Review and update of the prioritization of Coastal-Marine Protected Areas in the Mesoamerican Reef Ecoregion

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Executive Summary

MAR Fund facilitated a process of revision and expansion of the priority Coastal-Marine Protected Areas (CMPAs) of the Mesoamerican Reef System (MBRS). To do this, a series of national workshops were carried out in Mexico, Belize, Guatemala and Honduras; as well as a regional workshop in Guatemala City and a complementary one in Belize City. The activities developed involved 88 representatives of CMPAs national and local authorities, academy, national and international NGOs, CMPA directors and MAR Fund's Member Funds in the four countries: the Mexican Fund for the Conservation of Nature (FMCN for its initials in Spanish), Protected Areas Conservation Trust Belize (PACT), the Foundation for the Conservation of Natural Resources and Environment in Guatemala (FCG for its initials in Spanish) and Fundación Biosfera.

A previously revised and approved methodology was applied in the four national workshops, which among its multiple tools included a CMPA self-assessment questionnaire and participatory assessment, through a table of priorities that considered the following factors: biodiversity, threats, social, institutional and financing. On the other hand, this table was adjusted according to the decision taken by each country for the preservation of the CMPA in better condition or to rescue the most endangered one. The priority table once having been agreed upon was applied to the questionnaires previously completed by the CMPA directors. This generated a score for each area, allowing the selection of new CMPAs in the national workshops. Two areas were prioritized for Guatemala and 17 for Mexico, Belize and Honduras.

One hundred and seventy people related with 69 coastal marine areas, were invited to the national workshops of which 74 people related to 37 CMPAs attended. The 14 prioritized CMPAs in 2007 were invited but didn't participate because they were already prioritized.

Mesoamerican Reef Ecoregion Prioritization Workshops- MAR Fund 2015		
National prioritization workshop Guatemala	October 5, 2015	Guatemala City, Guatemala
National prioritization workshop Mexico	October 9, 2015	Cancún, Quintana Roo, Mexico
National prioritization workshop Honduras	October 16, 2015	La Ceiba, Atlántida, Honduras
National prioritization workshop Belize	October 19, 2015	Belize City, Belize
Regional workshop Guatemala	November 4, 2015	Guatemala City, Guatemala
Regional workshop Belize	November 23, 2015	Belize City

After carrying out the national workshops (Mexico, Belize, Guatemala, and Honduras) and because of the process of discussion/validation in the regional workshops (Guatemala and Belize), the following CMPAs were defined as priority areas:

Mexico:

A) Cozumel Island, which includes the following areas: Cozumel Reefs National Park / Area for the Protection of Cozumel's Coral Reef Flora and Fauna / Cozumel Forest and Wetlands State Reserve / Laguna Colombia State Ecological Park;
b) Puerto Morelos Reef National Park;
c) Isla Contoy National Park and
d) Tulum National Park.

Belize: a) Gladden Spit & Silk Cayes Marine Reserve; b) Turneffe Atoll Marine Reserve; c) Sapodilla Cayes Marine Reserve; d) Caye Caulker Marine Reserve.
Guatemala: a) Bocas del Polochic Wildlife Refuge; b) Manantiales del Cerro San Gil Reserve;
Honduras: a) Cayos Cochinos Archipelago Natural Marine Monument; b) Barras de Cuero y Salado Wildlife Refuge; c) Michael Rock Special Protection Marina Area; d) Bahia de Tela Marine Wildlife Refuge.

Some strategic issues were also identified as part of the national and regional discussions for the investment on part of MAR Fund, such as: pollution (solids and water quality), watershed and land protected areas, advocacy and budgetary incidence, diversification of community livelihood, regional fishing regulation, development of community standards, building infrastructure, coordinated law enforcement, monitoring standardization and responsible consumption of natural resources.

List of acronyms and abbreviations

FFPA	Flora and Fauna Protected Area
NPA	Natural Protected Area
CMPA	Coastal-Marine Protected Areas
BFD	Belize Fisheries Department
CECON	Center for Conservation Studies, Guatemala
CMPA	Coastal Marine Protected Areas
CONAP	National Council of Protected Areas, Guatemala.
CONANP	National Commission of Natural Protected Areas, Mexico
CZMAI	Coastal Zone Management Authority & Institute, Belize
FCG	Foundation for the Conservation of Natural Resources and the Environment, Guatemala
FDN	Fundación Defensores de la Naturaleza
FMCN	Mexican Fund for Nature Conservancy
FUNDAECO	Foundation for Ecodevelopment and Conservation, Guatemala
ICF	Institute of Forest Conservation, Honduras
IPCC	Intergovernmental Panel on Climate Change
MAR Fund	Mesoamerican Reef Fund Inc.
MBRS	Mesoamerican Barrier Reef System
OCRET	Control Office of State Reserve Areas, Guatemala
NGOs	Non-Governmental Organizations
PACT	Protected Areas Conservation Trust, Belize
NP	National Park
NGO	Non-Governmental Organizations
MAR	Mesoamerican Reef System
SEMARNAT	Secretariat of Environment and Natural Resources, Mexico
SIGAP	Guatemalan Protected Areas System
TASA	The Turneffe Atoll Sustainability Association, Belize
TIDE	Toledo Institute for Development and Environment, Belize
TRIGOH	Tri-national Alliance for the Conservation of the Gulf of Honduras, Belize, Guatemala and Honduras
ZSCE	Special Area for Ecological Conservation

Table of Contents

List of tables

List of Appendixes

1. Introduction

The Mesoamerican Reef is an ecoregion constituted by a 1,000 km long coral reef barrier making it the second longest in the world. The ecoregion is located between the Yucatan Peninsula and the Honduran coast, covering basins in the four countries that drain into the Caribbean and is a complex system of 464,263 km2 that includes in the maritime area: coral reefs, seagrass beds, deep lagoons and shallow, coastal areas. The land area is made up of a mosaic of tropical forests, pine, mangrove and cloudy forests, mighty rivers and agricultural crop areas where the industry, agro-industry and tourism define the trends of economic development.

This publication describes the process promoted by MAR Fund for the revision and updating of the prioritization of the Coastal-Marine Protected Areas (CMPA) of the Mesoamerican Reef, carried out in 2015, through consultation with key stakeholders, which allowed prioritizing 17 additional CMPAs.

The CMPA prioritization exercise carried out in 2007 involved academic groups, NGOs and national government institutions of the protected area systems in the four countries. The process included a review of the experiences of prioritization of protected areas and sites for the conservation of biological diversity, literature review to support a proposal of components, factors and criteria to be used in the prioritization of the protected areas of the Mesoamerican Reef. The 2007 proposal was analyzed and agreed with regional specialists, from which a questionnaire was developed, based on selected components and criteria. This tool was used for selecting CMPAs in each one of the countries of the region, by having them filled up by CMPA managers.

Four national workshops were developed afterward so that the groups of interest could select the priority CMPAs by mutual agreement. These findings were submitted at a regional workshop with MAR Fund's Board of Directors, CMPA selected administrators and regional specialists, 63 CMPAs participated in the process. Under regional criteria the prioritized CMPAs were defined for priority investment on part of the MAR Fund, through MAR Fund's Financial Plan Model, which included a regional network of 14 protected coastal and marine areas in the four countries of the Mesoamerican Reef System Region.

The CMPAs prioritized in 2007 are: Corozal Bay Wildlife Sanctuary, Paynes Creek National Park, Port Honduras Marine Reserve and Belize's South Water Caye; Punta de Manabique Wildlife Refuge and River Sarstún Multiple Use Area in Guatemala; Capiro y Calentura (Guaymoreto Lagoon) National Park, Barras del Rio Motagua /Omoa Baracoa Wildlife Refuge, Sandy Bay Marine Reserve, West End and Turtle Harbor/ Rock Harbor in Honduras; and Manatee Sanctuary and APFF Yum Balam in Mexico. The support to meet the needs of investment for each of the CMPAs selected was requested at the end of the regional workshop.

The 2015 methodological update was developed through six prioritization workshops, one in each country of the region -Mexico, Belize, Guatemala, Honduras-, a regional workshop with participants from Mexico, Guatemala, Honduras and a complementary workshop in Belize. The regional workshop in Guatemala had the participation of representatives of the national institutions, members of the Board of Directors and MAR Fund's Donations Evaluation Committee.

The recent prioritization process required previous work for updating the methodology used in 2007, it included a bibliographic review, consultation with some participants of the 2007 exercise and experts related to the Mesoamerican Reef System. Some of the adjustments to the methodology included were for example, aspects related to climate change, resilience and disaggregation on several factors-parameters of management effectiveness because of its multifactorial nature. These changes in the methodology contributed with relevant elements that will henceforth need to be taken into consideration in future prioritizations.

Together with the competent authorities and stewardship of the protected areas of each country the marine and coastal protected areas that would be invited to participate in the national workshops

were identified. The managers of the areas invited to participate gathered information on the status of the CMPAs in each one of the participating countries. During the national workshops, the lists of CMPAs were reviewed and the missing data in the questionnaires of the areas was completed by consulting the information available with the CMPA directors, the participants of the academy and the NGOs. The components, factors and criteria were discussed in plenary and evaluated, which together constituted the assessment table to be applied in each country in order to comparatively define the national priority level of the CMPAs.

The national workshops ended with the presentation of the results of the prioritization exercise and with the identification of the investment needs of the CMPAs in each country. These investment needs are included as suggestions to be considered by MAR Fund and include topics such as watershed and land area management, reduction of threats arising from megaprojects, environmental pollution and advocacy for institutional strengthening. In general, it was considered that the financial contributions of the State and in some cases of international cooperation have decreased in the four countries.

The regional workshop held in Guatemala on November 4, 2015, was attended by representatives of Mexico, Guatemala and Honduras, as well as members of the Board of Directors, MAR Fund's staff and Evaluation Proposal Committee, the academy, authorities and civil society, who validated the results of the national workshops. It was necessary to carry out a complementary regional workshop on November 23, in Belize, because of the general elections in Belize on November 4. The results of the regional workshop were shared with representatives of the Government and NGOs in this last workshop. The results of this workshop were incorporated into the regional workshop in the present report.

The 17 prioritized CMPA/blocks in the regional process are:

Mexico: a) Cozumel Island [1]: Cozumel Reefs National Park /Area of Protection of the Flora and Fauna Cozumel Reefs / Cozumel Forests and Wetlands State Reserve / Laguna Colombia State Ecological Park; b) Puerto Morelos Reef National Park; c) Isla Contoy National Park; d) Tulum National Park.
Belize: a) Gladden Spit & Silk Cayes Marine Reserve; b) Turneffe Atoll Marine Reserve; c) Sapodilla Cayes Marine Reserve; d) Caye Caulker Marine Reserve.
Guatemala: a) Bocas del Polochic Wildlife Refuge; b) Manantiales del Cerro San Gil Reserve;
Honduras: a) Cayos Cochinos Archipelago Natural Marine Monument; b) Barras de Cuero y Salado Wildlife Refuge; c) Michael Rock Special Marine Protection Area; d) Bahia de Tela Marine Wildlife Refuge.

[1] This group of areas was included as a single block because of its geographic continuity, since they are all part of an island.

