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**THE MESOAMERICAN REEF ALLIANCE (MAR) OF THE INTERNATIONAL
CORAL REEF ACTION NETWORK (ICRAN): MAJOR ACHIEVEMENTS**

Vibrant and spectacular coral reefs, teeming with colorful fish, coral, lobsters, conch, turtles and other marine life, are considered one of the most biologically diverse habitats on earth. The health and biodiversity of these reefs is critical to the economic livelihood and cultural values of millions of people throughout the world who rely on these coastal environments. The Mesoamerican Reef, stretching over 1,000 km (625 miles) along the eastern coasts of Mexico, Belize, Guatemala, and Honduras, is the largest continuous stretch of reef in the western hemisphere; it has been identified as a unique and globally important coral reef ecosystem. People in the adjoining Mesoamerican countries rely on the reef and its associated ecosystems for much of their food and livelihoods. Unfortunately, the Mesoamerican Reef is under severe natural and human induced threat.

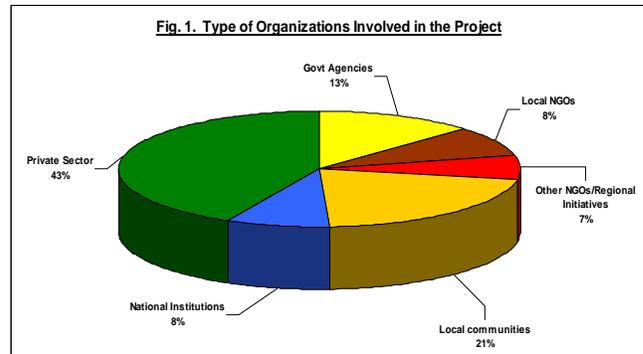
Background – In recognition of the ecological and socio-economic richness and importance of the Mesoamerican Barrier Reef region (MAR), the ICRAN Mesoamerican Reef Alliance (ICRAN-MAR) project was designed in 2003 to contribute to the many local, national and regional-level resource conservation and sustainable development projects that had been initiated in the MAR region since 1990. Discussions among ICRAN representatives and conservation leaders in the MAR region had established that there were opportunities where ICRAN could, and should, become engaged.

As a result, ICRAN partners developed a 3-year initiative to address threats to the MAR under three components known for their potential to strongly impact the coastal and marine ecosystems: **watershed management, sustainable fishing, and sustainable tourism**. With the generous support of the United States Agency for International Development (USAID) and the United Nations Foundation (UNF), the ICRAN-MAR partners would conduct a set of inter-linked, complementary activities to enable the proliferation of good practices for coral reef management and conservation. The strategy of this Alliance would combine a conservation and sustainable management approach with the creation of partnerships with the private sector to leverage resources and talents to find long-term solutions.

Main Project implementing partners included the World Resources Institute (WRI), UNEP-World Conservation Monitoring Centre (WCMC), World Wildlife Fund (WWF), The Coral Reef Alliance (CORAL), UNEP-Division of Technology Industry and Economics (DTIE), and Reef Check. The Regional Coordination Unit of the Caribbean Environment Program UNEP-CAR/RCU, a lead partner within ICRAN, managed project execution and overall coordination.

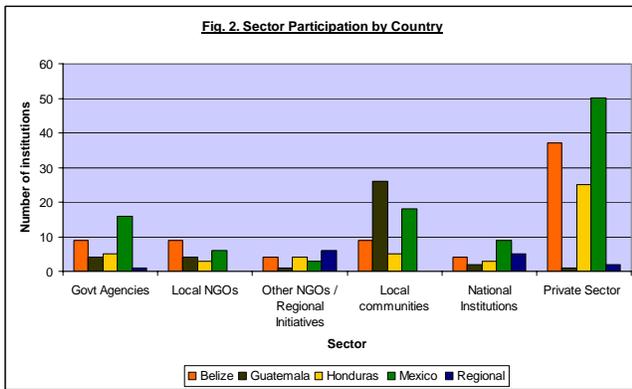
Project Performance – The spirit of creating alliances and consolidating societies with the private sector for the benefit of coral reefs in the Mesoamerican region was the fundamental objective

of the ICRAN-MAR Project. Seeking ways to identify and promote better management practices in the three project components, activities undertaken during the three years of project implementation allowed the establishment and strengthening of important alliances with partner organizations and projects (Conservation International, TNC and FFEM), major international corporations (Chiquita, Dole, Fyffes, etc.), local industries and local community groups (e.g. fishermen’s cooperatives). This mosaic of partnerships and alliances positioned the project at a strategic point with potential to leverage major changes in policies and practices at national and regional levels.



