Incorporating climate adaptation into marine turtle conservation: capacity strengthening for planning and implementation

co-hosted by WWF and WIDECAST, with support from CIDI/OAS, CaMPAM, and GCFI
November 1 - 3, 2010
63rd Gulf and Caribbean Fisheries Institute Meeting
San Juan, Puerto Rico

Summary

WWF, in collaboration with the Wider Caribbean Sea Turtle Conservation Network (WIDECAST), is helping to build capacity for climate change adaptation in coastal areas of Latin America and the Caribbean by focusing on habitats used by endangered marine turtles. In November 2010, 15 marine turtle conservation practitioners, marine resource managers, educators and students from 10 countries in the Wider Caribbean Region (WCR), attended a workshop at the 63rd Gulf and Caribbean Fisheries Institute Annual Meeting. The three-day training workshop, hosted by WWF and WIDECAST and funded by CIDI/OAS, provided an opportunity to explore methods for incorporating climate change adaptation into ongoing conservation projects and to share tools for vulnerability assessment and adaptation planning. The workshop included presentation of WWF's Adaptation to Climate Change Toolkit, completed in 2009 as part of the Adaptation to Climate change for marine Turtles (ACT) project.

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I. Introduction

WWF has chosen marine turtles as flagship species to embark on a regional effort towards climate change adaptation in coastal and marine environments. As highly charismatic species with enormous ecological, economic and cultural value, marine turtles can serve as a flagship to help the conservation community mobilize and educate the general public and decision-makers about the vulnerability of oceans and coasts to climate change. Furthermore, marine turtles are emblematic of marine connectivity at regional and global scales and of the need to foster international adaptation efforts to safeguard a future for marine species in the face of climate change.

In 2007, WWF initiated the Adaptation to Climate change for marine Turtles (ACT) project, in response to increasing concern surrounding the potential impacts that climate change could have on marine turtles and the coastal habitats upon which they depend. ACT is a regional initiative (Wider Caribbean and Latin America) coordinated by Dr. Marianne Fish (WWF - LAC Marine and Coastal Adaptation Leader) addressing i) how marine turtles and their habitats are affected by climate changes projected for the coming decades, and ii) what action can be taken now to minimize the negative impacts of climate change on marine turtles and coastal ecosystems. The main output from the first two years of ACT was the production of an Adaptation to Climate Change Toolkit, which includes a series of reports and manuals designed to facilitate the incorporation of climate change into ongoing conservation, research and management programs.

WWF's activities are now focusing on providing the tools, support and training needed to build regional capacity within institutions and organizations. In November 2010, a three-day training workshop was held at the 63rd Gulf and Caribbean Fisheries Institute (GCFI) Annual Meeting in San Juan, Puerto Rico. The workshop, funded by the Inter-American Agency for Cooperation and Development of the Organization of American States (CIDI/OAS), focused on raising awareness of climate change and adaptation, and providing training in techniques and tools to be used in assessing vulnerability and prioritizing adaptation measures for implementation. This report summarizes the workshop sessions, outcomes and participant feedback.

II. Workshop objectives and structure

Purpose

Strengthen capacity to incorporate climate change vulnerability assessment and adaptation action into ongoing conservation projects, focusing on coastal and marine areas used by marine turtles

Objectives

1. Examine climate change-related threats to marine turtles and coastal/marine habitats
2. Identify and explore tools for monitoring, assessing vulnerability and selecting and prioritizing adaptation measures
3. Explore the challenge of communicating climate change
4. Secure collaboration and support in addressing climate change at a regional level

Outputs and outcomes

1. Increased understanding of potential climate impacts on marine turtles and coastal and marine habitats and the action that can be taken to minimize those impacts
2. Draft action plans
3. Solid collaborative basis for vulnerability assessment and adaptation work in the region

Structure

The workshop was based on training materials developed by WWF/LAC's Climate Adaptation Program, including the Adaptation to Climate Change Toolkit: Coasts (http://www.panda.org/lac/marineturtles/adaptation), and consisted of a mixture of presentations, exercises, discussions and training, designed to lead participants through the steps involved in incorporating adaptation to climate change into their ongoing programs. At the end of the workshop, and to gain certification, participants were asked to briefly present how they were intending to incorporate what they had learned into their work and a plan of action for the following 6-12 months.

