

Mesoamerican Reef Leadership Program: Building a New Generation of Leaders

Maria Eugenia Arreola¹, Sandra Pompa²

¹Director of the Mesoamerican Reef Leadership Program, Mexican Fund for the Conservation of Nature

² Program Officer of the Mesoamerican Reef Leadership Program, Mexican Fund for the Conservation of Nature

Corresponding author: maria.arreola@fmcn.org

Abstract.

Strengthening local capacities to lead and implement successful projects that promote a healthy reef system will directly contribute to the social and economic welfare of the people that call the Mesoamerican Reef region home. Launched in 2009, the Mesoamerican Reef Leadership Program (MAR Leadership) (<http://liderazgosam.org/?lang=en>) is a joint initiative of the Mexican Fund for the Conservation of Nature (www.mexicanfund.org) and The Summit Charitable Foundation (www.summitfdn.org) that seeks to accelerate conservation in the Mesoamerican Reef (MAR) Ecoregion. The Program enables early to mid-career professionals from Belize, Guatemala, Honduras and Mexico to launch bold and replicable projects that will mitigate threats to the Reef ecosystem, while also providing valuable leadership skills that will serve them well throughout their professional careers. The MAR Leadership Program has a demonstrated record of recruiting talented young Fellows and providing them with useful skills and coaching opportunities, that ultimately lead to the design and implementation of innovative and hard-hitting conservation projects. Fellows from our 2010, 2011 and 2012 cohorts are outstanding, highly motivated, and internally driven individuals, emerging to mid-career professionals, who represent not only the traditional NGO sector but the business, government, education and media sectors. Fellows from each cohort share the collective and individual objective of developing innovative solutions to resolve the main threats facing the MAR. Each generation has a thematic focus, which varies according to the varying conservation needs of the reef: Sustainable coastal development and tourism (2010), and Sustainable fisheries and the establishment of a network of marine refuges (2011 & 2012).

Key words: Coral reef, Leadership, Fisheries, Coastal development, Marine Protected Areas.

Introduction

The Mesoamerican Reef System (MAR) is the second most biologically significant of its kind in the world. It extends for more than 1000 km along the coasts of Mexico, Belize, Guatemala and Honduras. This region is unique due to the biodiversity it houses: marine turtles, manatees, more than 65 species of coral and more than 500 species of fish, including the charismatic whale shark. The MAR Ecoregion (Kramer and Kramer, 2002) includes oceanic habitats, coastal zones, tropical forests and watersheds that drain into the Caribbean Basin. The diversity of natural resources in this zone has had an effect on indigenous cultures for generations.

The main threats to the Mesoamerican Reef are well known – from local land-based pollution sources (effluents from shrimp farming, agriculture, municipal and industrial sewage) and severe overfishing to poor coastal & tourism development

and global climate change (increase in ocean temperature, coral bleaching, acidification, etc.). These threats are being addressed to varying degrees by a cadre of committed local and international organizations but a major bottleneck exists in our collective ability to make an impact at the scale needed because of limited leadership training opportunities and cutting-edge project design and development initiatives.

Healthy Reefs for Healthy People Report Card (2010) paints an alarming picture in most key indicators (including fish abundance and biomass). The overall condition of the 130 reefs surveyed is dismaying: 31% of these reefs are in critical condition; 38% in poor; 24% in fair; 6% in good; and 1% in very good condition. These numbers underscore the critical need for improved reef conservation. One problem to be addressed is the lack of qualified professionals and emerging conservation leaders in the region. A critical

mass comprised of individuals from all sectors of society must be empowered to take part in restoring the health and vitality of the MAR

Currently, less than 4% of Belize's territorial waters are under strict (i.e., "no-take") protection. This figure is only 1% or slightly less for Mexico; less than 0.5% for Honduras; and practically zero for Guatemala. With the understanding that the less ecologically degraded a reef ecosystem is, the more natural resilience it exhibits, the MAR Leadership Program has taken on the mission of developing a network of multifunctional marine reserves to counteract reef degradation. While there is no consensus regarding how much protection is needed to ensure recovery of depleted populations, the MAR Leadership Program—in line with regional goals and initiatives—strives to secure at least 20% of absolute protection in the territorial waters of each MAR country.