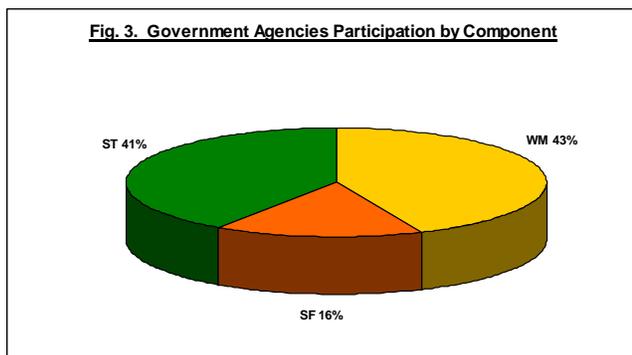
The positive results obtained by the project demonstrate that alliances are an effective mechanism that can bring great benefits for the handling of Marine resources. Nevertheless, it is necessary to keep in mind that coordinating efforts requires commitment and joint work to identify the best strategies that involve relevant stakeholders and especially the local partners.

Using an adaptive management approach that allowed adjusting the necessary mechanisms to achieve overall project objectives, and under the supervision of the coordination unit, ICRAN-MAR partners delivered the expected results and in some instances produced more than originally requested in their project documents.

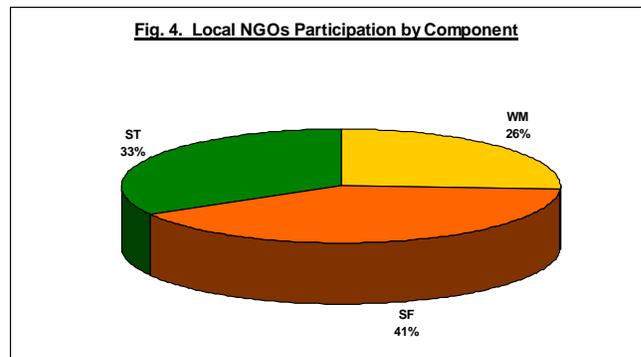


Watershed Management (WM) – Agriculture is deeply interconnected to the economy, the livelihoods, and the biodiversity of the Mesoamerican Region. Appropriate land-use practices are critical for the management of watersheds to ensure that transport of sediment, nutrients, and other pollutants to the Mesoamerican reef is minimized. This component was integrated by two complementary sub-components implemented through several partners led by WWF and WRI, respectively:

- 1) WWF focused its efforts identifying sources of pollution and sediment from agricultural activities that have a negative impact on the marine environment, as well as on-the-ground activities with agricultural businesses to adopt a suite of Better Management Practices (BMPs). **As a result, the following was achieved:** a) bioaccumulation monitoring programme was established; b) significant resources from the private sector (e.g. CropLife) and other donors in the region (e.g. Summit Foundation) were leveraged for the long-term; c) MoUs were signed with major agricultural companies in the region (e.g. Chiquita, Dole) to promote the implementation of BMPs and speak of the industry's willingness to participate in actions that can lower their impact on the environment while maintaining their economical benefits. All these results, being concrete and innovative for the MAR region.



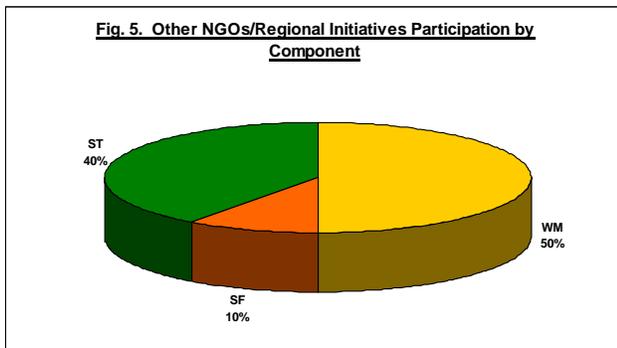
- 2) WRI and UNEP-WCMC assessed information on the effects of land cover change and agricultural activities on sediment and nutrient delivery on coastal waters in the region. **As a result, the following was produced:** a) a comprehensive geographic database on physical characteristics of the MAR region, and a hydrologic analysis of runoff (sediment/nutrient delivery, total suspended solids) to coastal waters; b) a circulation model to estimate sediment transport to the reef, implemented on several scenarios of past, current and future land cover change, to evaluate impact of human activities on sediment and nutrient delivery, as well as the implications of future development paths and policy options. Results of this analysis show that relevant policy action at a national level to address the contributions from agricultural lands in the region needs to be supported. There is great potential and interest in the region to use this tool and its preliminary results. Results have helped identify areas in need of better agricultural management, as the analysis identifies vulnerable areas where conversion to an erosive land use should be avoided, or where converted conservation practices should be implemented. The data and tool have been transferred to partners in the region and are available for anyone to apply to analysis of land-based threats to the Mesoamerican region.