Workshop attendees. Back row L to R: Gian Lalsingh, Amy Mackay, Michelle Kalamandeen, Davon Baker, Antares Ramos Álvarez, Arthur C. Potts, Marianne Fish, Carlos Diez, Martin Barriteau. Middle: Opal Bent Zapata. Front row L to R: Emile Pemberton, Emma Doyle, Andrea Donaldson, Clare Morrall.

Training Workshop Schedule

Day 1	
13.30 - 14.30	Welcome, introductions, objectives and expectations
14.30 - 15.15	Climate change and coastal habitats
15.15 - 15.35	Discussion
15.35 - 16.00	Coffee Break
16.00 - 17.00	Incorporating climate adaptation into your work
17.00 - 17.30	Vulnerability assessment exercises
Day 2	
8.30 - 8.45	Introduction to day 2
8.45 - 9.30	Vulnerability assessment continued
9.30 - 10.05	Selecting and prioritizing adaptation options
10.05 - 10.30	Coffee Break
10.30 - 12.00	Finding solutions
12.00 - 13.30	Lunch
13.30 - 14.00	Beach monitoring methods - introduction
14.00 - 16.00	Beach monitoring - practical training on Isla Verde beach
16.00 - 17.00	Beach monitoring: analyzing the data
Day 3	
8.30 - 8.45	Introduction to day 3
8.45 - 9.45	Communicating climate change
9.45 - 10.15	Coffee Break
10.15 - 11.00	Planning next steps
11.00 - 12.00	Participant presentations, wrap-up and certification

III. Workshop content

The workshop was designed to lead participants through the steps needed to incorporate climate change thinking into their existing management plans and field research projects. For each session, an oral presentation was followed by inclusive discussion or a practical exercise featuring tools that could be used at similar workshops convened by participants with their local partners and other stakeholders. The following section summarizes the main points from each session. For workshop presentations, please see separate folder.

Sessions

1. Climate change and coastal habitats

This introductory session covered the basics of climate change, current projections for variables such as temperature and precipitation and observed and expected impacts on coastal ecosystems and marine turtles.

2. Incorporating climate adaptation into your work

This session introduced the concepts of mitigation and adaptation as responses to anthropogenic climate change and outlined the broad steps involved in incorporating climate change into conservation plans:

1) Identifying the planning team
2) Assessing the vulnerability of your conservation target to climate change impacts
3) Identifying and prioritizing adaptation measures
4) Implementing adaptation measures
5) Monitoring and evaluating results
6) Reviewing and adjusting the plan

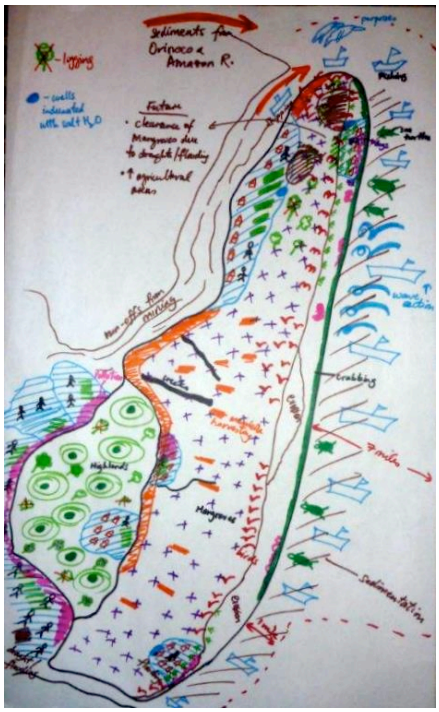
For the remaining sessions, we then worked through presentations and exercises based on these steps.

3. Vulnerability assessment: ecological mapping exercise

The goal of a vulnerability assessment in the context of climate adaptation planning is essentially to answer four main questions:

- How is climate change likely to affect your conservation targets?
- What physical changes are expected?
- Which species/habitats/communities will be affected and how?
- Which locations are most vulnerable?

Participants were presented with the concepts involved in assessing vulnerability and then began the process of carrying out a vulnerability assessment for their management area. Participants created ecosystem maps and used these to identify and highlight potential impacts on the system resulting from climate change.



Ecological map by Michelle Kalamandeen. Photo: E. Doyle

4. Selecting and prioritizing adaptation options

The next step in the process is to assess what action can be taken, based on present knowledge, to reduce the vulnerability of the conservation targets to climate impacts. Measures might fall into a number of different categories, such as habitat protection and management, direct species management, monitoring to fill important data gaps, and/or reduction of non-climate stressors to build resilience and building adaptive capacity. In this session, a range of adaptation options were discussed and participants were asked to list the measures they thought could be put into place in their management area.

