



# THE FORCE PROJECT

## FUTURE OF REEFS IN A CHANGING ENVIRONMENT

### DIEPPE BAY, COMMUNITY MEETING

March 1st, 2012

#### OVERVIEW OF THE PROJECT

The FORCE project, a five-year initiative funded by the European Union, commenced in 2010 and brings together a team of researchers from 20 organisations based in 10 countries within the Caribbean, Europe, the US and Australia.

Caribbean people rely heavily on coral reefs, which contribute billions of dollars each year through tourism, fisheries and coastal protection. Coral reefs are being damaged by activities such as unsustainable fishing and pollution, and face an uncertain future with global climate change.

The FORCE project will address important questions about how changes will affect coastal communities and livelihoods such as fisheries and tourism. Recommendations will be disseminated to stakeholders through-out the Caribbean on how to protect the reefs.

The FORCE social science team will be conducting work in a total of four countries: Barbados, Honduras, St. Kitts and Nevis, and Belize.

#### COMMUNITY MEETING

FORCE fieldwork started in St. Kitts and Nevis during February 2012. The FORCE team visited Dieppe Bay and Newtown in St. Kitts, and Jessups in Nevis. A meeting was held in Dieppe Bay to:

- Explore recent changes in tourism, fishing, and the community of Dieppe Bay.
- Talk about changes in people's use of the sea and coral reefs.
- Discuss the groups and organisations involved in coral reef use and management.

People were asked to help build a timeline about changes in Dieppe Bay and discuss who is involved in looking after the reefs. This leaflet presents the results of this meeting and some early results from the project.

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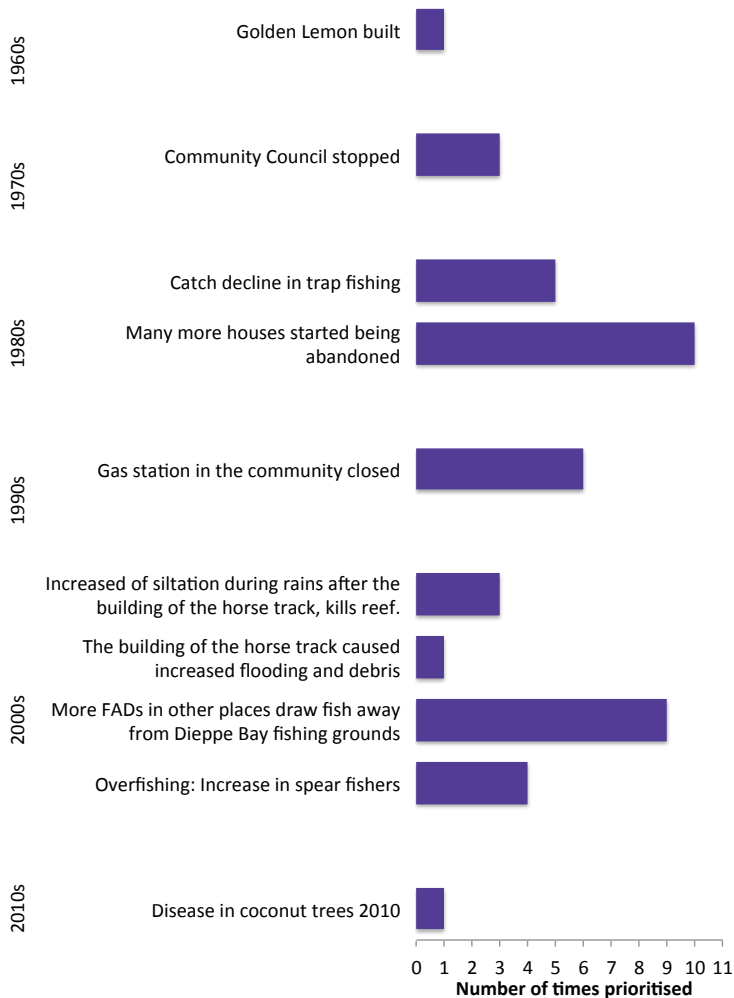
# HISTORICAL TIMELINE

The purpose of the timeline was to learn more about the history of the community and the changes that have been important to local people. The timeline shows events and changes in Dieppe Bay identified by people at the meeting.