2. Objective

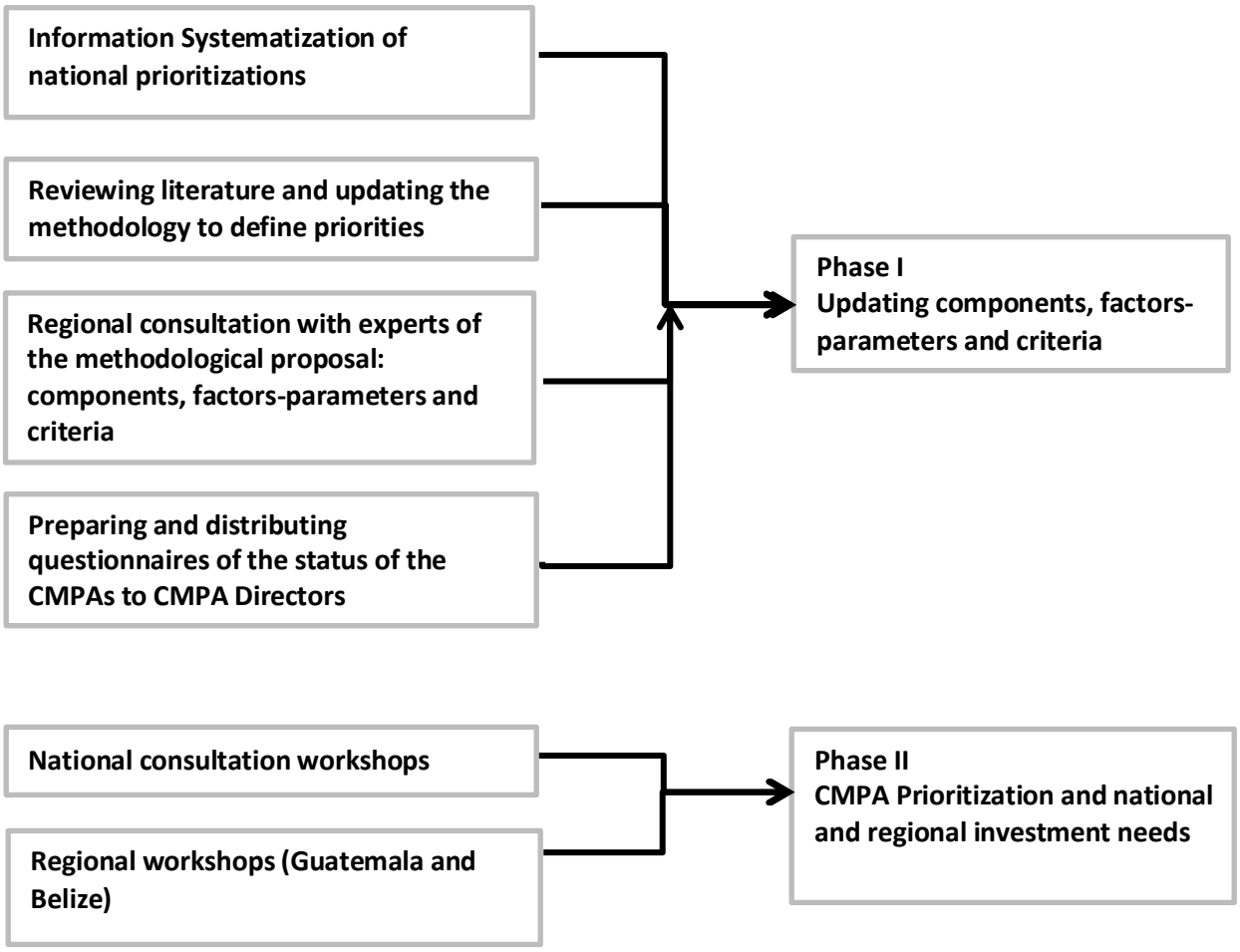
Review and update the initial exercise of prioritization of coastal and marine protected areas in the four countries of the Mesoamerican Reef System, based on public consultations so that they can be incorporated to the existing network of protected areas. In addition, determine the high-impact investments required in protected areas

3. Justification

Eight years have gone by since the first prioritization and MAR Fund has sought the opportunity to review and update the initial process carried out in 2007. This review will be based on the conservation status and current threats in the protected areas of the four countries. It will also provide information on potential and priority investments in the areas.

4. Methodology

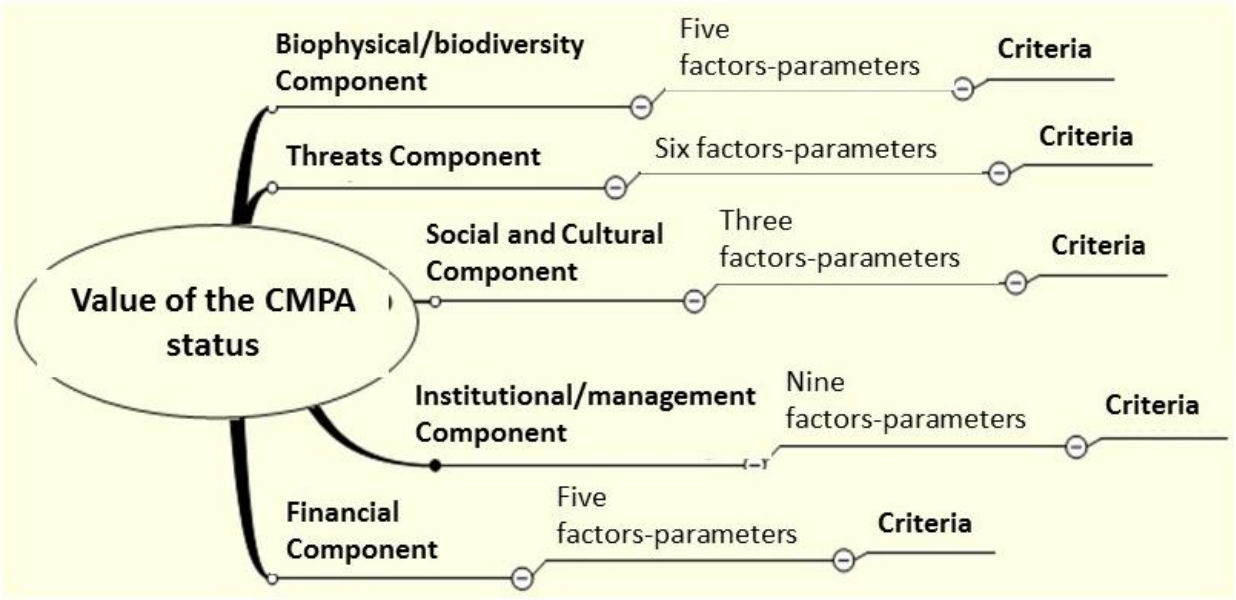
The methodology used to define and prioritize the new protected areas is summarized in the following diagram:



4.1 Background and review of previous prioritization (2007)

The selection criteria methodology used in 2007 for CMPAs, was implemented under the same definitions and structure, but an update was carried out through a technical and strategic review to suit the current conditions and available information.

The structure for the selection considers five components, which were separated into a total of 28 factors. The factor was defined as an element that generates/contributes to an effect related to the component. With the purpose of facilitating the measurement of the factor at least one parameter per factor was included, the parameter was defined as a measure that involves a variable, its function and its variation range, which makes it easier to configure at least one criterion to prioritize the order. In addition, a rule or trial to guide decision-making was defined for each factor and its corresponding parameter, an aspect which was called criterion (López-Gálvez, 2007).



The factors-parameters were weighted assigning a value from 1 to 5 (being one less important and five most important), creating a hierarchy of the factors of each component. Subparagraph 4.2 provides greater detail of the application of the methodology.

Based on the methodology described above, a technical review and strategic prioritization process in 2007 was carried out. This provided inputs to adjust the prioritization methodology later, and taking into consideration the following inputs:

a) The SAM CMPA prioritization document (López-Gálvez, 2007) that contains the methodology and results obtained in the 2007 prioritization process, which reviewed the content and methodological steps.
b) Revision of documentary sources which include the reports of the Reef's Health State, developed by Healthy Reefs Initiative (HRI 2015; HRI, 2015a); the Assessment Manual for Management Effectiveness of Marine Areas (Corrales, 2005) and other monitoring systems (García Salgado, M, T Camarena, G Gold, M Vásquez, G Galland, G Nava, G Alarcón and V Ceja, 2006; Jolón, 2009). The reports on the impact of climate change identified in the IPCC (JA Marengo, J-P Boulanger, MS Buckeridge, E Castellanos, G Poveda, FR Scarano & S

Vicuña, 2014) and other authors (Hernández-Delgado, 2015) and the methodology of the Red List of Ecosystems (JP Rodriguez, DA Keith, KM Rodríguez-Clark, NJ Murray, E Nicholson, TJ Regan, RM Miller, EG Barrow, LM Bland, K Boe, TM Brooks, MA Oliveira-Miranda, M Spalding & P Wit, 2015; IPCC, 2014)were also reviewed, to strengthen the prioritization instrument with regard to climate change and the ecosystem approach with a global perspective.

In regards to climate change it is important to indicate that in the last IPCC report there is evidence of its effects on coral reefs, and that it has impacted the livelihoods and economies of local communities; in particular by disrupting the coastal ecosystems and threatening food sources, building materials and the income based on tourism (Hernández-Delgado, 2015). In addition, climate change has reduced the ecosystem function of protection against storm waves and the rise of the sea level. Besides, it has contributed to the increase of the temperature and coral bleaching, to which must be added, the human pressure on the ecological systems that reduce the natural resources, the supply of fresh water and the food security of large human populations .

Therefore, the main adjustments to the tool applied in the 2007 prioritization can be summarized as follows: (a) incorporation of inputs related to climate change, (b) addition of items in the Red List of Ecosystems, c) relocation of some parameters and factors, and d) selection and detail of some indicators of the effectiveness of the management method.

Similarly, the following factors-parameters were included: *Trend of ecosystems (10-50 years)* in the Biodiversity component; *natural disturbances and weather hazards* in the Threat component with the purpose of incorporating factors related to climate change in the prioritization. The adjustments to the Biodiversity component group several 2007 factors-parameters under a broader parameter: *State of the Reef's Health*, as well as the transfer of some factors to other components, such as *Water Contamination* to the Threat component and *Information-monitoring Availability* to the Institutional component.

In the Threats component, the settings were directed to concentrate on the most relevant threats listed in the literature and recent monitoring (Healthy Reefs, 2015), which included: unsustainable fishing, coastal development with no order/not appropriate, water pollution and climate threats. In the Social component, the changes grouped the more susceptible aspects to measurement-perception (*contribution of SAM to the economy* and *social participation*) in two socio-economic aspects and moved the *Resolution of Conflicts* to the Institutional component.

The Institutional component was updated separating the management effectiveness in several key factors-parameters, aimed at capacity planning/implementation on critical issues (*Coral Restoration, Public Use* and *Use of Monitoring for Decision-Making*); the *Human Resources* issue was separated to have higher quality information. The Funding component didn't undergo any significant changes in terms of factors-parameters.

