

ANNEX C –TERMINAL REPORTS

(For External Projects Only)

Implementing Organization CORALINA

Project No. PIMS-2193

Project Title: Management and Conservation of Reef Biodiversity and Reef Fisheries Pilot Project – Seaflower MPA

1. Project Needs and Results

This pilot project focused on improving enforcement practices and adaptive, ecosystem-based management in the Seaflower MPA in order to maintain its coral reef biodiversity and long-term productivity. Through this project CORALINA strengthen the ecosystem-based approach towards better conservation and effective management of coral reef ecosystems and their associated resources, including the reef fishery resources. The improvement of resource management, better enforcement mechanisms intense educational activities in compliance with different sectors of the community helped to enhance governance by building capacity, sharing and adapting best practices learnt at local, national and across the region.

2. Project activities

This project consisted of five broad activities. The first one was named “Strengthening of Integrated Ecosystem Based Management” and it was expected to generate scientific information needed to improve integrated resource management, better value ecosystem services and goods, thus applying holistic criteria, and not only focusing on single species. Through the various activities and collaborative work, CORALINA successfully conducted three scientific expeditions, exceeding proposed outputs (Figure 1). When data analysis is done quickly, with quality control procedures and international advisors generated the scientific proved useful for adjust or implement management policies and regulations. The validated decisions with stakeholders are nowadays regionally recognized, as valid and important examples about to include sustainability principles into local and national marine resources management. Follow up meetings and forums are considered important to maintain communication channels and to define management actions and necessary alliances they require.



Figure 1. Underwater pictures taken during the Global Reef Expedition conducted at the most northern archipelago atolls.

With the project second activity “Strengthen Collaborative Enforcement Mechanisms, Analysis of Fishing Regulations and New Fishery Regulations in Place” there were three main project outputs expected to be completed, as follow:

- Analysis of the existing policy, legal, and regulatory framework related to fisheries.
- Training of authorities and stakeholders in EBM and reef fish conservation Workshops (Figure 2).
- New regulations to improve reef fish conservation in Seaflower in place.
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Figure 2. Special meetings and workshops

These activities were expected to contribute to the improvement of participative fisheries management regulations and consequently to the reduction of illegal fishing. In the same sense, efforts have been made towards the improvement in the planning of enforcement activities within the Seaflower MPA.

The following can be highlighted as the main issues towards improvement of the enforcement and surveillance within the Seaflower MPA.

- Seek voluntary compliance through greater and more practical education and training. This work should be able to constitute a formal citizen voluntarily group that support CORALINA in enforcement several management regulations, or increase the number of complains.
- Be able to maintain the presence on the managed area, including terrestrial, marine or aerial patrolling coordinated agendas. Develop special agreements for special times or events, or common violators.
- Define realistic, precise and clear objectives that would allow improving public perception about the success of enforcement and surveillance activities.
- Education should focus on key species, making available to the general public their basic bio-ecological characteristics, their role in the ecosystem and why the regulation is in place.
- Develop more collaborative inter-institutional work regarding enforcement and surveillance, involving uniform and armed personnel, along with agencies personnel, and members of the local community.
- Develop a penalties or fees schedules accordingly with the type of infraction.
- Provide professional and standardized training to the military personnel in an effective way, counteracting high rotational scheme they regularly manage.
- Define indicators to be able to measure the effectiveness of patrolling, infractions, inspections or any action related to the enforcement and surveillance.
- Improve technology dedicated to the enforcement personnel in general. That refers for instance to VMS (vessel monitoring systems), EMS (electronic monitoring system), electronic logbooks, AIS (automatic identification system), LRIT (long range identification and tracking), radar imaging system, optical imaging system, and integrated sensor systems among others.

Similarly, the third project activity “Public Awareness, Education, and Outreach” considered four main outputs from which CORALINA significantly exceeded all of them. Educational activities focused on key species that were both, identified important for the evaluation Seaflower Marine Protected Area (MPA) performance and important as fisheries stocks, and reached the entire representation of our local community. It generated products that can be utilized long after the project ends and awaked emotions, knowledge and thoughts needed to continue the conservation and sustainable policies and regulations within the Seaflower MPA marine resources, including those subjected to fishing. Again, inter-

institutional collaborative work helped to significantly improve the different educational activities (Figure 3).



Figure 3. pictures showing results from educational activities developed with the CLME pilot project.

