lead regional institution dealing with tourism matters, and as such, plays a major role in tourism education and outreach. This is done primarily through the sustainable tourism programme, which also coordinates the Sustainable Tourism Award. The CTO's annual conference on sustainable tourism is a major event that tries to address many of the traditional and emerging issues facing Caribbean tourism. In addition to hosting the annual sustainable tourism conference, the CTO produces annual statistical reports on Caribbean tourism (<http://www.onecaribbean.org>).

One of the main industry lobby group that deals with awareness building for tourism and environment issues is the Caribbean Alliance for Sustainable Tourism (CAST), a subsidiary of the Caribbean Hotel Association (CHA). CAST coordinates a number of environmental award schemes for CHA members, and is a partner institution in the pilot testing of the Caribbean Blue Flag Scheme ([http://www.cha-cast.com/2\\_blueFlag.asp](http://www.cha-cast.com/2_blueFlag.asp)).

## **INSTITUTIONAL ARRANGEMENTS**

There are a number of institutions dealing with tourism and environmental issues at both the national and regional levels, and in only a very few instances do both sets of responsibilities reside in the same institution. At the national level, the traditional situation of a range of planning, health, and environmental management institutions having a range of responsibilities that impact on tourism is still the prevalent situation. Given the importance of tourism to Caribbean economies, all countries have a national tourism organisation of one sort or another.

Having this mix of institutions at the national level does not automatically result in improved tourism and environmental management. Tourism master plans prepared by a number of countries highlight the following issues concerning the institutional framework:

- Inadequate human resources in the tourism management agencies;
- Inadequate representation of tourism interests in the development control process;
- Inadequate coordination between various government agencies dealing with tourism matters, resulting in duplication of efforts and waste of valuable resources; and
- Inadequate coordination between institutions dealing with tourism and institutions dealing with other sectors.

In instances where tourism master plans are being prepared or implemented, the problem is being addressed through the establishment of a high-level inter-sectoral or inter-agency coordinating committee.

Two regional initiatives to address this problem have been attempted:

- The Capacity 21 Pilot Programme in the Caribbean (1994 - 1998) created Sustainable Development Councils (SDCs) in Barbados, British Virgin Islands, Dominica, Grenada, Jamaica, and Saint Lucia. These SDCs were created for the purpose of strengthening public sector environmental administration and economic planning, and gave considerable attention to the issue of the integration of tourism and environmental planning.
- The Caribbean Tourism Organization (CTO) in 1998 commissioned a study to develop a "Framework for a National Parks Commission". The institutional framework identified under this study was supposed to address specifically the integration of tourism and environmental planning. The CTO intended to encourage its member countries to adopt the proposed institutional framework as appropriate.

In addition to the recent initiatives, there are a number of regional institutions with regional mandates in the area of tourism and the environment.

- The Caribbean Tourism Organization (CTO) (<http://www.onecaribbean.org>) was established in 1989 through the merger of the Caribbean Travel Association (formed in 1951), the Caribbean Tourism Research and Development Centre (formed in 1974), and the East Caribbean Travel Association. The CTO provides services in marketing, research and information management, training, education and awareness, and technical assistance to its members. As part of its ongoing responsibilities, the CTO produces the annual statistical reports on Caribbean tourism, and coordinates the annual conference on sustainable tourism.
- The Caribbean Hotel Association (<http://www.cha.com>) is a regional lobby group for hotels. The CHA was also instrumental in the establishment of the Caribbean Alliance for Sustainable Tourism (CAST).
- CAST (<http://www.cha-cast.com>) is a non-profit organization, chartered in 1997, to undertake collaborative environmental activities within the hotel and tourism sector, promote effective management of natural resources, and provide access to expertise in sustainable tourism, assisting hotel and tourism operations in the Caribbean to achieve the goals of Agenda 21 for Sustainable Tourism.
- The Caribbean Environment Programme (<http://www.cep.unep.org>) is based on a regional convention focused specifically on the protection and development of the marine environment of the Wider Caribbean Region. The Caribbean Environment Programme (CEP) consists of four main sub-programmes dealing with assessment and management of environmental pollution (AMEP), specially protected areas and wildlife (SPAW), information systems for the management of marine and coastal resources (CEPNET), and education, training, and awareness (ETA).
- The Organisation of Eastern Caribbean States – Environment and Sustainable Development Unit (OECS-ESDU) coordinates environmental activities in the OECS sub-region on behalf of the OECS Secretariat. “The ESDU assists in the management of the sub-region’s natural resources by providing technical assistance and by developing tools and techniques for natural resources management” (<http://www.oecsnrmu.org/>).
- The Caribbean Development Bank (<http://caribank.org>) is one of the main sources of financing for tourism/ecotourism projects in the region.
- The Island Resources Foundation (IRF) is a regional non-profit organisation with more than thirty years focusing on small island ecosystems. The IRF also provides support to the private sector, governmental bodies, and the scientific and conservation communities which seek to promote the development of a sustainable tourism for the Caribbean (<http://www.irf.org>). This is done primarily through their support to approximately 25 separate internet-based mailing lists.