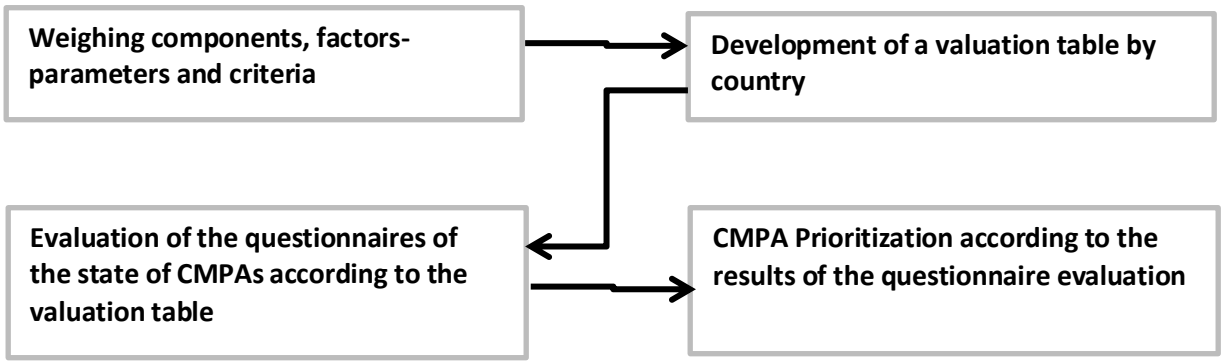
4.2 Selecting and adjusting components, factors, parameters and criteria for prioritization

The revision and adjustment of components, factors and criteria was carried out through consultation with experts, interviews with key informants and discussion on the methodology summarized in a table that detailed factors, parameters and criteria by component. Consultations included those with experts related to CMPAs conservation and management, participants of the 2007 exercise, national CMPA authorities and members of the Donations Evaluation Committee (Annex 1). The adjustments were reviewed and agreed in meetings with MAR Fund members.

The adjusted methodology was summarized in a questionnaire with the main objective of collecting the information of each protected area and was ordered in five components: (a) Biophysical/biodiversity (b) Threats, c) Social and Cultural, d) Institutional/management and e) Financing. A group of factors is included for each one of the components with their respective selection parameters and criteria. Before the national workshops, the questionnaire was sent to the CMPA Directors, together with instructions to complete it (Annex 2 and Annex 3)**.**

4.3 National Workshops

Four national workshops and two regional workshops were developed to carry out the participatory exercise of prioritization in both levels, which applied the following logic:



Valuation of the components, factors-parameters and criteria to be analyzed in the prioritization exercise

The first step was defining in the plenary the values (%) assigned to each component (see Table 1), taking into consideration the situation of the CMPAs in each country and discussing in a participatory way until reaching an agreement on the importance and percentage measured, which would be allocated to each of the components, distributing 100 points between the components that are listed below.

Table 1. Example weight of components

Component	%
• Biophysical/Biodiversity	30
• Threats	20
• Social and Cultural	20
• Institutional-administration	15
• Financing	15
	100 %

The next step was to assign in the plenary, by consensus or majority, a value for each of the factors-parameters. The sum of the factors-parameters had to be equal to the value assigned to the component that groups them. The factors-parameters are included in the questionnaires that each one of the CMPA directors were asked to fill previously. An example taking the Biophysical/biodiversity component is included in Table 2:

Table 2. Example of weighting factors (Biophysical /biodiversity component)

Factor	Parameter	% Assigned
A.1 CMPA extension	Area (number of hectares)	2
A.2 Proximity to other CMPAs	Closeness and exchange with other AP, fishing refuges, restoration of reefs and other management mechanisms	4

Then, the assessment criteria were selected which mirrored the conservation priorities of the country. The Criteria Options Table (Annex 4) was discussed in the plenary. To define the criteria, the environmental, socio-economic and biophysical situation of the Mesoamerican Reef System in the country was considered and from there, one of the options of criterion was chosen. Table 3 shows an example and in Annex 4 are the full criteria for each of the factors.

Table 3. Example of selection criteria by factor

Factor	Parameter	Criterion based on the priorities of each country			
		Option A		Option B	
A.1 Extension of the protected area	Area (number of hectares)	To larger CMPA size higher priority	X	To smaller CMPA size higher priority	
A.2 Proximity to other CMPAs	Closeness and exchange with other AP, fishing refuges, restoration of reefs and other management mechanisms	CMPA with greater connectivity/closeness with other high priority CMPAs		CMPA with less connectivity/closeness with other high priority CMPAs	X

Development of a CMPA valuation table

At the conclusion of the selection and weighting of the components, factors-parameters and criteria, the CMPA valuation table for each country was already finished. The next step was to apply the valuation table to the pre-filled questionnaires for each CMPA.

Evaluation of the questionnaires of the state for each CMPA

The questionnaires previously filled by the CMPA directors and the CMPA valuation tables generated in the national workshop based on the criteria and factors-parameters, were distributed among the participants (Annex 2),. This allowed rating each CMPA based on the pre-generated table. The valuation table was structured and implemented as follows:

Step 1: based on the valuation table agreed in the plenary the parameters were rated as shown below:

How many hectares does the CMPA has?

X				
< 10,000 ha	10,001-20,000 ha	20,001-30,000 ha	30,001-40,000 ha	< 40,000 ha

When Option A of the criteria (see Table 3 above) was chosen, a scale of 1-5 (5 is the highest value and 1 lowest value) was applied. The rating was written in the top line of the table according to the corresponding value of the case. For example:

Criterion: To larger CMPA size higher priority

1	2	3	4	5
<10,000 ha	10,001-20,000 ha	20,001-30,000 ha	30,001-40,000 ha	< 40,000 ha

If on the contrary Option B (Table 3 above) was chosen, it would be as follows:

Criterion: To smaller CMPA size higher priority

5	4	3	2	1
<10,000 ha	10,001-20,000 ha	20,001-30,000 ha	30,001-40,000 ha	< 40,000 ha

CMPA Prioritization starting with the application of the valuation tables generated in the workshop

The participants shared the values generated for each CMPA through the valuation table and were put in order from highest to lowest score. Priority one was assigned to the CMPA that obtained the highest total score. The results were shared in the plenary and whenever necessary the data´s origin was explained.

4.4 Development of the regional workshops

In the regional workshops the methodology was directed to review and provide the relevant information to MAR Fund and the reason for updating the priorities, as well as to explain to the participants the methodology used in the national workshops, sharing and validating the results of these workshops, to finally discuss the strategic regional topics and the national and regional investment needs.

Because Belize's participants were not able to attend the regional workshop in Guatemala due to national elections, a complementary workshop in Belize was conducted only with the country's organizations, reviewing the results of the national Belize workshop and the regional workshop in Guatemala. In the Belize workshop, recommendations were provided and Belize's CMPAs prioritized were adjusted according to national needs.

Agenda developed during the regional workshop in Guatemala (November 4, 2015):

- Registration of participants
- Welcome and Introduction of Participants
- MAR Fund's Perspectives
- Explanation of the national workshops methodology
- Results of the national workshops
- Discussion of strategic issues
- Closing the event

Development of the regional workshops

The consultant explained the methodology and the logic of the process, the previous steps and changes made to the instruments used in the 2007 prioritization exercise. Also the procedure for the identification of the invited CMPAs, the summons and dynamics developed in the national workshops were disclosed.

Also, the results of the national workshops were presented and from there, a discussion was opened in the plenary session and it was agreed to review the priorization of groups by country. Thus, there were adjustments proposed to the CMPA prioritized list, respecting the processes followed in the workshops and the protected areas with the highest scores. The results of the regional workshop were taken to MAR Fund's Board of Directors for final approval.

This workshop was also the stage to discuss strategic and regional issues provided in the national workshops. The following steps were explained, which included the complementary workshop in Belize.

Regarding the way of addressing the regional approach, it was explained that it worked on identifying needs in the national workshops and compared to the 2007 exercise, 2015 showed greater participant interest in regional affairs, among which the following may be mentioned briefly (Table 16):

- Law enforcement and regional lobbying
- Signaling, land registry, infrastructure
- Public use zoning, and coastal, water quality, watersheds and biodiversity management
- Sustainable management of fisheries and incentives
- Recurring costs in CMPAs operation
- Demand for competent staff
- Strengthening of institutional capacities
- Research and Monitoring
- Advocacy and Budgetary Incidence

Regional Workshop Plenary Guatemala

Agenda developed during the complementary workshop in Belize

The agenda developed on November 23, in Belize City was the following:

- Registration of participants
- Welcome and Introduction of Participants

- MAR Fund's Perspectives
- Explanation of the national workshops methodology
- Results of the national workshops
- Discussion of strategic issues
- Closing the event

Development of complementary workshop in Belize

As in the regional workshop in Guatemala, the consultant presented the results of the national and regional workshops. The prioritization carried out at the national workshop was reviewed and adjusted based on the discussion of local and regional threats, financial gaps and the areas' social importance. The summary of the needs identified was analyzed, which was enriched going deeper into some of the topics provided in the regional workshop, for example the need for coordination of the water monitoring program and working closer, strengthening the relationship with national funds.

Participants in the Regional Complementary Belize Workshop

5. National workshops results

Four national workshops were carried out according to the general agenda included in Annex 5. The timetable of the national workshops was the following:

National prioritization workshop Guatemala	October 5, 2015	Guatemala City, Guatemala
National prioritization workshop Mexico	October 9, 2015	Cancún, Quintana Roo, Mexico
National prioritization workshop Honduras	October 16, 2015	La Ceiba, Atlántida, Honduras
National prioritization workshop Belize	October 19, 2015	Belize City, Belize

The protected area authorities of the four countries supported the summons for the national workshops: National Commission of Natural Protected Areas (CONANP), Mexico; Fisheries Department, Belize; National Council of Protected Areas (CONAP), Guatemala, the Institute of Forest Conservation, Honduras (ICF), and the MAR Fund's member funds. The lists of the participants in the national and regional workshops are included in Annex 6.

5.1 National Workshop Mexico

The workshop was held in Cancún, Quintana Roo, on October 9, 2015. It began with the presentation of MAR Fund and the reach of the national workshop in charge of biologist Ricardo Gómez Lozano, Regional Director of the National Commission of Protected Natural Areas, Yucatan Peninsula and the Mexican Caribbean. In addition, the introductory words were in charge of teacher José Luis Funes, Delegate of the Federal Secretariat of the Environment and Natural Resources in the state of Quintana Roo. The workshop was attended by representatives of the Federal and State Government, PA directors, academy, Mexican NGOs and international and financial mechanisms related to CMPAs management in the MBRS Mesoamerican Reef System in Mexico.

The CMPA list was revised at the plenary session and analyzes during the event, time was invested to complete the questionnaires on the status of the CMPAs that had not been sent in advance; this work was carried out by the CMPA directors with the support of NGOs and the Academy.

The initiative of a new large reserve in Quintana Roo was commented on, which for the time being would not be included since the size of the polygon would generate a lot of bias; for example, high diversity only because of its size.

In the plenary, during the review of the components, factors and criteria, the need to harmonize conservation strategies at the international level was discussed; therefore, individual countries must work together. Despite the fact that in each country the challenges, the complexity and the resources allocated to each CMPA are different, there are common situations and can be approached jointly.

