

Marine Litter Reduction in the Caribbean: Five Case Studies

La Reducción de los Desechos Solidos Marinos en el Caribe: Cinco casos

La Réduction des Déchets Marins dans les Caraïbes: Cinq Cas

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ABSTRACT

The Gulf and Caribbean Fisheries Institute (GCFI), Caribbean Marine Protected Areas Management Network and Forum (CaMPAM), and the U.S. Department of State collaborated with marine protected area (MPA) programs in The Bahamas, Belize, Jamaica, Grenada, and St. Vincent and the Grenadines to increase awareness of marine litter and identify opportunities to promote marine litter reduction. The objective of this project was to reduce the amount of marine litter released into waters of the Caribbean region in and around several high profile areas managed for ecosystem values. The project was grounded in the recommendations of the UNEP Caribbean Environment Programme's Action Plan for Marine Litter. Local MPA partners identified marine litter issues that were particular to the unique social and environmental conditions of their area. With the broad goal of developing greater appreciation of, and personal responsibility for, the management of litter that would likely end up as marine debris, the project enabled MPA managers to launch the strongest and most innovative of their ideas on litter prevention and reduction. Through a combination of public education, teacher training, the development of litter warden programs, and the installation of well-placed waste and recycling stations, the project established a number of visible and practical litter reduction programs. Results included 1) increasing public awareness of the impact of marine litter, 2) developing best litter management practices, and 3) improving compliance with anti-littering laws and regulations.

KEY WORDS: Marine litter, The Bahamas, Belize, Jamaica, Grenada, St. Vincent and the Grenadines

INTRODUCTION

In response to a call for proposals from the U.S. Department of State to work on marine debris reduction efforts, GCFI and CaMPAM consulted with its members about their concerns in relation to marine litter and the perceived need for local projects for marine litter reduction. The resulting discussion revealed a number of shared interests and common needs among members of the MPA network. GCFI and CaMPAM selected the most promising local ideas arising from the consultation process and advanced with a joint proposal to collaborate with MPA partners in five countries.

Participating countries were The Bahamas, Belize, Grenada, Jamaica, and St. Vincent and the Grenadines, The leading representative in each country is a member of the CaMPAM network and nearly all have participated in the CaMPAM regional 'Training of Trainers' course on marine protected area management. The project provided a platform for in-country partners to engage with local NGOs, community-based organizations, and relevant government agencies to implement onthe-ground marine litter projects relevant to their own priority needs in marine conservation. Each project partner shared a common interest in pursuing the proposed efforts related to marine litter reduction and all were well-positioned to take part in the proposed project thanks to a solid in-country network. Each project partner stimulated action by helping to build bridges between relevant organizations and agencies, by sharing educational materials and technical advice, and by lending much-needed support and guidance in the application of best practices. The in-country project partners were instrumental in providing the necessary insight for the selection of approaches and materials that had the greatest chance of successful application in their local communities.

GCFI and CaMPAM provided direction and regional context for each country's marine litter project priorities. They also assisted the project partners by preparing joint press releases and by sharing information and approaches between partner organizations in different countries. GCFI and CaMPAM liaised with staff working on regional marine litter initiatives at UNEP's Caribbean Environment Programme, and shared their progress with project partners. In this way, individual project partners did not have to reinvent methods or develop educational materials from scratch, rather they could assess and adapt the approaches that worked in other locations and avoid repeating approaches that had been found less effective by other programs. In 2010, GCFI hosted a regional meeting for the project managers to come together and share about their progress on the project. Without the leadership and guidance of GCFI and CaMPAM, the five participating countries would likely never have come together to work on this topic, nor would the MPAs involved likely have individually secured the funding for the project from the U.S. Department of State. Regional oversight by the CaMPAM network provided for sharing of lessons learned between the MPA partners, as well as among the 600+ members of CaMPAM across the Wider Caribbean.

PROJECT

The Bahamas

Project activities in the Bahamas were led by Tamica Rahming and Bianca Green of The Bahamas National Trust (BNT) which manages several marine protected areas in the country. Project partners included Bahamas Ferries, Bahamas Waste, Stuart Cove Department of Environmental Health, Ministry of the Environment, and Department of Marine Resources. The marine litter issue that BNT sought to address was the persistent accumulation of marine debris on beaches and the impact on tourism. Primary causes of marine litter were thought to include:

- i) Lack of awareness of the issue, and
- ii) Lack of proper waste disposal by individuals. Both causes were considered best addressed through education.

