

St. Kitts & Nevis and the Coral Reef Sustainable Destination Model

**An Analysis Prepared by
The Coral Reef Alliance (CORAL)**



The Coral Reef Alliance

The Coral Reef Alliance (CORAL) is a non-profit organization dedicated to keeping coral reefs alive around the world. CORAL works with marine park managers, marine tourism providers, and local communities to help increase their capacity to protect their local reefs. Founded in 1994, CORAL is now recognized as a leader in reef conservation. Through high visibility awareness programs, such as Dive In To Earth Day and the International Coral Reef Information Network (ICRIN), CORAL has developed a strong coalition of divers, marine protected areas, local organizations, and reef tourism providers that form the foundation of our efforts to make change.



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Executive Summary

In October of 2006, The Coral Reef Alliance (CORAL) was invited by Tourism Ministry of St. Kitts and Nevis to conduct a preliminary assessment of both islands using the Coral Reef Sustainable Destination model. Caribbean Program Manager, Rich Wilson, visited St. Kitts on October 10-11-13 and Nevis on October 12. In addition to collecting preliminary baseline data on marine recreation practices and perceptions and attitudes regarding conservation, Wilson presented an overview of sustainable marine recreation, coral reef ecology, and the value of marine protected areas at two public meetings on St. Kitts and Nevis on October 11th and 12th.

This report summarizes and details activities conducted by CORAL while in St. Kitts and also provides preliminary analysis and recommendations should St. Kitts wish to take steps forward in developing a marine protected area network, sustainable marine tourism, and support community-based coral reef conservation. These findings are framed in the context of St. Kitts' potential as a Coral Reef Sustainable Destination (CRSD). CORAL's comprehensive CRSD model identifies the current conservation capacity of stakeholders in coral reef destinations¹, and incorporates key indicators for assessing improvements in local capacity for conservation. The outcome of applying this model is a *measurable* reduction in damage to coral reefs by:

- 1) Increasing sustainable business practices of marine recreation providers; and
- 2) Developing cooperative management strategies between marine protected areas, marine recreation providers, local non-governmental organizations (NGOs), and community stakeholders that enhance capacity for programs such as enforcement, monitoring, sustainable financing, and visitor education and management.

As this report will detail, CORAL found strong political will for marine conservation and development of a marine protected area network in St. Kitts and Nevis. It has been our experience that securing the support of government from the beginning is often a critical component to conservation success. Our analysis, however, was not as robust as we had hoped. While marine tourism providers were available for discussions and interviews, one key stakeholder group, fishers, were noticeably absent. Whether this speaks to inadequate outreach or perhaps fishers feeling disenfranchised or threatened by talk of marine protected areas cannot be determined from our data, but this issue will require additional study. A comprehensive biophysical analysis of St. Kitts reefs with regard to coral abundance, cover, fish density, spawning aggregations, etc., will also require further study in order to inform any decisions regarding location, size, and regulations of designated marine protected areas.

¹ A destination can be a marine protected area, a locally managed marine area, a coral reef protected area, or any area set aside that has coral reefs and recreational tourism (or the potential for it). See appendix A for an illustration of the Coral Reef Sustainable Destination Model.

Daytime Meeting Schedule for CORAL Site Visit

Public Meeting Schedule

St. Kitts and Nevis
October 11th and 12th
6:00 – 9:00 p.m.

Monday, October 10th 2006

Joe Simmonds - Head of Fisheries Department
Christine Walwyn - CEO of St. Kitts Tourism Authority
Lloyd Lazaar - Permanent Secretary to the Minister of Tourism

Tuesday, October 11th 2006

Joe Simmonds - Head of Fisheries Department
Kaya Freeman - Ocean Foundation
Kenneth Sammuel - Oldest dive operator (industry survey)
Austin Huggins – Tourism Ministry

Wednesday, October 12th 2006

Patrick Williams - Head of Department of Planning and Sustainable Development
Ed Mead - Department of Environment
Patricia Williams - Executive Director, St. Christopher Heritage Society