The participants felt that the funds should be invested to solve regional problems, such as: if the source of contamination is located in another country it's no use investing in the protected natural area since contamination will continue to flow and the funds will not help protect the area. On the other hand, if the funds are used to treat water at the source of pollution, less contamination will arrive to the area.

To carry out the revision and value assignment of the components and factors, the dialog focused on the Biodiversity/biophysical and Threats components, which are the most important components for the situation of the MBRS in Mexico, because biodiversity is the center of attention of the CMPAs and the fact that Threats are present and will continue to increase in the future. Both components were given a value of 30 % each. On the other hand, the Social and Cultural and Institutional/management components are related by contributions from the fishing communities in terms of employment generation and in how resources are part of the area's sustainability. The Financial component was considered as providing very little because MAR Fund's resources are specific and short term.

In general, it was noted that for the Mesoamerican Reef System in Mexico, the coastal development and tourism with no order is the most important cause threatening the ecoregion, which represents an enormous challenge because its approach has a high degree of difficulty. In the factors of the Institutional/administration component, the staff capacity, the ability to implement plans for exploitation and the use of the information are the most important. Due to the high complexity of the discussion about this component, a peer comparison methodology was applied [2], in which each of the factors with respect to each of the other factors was assessed and generated a value of importance based on the resulting averages.

Plenary Session National Workshop Mexico

Table 4. Protected areas summoned and participants in the National Prioritization Workshop in Mexico

Name of the CMPA	Summoned	Participant
Isla Mujeres West Coast, Punta Cancún and Punta Nizúc National Park	X	X
Cozumel Island Flora and Fauna Protected Area –FFPA-	X	X
Cozumel Reefs National Park	X	X
Sian Ka'an Biosphere Reserve	X	X
Uaymil Flora and Fauna Protected Area	X	X
Sian Ka'an Reefs Biosphere Reserve	X	X
Banco Chinchorro Biosphere Reserve	X	
Xcalak Reefs National Park	X	

[2] Method called "paired" comparison and was a variable applied in Mexico by initiative of Cristopher González Baca, Director of the PNA Cozumel Complex using the Superdecisions software.

Name of the CMPA	Summoned	Participant
Tulum National Park[3].	X	X
Otooch Ma'ax Yetel Kooh Flora and Fauna Protection Areas	X	
Isla Contoy National Park;	X	X
Tiburón Ballena Biosphere Reserve	X	X
Puerto Morelos Reef National Park;	X	X
Yum Balam Flora and Fauna Protected Area	X	
Sanctuario del Manatí de Bahía de Chetumal State Reserve	X	
Manglares de Nichupté Flora and Fauna Protected Area	X	X
Laguna de Chankanaab Natural Park	X	
Laguna Colombia State Ecological Park	X	
Area subject to state ecological conservation -ASSEC-, Tortuga Marina X'cacel-X'cacelito Sanctuary	X	X
Area for ecological conservation Laguna del Manatí Flora and Fauna State Refuge	X	
Cozumel Forests and Wetlands State Reserve	X	
Area subject to ecological conservation Lagunar Chacmochuch Flora and Fauna System State Refuge	X	
Bala'an Ka'ax Flora and Fauna Protected Area	X	
Lagunar Chichankanab System State Refuge	X	
Lagunar de Bacalar State Ecological Park	X	X
Riviera Maya (is not currently a protected area)	X	X

Results of Mexico's National Workshop

As a result of the application of the prioritization tools and methodology, which included the plenary analysis, it was agreed that the components be assigned the following values:

- 30 % to Biophysical/biodiversity, positively assessing CMPAs that contain more biodiversity in good condition, connectivity and resilience;
- 30 % to Threats, prioritizing the most threatened CMPAs;
- 15 % to Social/cultural, giving greater priority to the CMPAs with greater contribution to the economy of the population and social participation;
- 15 % to Institutional/management, favoring the CMPAs who need to improve their monitoring systems, implementation plans and staff capacities;
- 10 % to Financing, aimed at promoting the assessment of the CMPAs that implement their financial strategy, implementation capacity and lower government budget allocation.

Table 5 indicates the value assigned to each of the factors-parameters and criteria per selected factor in Mexico.

[3] Tulum National Park: despite being terrestrial it has influence on the coastal environment, which justifies it being included in the CMPA.

Table 5. Scoring Table for CMPAs in Mexico

A. BIOPHYSICAL / BIODIVERSITY 30	Criteria Options	Wieghted Score
A.1 Extent of the protected area	The larger the CMPA, the higher the priority	2
A.2 Proximity to other CMPA	The higher the connectivity/proximity of the CMPA to other CMPA, the higher the priority	6
A.3 Resilience	The greater the ability/time of coral reefs to recover, the higher the priority	7
A.4 Presence and status of ecosystems	The greater presence (%) of key ecosystems, the higher the priority	8
	The greater the extent of ecosystems in good conservation status, the higher the priority	
	The greater presence of threatened/key-migratory species, the higher the priority	
A.5 Trends in ecosystems over time	The smaller the reduction from the original extent, the higher the priority	7
B. THREATS 30		
B.1 Unsustainable fishing	The lower the increase in the density of key commercial fish, the higher the priority	6
B.2 Unregulated coastal ad tourism development	A greater coastal / unregulated tourism development, the higher the priority	12
	The higher the coastal habitat loss, the higher the priority	
B.3 Increased occurrence of natural disturbances	The higher the frequency of natural disturbances, the higher the priority	1
B.4 Level of water pollution	The higher the level of water pollution, the higher the priority	8
B.5 Climate threats	The larger the extent of climate threats, the higher the priority	1
B.6 Other threats	The larger the extent / impact of the threat, the higher the priority	2
C. SOCIAL AND CULTURAL 15		
C.1 Dependence of communities of the goods and services of the CMPA	The higher the contribution to the income of the people, the higher the priority	7
C.2 Social, cultural and economic importance of local species of the CMPA	The greater the variety of traditional uses, the higher the priority	3
C.3 Social participation in the management of CMPA	The higher the social participation in the management of the CMPA, the higher the priority	5
D. INSTITUTIONAL /MANAGEMENT 15		
D.1 Alternative dispute resoluction	The greater the application of ADR methods, the higher the priority	1
D.2 Information for CMPA management	The lower the quality of threat analysis, the higher the priority	1
D.3 Using information for CMPA management	The smaller the use of information for management decisions, the higher the priority	3
D.4 Capacity to implement CMPA management plans	The lower the capacity to implement management plans, the higher the priority	2
D.5 Capacity to implement harvesting plans	The lower the capacity to implement harvesting plans and fish refuges, the higher the priority	2

Table 5 continued

D.6 Capacity to implement restoration plans	The lower the capacity to implement coral reef restoration plans, the higher the priority	1
D.7 Tourist use of the CMPA	The lower the compliance of the plan for public use, the higher the priority	1
D.8 CMPA staff	The smaller the capabilities of the CMPA staff, the higher the priority	3
D.9 Infraestructure and equipment for the CMPA management	The lower the development of infrastructure and equipment for the management, the higher the priority	1
E. FINANCING 10		
E.1 National budget allocation	The lower the coverage of budgetary requirements from national funds, the higher the priority	3
E.2 Financial support from the market	The less sources of funding come from the market, the higher the priority	1
E.3 Financial support from donations	The less sources of funding come from grants, the higher the priority	1
E.4 Financial performance	The greater the financial performance, the higher the priority	2
E.5 Financial stability	Greater priority to areas that implement financial strategy	3

The questionnaires were then rated for each one of the CMPAs or PNA groups, using Table 5, according to the decision and using the methodological tools designed for the prioritization process. The results generated are summarized in Table 6, the four areas with the highest scores are:

1. Cozumel Reefs National Park / Cozumel Coral FFPA PNA Complex
2. Tiburón Ballena Biosphere Reserve
3. Puerto Morelos Reef National Park;
4. Isla Mujeres Costa Occidental , Punta Cancún and Punta Nizúc National Park

In the case of the Mayan Riviera, in spite of having one of the highest scores, it was moved to the next level of priority because it is not a protected area, it has no staff or allocated budget.

Group work Mexico's National Workshop

Table 6. Results of the prioritization exercise conducted in Mexico

CMPA	Component Score						TOTAL
	A. BIOPHYSICAL / BIODIVERSITY	B. THREATS	C. SOCIAL AND CULTURAL	D. INSTITUTIONAL /MANAGEMENT	E. FINANCING		
Priority one							
Cozumel Complex Arrecifes de Cozumel NP / PAF&W Arrecifes de FFPA	23.97	20.50	14.30	6.00	4.40		**69.17**
Tiburón Ballena National Park	24.80	14.80	15.00	9.40	4.80		**68.80**
Arrecife de Puerto Morelos National Park	13.46	27.80	15.00	4.00	6.00		**66.26**
Costa Occidental Isla Mujeres, Punta Cancún y Punta Nizac NP	25.40	17.20	9.80	4.20	7.80		**64.40**
Priority two							
Riviera Maya*	16.20	21.40	11.80	12.40	3.60		**65.40**
Laguna de Bacalar State Ecological Park	17.80	21.60	11.20	7.80	5.20		**63.60**
Nacional Tulúm NP	15.13	19.60	13.00	7.75	6.00		**61.48**
Manglares de Nichupté FFPA	19.04	20.00	8.00	5.60	7.00		**59.64**
Sian Ka'an Complex: Sian Ka'an Biosphere Reserve/ Arrecifes de Sian Ka'an Biosphere Reserve/ Vaymil FFPA*	25.13	13.40	7.00	4.25	7.40		**57.18**
Tortuga X'cacel - X'cacelito ASSEC	13.60	11.20	8.80	11.80	5.40		**50.80**
Isla Contoy National Park	14.40	6.00	7.00	4.60	5.80		**37.80**

5.2 Belize's National Workshop

The workshop was held in Belize City, on October 19, 2015. The event began with welcoming words by Licenciado Isaias Majil, Coordinator of the Marine Protected Areas of the Fisheries Department. In addition, Licenciada Nayari Diaz-Perez, Director of donations of Protected Areas Conservation Trust briefly explained the work carried out by MAR Fund. Representatives of the Department of Fisheries, CMPA directors, NGOs, co-administrators, academy and a financial mechanism all participated in Belize's National Workshop.

The extreme rain in Belize forced to wait for the arrival of the last participants. Meanwhile the Consultant explained how to fill in the forms and reviewed those which had already been sent. Then in the plenary session, the CMPA list was analyzed followed by a discussion of the priorities for funding, aspect that included the following, among the most relevant things:

It was agreed that in terms of the financing of the CMPAs of Belize, they all need support and that those analyzed in the workshop have a high biodiversity value, therefore the group considered that the social and cultural component should be prioritized, because the people are the ones who have more influence on CMPAs while the contribution to the population's economy is exerting greater weight on the CMPAs conservation.

With regard to financial support the situation is different between CMPAs supported by NGOs versus government organizations, because of the origin of the funds. In some cases NGOs have easier access to income, such as visitation charges, generated by government regulations, which are directly assigned to CMPAs when there are co-management agreements.