G. Lalsingh and M. Kalamandeen analyzing data. Photo: E. Doyle

5. Beach monitoring

During this practical session on the beach, participants were trained in the use of three simple methods for measuring beach profiles. The session started with a discussion of why to monitor and the ways in which beach profiling data can be used in assessing and monitoring climate impacts and designing adaptation options. The field training was followed by a data analysis session.

Measuring beach profiles. Photo: E. Doyle

6. Communicating climate change

Raising awareness about climate impacts and support for management activities is a vital part of a successful climate adaptation program. Communicating climate change can be challenging, however, so this session discussed some of the main challenges and misconceptions associated with this issue and provided guidance on techniques, resources and lessons learned by other projects.

7. Planning next steps: participant presentations

All participants were asked to consider how they could incorporate climate vulnerability assessment and adaptation into their work and to give a short presentation. The following section summarizes the activities participants are planning to take in the next

6-12 months, and also what additional resources would be useful to move ahead at the local level.

Dr. Opal Bent Zapata, San Andres Island, Colombia

- Review existing marine turtle monitoring plans
- Carry out a vulnerability assessment of active nesting beaches
- Identify adaptation measures to address vulnerabilities
- Continue with beach monitoring at active nesting beaches
- Continue with a reforestation program, 'more trees, less heat', in urban areas
- Mangrove planting
- Vulnerability assessments for small sections of coastline

Michelle Kalamandeen, Guyana

- Monitor marine turtle nest locations and temperatures
- Redefine area(s) of protection and revegetate in areas of erosion
- Advocate for incorporation of adaptation measures in land-use planning
- Begin a beach profiling project
- Needs: Equipment and help with proposals

Emile Pemberton, Nevis

- Emphasize marine turtle nest relocation in high risk zones
- Inclusion of climate change issues in school-based environmental programs (Grade 2) administered by the Department of Fisheries
- Share with local marine turtle project volunteers, as well as fishers, the information and tools learned in the workshop
- Raise the issues in committee meetings/EIA
- Include idea of Reef–to-Ridge holistic management
- Vulnerability assessment – training for more people
- Monitoring beach profiles – training for Fisheries department staff and the Nevis Turtle Group (training and a greater sense of confidence and inclusiveness can reduce turnover in local sea turtle projects; want to increase the likelihood of continuity in data collection)
- Include other NGOs and initiate collaboration on climate change projects
- Once a month, try to put out some sort of communication on these issues
- Needs: contacts, equipment and volunteers

Andrea Donaldson, Jamaica

- A number of activities resulting from this training will be included in the 2011-2012 work plan
- Develop a network of sites for early warning systems
- Four sites in mind, one with marine turtle nesting beach monitoring
- Start some aspect of this in April 2011
- Advocate to include a vulnerability map in national land use planning

Carlos Diez, Puerto Rico

- There are two marine turtle monitoring projects on Mona Island and Culebra Island. Current activities include:
- Measuring sand and nest temperatures and sex ratios on Mona Island
- Measuring beach profiles and other parameters on Culebra
- DNR are carrying out a vulnerability assessment
- Communication is essential

Amy Mackay, St Croix, USVI

- Representing three long-terms projects in St. Croix (USVI)
- Begin beach profile monitoring
- Carry out a vulnerability assessment in 2011
- Introduce a standardized method for measuring hurricane impacts
- Assess three existing long-term nesting databases - look at them for trends in seasonality
- Talk to coastal zone management about climate change

Gian Lalsingh, Tobago

- Include monitoring techniques learned at the workshop in 2011 field efforts
- Try to involve volunteers, youth groups, school clubs outside of the marine turtle nesting season
- Share information with a wide range of stakeholders, one intention would be to replicate the adaptation measures at other beaches
- Students are [currently] studying the impacts of human activity on nesting beaches, ensure they have ACT toolkits and background information
- Get people involved in nest excavation in order to better assess reproductive success over time in potentially vulnerable coastal areas
- Needs: community support, support from government agencies (there is a breakdown between word and action)