Sustainable Fisheries (SF) – Fishing is probably the most socially and economically important activity for many coastal communities in the MAR region. In the last decade, however, catches have decreased as the key commercial species such as lobster, conch, snappers and groupers are over exploited. This trend represents a global crisis related to coral reefs, and unsustainable fishing practices are among the leading causes. Adoption of Better Fishing Practices (BFP) and monitoring of their potential effects contribute to localized management efforts. ICRAN-MAR project partners engaged community stakeholders in education and awareness activities on the need to adopt better fishing practices, and trained them in

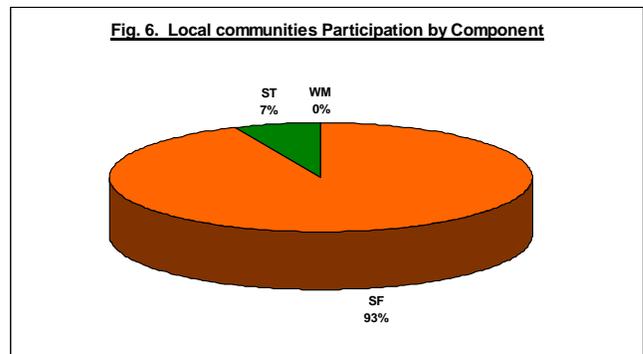
ecological and socioeconomic monitoring of reef health using the Reef Check (RC) Protocol.

The following were the major achievements of this subcomponent: **a)** Lobster fishing techniques were identified in the MAR to produce a comprehensive set of educational materials in support of Best Fishing Practices (BFPs) for lobster –after conducting field studies and several consultation workshops with experts in the region and local fishermen stakeholders; **b)** The lobster Manual “How to profit by practicing sustainable fishing: Lobster Fishing Practices Guidelines for the Mesoamerican Reef”, developed in coordination with local fishermen and guided fishermen to adopt better fishing techniques. These activities set the basis to achieve more ambitious goals, such as lobster fishery certification, or the establishment of a monitoring system of BFP that allows fishermen to guarantee that their lobsters have been caught using BFP (some seafood buyers have expressed their interest in buying this lobster at a preferential price). APESCA in Honduras is using and promoting better fisheries practices with a environmental friendly trap for lobster.



c) Ecosystem-based fisheries management (EBFM) – with fishermen participation in field data gathering – was selected as the strategy to bridge the link between community-based management and ecological monitoring to address finfish fisheries. The EBFM establishes a series of protocols for the use, monitoring and evaluation of the ecosystems where fishing takes place. This strategy aims to reverse environmental degradation and to provide socioeconomic benefits associated with fishing, and to help project partners understand the effects of human activities on ecosystems. The protocols developed allowed partners to gather relevant scientific high quality information very useful in the designing of fisheries management. The strategy to introduce the EBFM was to identify marine protected areas (MPAs) with intense fishing activities, then organize workshops with fishermen and MPA authorities, and design a monitoring programme with fishermen participation.

d) Implementation of Reef Check activities under the ICRAN-MAR project provided continuous presence on the ground (and in the water) of RC trainers and trained divers in the monitoring of ecological and socio-economic aspects of coral reef health. Allowing non-scientist to collect valuable data and educational support in areas where highly expensive and isolated scientific expeditions were lacking or had limited capacity. This can be easily measured in the vast amount of data collected over the life of the project, which is contributing valuable information for local managers, general public and to the Global Coral Reef Monitoring Network that is available online. In addition, local dive centers started to get the necessary tools to get involved in local reef conservation efforts while they receive financial incentives to offer an added value service to their clients.

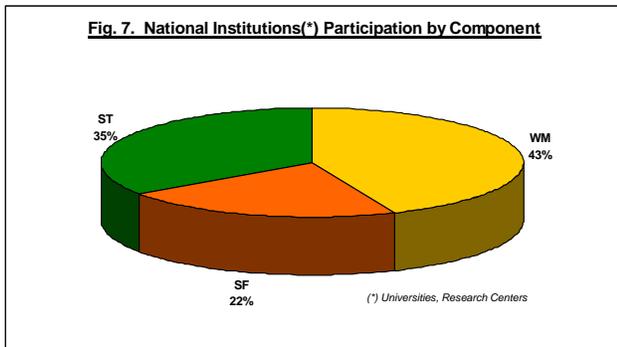


Sustainable Tourism (ST) – While bringing economic benefits to communities, rapid growth in tourism development in the MAR has simultaneously led to increases in pollution, over-fishing, improper sewage disposal, and irresponsible marine recreation activities.