Education activities via the project were directed at the general public and local schools, using both passive multimedia and active participation in beach cleanups. Presentations were made at schools to 1,425 students and their parents. Presentations were made to school groups in New Providence, Cat Island, Eleuthera, and Crooked Island. Students and adults were educated on the dangers of marine litter and the effects of marine litter on marine animals. Those that attended the presentations expressed concern about the littering problem, but had less grasp of the impact of litter on natural resources. Participant evaluations after the presentations indicated that participants became more aware "that not only does the litter make [their] coastlines look unpleasant but also how it harms and [or] kills many animals that live in or near the coastline and even out in the ocean".

Outreach materials were created via the project, and included marine litter brochures, posters and signs (Figure 1). A brochure on marine litter was created and 1,000 copies were printed and circulated. The brochure contained information that defined marine litter types, sources of marine litter, and the impacts it has on the environment and our lives. These were distributed to schools, during exhibitions, and during presentations. Five hundred marine litter posters were printed and distributed throughout The Bahamas to schools, students, communities, and businesses. Three signs were designed and printed. They were placed in Potters Cay Dock, Arawak Cay, and Montagu Beach which are key areas that are heavily trafficked by the public.

A marine litter video public service announcement (PSA) was developed as part of the project, and this was aired on local television in an effort to drive home the message about the dangers of marine litter and the importance of a clean coastline and clean ocean. In the course of the project, a press release about the dangers of marine litter was published in one of the local newspapers.

A number of teaching resources were developed through the project. Interactive PowerPoint games based on



Figure 1. The Bahamas National Trust marine litter poster.

popular TV game shows (eg. 'Deal or No Deal') were developed as teaching resources. These games help build awareness among school children about marine litter in a fun and interactive format. A teachers' resource manual about marine litter was also developed to help teachers educate school children about the dangers of marine litter. The teachers' manual is easy to use and contains various fun and interesting activities for students. It also contains valuable information that teachers can share with their students. In July 2011, BNT held two environmental training workshops that were attended by 100 local school teachers. Part of the workshop was dedicated to instructing teachers in the use of the marine litter teachers' manual, as well as other teaching tools in support of marine litter reduction. The teachers' manual has proven valuable not only to educators in The Bahamas, but has also been shared by GCFI with other project partners, as well as being shared further afield through the CaMPAM network and sub-regional MPA networks in the Dutch Caribbean and the Grenadines.

A significant contribution of the project was that marine litter has now been permanently incorporated into

BNT's regular education program and outreach activities. BNT anticipates continuing with school and community presentations about the importance of marine litter reduction, and anticipates holding further environmental training workshops for teachers at which they will be instructed in the use of the marine litter teachers' manual. The posters and brochures created via the project will be re-printed in order to provide teaching and outreach materials. BNT's 2012 summer education program for ages 7 - 16 will have at least one day dedicated to marine litter activities. Also, during the future academic school years, presentations on marine litter will be offered to teachers, community groups and held at special coastal events. Posters and brochures with marine litter reduction messages will also continue to be distributed in The Bahamas.

Cleanups are a popular environmental activity in The Bahamas, and although not funded by the project it is worth mentioning that an International Coastal Cleanup was held in The Bahamas on September 25th, 2010 in partnership with Scotiabank, a leading banking institution within the region, Dolphin Encounters, and coordinators for International Coastal Cleanup (ICC). The cleanup took place at the South Beach Pools area in the Southern District of New Providence, the capital of The Bahamas. A number of students participated and they were given a presentation on the importance of the area they were about to clean, the sources of marine litter, and the impacts of marine litter. During The Bahamas National Coastal Awareness Month in April 2010, cleanups on several different islands were conducted. During this time, BNT staff attended cleanups on Cat Island and Crooked Island. Participation at all events totaled over 200 participants.

There were advances in legislation related to marine debris and greater acknowledgement of institutional responsibilities in the Bahamas, however, the goal of drafting legislation specifically about marine litter remains to be achieved.

Belize

Implementation of the project in Belize was led by Roberto Carballo, Manager of Bacalar Chico Marine Reserve and Mariela Archer, Education Officer at Hol Chan Marine Reserve. In Belize there have been great advances in the use of environmental communications tools, and the involvement of Hol Chan's Education Officer was valuable for project implementation. Activities made possible by the project included the development of new educational materials and multi-media, public education presentations and the establishment of a local recycling program.