Martin Barriteau, St Vincent and the Grenadines

- Create an MPA ecological map
- Determine what resources are already available, e.g. climate change policy for Grenada, COSALC data, literature review
- Physically assess sources of possible impacts on catchment area of MPA
- Research flexible 'no regrets' adaptation options - prioritization for catchment
- Create awareness with resource users
- Carry out a public consultation; talk about results and how critical the area is
- Develop an action plan from public consultation
- Train environmental wardens in coastal profiling and monitoring
- Incorporate climate adaptation into management plan for MPA
- Identify where we can build consensus

Dr. Potts from Trinidad and Dr. Morrall from Grenada are incorporating this new information into their coursework, including a new M.Sc. course at the University of Trinidad and Tobago called Coasts, Oceans and Climate Change, their work with government bodies and their contributions to new conservation proposals.

IV. Next steps

Immediately after the workshop, all participants were given the workshop presentations to use and adapt in their own work, the draft beach profiling guidelines and a template worksheet for data analysis. A website has been set up that will act as a network hub for collaboration and sharing of materials.

The Adaptation Toolkit is currently being updated. New tools include an adaptation planning guide and beach monitoring guidelines. A new updated version of the Toolkit will be sent to all participants in early 2011.

Participants were also asked to complete a short evaluation survey about the workshop. Results of the survey are in Annex B.

Press and outreach

Efforts were made before, during and after the workshop to increase participation and to raise awareness of both the workshop itself and the issues that it was covering. Prior to the workshop, the event was advertised on the GCFI meeting website, GCFI Net, CaMPAM listserve, WIDECAST listserve, and a press release was sent to an environmental journalist in San Juan (see Annex C for examples). During meeting registration, posters were displayed around the registration area.

On November 2, Emma Doyle (WIDECAST), Carlos Diez (Puerto Rico Department of Natural and Environmental Resources and workshop participant), and Marianne Fish (WWF and workshop trainer) all took part in a radio interview with Susan Soltero from Univision Puerto Rico, which was broadcast to eastern Puerto Rico and on the internet (www.waloradio.com). A journalist from the national newspaper 'El Nuevo Dia' sat in on the final day of the workshop and interviewed Marianne Fish.

A template press release was given to all participants to issue to press in their own country on their return home after the workshop.

V. Annex A: Participant details

	Name	Affiliation	Contact details
1	Clare Morrall	Director of the Marine Biology Program, St.George's University, Grenada	Tel. (473) 444-4175 Email: cmorrall@sgu.edu
2	Martin Barriteau	Project Manager, Sustainable Grenadines Project	Tel. (784) 485 8779 Email: susgren@vincysurf.com and balius2000@yahoo.com
3	Amy Mackay (Nominated by Dr. Renata Platenberg, WIDECAST Country Coordinator)	Project Manager, East End Sea Turtle Project	3 Estate Pearl Christiansted, St. Croix USVI 00820 Cell: (340) 690-5274
4	Michelle Kalamandeen (WIDECAST Country Coordinator)	Project Coordinator Protected Areas, Education Awareness and Research Guyana Marine Turtle Conservation Society (GMTCS)	Guyana Marine Turtle Conservation Society (GMTCS) c/o Department of Biology, University of Guyana, Turkeyen Campus Guyana, South America Tel: 592 665 4876 Email: michellek@bbgy.com
5	Andrea Donaldson (WIDECAST Country Coordinator)	Coordinator Ecosystems Management Branch, National Environment and Planning Agency (NEPA)	10 Caledonia Avenue Kingston 5, Jamaica Tel: (876) 075740 (ext. 2227) Fax: (876) 754-7595 (-6) andreadona@gmail.com adonaldson@nepa.gov.jm
6	Emile (Lemme) Pemberton (WIDECAST Country Coordinator)	Fisheries Development Officer and Acting Director	St. Johns Parish, Nevis Tel: (869) 469-5521 ext 2161 Fax: (869) 469-1698 masaisimba2004@yahoo.com mugabe@hotmail.com
7	Gian Lalsingh (Nominated by Tanya Clovis, WIDECAST Country Coordinator)	Program Manager, SOS Tobago	125 Black Rock Main Road, Black Rock [P. O. Box 27, Scarborough] Tobago Republic of Trinidad and Tobago Tel: (868) 639-0026 Fax: (868) 639-8441 tanya_clovis@hotmail.com
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		Tropical Ecology Group, University of Oxford	mobile UK: (+44) 7910419583 antares@aya.yale.edu
9	Arthur C. Potts, Ph.D.	Advanced Centre for Coastal & Oceanic Research & Development (ACCORD), University of Trinidad and Tobago (UTT)	c/o Institute of Marine Affairs, Hilltop Lane, Chaguaramas, P.O. Box 3160, Carenage, Republic of Trinidad and Tobago. Tel: 868 634 4291-4 Ext: 2502 arthur.potts@utt.edu.tt
10	Davon Baker	Manager, Sandy Island/Oyster Bed Grenada	davon823@yahoo.com
11	Dra. Opal Bent Zapata	Environmental Chief, Coralina, San Andres Island, Colombia	opalbent@gmail.com
12	Carlos Diez (WIDECAST Country Coordinator)	Biologist, Programa de Especies Protegidas, DRNA-PR, San Juan, Puerto Rico	cediez@yahoo.com
13	*Rachel Allen	PhD candidate, EU FORCE and CERMES, University of the West Indies, Barbados	rachellallen@gmail.com
14	*Robert Glazer	Executive Director, GCFI Associate Research Scientist, Florida Fish and Wildlife Conservation Commission	2796 Overseas Hwy., Ste. 119 Marathon, FL 33050 305-289-2330; 305-289-2334 (fax) research.myfwc.com bob.glazer@myfwc.com
15	*Sarah Frias-Torres, Ph.D.	Post doctoral scholar and Schmidt Research Vessel Institute Postdoctoral Fellow, Ocean Research & Conservation Association, Florida	420 Seaway Drive, 2nd Floor Fort Pierce, Florida 34949 USA sfriastorres@gmail.com