Thursday, October 13th 2006

Austin Macleod - Dive Operator (industry survey)
Captain Arthur Anslyn - Head of Fisheries, Nevis
John Guilbert - Nevis Historical and Conservation Society
Ellis Chaderton - Sole dive operator on Nevis (industry survey)

Friday, October 14th 2006

Steering Committee Meeting, including:
Joe Simmonds - Fisheries
Kenneth Sammuel - Dive operator
Kaya Freeman - Ocean Foundation
Austin Huggins - Tourism ministry
Lloyd Lazaar - Tourism ministry
Patricia Williams - St. Christopher Heritage Society
Margo Leonard - Dive operator
Rich Wilson - CORAL

Key Observations

Impacts to Reefs: There are no official marine protected areas currently in place in St. Kitts and Nevis, no enforcement on the water, significant problems with pollution, overfishing, and a general lack of awareness and education about the value of marine resources beyond fisheries. While the fisheries department has recently made attempts to regulate the size of fish caught around the islands, problems remain with fishermen using previously acceptable fish traps. Moreover, the fisheries department has limited or no capacity to enforce new regulations regarding the type of fish traps utilized.

CORAL conducted multiple interviews to gain a baseline assessment of the CRSD status of St. Kitts and Nevis. We conducted industry practice surveys with three of the four marine recreation providers that operate in the country. This data supplemented information gained from approximately 15 “perceptions and attitudes” surveys that stakeholders completed either prior to or during our time on the island, as well as the multiple interviews conducted during the week. Overall, it provided CORAL an assessment of where St. Kitts/Nevis fits into our CRSD model, which in turn is information that can be shared with the wider community.

Several factors make it difficult to apply CRSD methodology in St. Kitts and Nevis. CRSD assumes a certain level of capacity is already in place in order to maximize conservation effect. Specifically, our observations were that there exists:

1. A lack of existing protected area legislation and any ability to enforce even existing laws;
2. A high level of skepticism from people who have been involved in previous efforts to establish a marine protected area system;
3. Small-scale tourism compared to more traditional livelihoods such as fishing and agriculture; thus limited influence and power on the part of those in the tourism industry;
4. Lack of education on environmental issues throughout the broader community in the islands;
5. Difficulties in the political relationship between St. Kitts and Nevis.

Tempering these difficulties, there is a tremendous level of enthusiasm and commitment shown by some groups to take steps forward in establishing a marine protected area network in the islands. Many if not most are fully aware of the many challenges that they face in achieving success with this proposed protected area system. While there is skepticism among some, there is a genuine desire to commit to the process among nearly everyone encountered. This was reflected in both individual interviews and public meetings facilitated by CORAL. Additionally, the information contained in the various presentations included at the meetings clearly opened the eyes and changed the perspective of many. For example, the day prior to departure there was a heavy rainstorm in the islands. When passing through town, streams of muddy water could be seen flowing directly into the ocean. At the final steering committee meeting, one member remarked about how this was the first time in his whole life that he looked at that and realized the true impact it was having on the coastal environment.

Recommendations:

Based on our preliminary analysis of the political and social realities in St. Kitts and Nevis, CORAL makes the following recommendations for action based on our Coral Reef Sustainable Destination Model:

CRSD Objective I: Increase Sustainable Environmental Business Practices

As active members of the steering committee that is working collaboratively on the development of a protected area system in the islands, existing marine recreation providers can and should take the lead in adopting sustainable business practices that minimize the environmental impact and maximize the contribution of this sector of the growing tourism industry to conservation and protection of marine ecosystems surrounding the islands. This can be initiated through *Sustainable Marine Recreation* trainings provided by the Coral Reef Alliance. Also, CORAL's Reef Leadership Network can create a committed cadre of local Leaders to institutionalize and promote best environmental practices.