A significant element in the discussion of this workshop and also in other countries is the fact that the government budget allocation has fallen drastically and there is a need for funds to operate (fuel, infrastructure repairs, for example) and to support the operation of the committees that facilitate the social participation in the CMPAs. There is a need of resources for social research and identification of economic alternatives for fishermen, for example the initiative of exporting live lobsters, which requires market research. Also mentioned was the need to work with the regional approach to improve surveillance in border areas, reduce the garbage and solid waste.

The need to incorporate the watershed approach was indicated through strengthening communication between government authorities. In addition, terrestrial and marine NGOs should work together, for which the representatives of the land management committees could be incorporated into the marine management committees and vice versa. On the other hand, it was considered that climate threats have very similar impacts and affect all CMPAs alike.

After this discussion a rating was given for each one of the components, factors-parameters and the selection of criteria for prioritizing, which generated the scoring box for Belize's CMPAs and shows the valuation agreed upon (Table 8).

After having the valuation table, the completed questionnaires from each of the CMPA presented at the workshop were reviewed. The results were shared in the plenary session. The last activity was the quick identification of the needs for support, which were submitted to MAR Fund for their analysis.

Plenary Session Belize's National Workshop

Table 7. **Protected areas summoned and participants in the National Prioritization Workshop in Belize**

Name of the CMPA	Summoned	Participant
Bacalar Chico Marine Reserve	X	X
Caye Caulker Marine Reserve.	X	X
Gladden Spit & Silk Cayes Marine Reserve;	X	X
Glover's Reef Marine Reserve	X	X
Hol Chan Marine Reserve	X	
Port Honduras Marine Reserve	X	
Sapodilla Cayes Marine Reserve	X	X
South Water Cayes Marine Reserve	X	
Turneffe Atoll Marine Reserve	X	X
Corozal Bay Wildlife Sanctuary	X	
Payne´s Creek National Park	X	
Half Moon Caye Natural Monument	X	
Gales Point Manatee Wildlife Sanctuary	X	
Sarstoon Temash National Park	X	
Laughing Bird Caye National Park	X	
Shipstern Reserve (Private Reserve)	X	
Swallow Caye Wildlife Sanctuary	X	
Golden Stream (Private Reserve)	X	

Results of Belize's National Workshop

As a result of the application of the prioritization tools and methodology, which included the plenary analysis, it was agreed that the components be assigned the following values:

- 10 % to Biophysical/biodiversity, positively assessing CMPAs that have more biodiversity in good condition, connectivity, resilience and have been less reduced in time;
- 15 % to Threats, prioritizing CMPAs most threatened by overfishing, coastal development and water pollution;
- 25 % to Social/cultural, giving greater priority to the CMPAs with greater contribution to the economy of the population and traditional use of biodiversity;
- 25 % to Institutional/management, while seeking to promote CMPAs that have less staff capacity and less infrastructure/equipment, with the object of giving support to implement methods of conflict resolution, make better use of their monitoring systems and implement their work plans;
- 25 % to Financing, aimed at promoting the assessment of the CMPAs that implement their financial strategy and have greater implementation capacity.

Table 8 indicates the value assigned to each of the factors-parameters and criteria per selected factor.

Table 8. Scoring Table for CMPAs in Belize

A. BIOPHYSICAL / BIODIVERSITY 10	Wieghted Score	Criteria Options
A.1 Extent of the protected area	2	The larger the CMPA, the higher the priority
A.2 Proximity to other CMPA	2.5	The higher the connectivity/proximity of the CMPA to other CMPA, the higher the priority
A.3 Resilience	1	The greater the ability/less time of coral reefs to recover, the higher the priority
A.4 Presence and status of ecosystems	2.5	The greater presence (%) of key ecosystems, the higher the priority
		The greater the extent of ecosystems in good conservation status, the higher the priority
		The greater presence of threatened/key-migratory species, the higher the priority
A.5 Trends in ecosystems over time	2	The smaller the reduction from the original extent, the higher the priority
B. THREATS 15		
B.1 Unsustainable fishing	4	The lower the increase in the density of key commercial fish, the higher the priority
B.2 Unregulated coastal ad tourism development	3	A greater coastal / unregulated tourism development, the higher the priority
		The higher the coastal habitat loss, the higher the priority
B.3 Increased occurrence of natural disturbances	1	The lower the frequency of natural disturbances, the higher the priority
B.4 Level of water pollution	3	The higher the level of water pollution, the higher the priority
B.5 Climate threats	1	
B.6 Other threats	3	The larger the extent / impact of the threat, the higher the priority
C. SOCIAL AND CULTURAL 25		
C.1 Dependence of communities of the goods and services of the CMPA	10	The higher the contribution to the income of the people, the higher the priority
C.2 Social, cultural and economic importance of local species of the CMPA	8	The greater the variety of traditional uses, the higher the priority
C.3 Social participation in the management of CMPA	7	The lower the social participation in the management of the CMPA, the higher the priority
D. INSTITUTIONAL /MANAGEMENT 25		
D.1 Alternative dispute resoluction	3	The lower the application of ADR methods, the higher the priority
D.2 Information for CMPA management	1	The greater the quality of threat analysis, the higher the priority
D.3 Using information for CMPA management	3	The greater the use of information for management decisions, the higher the priority

Table 8 continued

D.4 Capacity to implement CMPA management plans	4	The greater the capacity to implement management plans, the higher the priority
D.5 Capacity to implement harvesting plans	0	
D.6 Capacity to implement restoration plans	0	
D.7 Tourist use of the CMPA	1	The lower the compliance of the plan for public use, the higher the priority
D.8 CMPA staff	5	The smaller the capabilities of the CMPA staff, the higher the priority
D.9 Infraestructure and equipment for the CMPA management	8	The lower the development of infrastructure and equipment for the management, the higher the priority
E. FINANCING 25		
E.1 National budget allocation	3	The lower the coverage of budgetary requirements from national funds, the higher the priority
E.2 Financial support from the market	3	The less sources of funding come from the market, the higher the priority
E.3 Financial support from donations	3	The less sources of funding come from donations, the higher the priority
E.4 Financial performance	8	The greater the financial performance, the higher the priority
E.5 Financial stability	8	Greater priority to areas that not implement financial strategy

In the scoring box, the factors-parameters D.5 and D.6 can be seen that were rated at zero because there is no fishing, harvesting or restoration plans in the CMPA.

Later, the questionnaires for each of the CMPAs represented in the workshop was carried out using Table 8 and the methodological tools designed for the prioritization process. The results generated are summarized in Table 9, in which it is stated that the CMPA with highest scores are the following:

1. Gladden Spit & Silk Cayes Marine Reserve;
2. Turneffe Atoll Marine Reserve
3. Glover's Reef Marine Reserve
4. Bacalar Chico Marine Reserve

Table 9. Results of the prioritization exercise conducted in Belize

CMPA prioritizing order - National Belize Workshop 2015							
	Component Score						
CMPA	A. BIOPHYSICAL / BIODIVERSITY	B. THREATS	C. SOCIAL AND CULTURAL	D. INSTITUTIONAL /MANAGEMENT	E. FINANCING		TOTAL
Priority One							
Gladden Spit & Silk Cayes Marine Reserve	6.30	8.01	17.40	17.60	14.60		**63.91**
Turneffe Atoll Marine Reserve	5.40	9.70	15.20	14.80	18.60		**63.70**
Glover's Reef Marine Reserve	5.00	10.10	18.20	15.40	14.00		**62.70**
Bacalar Chico Marine Reserv	6.70	8.20	17.00	12.20	16.60		**60.70**
Priority Two							
Caye Caulker Marine Reserve	4.45	8.30	22.00	16.20	8.00		**58.95**
Sapodilla Cayes Marine Reserv	5.10	5.70	12.60	17.90	12.20		**53.50**

5.3 Guatemala's National Workshop

The national workshop was held in Guatemala City, on October 5, 2015. The event began with a welcome by MAR Fund and the competent authority of protected areas - CONAP.

A brief analysis of the MBRS Status in Guatemala was given by Engineer Manuel Henry, CONAP's Technical Director, who described the challenges and strategic directions facing the northeastern region of the country. The consultant submitted the objective and methodology of the workshop including an explanation of the tables that were used and the evaluation parameters for each of the components, factors and criteria to develop the prioritization exercise.

The event had the participation of CMPA directors, co-administrators, NGOs, academy, protected area and Navy Base authorities, related to coastal and marine conservation. Protected area directors previously sent the questionnaires of the status of the CMPA with the information available, so that the discussion of the value to be assigned to the components began immediately and then the scores were distributed among the factors and the next step was the criteria selection.

There was consensus in giving high importance to the governance-conflict in and outside the CMPAs and the conservation of biodiversity, to which a 25% was assigned. It was considered that if the socio-economic aspects are not properly treated, biodiversity could automatically be threatened because, although the state of biodiversity is an important element, it is directly affected by the existence or absence of social pressures.

Threats are related to social and cultural factors in areas of the State, which include lawlessness, advance of the agricultural frontier and oil exploitation, among others. In regards to Institutional capacities and Funding the importance of strengthening the State was highlighted with the aim of achieving a strong, better managed and better financed SIGAP. The recommendations were focused on promoting good management of the financial government, private, and international resources.

The participants indicated that the key is follow-up work with the communities, because there are cases in which the regularization of the agrarian situation of some of them has been possible. However, it should be emphasized that simply handing over the land to them does not solve any problems, because the communities need resources to invest in their sustainable development, resources that are usually difficult to obtain. The need was identified for more skills to carry out work with settled human populations or those related with CMPAs.

In regard to the Other Threats factor, some of the threats that had not been contemplated were incorporated in greater detail; for example, megaprojects in the Polochic River basin that can have significant impacts, even greater than those identified in the workshop. In addition, the following were mentioned: mining, monocrops, agroindustry and extractive oil industry.

One of the particularities of the CMPAs included in the exercise is that they have no coral reefs, instead the situation of wetlands and mangrove areas was analyzed. During the discussion the participants indicated that the CMPAs are very important to promote governance and work at the basin level. They emphasized that if you want to save the areas with the greatest presence of key ecosystems, the coordinated work of multi-stakeholders in each of the areas must be driven.

At the regional level the perception is that the development of tourism is being promoted and that there is greater demand for this service, so it is important to address the areas with greatest touristic development because despite having legislation (Law of OCRET and CONAP regulations), they have not been socialized at local level and are not being met. The participants coincided in identifying an increase in the occurrence of natural disturbances and a greater tendency of water contamination.

Once the discussion and the valuation of the components, factors and criteria was completed, the review of each of the CMPA questionnaires and the application of the generated valuation table (see Table 11) proceeded.

Plenary Session National Workshop Guatemala

Table 10. **Protected areas summoned and participants in the National Prioritization Workshop in Guatemala**

Name of the CMPA	Summoned	Participant
Bocas del Polochic Wildlife Refuge	**X**	**X**
Manantiales del Cerro San Gil/Bahía de Santo Tomás Protection Reserve	**X**	**X**
Río Dulce National Park	**X**	**X**
Chocón Machacas Protected Biotope	**X**	**X**
Punta de Manabique Wildlife Refuge	**X**	
Sarstún River Multiple Use Area	**X**	

Results of Guatemala's National Workshop

After carrying out the methodological exercises and applying the tools developed for the process, which included the open discussion, the following values were assigned to the components:

- 25.625 % to Social/cultural, prioritizing the general criterion of greater socio-economic importance and greater social participation;
- 25 % to Biophysical/biodiversity, under the criterion to positively assess greater diversity;
- 20 % to Threats, looking to rate the most threatened CMPAs;
- 16.25 % to Institutional/management, positively rating CMPAs with greater capacities.
- 13.125 % to Financing, which favored the CMPAs that meet the general criterion of greater management capacity and diversification.