Accordingly with the four project activity “exchange of lessons learned” we were able to plan and organize a four days regional workshop, last 23-25 April 2012 in San Andres Island, Colombia. The workshop was attended by the coordinators, staff and experts of the CLME project as well as representatives of the three pilot projects of the Biodiversity and Reef Fisheries Management subproject, which takes place in 3 sites: San Andres, Colombia; San Pedro Bank, Jamaica; and Haiti-Dominican Republic northern transboundary area (Figure 4). In addition, and taking the advantage of similar activities planned by other international projects, representatives of three regional projects relevant to marine conservation and marine resource sustainability were invited to make presentations and participate in the discussions. The projects involved were:

- GEF /IADB PROJECT “Protecting Biodiversity in the Southwestern Caribbean Sea”,
- GEF/PNUD project “Designing and Implementing a National Sub-System of Marine Protected Areas (SMPA) in Colombia” and
- UNEP-CEP project funded by the Directorate General for Development Cooperation of the Italian Ministry of Foreign Affairs entitled: "Regional support for the Caribbean Challenge initiative: Networking, consolidation and regional coordination of MPA management".



Figure 4. Images from the international workshop for experiences exchanges within CLME partners.

The last project activity “Adaptive Management Improved Through the Introduction of Best Management Practices” developed several actions, including a fish recovery pilot project in the South-

South-West atoll, in which six structures made of empty queen conch shells were installed and monitored, with excellent results (Figure 5). CORALINA was able to get additional funding from the national government to scale up the outputs from this project in 2013. Active participation of artisanal fishermen in this activity and change their attitude in regard to implementing good actions within the Seaflower MPA. Due to successful results of this pilot project, the fishermen support there were additional workshops, planning meetings and some training needed to scale-up the results from pilot project, thus at the end of 2013 there will be 42 structures on place functioning in conjunction as available habitat for increasing reef fish recruitment in this atoll.



Figure 5. pictures from various activities conducted under adaptive management project component.

CORALINA participated and collaborated with additional CLME activities by participating in steering committee meetings, reviewing various versions of the “Regional Transboundary Diagnostic Analysis” and a preliminary version of the “Strategic Action Plan”. We also helped the international advisor Dr. Robin Mahon in his governance analysis, for which we conducted three meetings, two at local level and one at national level.

Unfortunately, with the final decision of the International Court of Justice emitted last November 19, 2012 a new Colombia-Nicaragua maritime frontiers has been set, a decision that instead of solving a decade of disputes, actually generated more conflicts. It is too soon to evaluate the consequences of this decision in terms of the region governance and the sustainable policies in place in this transboundary area. Detailed technical documents for each of the project activities generated are part of this final report.

3. Project outputs

Activity Goal	Actions	Planned	Achieved
Integrated ecosystem-based management needs assessed and management frameworks strengthened.	Research expedition to the MPA Northern Section undertaken, with information on key species and ecosystem conditions gathered and analyzed.	1 scientific expedition to the MPA northern section.	3 expeditions to the MPA northern section conducted.
	Watershed erosion control measures implemented in MPA Southern and Central Sections.	Several	Protection infrastructure, risk analysis.
	Beach monitoring revised and erosion control measures introduced to reduce coastal erosion in the MPA Southern Section.	Several	Beach monitoring in PVA, SAI and ESE.
Existing regulations analyzed, with new regulations	Analysis of the existing policy, legal, and regulatory framework related to fisheries in the archipelago completed as required, to provide the background	Legal fishing framework analysed.	100% accomplished.

in place and collaborative enforcement mechanisms identified	needed to improve regulations and reduce illegal fishing.		
	Participatory enforcement planning process for Seaflower MPA underway.	Several	Participation in national initiatives to counteract illegal fishing.
	Authorities and stakeholders trained in EBM and reef fish conservation.	Several	Training with NOAA enforcement, international affairs, National Marine Estuaries and MPA.
	Regulations to improve reef fish conservation in Seaflower in place.	At least one.	One regulation about shark fishing in place, others in study.
Public awareness, education, and outreach focused on regulations and enforcement enhanced.	Queen conch curriculum updated and implemented in schools.	One.	One designed, implemented with 500 students, and 30 teachers. Books printed.
	Island-wide key species education campaigns carried out	Several.	5 key species with educational material, more than 40 classes and more than 10 field trips conducted with around 500 students. One play written, produced and presented to more than a 250 kids.
	MPA signage put in place at selected sites to promote management, compliance, and awareness	6.	20.
	Educational movie to build community understanding of MPA management and reef fish conservation.	1 MPA video.	1 MPA video of 17 minutes and a total of 10 video-clips.
Best practices transferred between partners with lessons learnt disseminated locally, nationally, and regionally	Workshop on regional conservation and fisheries management practices realized	1 regional workshop.	1 regional workshop for exchange experiences and 1 international workshop for spiny lobster stock assessment.
Adaptive management improved through the introduction of best management practices	Coral and reef fish recovery pilot programme rooted in best practices developed and implemented.	1 pilot project.	1 pilot project executed and additional extension of this project currently underway in SSW.
	Adaptive management plan for invasive species control.	1 management plan.	1 national plan for lionfish produced.
	Support for continuation and expansion of the recovery pilot project	Not planned	1 new pilot project planned and funded with additional funds from the Colombian Government due to success of pilot executed.