At present, the MAR region's conservation community is small and isolated. Our fellows exemplify the situation of emerging conservation leaders in the MAR region: they have discipline-specific training in areas like biology, law, and tourism, but lack the practical know-how necessary for project design and execution. In many cases, expertise and skills in fields such as business management, organizational management, planning, networking, and communications are essential to generate and act on high-impact ideas. New ideas guided and advanced by skilled leaders from all sectors of the region will be key to advancement of critical conservation issues in the MAR Region.

The Mesoamerican Reef Leadership Program

Geographically focused on the ancestral lands of Mayan civilization—ranging from Mexico's Yucatan Peninsula to Belize, Guatemala and Northern Honduras—the Mesoamerican Reef Leadership Program is the first regional effort of its kind that serves the needs of local reef conservation leaders. This region was chosen for the spectacularly biodiverse reef that runs along each nation's coast: the "Mesoamerican Reef"—the second longest barrier reef in the world.

The MAR Leadership Program seeks to accelerate conservation impact in the Mesoamerican Reef Region by providing young leaders with valuable professional skills and technical assistance to design innovative and replicable projects to conserve the Mesoamerican Reef Region's coastal and marine ecosystems.

The Program operates through cohorts of 10-12 fellows, coming from a variety of backgrounds and sectors including local tourism entrepreneurs, media professionals, government agencies, community leaders, and others as long as their professional endeavors bear a direct connection to the health and integrity of the coastal/marine environment.

Fellows from each cohort share the collective and individual objective of developing innovative solutions to resolve the main threats facing the MAR. Each generation has a thematic focus, which varies according to the varying conservation needs of the reef:

- 2010 — Sustainable coastal development and tourism
- 2011 — Sustainable fisheries and the establishment of Marine Protected Areas
- 2012 — Establishment of a network of Multifunctional Marine Refuges

Each cohort cycle lasts 18 months, during which the program's Fellows receive individual and group training aimed at making them more effective leaders and helping them design and implement sophisticated conservation projects with strong replication potential.

The MAR Leadership Program offers two types of training: group and individual. During group workshops, fellows are trained in project design and their leadership abilities are refined. Targeted competencies include: effective communications/media; public speaking; and negotiation/conflict resolution, time management and leadership in team management.

Regarding individual trainings, fellows have access to a small budget that can be used to participate in courses or technical diploma programs, intensive English or Spanish classes, visits to mentors, visits to pilot projects, internships in international organizations that deal with topics associated with the fellow's project, as well as the production of market studies and data generation to bolster the feasibility of a given fellow's project. These funds are expended according to a training plan designed with inputs from both the program's staff and experts.

For instance, in 2011 fellows took different trainings from bathymetric mapping courses, attendance at international conferences to collaboration in the field with other members of the MAR Leadership Network. An example of the impact of individual training in the development of our

leaders is Gabriela Nava (Mexico), whose project focuses on coral restoration Xcalak National Park. By using her individual training funds, Gabriela had the opportunity to visit the Rosenstiel School of Marine and Atmospheric Science and the Mote Marine Laboratory in the University of Miami, one of the most advanced restoration research centers in world. As a result of this visit, the University of Miami will be supporting Gabriela in the implementation of some components of her project. She will also be attending the International Conference of Coral Restoration in Australia, where she will present the progress of her project. In addition to technical skills and academic contacts, Gabriela has also participated in effective communication skills, negotiation and conflict resolution trainings; this has helped her to be aware of her strengths as a leader and work on those that need to be developed in order to implement her project and lead working groups effectively.

Throughout the cohort cycle, fellows continue working at their jobs on an uninterrupted basis, devoting around 60 days to participate in the program's activities over a year and a half. A typical cohort cycle includes three in-person workshops during the first year. Moreover, each fellow has to dedicate around five hours per week to develop their project proposal with inputs from consultants in project design. The individual trainings, as well as intensive courses abroad, require an additional investment of time.