CRSD Objective II: Build Conservation Alliances

The potential for marine protected areas in the islands affords a unique opportunity for diverse stakeholders groups in the community to develop alliances and work collaboratively towards this goal. These collaborations would help identify respective roles in building protected areas, help provide outreach of expected benefits, and create partnerships that drive the process. Extensive research shows that involving all materially affected stakeholders in the process of building protected areas from the outset greatly increases community-wide buy in and acceptance, and thus the potential for long-term success. Developing alliances will require a sustained outreach and education campaign that directly addresses the short and long-term benefits expected from successful establishment of a protected area system. CORAL's *Conservation in Action* trainings can catalyze this process of building new collaborative opportunities between diverse stakeholders.

CRSD Objective III: Develop Sustainable Financing for Conservation

It is essential that an in-depth analysis be conducted early in the process of establishing a protected area system to determine short and long range costs for establishment of protected areas and ensuring effective long-term management. Part of this analysis will involve determining where sources of funding will come from, and how they will be sustained. In most cases, government plays a key role in financing and managing protected areas, yet many case studies exist that demonstrate the effectiveness of co-management schemes with the private sector, which commonly utilize the resources of tourism, such as user fees for diving, snorkeling, and fishing as a sustainable revenue stream. CORAL can conduct willingness to pay surveys across all tourism providers to determine appropriate ranges of tourism fees that can support conservation financing.

CRSD Objective IV: Threat Reduction

Reducing local threats to reefs is not only a critical protected area management issue, but also a requirement for sustaining the health of adjacent communities. Moreover, studies show that reefs not being stressed by local impacts, such as over fishing, tourism, runoff and coastal development, are more resilient to global stressors like climate change. As part of the planning process, it is vital to identify key threats to St. Kitts and Nevis reefs,

and incorporate threat reduction mechanisms in effective planning and establishment of a protected area system. These mechanisms should identify roles and responsibilities of key stakeholder groups, as well as balance the need for regulation and enforcement with community-led initiatives which promote sustainable practices and conservation projects. CORAL's *Conservation in Action* trainings can help identify practical community based conservation projects that will reduce reef stressors. Targeted micro-grants for key projects will allow for partial or full project funding.

CRSD Objective V: Effective Management

Marine Protected Areas (MPAs) have been widely praised as one of the most promising solutions for coral reef conservation. If well managed and enforced, MPAs can play a significant role in maintaining reef biodiversity, supporting ecosystem services, improving fisheries, providing quality tourism opportunities, and returning socioeconomic benefits to nearby communities. Resource user groups such as fishers and marine recreation providers witness firsthand reef changes resulting from an increase in demand for resources, whether through direct harvest or growth in the tourism sector. Since coral reef damage translates into financial losses, members of these stakeholder groups have an enlightened self-interest to get involved in conservation efforts. As such, it is vital to engage these and other materially invested groups in planning, and if determined appropriate, co-management schemes to both increase buy-in and effective management of established protected areas. As objective outsiders, CORAL can provide facilitation of meetings between key stakeholders to help realize consensus on how best to manage local reefs.

Any effective protected area will require a management plan. This plan must be informed by scientific data of reef health. CORAL can assist St. Kitts and Nevis in identifying appropriate groups who have proven skills in conducting such important baseline biophysical data.

CRSD Objective VI: Benefit Sharing

The final indicator of CRSD success is to ensure that the benefits of successful MPA management and sustainable tourism are shared with the community. This is a most important element, as communities that see no benefit from sustainable behaviors will soon revert back to old unsustainable habits. But this is also the most difficult to address, at least in the short term. Many variables should be taken into consideration when measuring the degree to which local communities in St. Kitts and Nevis will benefit from sustainable management of their reefs, including size of fish catches, more and better availability of alternative livelihoods, and reinvestment of tourism revenues into the community. It is imperative for planners to engage in a widespread and sustained outreach and education program in order to increase awareness of the benefits derived from successful establishment and management a network of marine protected areas. CORAL can provide the critical communication, outreach, and transparency of process that is critical to community buy-in and support for conservation efforts.