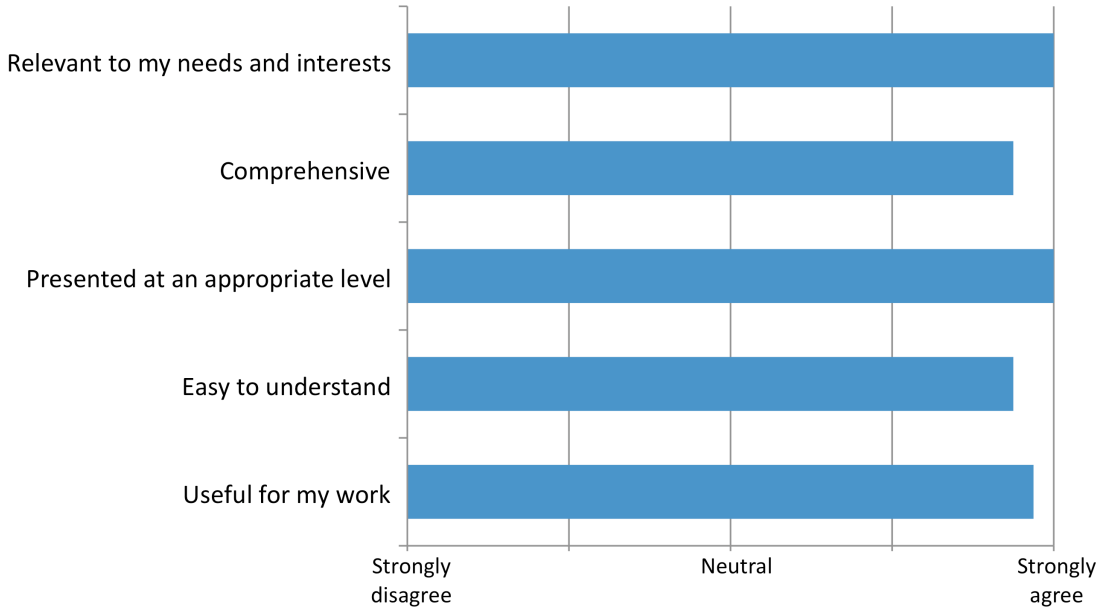
* Registered participant but attended only part of the workshop

VI. Annex B: Participant Feedback

1. What was your main reason for attending this workshop?

- I teach predominately Caribbean undergraduate students on marine and environmental issues, work with the government Fisheries and Forestry Divisions and write environmental research project proposals so this course offered input to all of these aspects of my work.
- My attendance was simply hinged on me being chair of the co-management board of the recently commissioned Sandy Island/Oyster Bed Marine Protected Area (SIOBMPA). The National MPA Coordinator (Grenada) envisioned the importance of me being exposed to such an event.
- To gain a better understanding of climate change related issues and how to incorporate them into my work.
- I manage a sea turtle project and I was asked to represent others who manage projects in my area. The plan was to return with information to share as well.
- To learn more about the potential impacts of climate change, as well as, the adaptation of marine sea turtles to climate change.
- To learn how to conduct vulnerability assessments and climate change adaptation strategies.
- I attended the workshop to learn about adaptation methods for marine turtle nesting sites.
- To gain better insight into climate change and its effects on sea turtles and how my organization could implement measures to monitor these effects.
- Interest in learning and developing strategies to deal with climate change and its impact on sea turtles, especially on their nesting beaches.