During the first nine months of each cohort cycle, MAR Fellows invest a good percentage of their time in the development of solid project proposals boasting implementation and replication potential. At the end of the first nine months of the cohort cycle, an External Evaluation Committee—integrated by experts in the theme being tackled by the fellows generation—revises the finalized project proposals and selects the best projects to advance to a second phase. Proposals are evaluated based on criteria such as: innovation, financial sustainability, community participation, replication potential, and others. Fellows with the best project proposals receive additional support during the program's second phase—which lasts nine months—after which the cohort cycle comes to a close. During this second phase, fellows receive support in fundraising and are connected to foundations, NGOs and other philanthropies that are able to capitalize their projects.

The program also offers:

- ✿ Individual competency evaluations, as well as financing for training and professional growth opportunities;
- ✿ During the in-person workshops, fellows have one-on-one access to regional and international experts that provide them with support and feedback for successful project design. Fellows are also given the chance to interact with local organizations in fieldtrips and community service activities;
- ✿ Mentoring opportunities with experts in the thematic focus of each generation;
- ✿ Webinars, podcasts and other distance learning opportunities; and
- ✿ An increased contact network.

The program creates spaces for interaction to encourage the exchange of experiences, and regional collaboration. It is hoped that our fellows consolidate a network that promotes a shared vision of conserving the MAR through participation in the program, synergies among projects, friendships formed therein and through the various virtual tools provided by the program. The tools that MAR Leadership provides for this exchange include:

- ✿ Fieldtrips and exchanges to get to know colleagues' projects and understand local situations, while simultaneously providing feedback for the improvement of the same;
- ✿ Intranet access (*Groupsite*) in which fellows can upload and download documents, participate in discussions, consult the program's calendar of activities and get updates on information about the program and materials to be used in the workshops;
- ✿ A virtual library with useful materials for fellows;
- ✿ An *in situ* meeting with members from previous generations to strengthen and expand the network's individual and group connections; and
- ✿ Commitment of fellows in the candidate nomination process and in mentoring members of future generations.

Results

The MAR Leadership Program is relatively new, however we can say that we have achieved important results:

- ✿ Three cohorts of outstanding leaders of the Mesoamerican Reef region (35 Fellows) are

trained and further inspired in their commitment to MAR conservation.

- ✿ Improved project design and implementation skills that extend beyond the training cycle and significantly impulse each fellow's professional and personal development in the long term.

15 innovative conservation projects are underway, after successful incubation through the Program:

- ✿ A master plan for the management of Manabique Peninsula/Amatique Bay, including the establishment of no-take zones managed by local fishing cooperatives will be developed.
- ✿ A strategy for commercial fishing of lionfish in no-take zones to control this invasive species will be developed.
- ✿ A viable plan will be implemented for the control of lionfish in no-take zones through the creation of demand for consumption by the local population and the restaurant industry and a partnership with local fishermen.
- ✿ A communications and advocacy campaign to address the imminent threat of offshore oil exploration and extraction in Belize, aimed at protecting marine biodiversity and the network of MPAs in the country will be launched.
- ✿ Judges and attorneys in Honduras are trained on Fisheries Law to ensure acknowledgement and law enforcement.
- ✿ A multimedia platform to bolster marine conservation projects and to make them more effective at mobilizing public opinion and political will for conservation action is created. This individual project seeks to incorporate all projects developed by our Fellows and civil society organizations working for the conservation of the MAR Ecoregion.
- ✿ Four sites (500m²) of the Xcalak Marine Reserve will be restored increasing the *Acropora palmata* coral cover through the establishment of 10 nurseries and transplanting 4000 new colonies produced in partnership with the local community.
- ✿ Develop an ecological and economically sustainable management plan for the conch and lobster fisheries in Hol Chan Marine Reserve by 2014 by engaging fishers and managers in adopting responsible fishing practices and monitoring and adapting

fishing pressure based on fishery data collection.