Public education was a major component of the marine litter project in Belize. Presentations were made at each school on the island and included what is marine litter, types of marine litter, sources, negative impacts and things we can do to reduce litter. Teachers were also given brochures to use as teaching aids in their own classes.

Educational materials were created and distributed to schools and to tourism operators, including dive shops, tour guides, resorts and hotels. As a part of the education campaign, 200 brochures on marine litter reduction were distributed to schools, tour operators and resorts. During the slow tourist season which runs from July to September, tour guides on the island were customarily given a refresher course on the rules and regulations of the marine reserves, and for the first this course included a presentation on marine litter and its effects on the environment and local livelihoods. The presentation included practical actions that could be taken to reduce litter. A total of 64 tour guides received this presentation (Figure 2).



Figure 2. Tour guides receiving marine litter briefing, San Pedro, Belize

A TV spot about marine litter and Bacalar Chico Marine Reserve was produced with support from the project. This featured local school children and contained information on marine litter and its effects on marine life. The spot was aired on the local television station on the island. Signs with public information on marine litter were developed through the project and placed in the centre of San Pedro town and in Bacalar Chico Marine Reserve, where they serve to remind tour guides using the area to dispose of their garbage properly.

The other significant achievement of the project in Belize was to help establish best litter management practices by enabling the start-up of recycling activities. A recycling program in local schools was initiated in coordination with San Pedro Town Council, which is responsible for the disposal of garbage and for the enforcement of anti-littering laws within the community, and with the involvement of the local soda bottling company. Two schools were given garbage bins for the collection of garbage from school grounds and bins for the collection of plastic drink bottles for recycling. The soda bottling company bought plastic soda bottles back from the schools and the proceeds were invested in the school environment clubs.

Concurrently with the implementation of the project, a number of beach cleanups were conducted in Bacalar Chico National Park and Marine Reserve. These targeted the most littered areas which were frequented by fishers and tour guides, and the only sea turtle nesting beach on the island which was severely covered with litter, including litter originating from other countries. A total of 65 students participated in the beach cleanups along with 5 staff members. At the cleanups, students were given a briefing about the ecological importance of the sea turtle nesting beach and the effects of marine litter on biodiversity. In addition, students were divided into teams and competed against each other to collect garbage. Each team selected five items from the garbage bags and identified the source country where it was manufactured. A total of 90 bags of garbage were removed from the beach.

Grenada

A community-based, marine anti-litter campaign was implemented in Grenada by Dr. Clare Morrall of the Windward Islands Research and Education Foundation (WINDREF). Through this public education and awareness campaign, WINDREF sought to increase awareness of the impacts of marine litter released into the waters of Grenada and the Caribbean region. The campaign involved a number of different community outreach activities including presentations, media coverage, signage, and the preparation of supporting educational materials.

Presentations about marine litter and its impacts were made at 20 local schools and were given to a number of civic organizations and local clubs in Grenada. In addition to the classroom presentations, a 4-hour teacher awareness workshop entitled "Marine Anti-Litter Awareness Workshop: How to encourage students to put their trash in the bin" was presented to 20 primary and secondary school teachers. This included providing teachers with materials to support marine litter education and tips for including the topic in their curriculum. A teachers' resource guidebook was created based on the teachers' manual designed by another project partner, the Sustainable Grenadines Project, St Vincent and the Grenadines. The guidebook was posted to the WINDREF website for open use (http://etalk.sgu.edu/windref/pdf/WINDREFMarine-Litter-

Teachers-Guidebook.pdf).

Multimedia was used extensively in the marine antilitter campaign in Grenada. A public service video was produced and aired on local television, several radio interviews were broadcast, and a guest appearance was made on a local morning television talk show. Four press releases were distributed during the course of this project. A Facebook page was also created for the campaign where pictures were uploaded from different project activities.

A poster and signs were designed in collaboration with the North American Marine Environment Protection Association (NAMEPA). One hundred posters were printed and half were distributed to primary and secondary schools and the other half were distributed to hotels, restaurants, local shops, supermarkets, community centers, and fish markets. Three hundred brochures were printed and distributed to selected hotels and restaurants, ministries, and fish markets. Some brochures were also distributed directly to teachers who attended the teacher awareness workshop. Four permanent anti-littering signs were installed in Grenada, at the fish Market area in Waltham, Savan Suezi beach, Bathway Beach, and the Lance Bridge in Gouyave.

