Member's Report ICRI GM 29 – Dominican Republic (Reef Check)

INTERNATIONAL CORAL REEF INITIATIVE (ICRI)
29th General Meeting
20-23 October 2014 – Okinawa, Japan

Member's report on activities related to ICRI

Reporting period October 2013 – September 2014

1. **Updates on your activities.**

Project 1

Cornerstone(s) implemented through the project	Check all that apply: ☒ Integrated Management ☒ Capacity Building ☒ Science & Monitoring ☒ Periodic Assessment (Review)
Project Title	Community-base management of La Caleta MPA
Location	La Caleta, Dominican Republic
Dates	2008-to date
Main Organizer(s)	Reef Check Dominican Republic
Main Stakeholder(s)	La Caleta Fishermen Association (COOPRESCA), dive industry
Description of Project (Please elaborate on how the project implements the FFA cornerstones)	Reef Check Dominican Republic (RCDR), along with the Cooperativa de Pesca y Prestadores de Servicios Turísticos de La Caleta (COOPRESCA) and Ministerio de Ambiente y Recursos Naturales (MARENA) are developing a public-private partnerships to establish a community-based marine resource management, sustainable fishing and eco-tourism program within the MPA. The program is designed to restore reef health and increase economic benefits to traditional fishermen and residents of La Caleta. The MPA management model establishes a self-regulated no-take zone and supports a business model for tourism and other income generating activities. The program is designed to reduce local stressors that will allow fish and coral populations to recover, and provide the basis for non-extractive income generating activity (kayaking, paddle boarding, snorkeling and SCUBA diving), and also better food sources by spillover effect into adjacent open access areas and restore key ecosystem services. RCDR's vision is to have La Caleta MPA management model replicated in other areas of DR, and currently a National Coral Reef Initiative was created, composed of more localized efforts for coastal marine conservation and restoration Samana, Puerto Plata, Montecristi, and La Altagracia. Local and independent financing will be achieved by voluntary user-fee donations, to support long-term conservation and restoration of damaged coastal marine habitats, that will bring back environmental services provided to the people and visitors of the DR.
Outcome (Expected outcome)	-MPA community-based management implemented -Threats to coral reefs reduced - Coral reef health restored

Lessons learned	**Key lessons learnt:** 1. **Co-management** of the MPA between the Ministry of Environment and Natural Resources and a local NGO or user group, following current procedures for the co-management of protected areas developed by the Ministry of Environment and Natural Resources, 2. Create an **independent local financing system** for self-sustainability of the management program of the MPA, based primarily on user fees of resources, membership, eco-tourism activities, and corporate and individual donations from local and international sources, 3. **Structuring and capacity enhancement of user groups**, especially ones responsible for major impacts to the MPA, involving them as much as possible, in research, monitoring and management of MPA, but most importantly in income generating activities, alternatives to extractive ones, 4. **Community-based initial assessment and regular monitoring** of the health of natural ecosystems found in the MPA. Particularly using community members previously trained in easy-to-use and low-cost protocols, and emphasizing the temporal and spatial comparison (inside and outside the MPA, before and after management actions), 5. From the initial assessment and subsequent monitoring of the ecosystems in the MPA, **determine current impacts**, especially ones that can be resolved in the short or medium term. 6. Develop measures for the **reduction or elimination of impacts** found by implementing conservation actions and sustainable alternative uses of resources being impacted. 7. Develop **mitigation measures for impacts** that cannot be reduced or eliminated in the short or medium term. 8. Implement **self-enforced zoning of the MPA**, emphasizing the creation of no-take areas and fisheries reserves suggested by and agreed with the main users of the MPA resources, and using a practical local strategy to facilitate implementation and monitoring to minimize the need for enforcement. 9. Development and implementation of **economic alternatives and community involvement** to replace extractive productive activities by non-extractive economic alternatives for sustainable resource use, having local users as main beneficiaries, and ensuring that some of these profits are reinvested in conservation actions and management of the MPA, 10. Development and implementation of an **integrated watershed management**, with the active participation of resource users in that watershed. 11. After the eventual implementation of programs to reduce impacts start to show signs of recovery, proceed to **implement active restoration** measures. 12. Development and implementation of **marketing and promotion** programs for sustainable activities to ensure long-term sustainability and independent from government funds and grants, and to raise awareness of conservation actions being implemented to a wider audience (not directly related to AMP) objectives and catalyze the

	implementation of management programs Similar AMP elsewhere. 13. Integration of MPA to national or international **MPA networks,** emphasizing exchange programs to share experiences and lessons learned, and to contribute to knowledge management networks at regional MPA.
Related websites (English preferred)	www.reefcheckdr.org