2. The workshop content was:

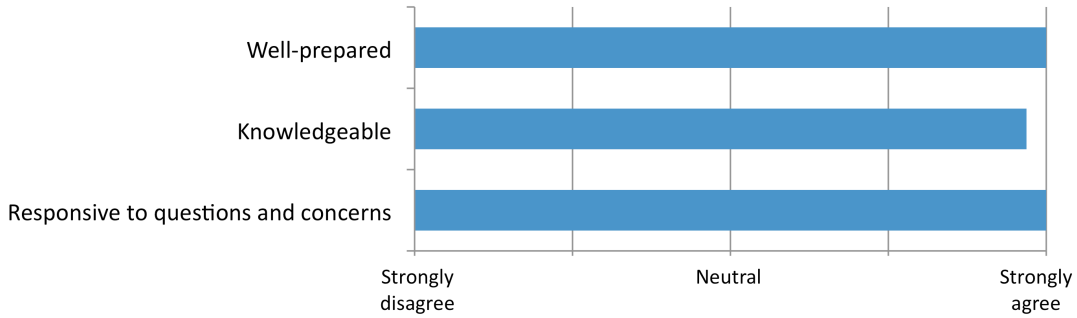


Comments:

Delivered very well and complicated terms were made easy to understand

Some more time was needed for more hands-on training in the tools needed

3. The trainer was:



Comments:
The trainer was good.
I learnt quite a bit from the workshop. The trainers as well as participants shared much useful knowledge.

4. In general, I was satisfied with the workshop	**% respondents**
Yes	100
No	0

Comments:

- It was great! Loads of great information- delivered well and with enough individual and group work to keep us fully involved.
- Yes, it was useful and I look forward to getting started employing methodology on my project and sharing it with other managers.
  I was disappointed that some of the attendees were casual about time - the sessions were delayed and/or interrupted because they were late.
- I would sign up for any further training in climate change and adaptation to climate change.
- Overall I was very satisfied with the workshop, with the information and techniques presented to me (and other participants) not only helpful but easily implemented into my organization's conservation programme.
- Perhaps we needed a little more time to analyze the data.

5. Which parts of the workshop did you find most useful/enjoy the most?

- The beach profiling was great- I am big fan of being on either side of experiential learning situations!
- Beach profiling.
- The ecological mapping.
- The outdoor training was great - I now know multiple beach survey methods and am prepared for some of what I will encounter in the field. Discussion groups were a good chance to see why others were attending and what problems/challenges they are facing. The powerpoints had good info on climate change and adaptation measures - not something I knew that much about before.
- The practical learning session re beach profiles.
- Learning how to apply the vulnerability assessment to your individual space/area. I think what made the workshop so enjoyable was that we were able to apply the theory to practical work.
- I found the practical sessions useful, that is in carrying out beach profiles with different

methods and developing an ecological map identifying the resources and the possible impacts due to climate change.
- All of it was useful, but in particular the parts on risk analysis, communicating climate change to stakeholders and the beach profiling.
- Doing the actual beach profiles.
  The sharing of experiences with other colleagues.

6. Which parts of the workshop did you find least useful/enjoy the least?

- I don't recall any of the workshop not being enjoyable or useful.
- At first, I found it boring (the sessions of the second day). However, once I got involved in the more hands-on aspects, it was totally enjoyable. I guess the earlier presentations started coming together then.
- Tabulating the beach profile...was useful but a bit complicated.
- One or two discussions that went off track and became political opportunities - it was a training workshop and that was not appropriate especially since it was not a forum where some of the comments could be debated properly. I know I am harping but people being late for sessions was distracting.
- Not applicable.
- I enjoyed all aspects of the workshop.
- All parts of the workshop were enjoyable.
- N/A
- Data analysis.
  Beach profile could perhaps have been done on a beach with more contrasts in slope.