- ✿ Categorization of fisheries (target species, productivity, methods, areas, etc.) within Hol Chan, Bacalar Chico and Caye Caulker Marine Reserves and expansion of the no-take areas.
- ✿ Recovery of lobster and finfish populations in the Sian Ka'an Biosphere Reserve by including additional no-take zones in fishing areas, including seagrasses.
- ✿ An innovative model for low-impact community ecotourism in Guatemala's Rio Dulce region.
- ✿ Protection and recovery of Cancun's coastal zones and beaches through the establishment of an artificial barrier reef.
- ✿ Promotion of tourism services offered by rural communities or communities residing in protected areas through an Allied Nature Tourism Agency in Quintana Roo.
- ✿ Eradication and control of the invasive lionfish through a new and innovative recreational tourism product: Diving to Catch the Lionfish (scientific tourism).
- ✿ Empowering indigenous communities to provide and promote community managed tourism destinations to an international audience through a Sustainable Tourism Development Alliance in Protected Areas of the Mesoamerican Reef System (TAMAR).
- ✿ A growing learning network of committed Fellows, alumni and mentors working to bring environmental sustainability to the MAR Ecoregion.
- ✿ Enhanced cross-sector collaboration among government, civil society, academia, the private sector and community groups.

Examples of project successes are:

- ✿ Through the MAR Leadership Program, and in collaboration with the Belize Coalition, a two-day communications workshop was organized for the Belize Coalition's Executive Committee. They built a communications and campaign strategy that they could employ as they moved to referendum on the oil issue in Belize. The Belize Coalition, in conjunction with Oceana, held a "People's Referendum" on February 29, 2012, and of the 29,235 voters who participated, an impressive 96 percent voted "no" to offshore drilling, taking a stand to protect Belize's natural heritage.

- ❖ A Belizean Fellow has orchestrated a model for managed access for fishers at Glovers Reef and Port Honduras Marine Reserves engaging local community managed access committee in each site.
- ❖ After receiving a visit from an expert of the Western Australia Fisheries Department, a Mexican Fellow was able to develop an exploitation rate model for interpreting tagging data and analyzing tag loss in lobsters in the field. He has had meetings in Mexico with national park authorities (CONANP) and the fisheries department (CONAPESCA) that have been very positive regarding permits and actions to be taken for the introduction of fishing techniques useful for research, tagging, and recapture studies in Banco Chinchorro and Sian Kaan Biosphere Reserves.
- ❖ Another Mexican Fellow is transforming diving into an activity in which participants are given the chance to take action for Banco Chinchorro's conservation. Four new dive sites were commissioned for use by tour guides that are products of her project's training program. Likewise, the capture of lionfish by fishers and tourism service providers has continued. Talks and workshops on the theme of recuperation of native species have been given to fishers in the Banco Chinchorro and Xcalak Reef Reserves as well as to schools and the general public. Moreover, in June, fishers requested a self-ban on fishing of the Queen conch due to its endangered status in Banco Chinchorro. In response to this ban, the Commission on Protected Areas raised funds to incentivize and support fishers so that no economic downturn resulted from prohibiting conch fishing.

Some examples of the Program's impact on the MAR region are:

- ❖ In addition to their individual projects the MAR Leadership Program encourages Fellows to think about cross-border activities. Honduran and Guatemalan Fellows promoted an exchange between sustainable community tourism actors linking leaders from the North Coast of Honduras (La Ceiba, El Porvenir and Jutiapa municipalities) with leaders in Río Dulce Guatemala. Participants from Honduras were

members of the Honduran Tourism Communities Network (RECOTURH) and participants from Guatemala were part of the community and local tourism enterprises. As a result of this exchange, a collaboration agreement was signed between Social Travel (Guatemala) and RECOTURH (Honduras) to create responsible tourism packages that provide direct returns to the local communities and generate less impact in the protected areas in which they operate.

- ❖ In December of 2011, a Mexican expert was invited by a Guatemalan Fellow to participate in several meetings with Guatemalan authorities and fishermen. During these meetings the expert shared Mexico's experience in implementing marine protected areas and clarified doubts about the operation of fish replenishment zones (no take zones) and fisheries co-management mechanisms. The expert's presence helped fishermen understand the importance of replenishment zones. These meetings also helped two Guatemalan Fellows to build a foundation for the implementation of their joint project, which seeks to establish marine protected areas and no take zones in Punta de Manabique Wildlife Refuge in Guatemala.
- ❖ Through workshops and field visits, fellows are also exposed to international experts and job opportunities. For example, Ana Giro met Melanie McField (Executive Director of the Healthy Reefs for Healthy People Initiative, HRI) during one of the program's workshops. As a result of their contact, Ana now holds the position of Country Representative in Guatemala for HRI.