Project 2

Cornerstone(s) implemented through the project	Check all that apply: ☒ Integrated Management ☒ Capacity Building ☒ Science & Monitoring ☒ Periodic Assessment (Review)
Project Title	Coral Reef Nurseries in the Dominican Republic
Location	La Caleta MPA, Bayahibe, Palmar de Ocoa, Juancho, Las Galeras, Las Terrenas, Sosúa, Montecristi
Dates	2010-to date
Main Organizer(s)	Reef Check Dominican Republic
Main Stakeholder(s)	NGOs, fishermen association, dive centres
Description of Project (Please elaborate on how the project implements the FFA cornerstones)	Worldwide coral reefs have been experiencing a long-term decline due to impacts such as overfishing, pollution and more recently, climate change; such impacts have accelerated that decline and more recently, sudden degradation has taken place. In the Caribbean, about 10% of a once flourishing reef system remains alive and the existence of what remains appears to be in jeopardy. Further, the genus *Acropora* once dominated the Caribbean reefs because of their fast growth rate, but this genus has undergone significant population declines of about 90%. Although establishing Marine Protected Areas (MPAs) is essential to the preservation of what remains through the reduction or elimination of such impacts, natural recovery of coral reef ecosystems may be limited in scale unless a more active approach is taken. Such an approach involves a practice known as coral gardening, which involves the cultivation of endangered species in coral nurseries for the later transplantation onto degraded/damaged reefs and in protected areas. Coral reef gardening occurs in two phases: 1. A pool of farmed colonies are generated and reared in underwater nurseries to a size sufficiently large enough to transplant. 2. Once the farmed colonies are of a sufficient size, the adult colonies are transplanted onto protected degraded/damaged reef systems, with the purpose of restoring populations of breeding colonies in order to enhance the natural recovery of the reef ecosystem. This approach parallels the process of reforestation. Trees form the structural foundation of forest ecosystems; like trees, the coral reef colonies form the structural component of the reef ecosystem. Several locations developed as coral nurseries would serve as replicate gene pools to already established ones, thus effectively creating gene pools around Dominican Republic for future coral reef restoration. A diverse gene pool adds to the success of surviving problems that may occur

	around the island. *Acropora palmata* and *Acropora*, two endangered species, are being cultivated primarily given its rapid growth rate and its current status, and then transplanted to natural reefs, and growth comparison are conducted between fragments on artificial nurseries and natural reefs. La Caleta serves as a prime location to house these underwater nurseries because it provides sufficient protection against exploitation and against anchor induced damage to the reef, due to the combined effort of the Ministry of Environment & Natural Resources and Reef Check D.R. Additionally, La Caleta has evolved from an educational outpost to implementing sustainable fishing and no-take zones. Further, La Caleta has become an attraction site to eco-tourism, which has provided supplemental income to the fishermen of this area, thus helping to preserve marine biodiversity and reducing poverty in this coastal community. By installing an underwater garden in La Caleta, there is potential to attract more tourism because not only will there be significant benefits to the adjacent reef, but also tourists will desire seeing active restoration in process and will want to play an active part in that process. Lastly, community involvement will be essential to the success of this program, as it is Reef Check's desire to have the community involved in the maintenance and monitoring of the underwater garden structures.
Outcome (including expected outcome)	-Several coral nurseries established at different locations around DR -Genetic diversity of genus *Acropora* represented and replicated in coral nurseries -Coastal communities and stakeholders involved in managing coral nurseries -Coral nurseries used as a demonstration tool for coastal communities and stakeholders to aid in conservation and management -Local population of *Acropora* genus restored
Lessons learned	-Coral nurseries can be used as a demonstration tool for conservation and management of coastal marine resources - Coastal communities and stakeholders can get involved in conservation -*Acropora* genus can be restored locally using coral nurseries
Related websites (English preferred)	www.reefcheckdr.org