A Coastal Cleanup was conducted May 15, 2011 at Sevan Swayzee, Bathway, St. Patrick's. Over 25 members from local community group (The Snell Hall Sports and Cultural Club) were present plus members from ECO group at St. George's University. A Coastal Cleanup was conducted at a second problematic area, River Antoine, St.Patrick's parish. Local community members continue to dispose of their garbage next to the road where it easily enters the river and ultimately the ocean.

Through the project, WINDREF held meetings with local waste management authorities to discuss ways to develop best litter management practices. Meetings were also held with law and environment authorities regarding ways to collaboratively improve compliance with antilittering laws and regulations. A "Marine Anti-Litter Awareness Workshop" was held for police and government representatives involved in environmental health. Participating agencies included the Grenada Solid Waste Management Authority (GSWMA), the Ministry of Environment, Ministry of Agriculture, Forestry and Fisheries, Ministry of Health, and Royal Grenada Police. Although the placement of new bins was discussed with these agencies, and two problem areas for dumping were identified in the north of the island, the Grenada Solid Waste Authority was seeking to centralize the placement of bins in order to increase usage and reduce pest issues. No new bins were thus installed through the project. Discussions about waste management will continue, but Waste Management was skeptical about adding new bins as they were currently reducing the number of bins around the island. They believe that excess bins in areas where pick up is not frequent would encourage more pests. The solid waste authority is currently attempting to localize bins to general areas where everyone in a community would have access. Two problem areas were identified on the north of the island which require urgent attention. Further discussions to address these sites are planned with Mr. Andre Worme, WINDREF, the Chief Environmental Officer at the Ministry of Health, and the Operations Manager at Grenada Solid Waste Management Authority.

The Grenada marine anti-litter campaign has the potential to expand and be strengthened in the future. Based on the amount of litter that can been observed on beaches and other coastal areas around Grenada, it was evident that behavior has not yet changed. In order to reduce the amount of marine litter that enters the marine

environment a long-term public education campaign remains necessary. Two programs that need further development are the Community Litter Warden Pilot Program and institutionalized recycling. More time was required to initiate these activities and provide the necessary support to develop the critical mass need to make these programs self sufficient.

Jamaica

Project activities in Jamaica centered on reducing marine litter associated with the Montego Bay Marine Park (MBMP). The project manager in Jamaica is the Executive Director of the Montego Bay Marine Park Trust, Brian Zane. The major source of marine litter in the park was well known - informal communities of several thousand people can be found adjacent to the park, and the rugged terrain drains into gullies that flow into Montego Bay when they are periodically flushed by heavy rains (Figure 3).

MBMP initiated project activities by convening a work group comprised of the Citizen Security and Justice Programme, the National Works Agency, the Urban Development Corporation, the St. James Health Department, Western Parks & Markets, and the Social Development Commission. The work group identified the fundamental causal factor for the waste problem - most residents of the North Gully and Canterbury communities lack solid waste collection and disposal facilities, and as a result the dumping of garbage had become entrenched in local behavior.

The project first sought to engage the local community. An in-school education program was initiated, but it became evident that there was a disconnect between students and the litter issues in the community. The school program was discontinued in favor of more practical community education activities. A greater level of

community engagement was achieved by shifting the focus from a traditional beach cleanup to the cleanup of a local gully. Two hundred and forty residents of Cantebury and the North Gully removed 250 bags of solid waste during this cleanup effort, with 10 truckloads of larger debris items removed by the solid waste authority. The removal of a large amount of debris that was otherwise destined to enter Montego Bay proved to be the symbolic act that united the community and the waste authority around a common issue. The gully cleanup served to engage the community and waste management authorities to work cooperatively.

The project then contributed to basic local infrastructure for litter management. The lack of roads, the omnipresent personal security concerns in the area, and a lack of political will mean that traditional waste collection services are lacking from the North Gully, and hence residents have no means for collecting waste for disposal. Project funds were used to buy and install 30 50-gallon garbage cans. These were installed in locations that were agreed with local residents and with the waste management authority, which subsequently commenced a waste collection service. After several weeks of sporadic service and the replacement of several cans, a regular waste collection service was established.