There were not planned actions that were not accomplished. Additionally, CORALINA participated and collaborated with additional CLME activities by participating in steering committee meetings, reviewing various versions of the “Regional Transboundary Diagnostic Analysis” and a preliminary version of the “Strategic Action Plan”. We also helped the international advisor Dr. Robin Mahon in his governance analysis, for which we conducted three meetings, two at local level and one at national level.

<p>(a) MEETINGS (UNEP-convened meetings only)</p> <p><input type="checkbox"/> Inter-governmental (IG) Mtg. <input type="checkbox"/> Expert Group Mtg. <input type="checkbox"/> Training Seminar/Workshop</p> <p><input type="checkbox"/> Others</p> <p>Title: See details in annexed technical reports.</p> <p>Venue and dates _____</p> <p>Convened by _____ Organized by _____</p> <p>Report issued as doc. No/Symbol _____</p> <p>Languages _____ Dated _____</p> <p>For Training Seminar/Workshop, please indicate: No. of participants _____ and attach annex giving names and nationalities of participants.</p>

(b) PRINTED MATERIALS

Report to IG Mtg. Technical Publication Technical Report Others

Title **See details in annexed technical reports.**

Author(s)/Editor(s) _____

Publisher _____

Symbol (UN/UNEP/ISBN/ISSN) _____

Date of publication _____

(When technical reports/publications have been distributed, attach **distribution list**)

(c) TECHNICAL INFORMATION

PUBLIC INFORMATION

Description _____

Dates _____

(d) TECHNICAL COOPERATION

Grants and Fellowships

Advisory Services

Staff Missions

Others (describe)

Purpose _____

Place and duration _____

For Grants/Fellowships, please indicate:

<u>Beneficiaries</u>	<u>Countries/Nationalities</u>	<u>Cost(in US\$)</u>
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(f) OTHER OUTPUTS/SERVICES

For example, Networking, Query-response, Participation in meetings etc.

4. Use of outputs

See detailed technical reports annexed.

5. Degree of achievement of the objectives/results

See detailed technical reports annexed.

6. Conclusions

The CLME pilot project executed by CORALINA was highly productive and reached the entire representation of our local community. It generated products that can be utilized long after the project ends and awaked emotions, knowledge and thoughts needed to continue the conservation and sustainable policies and regulations within the Seaflower MPA marine resources, including those subjected to fishing.

Data analysis done quickly, with quality control procedures and international advisors, generated the scientific bases needed for adjust or implement management policies and regulations. The validated decisions with stakeholders are nowadays regionally recognized, as valid and important examples about to include sustainability principles into local and national marine resources management.

Inter-institutional collaborative was also significantly improved by planning and conducting so many different educational activities. Among the enhanced partnerships regarding educational components are the ones developed with AUNAP, National University, SENA students, school teachers and coordinators, and local artists. The excellent collaboration and good feeling regarding the environmental education programs is highly valued.

GEF promotes international cooperation, solutions sharing to increase impact and capacity building were all achieved by CORALINA; however there were little communication with other partners within this pilot project or with people from other pilot projects. Considering that practical solutions can be seen easily through the pilot projects, there is need for broader communication and interaction among several partners at a regional basis.

The recent decision of the International Court addressing the dispute between Colombia and Nicaragua happened at the of the project, and created more conflicts that previously envisioned, thus governance analysis need more work and perhaps international mediation, in order to keep resource sustainable use of coral reef biodiversity.

7. Recommendations

- It is important to continue the educational process now that schools have opened spaces to interact with CORALINA's programs and projects. The public awareness and education can advance if more schools apply these experiences.
- Follow up meetings and forums are important to maintain communication channels and to define management actions and necessary alliances they require.
- Considering the high motivation sensed during the field trips, it is important to do more field trips and practical lessons in order to maintain students and teachers motivation, although some improve in the logistics it might be necessary.
- It is important to continue the partnership with several institutions and even try to integrate others such as the Secretariat of Education in order to guaranty the implementation of the Conch Curriculum and other educational activities still planned in the project.
- During the exchange workshop there were restoration and monitoring activities highlighted as basis for further cooperation, in particular when working on remote areas, including those with multinational fisheries jurisdiction. These actions should be follow-up.
- It is necessary and important to continue strengthen all the environmental educational process, needed to change people's behaviors towards a sustainable use of the Seaflower Biosphere Reserve resources.