## KEY EVENTS

People at the meeting identified the most important changes that have affected how people use the reefs.



## “WHO SHOULD BE AT A MEETING ABOUT...?”

The FORCE team wanted to find out people’s opinions on who should be involved in taking care of the reefs. People identified the following stakeholders that should be invited if a meeting was held about fishing, tourism, or their community.

### 1) “... FISHING ON THE REEF?”

- Fisheries Department (Dept. of Marine Resources)
- Fishermen
- Community groups
- Owner of the horse track
- Hotel operators
- Farmers
- Parliamentary representative
- Department of Education
- Police

### 2) “...TOURISM ON THE SEA?”

- Tourism Minister
- Community members
- Fisheries Department (Dept. of Marine Resources)
- Marine Biologist (from Dept. of Marine Resources)
- Prime Ministers
- Parliamentary representative
- Fishermen
- Customs Department
- Department of Education
- Police

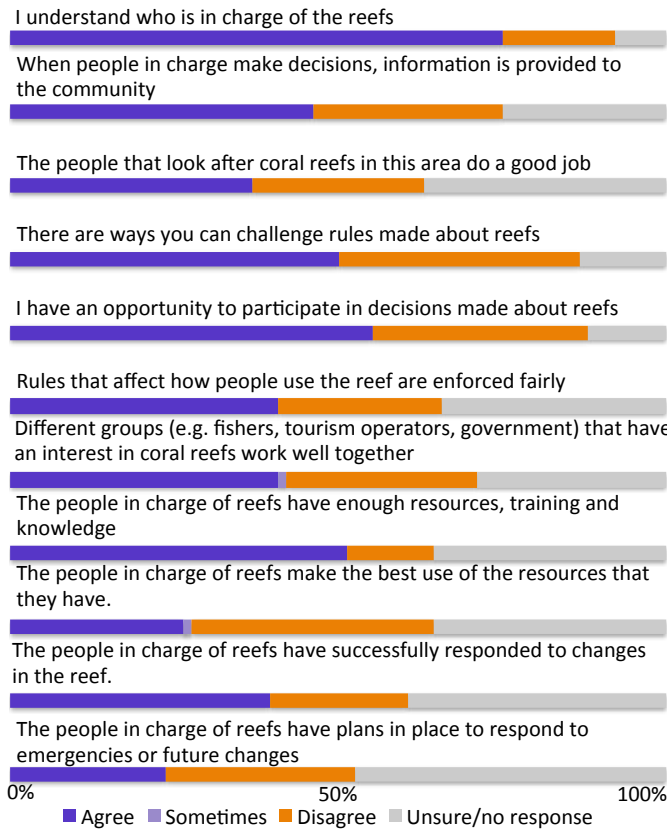
### 3) “...THE FUTURE OF THE COMMUNITY?”

- Fishermen
- Church community
- Residents of the community
- Department of Housing
- Sustainable Development
- Prime Minister
- Opposition party representative
- Horse track operators
- Hotel operators
- Investors
- Business community
- Department of Planning and Environment
- Taxi operators
- Department of Education
- Police



## OPINIONS ON REEF MANAGEMENT

We are interested to get people's opinions about how the reefs are being looked after. People we interviewed were given a series of statements and asked whether they agreed or disagreed. The following shows the community's feelings about the management of the reefs.



## KEY ISSUES

### REEF HEALTH

Many people we spoke to stated there had been a lot of changes in the reef, caused by hurricane damage, sediment runoff from the land, and fishing pressure. Fishermen with experience of the reefs generally thought that there has been a decline in the numbers and sizes of reef fish and lobster. People also mentioned that there has been a reduction in brain corals and in the past you could see the reef breaking the surface of the water.

### LIVELIHOODS

Fishing is an important livelihood for people in Dieppe Bay. Pot fish, gar and ballyhoo are popular foods in the community and the main types of fishing are line fishing, spearfishing, nets and pots. Most of the fish are sold directly to local people. Fishers used to sell fish and lobster to the Golden Lemon hotel, but now they sell to other hotels and restaurants.

