

Florida Reef Resilience Program  
Reef Resilience Conference 2008  
*Coping with Climate Change*

MARINE MANAGERS FORUM  
April 23, 2008

Reef managers from twelve marine parks or managed areas were asked to talk about some of the issues facing the on-the-ground manager. These managers are in charge of areas ranging from 153 to 350,000 square kilometers, have between 5 and 350 staff and between zero and hundreds of volunteers. Despite these disparities, managers found much upon which to agree.

The following are the questions put to the panel and a summary of the responses.

**Question: What is the biggest problem facing your reefs and what is the one thing you would do to change it?**

Funding shortage tops the list of problems facing marine managers who feel they have too many things to do without enough resources to do them. Managers pointed to the high annual revenues that parks or surrounding communities take in from dive-related tourism and the fraction of that amount that is spent managing the resource and identified some sort of user participation as a way to increase revenues for management. In another instance a valuable in-water monitoring program in existence since 1990 in one location will stop because of a lack of funding. High work loads and low pay for staff contribute to burnout and high turnover in some of the programs. One program reported a lower staff level than 27 years ago.

Impacts from adjacent development, poor water quality and the difficulty of educating transient tourist populations and the general public made up a second tier of problems facing these managers. Further complications were reported in managing public expectations for quick recovery of corals and in engaging in risky strategies that don't enjoy broad support. One manager said that he manages people not reefs; while others acknowledged the difficulty of getting support to do just that.

Managers observed that the results of research being done in their coral reef parks is not transmitted back to them, or if it is, is not in a format that is usable to inform management actions.

Governance issues also surfaced with comments about lack of legislative authority, disinterest from government, and lack of integrated management approaches when multiple governmental agencies are involved in the same area. It is critical to manage coral reef systems as a whole. The *Reef Managers Guide to Coral Reef Bleaching* was seen as a useful tool to bridge some of these gaps.

Two international programs reported significant leadership from non-governmental organizations in managing reef resources and suggested there were positive benefits from that arrangement.

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Finally, some managers reported that policy makers', staff members' and user group members' knowledge of climate change issues and solutions is limited which hinders some actions necessary to improve reef resilience.

**Question: Are there user fees in your area & was there a pushback from the public? When funding does come, will you be ready to use those funds?**

Managers from Australia, Mexico and Bonaire all reported user fees that return directly to their managed areas for various purposes. The Australian "reef tax" is primarily for research; the Cancun National Park receives \$1.4 million annually for staff, gear, research, boats and general management activities and the Bonaire Marine Park is fully funded by a \$25 dollar annual diving permit fee and \$10 permit free for non-diving uses of the park). Supporters of this program actually polled residents and users prior to increasing the dive fee from \$10 to \$25. All emphasized that having the money return to the management agency for that specific place is key to local support.

Although user fees were discussed and not adopted in the past in the FKNMS, some portion of fishing licenses sold by the Florida Fish and Wildlife Conservation Commission goes to law enforcement and research conducted by the Florida Wildlife Research Institution. In addition, upper Keys dive operators voluntarily enacted a short term fee to raise funds for sinking a ship to attract divers.

Several Florida dive operators in the audience reported they would support user fees if the money did not end up in a general government coffer but was earmarked for a specific reef protection purpose. They further suggested that no one type of reef users should be singled out for reef use fees.

**Question: How can reef managers improve communication, especially about climate change?**

Managers shared their frustration with their ability to communicate with the general public about reefs in general and about climate change specifically. One manager said that marketing science results about reef condition is as important as the research itself.

Several managers suggested a more business-like approach to marketing, including the use of survey research and public service ads on TV and radio. One such survey led the SEFCRI to target Hispanic radio stations. Interestingly, a conference attendee suggested an alternative to the Hispanic station originally selected by the program, highlighting the complexity of outreach.

There was strong recommendation from the Great Barrier Reef Marine Park and SEFCRI staff to meet people on their own ground -- at meetings they have already set up, community fairs or

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even one-on-one. Asking people to come to a park-sponsored meeting will only attract a limited number of people, many of whom already know your issues and support them.

Communication with legislators was noted by several managers as it is usually a legislative body making decisions about management and budgets. Some managers reported the difficulty in effective communication with elected officials who don't want to accept responsibility for the problem or the cost for fixing the problem when clear solutions are not evident or well supported.

**Question: Here's a yes or no question for the reef managers: Will local actions taken to protect coral reefs work to reduce the impacts of climate change?**

Managers clearly responded in the affirmative and said that all of our management actions need to be viewed through a climate change lens and that we have to change the things over which we have control instead of giving up.

Many referred back to the need to contribute to global action by making your own organization green so you are "walking the talk." It is the small changes that can help support the big ones.

Acting locally on things like wastewater discharge that contributes to poor water quality is important, especially in the island chains where one country's pollution can be another country's concern.

While local actions are important from the perspective of increasing resilience, some managers made sure to remind us how devastated some of our reefs are and that global actions have to happen as well.

**Question from the Audience: Is trap fishing destructive to coral reefs?**

Florida reef managers felt traps do cause damage when the buoy line is severed from the trap and it becomes a loose, or "ghost," trap. In addition, the lines from intact traps placed near reefs can rake the corals as they are moved back and forth by the tides, causing severe damage. The Florida Keys National Marine Sanctuary is working with the trap fishing industry and the Florida Fish and Wildlife Commission to find a strategy to reduce these impacts that all can support. Southeast Florida Coral Reef Initiative has sought grant funds to remove ghost traps and records public service announcements in Spanish and English for local radio stations. In Australia, the public changed the way traps were used for fishing instead of the management forcing the change. People in restaurants/markets ask how lobster/fish was caught. If its trap fished, they'll choose not to buy it. This is similar to the "dolphin safe tuna" approach. There is a "green" movement by fish buyers underway.

Panel Participants:

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