Table 11 summarizes the value assigned to each of the selected factors-parameters and criteria in Guatemala.

Group work Guatemala's National Workshop

Table 11. Scoring Table for CMPAs in Guatemala

A. BIOPHYSICAL / BIODIVERSITY	Weighted Score	Criteria Options
A.1 Extent of the protected area	3	The larger the CMPA, the higher the priority
A.2 Proximity to other CMPA	3	The higher the connectivity/proximity of the CMPA to other CMPA, the higher the priority
A.3 Resilience	3	The smaller the ability/time of coral reefs to recover, the higher the priority
A.4 Presence and status of ecosystems	6	The greater presence (%) of key ecosystems, the higher the priority
		The greater the extent of ecosystems in good conservation status, the higher the priority
		The greater presence of threatened/key-migratory species, the higher the priority
A.5 Trends in ecosystems over time	5	The smaller the reduction from the original extent, the higher the priority
B. THREATS		
B.1 Unsustainable fishing	3	The lower the increase in the density of key commercial fish, the higher the priority
B.2 Unregulated coastal ad tourism development	4	A greater coastal / unregulated tourism development, the higher the priority
		The higher the coastal habitat loss, the higher the priority
B.3 Increased occurrence of natural disturbances	3	The higher the frequency of natural disturbances, the higher the priority
B.4 Level of water pollution	6	The higher the level of water pollution, the higher the priority
B.5 Climate threats	3	The larger the extent of climate threats, the higher the priority
B.6 Other threats	6	The larger the extent / impact of the threat, the higher the priority
C. SOCIAL AND CULTURAL		
C.1 Dependence of communities of the goods and services of the CMPA	9	The higher the contribution to the income of the people, the higher the priority
C.2 Social, cultural and economic importance of local species of the CMPA	7	The greater the variety of traditional uses, the higher the priority
C.3 Social participation in the management of CMPA	9	The higher the social participation in the management of the CMPA, the higher the priority
D. INSTITUTIONAL /MANAGEMENT		
D.1 Alternative dispute resolution	2	The greater the application of ADR methods, the higher the priority
D.2 Information for CMPA management	2	The greater the quality of threat analysis, the higher the priority
D.3 Using information for CMPA management	2	The greater the use of information for management decisions, the higher the priority
D.4 Capacity to implement CMPA management plans	2	The greater the capacity to implement management plans, the higher the priority
D.5 Capacity to implement harvesting plans	2	The greater the capacity to implement harvesting plans and fish refuges, the higher the priority
D.6 Capacity to implement restoration plans	1	The lower the capacity to implement coral reef restoration plans, the higher the priority
D.7 Tourist use of the CMPA	1	The lower the compliance of the plan for public use, the higher the priority

Table 11 continued

D.8 CMPA staff	2	The higher the capabilities of the CMPA staff, the higher the priority
D.9 Infraestructure and equipment for the CMPA management	1	The lower the development of infrastructure and equipment for the management, the higher the priority
E. FINANCING		
E.1 National budget allocation	4	The greater the coverage of budgetary requirements from national funds, the higher the priority
E.2 Financial support from the market	2	The more sources of funding come from the market, the higher the priority
E.3 Financial support from donations	3	The more sources of funding come from grants, the higher the priority
E.4 Financial performance	3	The greater the financial performance, the higher the priority
E.5 Financial stability	3	Greater priority to areas that implement financial strategy

The questionnaires for each of the CMPA previously completed by the directors was rated afterwards. The results generated are summarized in Table 12, which states that the CMPAs with the highest scores are the following:

1. Bocas del Polochic Wildlife Refuge
2. Manantiales del Cerro San Gil/Bahía de Santo Tomás Protection Reserve

Table 12. Results of the prioritization exercise conducted in Guatemala

CMPA prioritizing order - National Guatemala Workshop 2015							
	Component Score						
CMPA	A. BIOPHYSICAL / BIODIVERSITY	B. THREATS	C. SOCIAL AND CULTURAL	D. INSTITUTIONAL /MANAGEMENT	E. FINANCING		TOTAL
Priority one							
Bocas del Polochic Wildlife Refuge	12.20	19.00	23.20	12.00	10.40		**76.80**
Manantiales Cerro San Gil /Bahía de Santo Tomas Protection Reserve	8.00	20.60	20.40	12.00	10.40		**71.40**
Priority two							
Rio Dulce National Park	9.60	18.00	21.80	10.60	7.80		**67.80**
Chochon Machacas Protected Biotope	9.80	14.80	21.40	7.20	12.00		**65.20**

5.4 Honduras National Workshop

The national workshop was held in La Ceiba, Atlántida, on October 16, 2015. The event began with a welcome from Engineer Sergio Martinez, on behalf of the Assistant Executive Director of ICF, Engineer Angel Matute. Engineer Martinez described the situation of the MBRS in Honduras, its importance, the relationship with the national planning processes, the regulations and implementation management, as well as some ongoing projects and the challenges they are facing. The participants of the national workshop represented the government sector, national NGOs, academy, private sector, NGOs, international agencies and MAR Fund's local partner.

The consultant explained the purpose and methodology of the workshop. Then, the CMPA forms that were not complete were completed and those that had already been filled, were reviewed. The participants relied on the information available and supported detailed questionnaires of participating CMPAs. The conveniences of including in the analysis Islas de la Bahía y de la Bahía de Tela Marine National Park Complex because of the common characteristics in each one of the CMPA groups was discussed; based on this they were analyzed in the workshop as a complex, so the work was carried out in groups.

The plenary session discussed the importance and link of the Biodiversity, Social/cultural and Threats component, among which 75% of the value was distributed. Based on the value of the components, the factors-parameters were assessed through an analysis of each of the components in comparison with each of the remaining components.

With regard to Threats, the participants felt that it was necessary to integrate other sectors such as tourism and African palm farming, which contaminate the water. In addition, they emphasized that the key information about the problems should be socialized to promote actions with the private sector. It is also important for them to influence decisions with authorities, state entities, politicians and other actors, as cooperating agencies and donors, with the aim of reducing the sources of pollution and deterioration, as well as to repair the damage to the coastal marine ecosystems.

Later and having completed the assignment of a value to each factor and component, the valuation criteria with which they completed the valuation table (Table 14) were analyzed and defined.

Plenary Session Honduras National Workshop

Table 13. Protected areas summoned and participants in the National Prioritization Workshop in Honduras

Name of the CMPA	Summoned	Participant
Cayos Cochinos Archipelago Natural Marine Monument	X	X
Barras de Cuero y Salado Wildlife Refuge	X	X
Jeannette Kawas Fernandez National Park*	X	X

Punta Izopo National Park*	X	X
Reserva del Hombre y la Biosfera Río Plátano	X	
Abogado Agustín Córdoba Rodriguez (Isla del Cisne) Marine National Park	X	
Cayos Miskito Marine National Park	X	
Ruta Kruta National Park	X	
Laguna de Caratasca Biological Reserve	X	
Bahia de Tela Wildlife Refuge	X	X
Cayos Zapotillos Biological Reserve	X	
Cuyamel - Omoa National Park	X	
Laguna de Bacalar Wildlife Refuge	X	
Turtle Harbor Wildlife Refuge	X	
Islas de la Bahía Marine National Park**	X	X
Laguna de Guaymoreto Wildlife Refuge	X	
Cuyamel - Omoa National Park	X	
Sandy Bay West End Special Protection Marine Area	X	
Turtle Harbor / Rock Harbor Special Protection Marine Area	X	

*The declaration of the marine area as a single unit is in process
**It was declared NP after the 2007 prioritization process

Results of the Honduras National Workshop

The result of the application of the methodology and the tools for defining the assessment criteria can be summarized as follows:

- 30% to the Biophysical/biodiversity component, giving greater value to presence, status, resilience and tendency for permanence of the ecosystems in time;
- 25 % to the Social/cultural component, favoring CMPAs that contribute most to income, with higher traditional uses of biodiversity and greater participation;
- 20 % to the Threats component, giving greater value to CMPAs with greater coastal development, climatic risk and larger affected extensions;
- 15% to the Institutional/management component, prioritizing CMPAs with less capacity in conflict management, use of the information and the staff, but with greater capacity for implementation of management plans.
- 10% to the Financing component, giving better value to CMPAs that implement financial strategy and have fewer market sources.

Group work Honduras National Workshop

Table 14. Scoring Table for CMPAs in Honduras

A. BIOPHYSICAL / BIODIVERSITY 30	Wieghted Score	Criteria Options
A.1 Extent of the protected area	2	The larger the CMPA, the higher the priority
A.2 Proximity to other CMPA	3	The higher the connectivity/proximity of the CMPA to other CMPA, the higher the priority
A.3 Resilience	10	The greater the ability/time of coral reefs to recover, the higher the priority
A.4 Presence and status of ecosystems	10	The greater presence (%) of key ecosystems, the higher the priority
		The greater the extent of ecosystems in good conservation status, the higher the priority
		The greater presence of threatened/key-migratory species, the higher the priority
A.5 Trends in ecosystems over time	5	The greater the reduction from the original extent, the higher the priority
B. THREATS 20		
B.1 Unsustainable fishing	3	The lower the increase in the density of key commercial fish, the higher the priority
B.2 Unregulated coastal ad tourism development	4	A greater coastal / unregulated tourism development, the higher the priority
		The higher the coastal habitat loss, the higher the priority
B.3 Increased occurrence of natural disturbances	2	The higher the frequency of natural disturbances, the higher the priority
B.4 Level of water pollution	3	The higher the level of water pollution, the higher the priority
B.5 Climate threats	4	The larger the extent of climate threats, the higher the priority
B.6 Other threats	4	The larger the extent / impact of the threat, the higher the priority
C. SOCIAL AND CULTURAL 25		
C.1 Dependence of communities of the goods and services of the CMPA	10	The higher the contribution to the income of the people, the higher the priority
C.2 Social, cultural and economic importance of local species of the CMPA	8	The greater the variety of traditional uses, the higher the priority
C.3 Social participation in the management of CMPA	7	The higher the social participation in the management of the CMPA, the higher the priority
D. INSTITUTIONAL /MANAGEMENT 15		
D.1 Alternative dispute resolution	3	The lower the application of ADR methods, the higher the priority
D.2 Information for CMPA management	1.5	The lower the quality of threat analysis, the higher the priority
D.3 Using information for CMPA management	2	The smaller the use of information for management decisions, the higher the priority
D.4 Capacity to implement CMPA management plans	2	The greater the capacity to implement management plans, the higher the priority
D.5 Capacity to implement harvesting plans	1	The greater the capacity to implement harvesting plans and fish refuges, the higher the priority
D.6 Capacity to implement restoration plans	1	The greater the capacity to implement coral reef restoration plans, the higher the priority