8. Non-expendable equipment (value over US\$1,500)

During the implementation of this project CORALINA bought two non-expandable equipments. The first one was a HP COMPAQ desktop computer identified as follow:

Item	Model	Serial	Value (\$Col)	Depreciation (\$Col)	Final value (\$Col)
Tower	6200	MXL131297V	2.879.000	575.800	2.303.200
Monitor	S1933	CNC12OQP5Q			
keyboard	KB0316	BAUDUOKVBON15T			
Mouse	MOAFKOA	FATSQOC67QFZ9D			
Total			2.879.000	575.800	2.303.200
Total (USD)			1.580	320	1.280

The second one was an EPSON Powerlite presenter computer projector identified as follow:

Item	Serial	Value (\$Col)	Depreciation (\$Col)	Final value (\$Col)
EPSON projector	MBP1620482	3784000	756800	3027200
Total		3784000	756800	3027200
Total (USD)		2102	420	1682

Depreciation after one year of use was calculated as 2% of the initial price. Exchange rate is 1USD=1800 COL

ANNEX D- GUIDELINES FOR FINANCIAL REPORTS

Format of Project Expenditure Accounts for Supporting Organizations

to

Project No. PIMS-2193.

Supporting Organization CORALINA

Project title: Management and Conservation of Reef Biodiversity and Reef Fisheries Pilot Project – Seaflower MPA

Project commencing: March 24/2011

Project ending: May 30/2013

Code	UNEP	Detail	\$ Col	\$USD
10		Personnel Component		
1100	Project coordinator	Martha Prada	72,000,000	40000.0
1101	Financial coordinator	Indira Perry	15,600,000	8666.7
1102	Biologists	Leonardo Arango, Claritza Llanos, Trisha Forbes	24,865,848	13814.4
1103	Lawyers	Fady Ortiz, Jayson Taylor, Juan Williams	9,051,000	5028.3
1104	Educators	Enriqueta awkins, Nery Taylor	22,926,000	12736.7
1105	Technician	Jose Luis Pomare	27,000,000	15000.0
1106	Promoter	Eduardo García	19,800,000	11000.0
1199	Sub-total		191,242,848	106,246
1200		Consultants		
1201	Movie/video	Monica Jaay	12,900,000	7166.7
1202	Designer	Jose Florez	27,150,000	15083.3
1203				
1299	Sub-total		40,050,000	22,250
1601	Travel official	Various national travel	14,967,019	8315.0
1699	Sub-total		14,967,019	8,315
		Total Component	246,259,867	136,811
30		Training Component		
3200	Group training	coral restoration training	1,024,000	568.9
3202		Training CV	4,963,184	2757.3
3202	Study tours	Scientific expedition	26,728,700	14849.3
		coral monitoring	1,350,000	750.0
3299	Sub-total		34,065,884	18,925
3300	Meetings/Conferences	Gasoline	7000000	3888.9
		Educational materials	25,390,000	14105.6
		printed materials	20,400,000	11333.3
		recovery project	18,100,000	10055.6
3301	Local meetings	logistics local meetings	7,893,500	4385.3
3302	Regional workshop	regional workshop	33,570,000	18650.0
	Sub-total		112353500	62418.6
3999		Total component	146,419,384	81,344
40		Equipment		
4100	Expendable equipment	office supplies	14,039,776	7799.9
4101		other expendable	12,030,840	6683.8
4102		petit cash	1,155,500	641.9
4200		non-expendable	7,400,000	4111.1
	Sub-total		34,626,116	19,237
4999		Total component	34,626,116	19,237
50		Miscellaneous Component		
5100		project insurance	515,500	286.4
5101		Governance analysis support	1,430,000	794.4

5102		Gasoline	10,000,000	5555.6
5103		Support sign installation	3,500,000	1944.4
5199		Support erosion control	4,000,000	2222.2
5200		CORALINA public services	8,000,000	4445
5300		Support for future continuation of fish recovery pilot project	6840000	3800
5999		Sub-total	34,285,500	19,048
5999		Total Component	34,285,500	19,048
99		GRAND TOTAL	461,590,867	256,439

Management cost	Value
TOTAL (\$Col)	461,590,867
Colombian tax	4,615,909
Bank fees	1,846,363
Bank checks	987,400

GRAND TOTAL (\$ Col) **469,040,539**
(USD) **260,578**

Signed: 
Duly authorized official of supporting organization