Public Meeting Outputs: Threats and Solutions to St. Kitts and Nevis Reefs

Combined with data collected from multiple "perceptions and attitudes" and industry practice surveys, stakeholders who attended public meetings facilitated by the Coral Reef Alliance in St. Kitts and Nevis participated in group exercises to identify: 1) local threats;

2) benefits of a marine protected area system; 3) key players who need to be involved in the planning process; 4) challenges and obstacles to address; and 5) next steps to be taken in the planning process.

The following information was gained from a diverse set of stakeholders at each public meeting and should be used as a springboard in the planning process of establishing a marine protected area system in the islands.²

St. Kitts: Locally Perceived Threats and Solutions

Locally Perceived Threats to St. Kitts Coral Reefs

Speare Fishing	Improper Anchoring
Anchoring	Sedimentation and pollution from cruise ships
Sediment/Silt from land	Poor fishing practices
Over-fishing	Discarded fish traps and lines
Tourism development	Hardening of the coastline
Disease	Development
Pollution	Natural disasters
Rising water temps	Ignorance
Natural disturbances (volcano, hurricanes)	Sand mining
Sewage	Removal of vegetation
Deforestation/Erosion	Pesticides and herbicides-agricultural run-off

Establishing a system of Marine Protected Areas

Who needs to be involved?

Government	Customers
Fishermen	International agencies and funders
Divers/Operators	Educators/scientists
Non-governmental organizations	Media
Hotels	Developers
Charter boats	Visitors
Community	Students

Who will benefit from Marine Protected Areas?

Fishermen	Future generations
Visitors/Divers	Increased biodiversity and population size of species
Dive operators	Regional populations/Islands/Governments
Local community	The world
Endangered and threatened species	Investors
Scientists	

² See appendix B for a breakdown of results from the “perceptions and attitudes” surveys conducted by CORAL.

What are the challenges/obstacles to overcome in establishing Marine Protected Area?

User conflicts	Cooperation of fishers (some)
Enforcement	Funding
Knowledge and education	Political will
Boundaries and rules/regulations	Private sector support
Cultural ownership	

What are the next steps to be taken?

Review previous work	Framework document
Build community involvement	Action plan
Build government involvement	Timelines
Form committees	Priorities
Public relations and outreach - general and targeted	Delegation of responsibility
TV and radio forums	Regulating coastal development
Collecting data (e.g. photos, etc.)	

Nevis: Locally Perceived Threats and Solutions

Locally Perceived Threats to Nevis Coral Reefs

Coastal zone development	Agriculture
Sewage	Tourists
Rock quarry	Golf course chemicals
Unpaved roads/sedimentation	Lack of cooperation among stakeholders
Loss of wetlands/coastal res.	Deforestation
Ghaut pollution	Hurricanes
Overgrazing land	Segregation
Inland development	Divers
Overfishing	Poverty
Irresponsible fishing	Lack of enforcement
Anchoring/lack of moorings	Lack of resources
Lack of designated anchoring	Global warming
Cruise ship pollution	Groundings
Lack of education	Lack of enforcement

Establishing a system of Marine Protected Areas

Who needs to be involved?

Government officials	Taxi drivers
Users of marine park	Tourists
Fishers, divers, snorkelers	Students
Local community	Legal department
Education department	General public
Media	Coral Reef Alliance
Developers	

Who will benefit and how?

People whose livelihoods depend upon sea-increased income	More money- for public
General public - more seafood	Business - tourism
Visitors- satisfaction	All global life - sustainability
Fishermen - more fish	Island reputation/image
Tourist industry	Future generations

What are the challenges/obstacles to overcome in establishing a Marine Protected Area?

Convincing government	Stagnation
Co-op stakeholders (fishermen, etc.)	User conflicts
Financing	Resistance to change
Enforcement of laws	Poaching
Getting started	Lack of education
Monitoring zones/areas	Cooperation issues SKN/NEV

What are the next steps to be taken?

Examine previous research and work	SWOT analysis
State goals and objectives (measurable)	Management plan
Determine areas/zones	A “vision”
Set timeframes	Form committee (management)
Cost assessment	Appoint wardens
Strategic plan	Establish user fee