- The Caribbean Conservation Association (CCA) is a regional non-governmental organisation with more than thirty years of experience working with Caribbean environmental and tourism issues (<http://www.ccanet.net>). The CCA has also produced a number of publications dealing specifically with tourism and the environment, and remains active in the area of public awareness. The major tourism-related activity of the CCA at present is the implementation of the amenity areas component of the Caribbean Regional Environment Programme (CREP) initiative (<http://crep.ccanet.net>).
- The Organisation of American States (OAS) has developed the Inter-American Program for the Development of Sustainable Tourism, one of whose objectives is the building of capacity for the exchange of information on sustainable tourism (<http://www.oas.org/usde/>). OAS is also engaged in several efforts for developing tourism statistics databases.
- The Association of Caribbean States (ACS) has developed a sustainable tourism programme, an output of which is the Convention establishing the Sustainable Tourism Zone of the Caribbean (<http://www.acs-aec.org/tourism.htm>).

## UPCOMING EVENTS

- July 7-10, 2003. The CTO will hold its annual Tourism Educator's Conference in Jamaica. The three-day intensive conference is designed for tourism/hospitality educators at post-secondary level of the education system in the region and also tourism/hospitality trainers from both the public and private sector (<http://www.onecaribbean.org/home/>).
- July 17-18, 2003. Seminar: Best Practices in Public/Private Sector Cooperation and Partnerships: July 17-18, 2003. Accra Beach Hotel, Rockley, Christ Church, Barbados. The seminar is organized by the Caribbean Tourism Organization (CTO), in conjunction with the Caribbean Hotel Association (CHA) and the Business Council of the World Tourism Organization (WTOBC). The seminar will focus on sharing experiences and reviewing global models on best practices in public private sector cooperation and partnerships (<http://www.onecaribbean.org/home/>).
- September 9-12, 2003. The 5th Annual Caribbean Conference on Sustainable Tourism Development will be held in St. Kitts & Nevis. The conference is organized by the Caribbean Tourism Organization (CTO) in collaboration with the Association of Caribbean States (ACS) and the Government of St. Kitts and Nevis (<http://www.doitcaribbean.com/ctc/>).
- October 16-19, 2003. 26th Annual Caribbean Tourism Conference, Oct. 16-19, 2003. U.S. Virgin Islands. The Caribbean Tourism Organization (CTO) and the U.S. Virgin Islands Department of Tourism are preparing an exciting programme for the 26th annual Caribbean Tourism Conference (CTC 26). This year's conference will place emphasis on public/private sector cooperation (<http://www.onecaribbean.org/home/>).

## BIBLIOGRAPHY

- Caribbean Conservation Association. 1991. *Environmental Guidelines for Caribbean Planners*. OECS/UNDP/UNCHS, Barbados.
- Caribbean Development Bank. 1996. *A Study to assess the Economic Impact of Tourism on Selected CDB Borrowing Member Countries*. CDB, Barbados.
- Caribbean Tourism Organization. 2003. Total Tourist Arrivals to the Caribbean 1991-2001. <http://www.onecaribbean.org>.
- Caribbean Tourism Research and Development Centre. 1987. *The Contribution of Tourism to Economic Growth and Development in the Caribbean*. CTRC.
- Ceballos-Lascuráin H. 1996. *Tourism, Ecotourism and Protected Areas: The State of Nature-based Tourism around the World and Guidelines for its Development*. IUCN, Gland, Switzerland and Cambridge.
- Eagles, Paul F.J., McCool, Stephen F. and Haynes, Christopher D.A. 2002. *Sustainable Tourism in Protected Areas: Guidelines for Planning and Management*. IUCN Gland, Switzerland and Cambridge.
- Ecotech Inc. Limited. 2000. *Framework for a National Parks Commission: Final Report*. Caribbean Tourism Organization. May 2000.
- Island Resources Foundation. 1996. *Tourism and Coastal Resources Degradation in the Wider Caribbean*. United Nations Environment Programme, Kingston.
- McHardy, Pauline. 2000. *Regional Sustainable Tourism Policy Framework*. Caribbean Tourism Organization. Barbados. September 2000.
- Munt, I. & E. Higinio. 1997. "Belize: Ecotourism Gone Awry", in *The Earthscan Reader in Sustainable Tourism*. Lesley France (Ed.). Earthscan Publications, London.
- Silva, Mercedes. 2002. *Caribbean and Intra-Caribbean Tourism: Current Situation and Perspectives*. Caribbean Tourism Organization. Presented at the 8th Meeting of the Special Committee on Sustainable Tourism of the Association of Caribbean States, Port of Spain, April 4th, 2002.
- UNEP. 1999(a). *Caribbean Environment Outlook*. United Nations Environment Programme. Mexico.
- UNEP. 1999(b). *Assessment of Land-based Sources and Activities Affecting the Marine, Coastal and Associated Freshwater Environment in the Wider Caribbean Region*. UNEP/GPA Coordination Office & Caribbean Environment Programme.

UNEP. 1997. *Coastal Tourism in the Wider Caribbean Region: Impacts and Best Management Practices*. CEP Technical Report No. 38. UNEP Caribbean Environment Programme, Kingston.

UNEP. 1994. *Ecotourism in the Wider Caribbean Region: An Assessment*. CEP Technical Report No. 31. Caribbean Environment Programme, Kingston.

UNEP/USAID/CAST. 1999. *Caribbean Regional Training Manual on Environmentally Sound Tourist Facility Design and Development*.

Woodfield, Nancy. 1998. "The Role of Ecotourism in Grenada: A Marketing Ploy or a Step Towards Sustainable Development?", in *Resource Sustainability and Caribbean Development*. D. McGregor, D. Barker, & S. Evans (Eds.). The Press University of the West Indies, Jamaica.