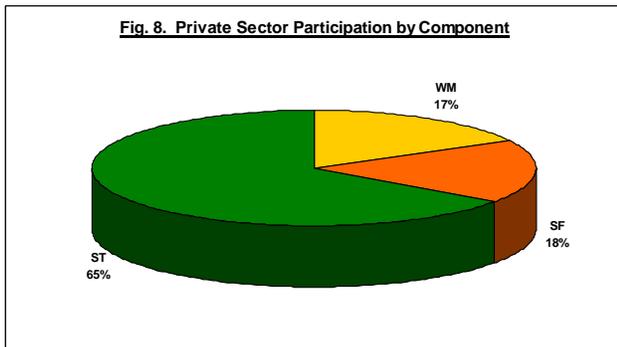
Over the course of the project, partners CORAL, UNEP-DTIE and WWF promoted sustainable tourism in the region by: a) Fostering regional dialogues across a broad sector of industry stakeholders leading to collaborative action on embracing sustainable tourism; b) Facilitating the development of standards and a voluntary code of conduct that can be applied throughout the Mesoamerican region and potentially elsewhere in the Caribbean; and c) Providing training and support for adoption of the code of conduct, leading to the private sector in the MAR being fully engaged in the practice and promotion of sustainable marine tourism.

Major achievements included:

a) An innovative comprehensive set of conservation and safety standards for marine recreation activities such as scuba diving, snorkeling and boating operations developed and adopted through a stakeholder-led process in the marine tourism industry.



b) Workshop trainings in three project pilot sites (Placencia-Belize, Roatan-Honduras, Playa del Carmen-Mexico) improved the capacity of these communities to address coral reef threats by: **i)** increasing awareness of reef ecology and sustainable business practices, **ii)** improving local capacity for collaborative coral reef conservation efforts through technical and financial assistance, and **iii)** providing both a process and end product (standards) which will lead to implementation of a code of conduct for marine tourism operations. Over 300 stakeholders in the region benefited from these activities. These efforts are being expanded to other parts of the Caribbean.



Partnership Building/strengthening – Seeking ways to promote long-term sustainability of the project’s outcomes, coordinating and implementing partners actively engaged in leveraging and bringing the project to the attention of other stakeholders in the region. They participated in several activities throughout the Mesoamerican region (e.g. Tulum+8 meetings, the Second Mesoamerican Congress on Protected Areas, and ITMEMS-3) interacting with local communities, governments, NGOs, scientists, and the private sector to discuss ways to strengthen conservation actions and sustainable management in the region.

On the technical side, implementing partners continuously sought ways to enhance activities and leverage project impacts. Among others, CORAL established a pro bono agreement with Underwriters

Laboratories Inc. for use of their online standards development software; likewise, WWF managed to secure additional funding from Summit Foundation to continue their on-the-ground work on promotion of better practices. CropLife Latin America provided resources to develop the pesticides bioaccumulation protocol and monitoring programme.

In addition to coordinating and supervising the implementation of the technical activities, efforts were made to ensure that duplication of actions was avoided, and that the use of the available financial resources was optimized. This was possible through meetings and discussions with representatives of organizations and institutions in the region to identify opportunities for collaboration.

Coordination Support – The role of the coordination unit in Belize was fundamental in supporting project performance. The unit was housed at the Fisheries Department and in collaboration with the GEF/CCAD/World Bank Mesoamerican Barrier Reef System Project at the same location. Overall Project performance benefited from the coordination’s role in facilitating close follow-ups, constant communication, and transparency with project partners and other stakeholders in the region.

The Way Ahead – Thanks to the quality of the results produced (many of the products and initiatives generated are being replicated and/or adapted in other regions of the World), to the significant number of alliances and forged partnerships, and to the leveraged financial resources as a consequence of the ICRAN-MAR Project, local and international partners are now well positioned to continue capacity building efforts and development of local partnerships and alliances which will improve sustainable business practices and community-wide support for watersheds, sustainable tourism and fisheries. In fact, at the end of 2007 partners had already secured sources of funding to continue some concrete actions under the three components. This will allow consolidation of the project’s impacts in the MAR region and dissemination to other areas of the Wider Caribbean.

For more information refer to the Executive Summary of the Terminal Report, or visit us at: www.icran.org