There has been a decline in tourism since the closure of the Golden Lemon and now there are very few tourist activities in the community. The hotel provided many people in the community with jobs, so they had to look for alternative employment when the hotel closed. Many people in the community also lost their jobs when the sugar industry closed. As a result of the closure, there was an increase in the number of people that took up fishing, as well as fishers spending more time fishing. More people now work in farming and construction. People in the community used to make handicrafts from the coconut shells. However, the coconut palm disease has destroyed many of the palms, and this has affected the livelihoods of people who make and sell these crafts, as well as the vendors selling coconuts.

### MANAGEMENT OF THE REEF

Many people are unaware of how the reefs are managed and if there are any rules about how people can use the reef. Some people mentioned that they believe that the Fishers Cooperative and the Fisheries Department are involved in reef management. Some people said that the Fishers Cooperative should take a more active role in the community.

Certain rules that govern the reef were mentioned by community members, such as trap mesh size regulations, seasonal restrictions on catching turtles, and size regulations for conch and lobster. There is general agreement that many of these rules are good, but people commented that a lack of enforcement is a major problem. Overall there is support for more reef management, but not for more restrictions on fishing.



## FISHING

Over 80 fishers were interviewed from the Federation of St. Kitts and Nevis including people who fish for food, for recreation and to earn a living. Fishing plays an important role in the lives of many in St. Kitts and Nevis especially in terms of food security. Fish is recognised as a healthy source of food and many in Dieppe Bay chose it over other alternatives such as chicken, pork or beef. Most of the commercial fishers in Dieppe Bay fish in wooden or fiberglassed pirogue boats around the northern and eastern side of St. Kitts less than 5 miles from shore. Dieppe Bay fishers use hand-lines, pots and spearguns to catch lobsters, conch and pot fish. Most fishers in this area are usually involved in multiple fisheries. For example, pot fishers usually spend 4-5 hours at sea but they may spend some of this time doing other fishing activities such as trolling, bottom fishing or nets. Spearfishers also spend 4-5 hours at sea and are on average 10 years younger (35 years old) than pot fishers (45 years old). Fishers engaging in other fishing techniques such as bottom-fishing spend an average of 7 hours at sea.

The fishers said that were a couple of issues affecting the reefs and their fishing. Fishermen reported seeing smaller fish now and the silt and run-off from ghauts after heavy rainfall and storms affect the reefs. Also, the rising costs of fishing expenses and the loss of a gas station in Dieppe Bay have affected the fishers and they have to travel all the way to Sandy Point to get fuel for their vessels.

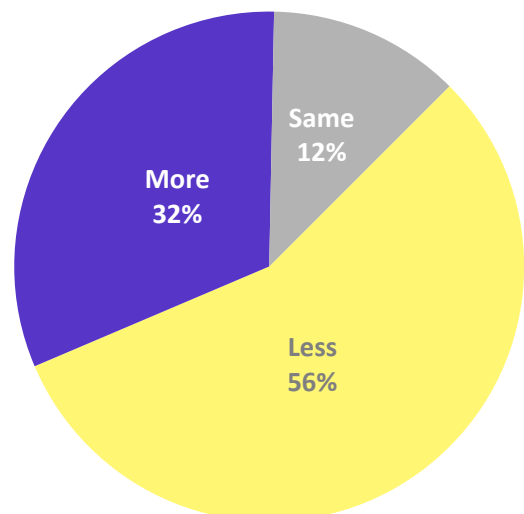
The cost of fishing for Dieppe Bay fishers is quite significant. Gas can cost anywhere between EC\$40-EC\$300 per trip. A fisher spending EC\$150 in gas will have to use around 15lb of the fish catch to pay for gas (at EC\$10 per pound) before the shares are distributed between the crew members. Other costs include bait, ice and food for fishing trips as well as long-term costs such as boat and engine maintenance and replacing fishing gear (e.g. fish pots, lines, etc).



## TIME SPENT FISHING

When asked how their fishing has changed over the years, over half of fishers said that they were fishing less than they did ten years ago but most of them said they probably will be fishing the same amount 5 years from now.