Table 14 continued

D.7 Tourist use of the CMPA	1.5	The lower the compliance of the plan for public use, the higher the priority
D.8 CMPA staff	2	The smaller the capabilities of the CMPA staff, the higher the priority
D.9 Infraestructure and equipment for the CMPA management	1	The lower the development of infrastructure and equipment for the management, the higher the priority
E. FINANCING 10		
E.1 National budget allocation	1	The lower the coverage of budgetary requirements from national funds, the higher the priority
E.2 Financial support from the market	3	The less sources of funding come from the market, the higher the priority
E.3 Financial support from donations	1	The less sources of funding come from grants, the higher the priority
E.4 Financial performance	2	The greater the financial performance, the higher the priority
E.5 Financial stability	3	Greater priority to areas that implement financial strategy

The valuation table (Table 14) was applied to the CMPA questionnaires, which generated Table 15 giving as a result the following CMPAs with the highest score (Table 15):

1. Cayos Cochinos Archipelago Natural Marine Monument
2. Bahía de Tela Complex (Blanca Jeannette Kawas Fernández NP, Punta Izopo NP, Bahía de Tela Wildlife Refuge)
3. Islas de la Bahía Complex (Marino NP and Guanaja Special Protection Area)
4. Barras de Cuero y Salado Wildlife Refuge

Table 15. Results of the prioritization exercise conducted in Honduras

CMPA prioritizing order - National Guatemala Workshop 2015							
	Component Score						
CMPA	A. BIOPHYSICAL / BIODIVERSITY	B. THREATS	C. SOCIAL AND CULTURAL	D. INSTITUTIONAL /MANAGEMENT	E. FINANCING		TOTAL
Priority one							
Archipielago de Cayos Cochinos Natural Marine Monument	15.80	7.00	25.00	7.70	9.60		**65.10**
Bahía de Tela Complex (Blanca Jeannette Kawas Fernandez NP, Punta Izopo NP, Bahía de Tela Wildlife Refuge)*	21.85	10.60	18.20	7.80	5.80		**64.25**
Complex Islas de la Bahía (Marine NP & Guanaja Special Protection Area) **	19.60	11.40	22.20	5.30	2.40		**60.90**
Barras de Cuero y Salado Wildlife Refuge	7.40	6.00	25.00	5.20	8.60		**52.20**

*The marine area in the process of declaratory
** The National Park was declared after the prioritization process 2007

5.5 Investment needs identified in the national workshops

During national workshops the investment needs that exist in each country were discussed in the plenary session in order to support the governing bodies, co-managers and staff for CMPA management, highlighting the following priorities:

Table 16. Investment needs identified in the national workshops

Needs identified in the National Workshops	Mexico	Belize	Guatemala	Honduras
Law enforcement				
Law enforcement: beyond the implementation of policy, implementation and enforcement of measures to reduce the impact.	- Follow-up denunciations - Promotion of legal advocacy strategies and law enforcement		Coordination and dialogue tables promotion	
Financing				
Signaling and demarcation	X			X
Cadastre				X
Infrastructure	X	X		X
Strategic investmets lines:	X			
- Ordering for public use and coastal	X		Impacts of megaprojects (fishing, flora and fauna)	
- Water	X		Impacts of megaprojects	
- Watersheds	X	X	Wetlands restoration / green engineering	
- Biodiversity	X		Mangroves, reefs and conservatin elements	
Planning and management of fisheries		X	X	X
Alternative livelihoods for fishermen and specific community needs		X		
Compensation / incentives for fishermen who perform monitoring		X		
MAR Fund resources alignment with national priorities and plans MCPAs		X	Creation of long-term mechanisms to address problems	X
Operational costs				
Recurring cost	X			
Patrols		X		
Equipment and maintenance		X		X
Combustible		X		
Support for the involvement of committees		Advisory committee		

Table 16 continued

Needs identified in the National Workshops	Mexico	Belize	Guatemala	Honduras
Personal				
Recruitment for specific tasks	X			X
permanent staff		X		X
Training		Mechanics skills, quality monitoring		X
Institutional strengthening				
Institutional design	X			
Strengthen links between terrestrial and marine conservation efforts		X		
Strengthening government agencies and policies		X		In preparation, monitoring and evaluation of management plans
Strengthening technical units, articulating the government and civil society	X			X
Reaserch and monitoring				
Social research and livelihoods (with fishermen and other MAR users)		Value productive chains and market research		X
Standardization of measurement methodologies (monitoring and evaluation)	X	Fishermen training	Using parascientists information, communitarian extensionists	
Scientific research for decision making and environmental education			X	X
Advocacy and Budget				
Projects to develop instruments applicable to the entire MAR, with emphasis on the legal and practical impact	Legislative proposals	Solid waste (international)		
Search for links with other national programs		X		
Control and management of lionfish		X		
Creating leadership		X		
Multi-stakeholder coordination (government and civil society)			X	

6 National workshops results

6.1 Priority Areas

During the regional workshops (Guatemala and Belize), a review of the national results was conducted taking into consideration a regional vision, the connectivity between areas and between the areas proposed and the areas of the first prioritization exercise; plus the value/importance of support that MAR Fund might be able to provide, among others. The following CMPA prioritization was obtained as a product and it is shown geographically in Annex 7:

Mexico:
Island of Cozumel: which includes the following areas, Cozumel Reefs National Park / Cozumel Reefs Flora and Fauna Protection Area/ Cozumel Wetlands and Forests State Reserve/ Laguna Colombia State Ecological Park
Puerto Morelos Reef National Park;
Isla Contoy National Park
Tulum National Park.
Belize
Gladden Spit & Silk Cayes Marine Reserve
Turneffe Atoll Marine Reserve
Sapodilla Cayes Marine Reserve
Caye Caulker Marine Reserve.
Guatemala
Bocas del Polochic Wildlife Refuge
Manantiales del Cerro San Gil Reserve
Honduras
Cayos Cochinos Archipelago Natural Marine Monument
Barras de Cuero y Salado Wildlife Refuge
Michael Rock Special Marine Protection Area
Bahia de Tela Marine Wildlife Refuge

The regional prioritization for Mexico was carried out taking into consideration that CMPAs with fewer resources are state-owned. In the case of Isla de Cozumel, its historic value is a positive contribution although there are several CMPAs all located in the same island, with the benefit and the challenge of including state, federal, and semi-private areas. Isla Contoy and Tulum National Parks were included because of their potential to become demonstrative management sites that with relatively small support can achieve significant results.

In the complementary workshop Belize participants increased priority for Caye Caulker and Sapodilla Cayes Marine Reserves, considering that Caye Caulker has a great financial weakness, is a very threatened area with high social and economic importance. Sapodilla Cayes, on the other hand, receives strong pressure from illegal fishing from Honduras and Guatemala, it is a World Heritage Serial Site located in three countries.

The Guatemala participants agreed to keep the prioritization carried out in the national workshop and proposed that the Chocón Machacas Protected Biotope and Rio Dulce National Park be considered as part of the area of the Sarstún River Multiple Use Area for its connectivity -shown by the geographical continuity and biophysical interrelation that they have-. The proposal is therefore that the actions in Chocón Machacas and Rio Dulce could be supported by MAR Fund.

In the prioritization of Honduras and because of the dimension of the complex initially proposed, it was agreed to include more specific areas, prioritizing: a) Guanaja, because it includes a non-fishing area, and is co-managed by BICA/Municipality/ICF and their institutional structures need to be strengthened. b) Bahía de Tela Marine Wildlife Refuge, according to its national and international importance because it has 69% of live coral. Cayos Cochinos Archipelago Natural Marine Monument and Barras de Cuero y Salado Wildlife Refuge were kept within the priorities.

6.2 Strategic Topics - Investment Priorities

The participants in the regional workshops reviewed and discussed the contributions to the national workshops, summarized by the Consultant (see 5.5 National Workshops Investment Needs) and mentioned the following as important elements:

- Communication addressed to all public (such as decision-makers, resource users) on the importance of CMPAs and MBRS, with priorities defined for each country.
- Law enforcement outside the CMPAs: in areas of influence and under coordination between countries, such as border fishing areas and basins with pollution plumes that exceed national borders.
- Strengthening the fishing regulations and protected areas.
- Selection of high impact projects contributing to reverse the problem.
- Expand the options for sustainable livelihoods of local communities, to reduce dependence on fishing, such as local community development agendas or the provision of tourist services through community groups.
- Add to the actions eligible for funding through MAR Fund, the management of community fisheries, which could include specific training for fishermen on fishing regulations and coordination with the Central American Fisheries and Aquaculture Sector Organization (OSPESCA for its initials in Spanish)
- Promote the use of CMPAs coordination platforms by directors on various topics such as planning and land use to reduce the impact of sediments and nutrients on the MBRS; the budgetary impact and exchange of good fishing practices.
- Need to address long term / strategic issues for example; the use of MAR Fund's funds as a counterparty to facilitate the access to funds and favor the implementation of management actions.
- Develop models in the MBRS to address food security and poverty alleviation, by the priority claimed for some countries.
- Publication of lessons learned, in processes such as the development of tools of the MBRS Project and processes developed in collaboration with fishermen by TRIGOH partners.
- Promote political dialog on watershed management, land use, solid waste and conservation, oriented to the search of strategies to mitigate threats from high impact on ecosystems, which cannot be addressed by the CMPA administrator, for example the increase of African palm plantations, mining, industries, and deterioration of the water quality.
- Disseminate MBRS information to create a favorable public opinion on the CMPAs, which could include actions for the promotion of the culture of responsible consumption and the goods and services of coastal marine ecosystems (the protection of coasts, contributions to income, tourism-landscape).

Guatemala Regional Workshop Participants

7. Conclusions and Recommendations

Discussion and Conclusions

- The 2015 prioritization process driven by MAR Fund, showed flexibility to apply it to different natural, social and institutional contexts in the four countries under an updated and standardized methodology for the Ecoregion. In addition, it was based on the technical-scientific information available and the implementation of multiple criteria (environmental, social, economic, cultural and institutional), agreed upon under a participatory approach.
- The CMPA network eligible for prioritization to be supported by MAR Fund in the MBRS was extended to 17 new CMPAs, so that the network now covers 31 CMPAs in the four countries, for a total of nearly 45% of CMPAs currently identified.
- The 2015 CMPA prioritization process showed a greater interest in addressing regional problems, in comparison with the 2007 process, an aspect that mirrors a greater integration and maturity in the development and operation of the CMPA network of the ecoregion.
- The 2015 prioritization not only detected a greater interest in the participants, but also an increase in the amount of information generated in an official way in the past few years, that was decisive for achieving a more concrete prioritization exercise. The information generated during the 2015 exercise is a reliable tool to be used for decision -making and taking advantage of opportunities for coordination at the local, national and regional levels.
- A reduction in the availability of funds for coastal marine protected areas, both from State sources and international cooperation has been observed, a critical aspect, since the areas still need to strengthen their governance schemes to share conservation and sustainable management with key partners and various sectors, especially the community and the private and business sectors.