7. Do you feel better prepared to incorporate aspects of climate adaptation (e.g. monitoring, vulnerability assessment, implementation, communication) into your work?	**% respondents**
Yes	100
No	0

Comments:

- Yes! I'll be a much better informed educator, grant writer and supporter of local and regional project development!
- Absolutely! Even now that the conference is over there are great resources on the website/CD to help/reinforce and I feel comfortable using the network of people to find answers when questions arise. Good follow-up and support exists for the info which was presented well.
- One of the things that made this workshop useful is that the information and techniques learned are easily incorporated into existing conservation programmes with minimal effort or disruption (if any at all).
- Passing on knowledge gained to others.
  Working with Department of Planning to build awareness in respect to coastal vulnerability and remedial measures.

8. **What will you be doing in your own work based on the new knowledge acquired at this training workshop (Please give a time scale for achieving this)?**

- I used material from the workshop in a class back in Grenada about 2 days after the workshop! I am currently writing a NOAA-NSWF project proposal, which will probably have a

climate change 'angle' in it. Knowledge from the workshop will be supportive of loads of things I am involved in here in Grenada and in the wider Caribbean region.

- Yes, I will. It is my intention to increase my knowledge on the monitoring aspects, in particular, and to begin some sort of program on my island, which would involve students/volunteers.
- I intend to develop a project for lagoon area on climate adaptation for this November.
- Will start beach profiles (immediate) and am seeking funding for data loggers for temperature work (for next season). Hosting a December session for local managers to share what I learned. Have started to design a hurricane/severe weather assessment protocol for our local sea turtle beaches (for next season). Have scheduled a December meeting with landowner of the beaches I work on to discuss developing a plan to address climate change formally.
- I plan to incorporate material learnt in the workshop in my college courses scheduled for Fall 2011.
- Aiming to implement some of the adaptation strategies on the beaches where sea turtles are monitored e.g. re-vegetation.
- Will be preparing to include the aspects learnt at four sea turtle nesting beach sites.
- We (SOS Tobago) will distribute the climate change toolkit provided to school and educators (Jan-Mar 2011), incorporate the workshop information into our existing education programmes (on-going) and implement beach profiling as part of our nesting beach monitoring programme (2011 and continuing annually).
- Beach profiles.
  Training staff and volunteers to assist with monitoring.

9. How can we improve this workshop?

- Nothing springs to mind! Thanks very much!
- Future workshops could include input/presentations/short sessions from persons who work in the field throughout the region.
- By making it a trainer of trainers workshop with some project funds attached. The trainer will then be expected to implement a project in his/her area of work after receiving training.
- I would love to see a template for managers that are perhaps not working exclusively with sea turtles and may not be specialized. Sea turtle biologists could produce a checklist of sorts to help more diversified managers with specific sea turtle issues.
- Course book (text); more practical working sessions; handouts.
- Extending it and including more information on climate change adaptation strategies and mitigation.
- A practical session at an actual nesting beach could be useful.
- N/A
- Spend a bit more time in data analysis.
  Do more on site visits.

10. Additional comments

- Big thanks to Marianne Fish, Emma Doyle, GCFI and all who supported the running of the workshop. Keep up the good work!
- Hopefully the participants will form a network where we can communicate and share regularly.
- By the end, I totally appreciated being there and participating (even if I initially wanted to be with the Caribbean Challenge group). It was a wonderful experience, and something I hope to

build on. Met some great people - persons of like minds. Hopefully, these are persons I would work with again in the future.

- Great workshop. I appreciate the opportunity....Thank you.
- I am very glad I attended and I feel good about the future and taking action!
- It was a well-run course, not withstanding the limited time available. The practical session done was great for the participants who had a chance to practice 3 methods re beach profiling, followed by the necessary calculations. I did enjoy the workshop. Thanks!
- I absolutely loved this workshop. It was relaxed, inviting and very practical. Job well done Marianne and Emma!
- Thank you to Marianne for teaching the course and WWF/ WIDECAST for making this opportunity available. I hope that future climate change and other workshops are made available to organisations, to help continue to build capacity and increase awareness of environmental issues.

VII. Annex C. Press and outreach

Marketing piece for GCFI/CaMPAM list serv

Don't know where to start with getting to grips with climate change?