### TIME SPENT FISHING NOW COMPARED TO 10 YEARS AGO



## DIVING

Every year thousands of tourists from around the world travel to St. Kitts and Nevis to have the chance to experience beautiful coral reefs and abundant fish life during a snorkel or a dive trip. As a result, the dive industry plays a very important role in the economy of the Federation. Interviews were carried out at all the dive shops in St. Kitts and Nevis to get an understanding of the economic value of the industry. More than 160 SCUBA divers were also interviewed to identify how changes in reef fish could affect the dive industry, and to gather information on the types of divers who visit.

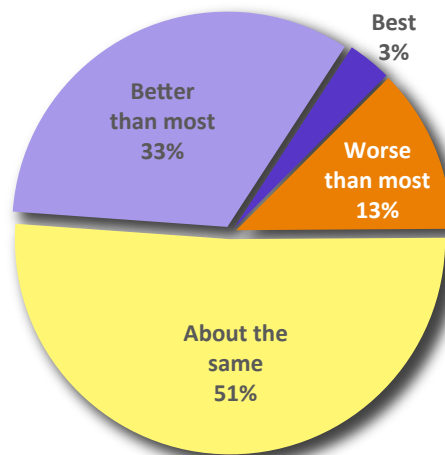
Over 80% of the divers that were interviewed in St. Kitts and Nevis were first time divers in the Federation, and many had taken the opportunity to dive on a day visit from a cruise ship. Seventy-seven percent of the divers were from the USA followed by 9% from the UK and 8% from Canada. More than half of the divers who visit St. Kitts and Nevis are certified as Advanced Open Water or higher. Local universities are also another source of divers for the industry and are an important market for the industry. Some of the issues and changes that the dive operators said were affecting their business included the recent appearance of lionfish, the global downturn in the tourism industry, overfishing, a lack of protected areas and climate change.

## DIVER SATISFACTION

Almost all the divers were very satisfied with the experience of diving in St. Kitts and Nevis. Divers were most satisfied with the professionalism and friendliness of the dive operators and the lack of crowding on the dive. Divers were least satisfied with the number of fish and the number of large fish at the dive sites.



### HOW WOULD YOU RATE ST. KITTS AND NEVIS COMPARED TO OTHER PLACES WHERE YOU HAVE DIVED?



## USING THIS INFORMATION

This report shows some of the information we collected from people in Dieppe Bay. This information will be used to help to describe people's opinions on how coral reefs are used for fishing and tourism, and how the reefs are being looked after. The information people shared with us will help to develop an understanding about how people depend on reefs and how they will respond to changes in the future.

While this project is not involved in making decisions, we will share this information with people and organisations involved in reef management and decision-making at local and national levels. None of the information collected during this project will be linked to anyone's name, but we hope that the project will provide an opportunity to share the interesting stories that we have collected.

## FORCE SOCIAL SCIENCE TEAM MEMBERS

### FIELD TEAM

Dr. Rachel Turner  
Dr. Johanna Forster  
Mr. David Gill  
Ms. Angelie Peterson  
Mr. Rohan Ford  
Mr. Sherverne Gardiner  
Ms. Judette Pollock  
Ms. Katie Hogg

### SUPPORTING TEAM

CERMES, UWI  
Professor Robin Mahon  
Professor Hazel Oxenford  
Dr. Peter Schuhmann  
UNIVERSITY OF NEWCASTLE,  
UK  
Professor Selina Stead  
Dr. Clare Fitzsimmons  
INTERNATIONAL MARINE  
MANAGEMENT, UK  
Mr. Philip Townsley  
Ms. Francesca Booker

### CONTACT

[www.force-project.eu](http://www.force-project.eu)  
  
c/o CERMES  
UWI Cave Hill Campus  
T: 246.417.4339  
F: 246.424.4202  
  
c/o Dr. Turner  
E: [rachel.turner@cavehill.uwi.edu](mailto:rachel.turner@cavehill.uwi.edu)  
T: 246.417.4830

## THANK YOU!

Many thanks to all that attended this meeting or took the time to contribute information to our research.

After St. Kitts and Nevis, the FORCE team will be conducting further fieldwork in Belize.