Project 3

Cornerstone(s) implemented through the project	Check all that apply: ☐ Integrated Management ☐ Capacity Building ☐ Science & Monitoring ☐ Periodic Assessment (Review)
Project Title	Lion Fish control and management in the Dominican Republic
Location	Dominican Republic
Dates	2010-to date
Main Organizer(s)	Reef Check Dominican Republic

Main Stakeholder(s)	Fishermen cooperative, restaurants, supermarkets, PR companies, scientists
Description of Project (Please elaborate on how the project implements the FFA cornerstones)	Lionfish was observed in the DR around 2009-10; scientist, PR expert, education, chefs and reporters, formed a local committee. Media exposure was initiated with facts about lionfish and their invasion before false information and rumours started to develop, given limited funding, very little or no research and monitoring was conducted. Based on ICRI's lionfish committee, consumption by humans was promoted by educating fishermen, consumers and seafood points of sale, local scientists provided back up about safety of consumption. Links between fishermen and seafood points of sale was created. Support was given to other regional initiatives in the Caribbean.
Outcome (Expected outcome)	-New fish food alternatives provided to mitigate over fishing of local species -Increased revenue for fishermen -Lionfish populations controlled -Lionfish control and management in DR used as a model to other countries with similar issues
Lessons learned	-Lionfish populations can be controlled locally through consumption by humans
Related websites (English preferred)	www.reefcheckdr.org

2. **Contribution to the ICRI Plan of Action and GM.**

a. Engaging other sectors

Reef Check Dominican Republic (RCDR), along with the Cooperativa de Pesca y Prestadores de Servicios Turísticos de La Caleta (COOPRESCA) and Ministerio de Ambiente y Recursos Naturales (MARENA) are developing a public-private partnerships to establish a community-based marine resource management, sustainable fishing and eco-tourism program within the MPA. The program is designed to restore reef health and increase economic benefits to traditional fishermen and residents of La Caleta.

The MPA management model establishes a self-regulated no-take zone and supports a business model for tourism and other income generating activities. The program is designed to reduce local stressors that will allow fish and coral populations to recover, and provide the basis for non-extractive income generating activity (kayaking, paddle boarding, snorkeling and SCUBA diving), and also better food sources by spillover effect into adjacent open access areas and restore key ecosystem services.

RCDR's vision is to have La Caleta MPA management model replicated in other areas of DR, and currently a National Coral Reef Initiative was created, composed of more localized efforts for coastal marine conservation and restoration Samana, Puerto Plata, Montecristi, and La Altagracia. Local and independent financing will be achieved by voluntary user-fee donations, to support long-term conservation and restoration of damaged coastal marine habitats, that will bring back environmental services provided to the people and visitors of the DR.

b. Reef zoning for multiple use

Location where a zoning plan has been implemented	La Caleta MPA
Year when the zoning plan was implemented	
Is the zoning plan accepted by the local community?	☒ Yes ☐ No
Did the zoning plan cause conflicts among stakeholders?	☒ Yes ☐ No
Did the zoning plan resolve conflicts among stakeholders?	☒ Yes ☐ No
Has there been effective enforcement for stakeholders to follow the zoning plan?	☒ Yes ☐ No
Overall, how would you rate the success of the zoning plan?	☐ Very successful ☒ Somewhat successful ☐ Not so successful ☐ Unsuccessful

A no-take zone was established in La Caleta MPA around 2008, it was agreed upon with local fishermen and divers as a first reason to alleviate conflicts between those user groups. No studies were conducted to determine size or location of no-take zone, but mostly what fishermen were comfortable with accepting. Fishermen took their fish traps outside of the no-take zone and spearfishing was banned. Given limited resources and capacity, enforcement was minimal, and seldom efficient, but present if needed. Support was provided with demarcation of the zone, tools and equipment for enforcement, and procedures were followed against poachers. Now fish and coral populations are bouncing back, which is bringing newer threats to those fish populations once more. This management model is serving as a demonstration site for other locations in DR to follow.

3. Publications.

Title (incl. author and date)	**Website URL if available**	**Type of publication** (Paper, report, etc.)

4. General Information.

Member type (Country / Organization):	
Focal Point 1:	
Name:	Jeannette Mateo
Title/Organization:	CODOPESCA
Email:	jeannettemateo@gmail.com
Focal Point 2:	
Name:	Rubén Torres
Title/Organization:	President / Reef Check Dominican Republic
Email:	ruben@reefcheck.org