Next week at the 63rd GCFI in San Juan, WWF and WIDECAST are running a certified training workshop on how to incorporate climate adaptation into your conservation program. It is one of the few real tools that can help coastal scientists and marine managers to gauge and plan for the impacts of climate change. During this two-day, hands-on workshop, participants will explore the climate adaptation process, from understanding the potential impacts of climate change, monitoring change and carrying out vulnerability assessments, through to prioritizing and implementing practical adaptation measures. The workshop has only previously been offered in three locations, and we are excited that with support from OAS/WHMSI we are able to present this during the 63rd GCFI. A few places on the workshop remain and we invite you to apply this week to Marianne Fish (marianne.fish@gmail.com, +1 604 678 5152 ext. 6655). The workshop will be held in English and will run from Monday afternoon through Wednesday morning at the conference hotel, with a field session on the beach on Tuesday. The workshop has received excellent feedback in the past for helping scientists, managers and students to gain a practical, in-depth understanding of climate change and adaptation - previous participants say " "Excellent!";"I learned many things that will be implemented"; "The material provided to participants is of excellent quality". Attendees will come away with the knowledge and tools they need to address the impacts of climate change, and a plan for how to move forward, with ongoing support from a growing network of adaptation practitioners in the region.

This was distributed to the GCFINET list (910 recipients) and the CaMPAM list (430 recipients).

WWF for a living planet®

WIDECAST
Wider Caribbean Sea Turtle Conservation Network

Press Release

San Juan, Puerto Rico, November 1, 2010 — Conservationists from 13 countries gather in San Juan this week for special training to address the impact of climate change on endangered marine turtles and their coastal habitats.

The workshop, hosted by the World Wildlife Fund (WWF) and the Wider Caribbean Sea Turtle Conservation Network (WIDECAST), will give conservationists the critical tools needed to incorporate climate adaptation into conservation programs for these precious resources.

Last offered at WIDECAST's 2010 annual meeting in Martinique, the workshop consistently receives high marks from Caribbean professionals. The Puerto Rico workshop, led by Dr. Marianne Fish, WWF Latin America and the Caribbean's Marine and Coastal Adaptation Leader, will take place during the *63rd Gulf and Caribbean Fisheries Institute Meeting* this week in San Juan.

The workshop will feature WWF's *Adaptation to Climate Change for Marine Turtles* (ACT) project tools and other outputs. "Our aim is to build capacity within the region to address climate change by providing the training, tools and resources people need to take action," says Dr. Fish.

According to the latest climate projections, coastal areas will be altered dramatically in the coming decades by warmer temperatures, increasingly extreme weather, rising sea levels and ocean acidification. These effects could be devastating for tropical areas like the Caribbean - where the majority of people depend directly on coastal resources and tourism for income. Marine biodiversity in the Caribbean is particularly threatened, including globally-important populations of endangered sea turtles.

"We're excited to be holding this training workshop at the GCFI meeting. It provides a great opportunity to bring together conservation practitioners from around the region who can support and learn from one another," says Ms. Emma Doyle, WIDECAST representative. Dr. Karen Eckert, WIDECAST Executive Director, agrees, noting "Climate change is affecting and will continue to affect all Caribbean nations. The resources developed by WWF are invaluable in building local awareness and capacity to face these challenges collectively, rather than each nation working in isolation."

Participants in the two-day, workshop, funded by the Inter-American Agency for Cooperation and Development of the Organization of American States (CIDI/OAS), will spend time on local beaches learning hands-on techniques to measure changing conditions in coastal areas. Scientists, managers and students who took part in ACT workshops in Costa Rica, Argentina and Martinique said they gained practical, in-depth understanding of climate change and adaptation for their conservation work.

The ACT project uses research, training, technical support and outreach activities to increase awareness and knowledge of climate impacts and management solutions in the region. In collaboration with WIDECAST, it is building a support network of climate adaptation practitioners.

The workshop takes place at the El San Juan Hotel and runs Monday through Wednesday.

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VIII. Annex D. Workshop Certificate

Certificate of Training

This certifies that

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Has successfully completed training in

Incorporating climate adaptation into marine turtle conservation: capacity strengthening for planning and implementation

Gulf and Caribbean Fisheries Institute Meeting
San Juan, Puerto Rico
November 1 – 3, 2010

GCFI Est 1947 CaMPAM Network & Forum

WWF WIDECAST

ORGANIZATION OF AMERICAN STATES