

# Member's report on activities related to ICRI -

# Reporting period October 2013 - September 2014

## 1. Updates on your activities.

Project 1 Replante de Coral			
Cornerstone(s) implemented through the project	Check all that apply:□ Integrated Management⊠ Capacity Building⊠ Science & Monitoring⊠ Periodic Assessment (Review)		
Project Title	Coral Replantation		
Location	Dixon Cove Bay, Roatán, Bay Island, Honduras C.A.		
Dates	January, 2013		
Main Organizer(s)	Consortium AQUA		
Main Stakeholder(s)	Government of Honduras		
Description of Project (Please elaborate on how the project implements the FFA cornerstones)	The project involved the restoration of ecosystems that have been damaged by human pressure to develop tourism projects as Spring Cruise, all this to serve as an environmental control measures under a contract that extends the state to mitigate the damage to the reef.		
Outcome (Expected outcome)	<ol> <li>Create an optimal environment where studies are conducted to the extent possibilities and ensure the success of the replantation.</li> <li>Viability obtain 90% of the specimens</li> </ol>		
Lessons learned	<ul> <li>Viability obtain 90% of the specifiens</li> <li>Implementing good practices and methods of Coral restoration.</li> <li>Formation of teams</li> <li>Training process</li> <li>Inter accompaniment</li> <li>Promoting environmental education and awareness to assess sensitive ecosystems</li> <li>Monitoring involves the participation of a multidisciplinary team</li> </ul>		
Related websites (English preferred)	No		

Project 2 Protocolo AGRRA: Monitoreo de Arrecifes Coralinos			
Cornerstone(s) implemented through the project	Check all that apply:☑ Integrated Management☑ Capacity Building☑ Science & Monitoring☑ Periodic Assessment (Review)		
Project Title	AGRRA Protocol		
Location	Locked and Insular Area Corridor of Honduran Caribbean		
Dates	1 time per year		
Main Organizer(s)	AGRRA		
Main Stakeholder(s)	Government of Honduras (Environment, Tourism, Forestry) and NGOs, scientists and private companies.		
Description of Project (Please elaborate on how the project implements the FFA cornerstones)	The AGRRA Protocol is applied to the state of reef health in the Caribbean (Atlantic and Rapid Reef Assessment) The aim of the Rapid Assessment Program Reef Gulf (AGRRA) Atlantic is the importance of evaluating the structural and functional attributes of coral reefs of the tropical western Atlantic and to provide independent estimates of fishery fishing intensity. The survey data AGRRA-sponsored, or which have been collected independently, are presented to the program, where they are processed, archived and posted online at regular intervals (see: ww.agrra.org). AGRRA sites are surveyed sites probabilistically to obtain information representative of large areas such as shelves, islands, countries or ecoregions, ie on scales over which many reef structuring processes and impacts occur. It's a quick sampling of many sites in a stratified random seascape with a small number of non-fixed, based on transects, visual surveys, it has been shown to provide a more accurate estimate and spatially representative of large areas of reef given sample detailed many transects only one or several areas (Murdock and Aronson, 1999;		
Outcome (Expected outcome)	Kramer, 2003;. S. Smith et al, Mss, see also T. Smith et al., 2008). Determine the state of health of the sites are identified for monitoring Get comparisons between sites to implement guidelines that lead to compensating the degradation. Develop conservation policies.		
	Contribute to the development of best practices as a basis for improving the health of the reefs both nationally and internationally.		
Lessons learned	The procedures adopted by AGRRA provide a good guide for the effective monitoring of fish abundances. The AGRRA program has conducted several training seminars in the region that are usually followed by a collection of baseline data in a number of locations. The monitoring system is as a tool to measure changes, understand their origin and help decision-making.		
Related websites (English preferred)	<ul> <li>www.Agrra.org</li> <li>www.Healthyreefs.org</li> </ul>		

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

#### a. Engaging other sectors

In Honduras there are banks of fishing yet unstudied of reef formations and through organizations such as Healthy Reef, we have developed monitoring programs implemented as AGRRA Protocol.

We have some experience in replantation of Coral and Gardens Reef, the first is product of a tourism development such as a spring Cruise which was extracted some Coral material and some of it were replanted in other areas, a previous study was performed to define ideal conditions for site selection for the replantation.

On the island of Utila and Cayos Cochinos Archipelago there are local groups that have implemented this type of reef restoration through Coral Gardens, which has not been given the monitored for their effectiveness.

We should also mention that in the Pacific Ocean of Honduras, it has been developed a small programs installing an artificial reef modules for increasing artisanal fisheries. The State of Honduras is part of a network for reef restoration regionally, one of its objectives is to create early warning capabilities for restoring damaged as a result of tourism projects and anthropic ecosystems.

Honduras has a complex of islands, Cays and Islets in both the Atlantic and the Pacific Oceans there are marine protected areas, each of which has a management plan with its respective zoning. The National System of Protected Areas (SINAPH), brings together 22 marine protected areas, with coastal and island length of 1,006 kilometers, 16 AP are declared covering an area of 966,857.071 hectares.