We attribute the modest success of the project in Jamaica to the involvement of MBMPA as a new contributor to the waste management issue and an ambassador for the local marine environment. Project funds provided initial support to communities to help address their waste issues, which were ultimately destined to become marine litter issues for the Caribbean. The project funds also served to help mobilize political will for broader and more costly infrastructure improvements. The 30 garbage cans installed by MBMP and the subsequent waste collection service led residents to also install their own garbage cans. This in turn helped to bring about a partnership between



Figure 3. Solid waste flushed from the North Gully Montego Bay, Jamaica

MBMP and the Spanish-Jamaica Foundation to install 12 garbage skips, which are large waste receptacles, in the North Gully Corridor.

The Grenadines

Implementation of the marine litter reduction project in the Grenadines islands was led by Martin Barriteau, Executive Director of the Sustainable Grenadines Project (now SusGren Inc.) in St. Vincent and the Grenadines.

At the commencement of the project, a summary of existing national legislation relevant to litter was prepared and used to inform the public about project activities and initiate discussions with stakeholders to improve compliance with litter laws. A marine litter awareness survey was conducted among 40 respondents at the start of the project in the towns of Ashton and Clifton, on Union Island. Questions gauged residents' views on litter and to provide a baseline by which to assess future changes in the perception of marine litter and littering behavior. The results indicated that litter near residences and on beaches was an issue of concern for most people. Sixty-eight percent responded that they have seen litter on the beaches or in the sea near where they live, and of these, 97% described the beaches or sea near where they live as being somewhat or heavily littered. Just over 80% of those who have seen litter on beaches or the sea near where they live were very concerned about this litter.

Waste collection services were lacking from the smaller Grenadines islands, and there was no waste collection in the local marine protected areas. The islands of the Grenadines face particular waste management issues associated with litter generated by visiting yachts. Additionally, the plastic oil containers used by boat operators and fishers were identified as a major source of marine litter. To better understand behavior in relation to litter, a meeting with local fisher folk was held in the fishing community of Ashton. Participants were asked about their perception of marine environmental issues in general, and specifically the types and sources of marine litter seen locally. Discussion focused on the relationship between water taxi operators and visiting yachts, and concerns were voiced about the dumping of litter. Water taxi operators (including boat vendors) were blamed for much of the marine litter problem - they collect garbage from yachts for a fee but then do not properly dispose of it.

Following the identification of the local dumping issue, a workshop on environmental stewardship was held for fishers, vendors and water taxi drivers operating in and around Tobago Cays Marine Park. SusGren presented about marine litter and its impacts on the environment, the importance of compliance with existing laws and the need for environmentally sustainable practices in and around the MPA. A separate meeting was held with the police officers of Union Island to discuss the enforcement of national environmental legislation related to marine litter. SusGren also highlighted the rules and regulations of the MPA at the meeting.

The project sought to make a contribution to best litter management practices by bringing marine litter to the attention of the Solid Waste Management Authority. SusGren invited the local Solid Waste Management representative to make his first site visit to the island of Mayreau, within the Tobago Cays Marine Park. Several informal dumps were visited which served as the sites for water taxis to dump the waste collected from visiting yachts (Figure 4). Together with other stakeholders, the Solid Waste Management representative saw first-hand the extent and impact of illegal waste dumping adjacent to the island's main anchorage, and witnessed the implications of a lack of infrastructure and systems for waste management.

Only one person on Mayreau actively, but informally works in waste management. This person receives payment



Figure 4. Beach side illegal dump on Mayreau, St Vincent and the Grenadines

from individuals to haul debris from coastal areas to the upland landfill. Using only his bare hands, and a small, rickety wheelbarrow, he walks the island on worn out shoes to collect and consolidate trash. The grant provided a new wheelbarrow, freshly painted with sponsors' names, a few hats, work gloves, a pair of work boots, a rake and a shovel to facilitate the transport of debris away from the coastal zone. The waste authority now plans to visit the island once a year to monitor the landfill. This solution was a small contribution, but Mayreau was at least now receiving the attention of the waste management authority and the need for a waste management plan was recognized should any future development on the island occur.