By 2014, we anticipate welcoming our fifth cohort. We will then have an estimated 60+ fellows in key positions along the MAR to effect positive conservation change, with 30-40 innovative conservation projects underway. We also anticipate that this active network of young professionals from the Mesoamerican Reef countries will leverage additional resources and create a critical mass for conservation-minded social change. An explicit objective of the Program is to generate and maintain a strong alumni network. In this case, the program is working to ensure that fellows that did not pass to the second phase of the program as well as alumni remain engaged in the program and its network. There are different strategies to maintain this engagement

including: providing membership to our group site, encouraging interaction on social networks, keeping them informed on the Program's developments, participation in webinars, sending them relevant information, and inviting them to become mentors or trainers.

Discussion

The ecological importance of the Mesoamerican Reef Ecoregion makes it a globally recognized priority conservation area. Many committed research, government, nonprofit and private organizations are part of the management equation, striving to ensure the long-term viability and productivity of the region. The MAR Leadership Program brings additional insights and strategies to the table, while recognizing that our fellows' projects must seek alignment and collaboration with other national and regional efforts if they are to be successful. We also recognize that our fellows' successful innovations in the fishery, tourism and development industries must be replicated and scaled-up quickly, given the urgency of the reef's health.

The MAR Leadership Program makes a unique contribution to the future of the Mesoamerican Reef in the following ways:

- ✿ Substantial investments in local leaders to help them develop lifetime leadership skills and a passion for sustainability. The MAR Leadership training model combines group workshops for project design and development as well as individualized training opportunities tailored to each fellow's needs.
- ✿ The program breaks away from "echo chambers" that tend to exist in certain sectors. We recruit fellows from the private sector, government agencies, local communities, academia and NGOs, encouraging inclusiveness and dialogue across all sectors.
- ✿ Establishing networks of fellows that work across themes (such as sustainable tourism & development and sustainable fisheries). We build networks of local leaders that come to appreciate the intertwined nature of threats and sustainable strategies.
- ✿ Building synergies within each generation of fellows by focusing on a major threat and having fellows build and grow their strategies while identifying interrelationships in the MAR Leadership network of fellows, experts and mentors.

- ✿ Our investment in local people is based on the belief that committed fellows with home-grown ideas will be able to engage their communities, rally their youth, and create the social support needed for effective change.

Acknowledgement

The MAR Leadership Program acknowledges our Fellows from our 2010, 2011 and 2012 cohorts who are outstanding, highly motivated, and internally driven individuals; are emerging to mid-career professionals, and who represent not only the traditional NGO sector but the business, government, education and media sectors. The Executive Committee which is comprised of three visionary individuals whose participation guides the overall strategy of the program: Maria José Gonzalez, Executive Director of the Mesoamerican Reef Fund; Carlos Saavedra, Executive Director of the Summit Charitable Foundation, and Lorenzo Rosenzweig, Executive Director of The Mexican Fund for the Conservation of Nature. Our donors: The Summit Charitable Foundation, The Oak Foundation, The Tiffany & Co Foundation, The Travel Corporation and Contiki Vacations and The Bodhi Tree Foundation for their exceptional support and generosity. We also acknowledge the more than 30 international experts with vast experience in the themes that are being addressed by each generation. These experts give keynote speeches; participate in strategic project feedback sessions and in other activities, such as the in-country fieldtrips.

References

- Kramer P. A. and Kramer P. R (ed. McField) (2002) Ecoregional Conservation Planning for the Mesoamerican Caribbean Reef. Washington, D. C., World Wildlife Fund.
- McField, Melanie et al (2010) Report Card for The Mesoamerican Reef. Healthy Reefs for Healthy People Initiative. Available at: <http://www.healthyreefs.org/index.php/en/eco-health/2010-report-card>