## b. Reef zoning for multiple use

#### **Location 1**

Location where a zoning plan has been implemented	Bay Island Marine National Park
Year when the zoning plan was implemented	2000
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	□ Yes 🛛 No
the zoning plan?	
Overall, how would you rate the success of the zoning plan?	□ Very successful
	□ Somewhat successful
	🖾 Not so successful
	□ Unsuccessful

In the case of the Bay Islands is a center of tourism development, the Management Plan was updated in which zoning changes have suffered but until now it has not been implemented as a real land use planning, in view of the tourism sector (hotels, restaurants, cruise ship docks and dive sites) growing at a rapid pace, uncontrolled despite having tools that facilitate its distribution, for this reason our legislation urges proponents of new projects to develop studies of Environmental Impact Assessment, to identify those impacts that are positive and negative at the same development and the environment, trying to harmonize and achieve sustainable development. Bay Islands has in its environment an important reef formation and within these there are three emblematic Bank Corals one is the Cordelia Bank, which owns approximately 21 hectares (52 acres) of Acropora cervicornis (coral "deer horns"), a species that has undergone a reduction in abundance around the Caribbean to 98%. "This is one of the fastest growing corals in the Caribbean, with its branches grow 10-20 cm per year, making it one of the most important corals in the area in terms of its contribution to reef growth and fish habitat ".

Cordelia Bank is located in an area currently under heavy human pressure. It is located in the west of Roatan, between the two largest towns in the municipality: Coxen Hole and French Harbour. Coxen Hole is known for being the provincial capital, with a large number of commercial establishments and population density increased due to immigration; while French Harbour is the industrial center, with industries such as industrial fishing, seafood packers and shipyards among others.

## Location 2

Location where a zoning plan has been implemented	Cayos Cochinos Natural Marine Monument
Year when the zoning plan was implemented	2009
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	🖾 Yes 🛛 No
the zoning plan?	
Overall, how would you rate the success of the zoning plan?	□ Very successful
	🖾 Somewhat successful
	□ Not so successful
	□ Unsuccessful

The Cochinos Cays is a Natural Marine Monument consists of two large islands and 13 cays situated 30 kilometers northeast of La Ceiba on the north coast of Honduras, the main activity of the area is tourism; has a management plan where the zoning of the area is covered.

The area is managed by the Cochinos Cays Foundation under a public-private partnership, for their support since 2009, this is not socialized with communities that had used the entire complex ecosystem, in which a new management plan was updated in 2015, in the latter communities have the right to use the resource - a first Management Plan 2004 was developed fishing, this activity has been carried on from generation to generation.

## **Location 3**

Location where a zoning plan has been implemented	Golfo De Fonseca Marine National Park
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	□Yes ⊠No
the zoning plan?	
Overall, how would you rate the success of the zoning plan?	□ Very successful
	□ Somewhat successful
	⊠ Not so successful
	□ Unsuccessful

The Gulf of Fonseca is a natural geographical areas of greatest importance to the Pacific coast, both ecological role as lead for biodiversity. Existing wetlands in this area are composed of mangroves, lagoons winter marshes, sandy beaches and mudflats albinos. All of them, distributed in seven of the ten protected areas in the south of the country.

This site called Wetland System Gulf of Fonseca, Honduras was declared a Ramsar site of international importance becoming the 1000th worldwide on July 10, 1999; which consists of a complex of seven coastal marine areas with approximately 74,882.70 hectares. Surface; these are: Chismuyo Bay, Bay of San Lorenzo, Los Delgaditos, Las Iguanas and Punta Condega; Jicarito, San Bernardo and Barbary, along the Honduran portion of the Mesoamerican Biological Corridor Pacific.

Although there are no changes in the physical boundaries of the area, if any in ecological character.

The cause of this change:

• New projects previously concession areas and their declarations as protected areas to productive industries shrimp farming and salt flats.

- Illegal mangrove removal.
- Sedimentation ecosystem generated by erosion of river basins and sub-basins that drain it.

• Expansion of the agricultural frontier, ranching, production of sugar cane, pine, melon, watermelon.

• On the other hand the area where the 1000 Ramsar site is an area with strong tidal changes so the lack of vegetation cover has caused the entry of these swells to populated areas.

In this area of the country, low levels of human development, poverty and high feed rates of desertification are reported; currently continuing destruction, overexploitation, pollution and degradation of protected areas despite boast one of the Ramsar sites of international importance.

## **Location 4**

Location where a zoning plan has been implemented	Jeannette Kawas National Park
Year when the zoning plan was implemented	2009
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	🗆 Yes 🛛 No
the zoning plan?	
Overall, how would you rate the success of the zoning plan?	□ Very successful
	🖾 Somewhat successful
	□ Not so successful
	□ Unsuccessful

In the Peninsula of Punta Sal (located within the "Jeannette Kawas Fernández" -PNJK-National Park) A bank of a major reef coral species that is critically endangered Elkhorn Coral (Acroporapalmata) is found, which was decimated around the world by a variety of factors, to the point that an estimated 98% since disappeared from the oceans of the world in the last 10 years.

This fringing Punta Sal was monitored in detail and counted until today more than 750 colonies in perfect health of Coral Elkhorn area, making it one of the best reefs in the Caribbean.

#### 3. Publications.

Title (incl. author and date)	Website URL if available	<b>Type of publication</b> (Paper, report, etc.)
Report Card for the Mesoamerican Reef	www.healthyreefs.org	Report
Marine Gaps Analysis	www.wwf.org	Paper

#### 4. General Information.

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