Concurrent with these activities, SusGren focused on improving compliance by raising public awareness about marine litter, it impacts, and best litter practices. In an attempt to educate visiting yachters, the lack of waste collection from the MPAs was highlighted in a new visitor information brochure developed by the Network of MPAs of the Grenadines with funding from CaMPAM and NFWF. This brochure specifies the location of formal

waste disposal facilities on the islands of St Vincent and the Grenadines and Grenada. As part of the public awareness campaign, local school children made drawings about marine litter and good litter disposal practices that were publicly displayed on Union Island. The children also devised a slogan for the project, "Keeping it Clean in the Grenadines. The slogan was featured on a new poster that provides residents and tourists with information on average waste degradation times, aimed at preventing littering" (Figure 5). Fifty posters were printed and displayed in high traffic areas, such as tourist offices, internet cafes, post offices and schools on the Grenadines islands from Bequia in the north to Carriacou in the south. Flyers were also developed to hand out to tourists and residents outlining the issues of marine litter and appropriate disposal of waste.

In cooperation with the Union Island Environmental Attackers (a local NGO), the project worked with the schools and communities of Union Island. Presentations about marine litter were made by the Environmental Attackers in local schools, and a teachers' manual about marine litter was developed to provide teachers with background information, teaching materials and suggested activities to teach their students about marine litter, its impacts, laws and regulations related to marine litter, and best practices for dealing with litter. Community involvement was achieved through the first annual village cleanup competition, which sought to demonstrate public commitment to a cleaner and healthier Union Island, and to build awareness of the need for improved litter management practices. Sponsorship for the activity came from Digicel and Karib Cable. Nine villages on Union Island took part in the cleanup competition under slogan "We reflect our Environment, Time for Change - Clean! Clean! Clean! The top three participating villages were named and there are plans for this to become a regular community activity.

Enforcement options were discussed with local police officers. The meeting began with a presentation on legislation related to marine litter in the Grenadines. It was suggested that effort should be made to educate people on the existence of pertinent laws and their penalties in order to help with enforcement. The police officers agreed to assist in going to the schools and discussing these issues with the children. Officers indicated that there should be a close working relationship with water taxi operators,

requiring education about the law and teaching on how to handle their operation on the sea to control the effect of pollution. The idea of building awareness among the Rangers of the Tobago Cays Marine Park (TCMP) and local fisher folk was also suggested, along with the use of regular patrols and monitoring. A litter warden program was implemented. The group was associated with the police youth group which would assist with patrols and monitor compliance with waste management laws. A Litter Management Manual was presented to the sergeant for use with the group. Although the litter wardens would not have the authority to issue charges, they had the full support of law enforcement. There was some interest in developing a stipend for these activities.

In 2010, for the fifth consecutive year, SusGren coordinated the Ocean Conservancy's International Coastal Cleanup (ICC) in the Grenadines. The marine litter project had raised awareness and with 1500 volunteers and 30 participating groups/organizations spread throughout the Grenadines, the 2010 event was the largest to date. Activities varied by island depending on the infrastructure and personnel available in each community. Most of these programs will continue but there remains a need for technological handling of non-biodegradable waste.

CONCLUSIONS

There was a high degree of recognition and understanding of marine litter issues in most communities, but there was a substantial disconnect surrounding the local communities contribution to marine debris. So although education campaigns were effective at increasing awareness of marine litter, there remained a practical disconnect in the ability to prevent waste from becoming marine litter. Most communities lacked appropriate resources for waste management. The lack of infrastructure appeared to be a major impediment to waste management. This appeared to be particularly relevant on small islands that lack the capacity to support basic waste management services. However, small islands, like Mayreau, have the capacity for great improvement in waste management with minor infrastructure assistance. Diverse educational activities can be employed to increase public awareness about marine litter, improve compliance, and change behavior, but these need to be appropriate to unique local cultures. Coastal cleanups were well recog-



Figure 5. Grenadines International Coastal Cleanup and slogan

nized and have high participation in many communities. Although cleanups are of questionable long term litterreduction value, they remain a go-to activity for local NGOs and MPAs. The less tangible community education potential of coastal cleanups to engage people in environmental protection should be given greater priority and linkages to local litter management should be highlighted when possible. MPAs can serve as ambassadors for marine litter education and reduction to bring together the range of stakeholders. It is unlikely that local NGOs or MPAs have staff available for specialized activities like litter management. This capacity is likely more efficiently provided by regional organizations, like GCFI and CaMPAM. Global or regional policy initiatives by organizations like UNEP require dissemination to the local level for implementation. In the five litter management case studies presented herein, GCFI and CaMPAM facilitated the implementation of numerous aspects of UNEP's marine litter policy at the local level. These case studies represent an early step in the implementation of marine litter reduction efforts in the Caribbean. Future marine litter reduction activities will hopefully more forward more easily and successfully through the shared experiences of these case studies.