Recommendations

MAR Fund must direct some investements to strategically revert the coastal marine regional threats, such as illegal fishing in border areas, tourism development and unplanned coastal infrastructure in the CMPA areas of influence.

Strategically invest in the medium and long term, attending priority land threats such as large scale change of land use (basins and industrial monocrops), water pollution (agrochemicals and urban and industrial waste) and the effects of climate change. Existing networks at the regional and national levels and the capacities of the actors and sectors that are part of them, can contribute with advocacy to improve the health of the Mesoamerican Reef System.

Link the investment in CMPAs with livelihood programs, based on community needs, seeking to diversify and make the population livelihoods sustainable, without losing the link with the conservation of biodiversity.

The National CMPA Systems manage the development of better information systems, with the objective of prioritizing CMPAs and management measures more objectively. Among the most urgent measures related to information, we must mention the regional standardization of biological monitoring and evaluation of the CMPA management, among others.

Carry out a detailed analysis of the investment requirements at the CMPA Ecoregional level and define MAR Fund's short and medium term investment program that will ensure achieving the desired impacts in the MBRS, taking advantage of the opportunities and capacities of all the terrestrial and coastal-marine stakeholders.

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Appendixes

Appendix 1. Experts consulted for the review of the methodology

Name	Position and organization
Ángela Mojica	MAR Fund MCPA Management effectiveness assessments Regional Consultant
Mario Jolón	Member of the MAR Fund Grants Evaluation Committee
Jorge Ruíz	Wetlands International Coordinator – Guatemala
Mario Díaz	Mesoamerican Biological Corridor - MARN Coordinator Guatemala
Concepción Molina-Islas	Slim Foundation – Member of the MAR Fund Grants Evaluation Committee
Raquel Sigüenza	Coastal Marine UNDP Project Coordinator, Guatemala
Manuel Henry	National Protected Areas Technical Director, Guatemala
Claudio González	MAR Fund Technical Coordinator

Appendix 2 Methodological tools: Questionnaire on the CMPA Status

Question / source of information	Rate				
A. BIOPHYSICAL / BIODIVERSITY					
A.1 How many hectares covers the PA?					
Suggested source:	National Authority				
National Protected Areas Authorities	< 10,000 ha	10,001-20,000 ha	20,001-30,000 ha	30,001-40,000 ha	>40,000 ha
A.2 Is there a functional connectivity/proximity to other protected areas and protection/sustainable use mechanisms within the MBRS (eg fish refuges)?					
Suggested source:	National Authority				
CMPA maps / management zones	PA more than 10 km of other MPA / areas under protection / sustainable use mechanisms	PA between 5-9.9 km from another MPA / areas under protection / sustainable use mechanisms	PA between 2-4.9 km from another MPA / areas under protection / sustainable use mechanisms	PA within 2 km of areas under protection and sustainable use mechanisms	Adjacent coastal marine protected areas
A.3 What ability/time do coral reefs have to recover from natural and human disturbances?					
Suggested source:	PA Director / Others				
	Detected long-term recovery trend (≥ 20 years)	Detected medium-term recovery trend (15-19 years)	Detected long-term recovery trend (10-14 years)	Detected recovery trend between 5-9 years	Detected short-term recovery trend (< 5 years)
A.4 Show the ratings of the latest reef health status index of the area / available reliable information, broken down into:					
Fuente sugerida:	Healthy reefs / available information				
Average					
	5	4	3	2	1
- coral reef areal extent (%)	≥40%	20-39.9%	10-19.9%	5-9.9%	<5%
- fleshy macroalgal areal extent %	0-0.9%	1.0-5.0%	5.1-12.0%	12.1-25.0%	>25%
- key herbivorous fish (g/100 m2)	≥3480	2880-3479	1920-2879	960-1919	<960
- key commercial fish (g/100 m2)	≥1680	1260-1679	840-1259	420-839	<420
	Note: The information was taken from Healthy Reef Report Card				
A.4.1 ¿What extent (hectares) of other ecosystems in good conservation status is within the PA (indicate which ones, eg mangroves, seagrasses, rocky areas, spawning aggregations)?					
Suggested source:	Available reliable information				
(Rate comparatively extensions with other MPA of the country)					
Mangroves	> extent				< extent
Seagrasses	> extent				< extent
Spawning aggregations	> extent				< extent
Rocky areas	> extent				< extent
Others	> extent				< extent

A.4.2 Does the CMPA harbor species included in national lists of threatened (eg redlist) / key-migratory species (eg whale shark, manatee)?					
If you answerd yes to the previous question please list the species and cite the source of information					
Suggested source:	Available reliable information				
Source used by the CMPA					
	>12 species	9-11 species	5-8 species	2-4 species	< number of species
A.5 What percentage of the area of coral / mangrove / seagrass ecosystems remains over the existing extent 10-50					
Indicar plazo analizado (p.e. 10 años)					
Suggested source:	Healthy reefs / available reliable information				
Coral	Increase of 1% or more	Remained unchanged	Decrease < than 5%	Decrease between 5-20%	Decrease >20%
Mangrove	Increase of 1% or more		Remained unchanged		Decrease between 5-
Seagrasses	Increase of 1% or more		Remained unchanged		between 5-20%
B. THREATS					
B.1 What is the trend in the density of key commercial fish (snapper and grouper) over the past 10 years?					
Suggested source:	Management effectiveness / available reliable information				
If there is data of large groupers (Nassau), include them					
	Density (g/100 m^2) and size of groupers significantly increasing		Density (g/100 m^2) and size of groupers unchanged		Density (g/100 m^2) and size of groupers significantly decreasing
B.2 What is the trend in the coastal/tourism development influencing the CMPA?					
Suggested source:	Management effectiveness / available reliable information				
Average					
	Infrastructure / illegal or inappropriate tourism operations and have significant negative impacts		Infrastructure / illegal or inappropriate tourism operations and have moderate negative impacts		Infrastructure / illegal or inappropriate tourism operations and have minimal negative impacts
	Mangrove / coastal vegetation coverage has been reduced to a rate > to 0.22%/year	Mangrove / coastal vegetation coverage has been reduced to a rate < to 0.22%/year	Mangrove / coastal vegetation coverage has remained unchanged	Mangrove / coastal vegetation coverage has been increaced to a rate < to 1%/year	Mangrove / coastal vegetation coverage has been increaced to a rate > to 1%/year
	Note: The data of >0.22% is considered high rate of deforestation by Parker, C., Mitchell, A., Trivedi, M., Mardas, N. (2009). The little REDD book. Oxford, U.K.: Global Canopy.				

B.3 Do natural disturbances (eg hurricanes) are more / less frequent over the last 10 years?					
Suggested source:	Management effectiveness / available reliable information				
Based on the official national/MPA records					
	Natural disturbances have been repeated every 2 years	Natural disturbances have been repeated every 3 years	Natural disturbances have kept the historical frequency	Natural disturbances have been repeated every 5 years	Natural disturbances have been repeated every 6-10 years
B.4 What trend shows the% cover of fleshy macroalgae over the last 10 years? or what trend shows the concentration of nutrients in the water?					
Suggested source:	Management effectiveness / available reliable information				
option a	Macroalgae coverage has increased by 100% or more	Macroalgae coverage has increased between 50-99%	Macroalgae coverage has increased between 25-49%	Macroalgae coverage has increased between 0-24%	Macroalgae coverage has remained unchanged
option b	≥ 100% increase in nutrient concentration	1-99% increase in nutrient concentration	Nutrient concentration has remained stable	≥100% decrease in nutrient concentration	50-99% decrease in nutrient concentration
B.4.1 What are the main sources of contamination? (availability of data and georeference)					
B.5 What % of the CMPA has been affected by climate threats over the past 10 years (acidification of water / temperature rise, result: coral bleaching, coral disease)?					
Suggested source:	Management effectiveness / available reliable information				
option a	≥ 50% of coral colonies affected by mortality (whitening)	Between 40-49% of coral colonies affected by mortality (whitening)	Between 30-39% of coral colonies affected by mortality (whitening)	Between 20-29% of coral colonies affected by mortality (whitening)	≤ 20% of coral colonies affected by mortality (whitening)
option b	Significant reduction in pH		Moderate reduction in pH		There are no changes in pH
B.6 What threats generate significant impacts on the CMPA ecosystems?					
Suggested source:	Management effectiveness / available reliable information				
Check comparatively between the areas of the country					
	≥ 5 high-impact threats	4 high-impact threats	3 high-impact threats	1-2 high-impact threats	Several medium-impact threats
	High impact		Medium impact		Low impact
Lionfish					
Triggerfish					
Oil extraction					
Poor watershed management					
Other (list)					

C. SOCIAL AND CULTURAL					
C.1 What % of people depend on ecosystem goods and services from the CMPA? How many jobs are related to the CMPA?					
Suggested source:	Management effectiveness / available reliable information				
Number of people who depend on the goods and services of the CMPA	≥60% of the people depend on ecosystem goods and services in the CMPA	40-59% of the people depend on ecosystem goods and services in the CMPA	30-39% of the people depend on ecosystem goods and services in the CMPA	20-29% of the people depend on ecosystem goods and services in the CMPA	≤19% of the people depend on ecosystem goods and services in the CMPA
Jobs	High number of jobs related to CMPA				Low number of jobs related to CMPA
C.2 How many species of plants and animals within the CMPA are social, cultural or economically important at a local level?					
Suggested source:	Management effectiveness / available reliable information				
Local economic importance is referred to the uses of species for consumption, excluding commercial uses	More than 10 species are of local social, cultural or economic importance	Between 6-9 species are of local social, cultural or economic importance	Between 3-6 species are of local social, cultural or economic importance	Up to three species are of local social, cultural or economic importance	No species are of local social, cultural or economic importance
C.3 What functional spaces of social participation are given to people for the management of CMPA?					
Suggested source:	Management effectiveness / available reliable information				
	Representative structure of social participation works and is officially endorsed	Representative structure of social participation works but is not officially endorsed	Structure of social participation works but is not representative	Official participation structure exists but does not work	There is no social participation structure
D. INSTITUTIONAL /MANAGEMENT					
D.1 What experience of applying alternative dispute resolution methods has the CMPA?					
Suggested source:	Management effectiveness / available reliable information				
	There have been documented cases of successful ADR in MPA	ADR methods have been applied in the MPA with good results but undocumented	Some elements of ADR have been applied without definitive results	ADR methods have been applied in the MPA without achieving good results	There is no experience in the application of ADR methods in the MPA

D.2 Is there a proper threat analysis to guide management of the CMPA?					
Suggested source:	Management effectiveness / available reliable information				
The question relates to the CMPA monitoring system, in half page describe the methods that have been used and attach it, including citations of related publications.	There is regular and well supported analytical information on threats and their causes that affect the CMPA	There is well supported (not regular) analytical information on threats and their causes that affect the CMPA	There is incomplete information and without support of the threats affecting the CMPA	There is scattered, inconsistent and unsupported information about threats that affect the CMPA	There is no information on threats and their causes that affect the CMPA
D.3 What decisions were taken on the management of the CMPA during the last five years, based on the analysis of information?					
Suggested source:	Management effectiveness / available reliable information				
In half page describe them and attach it, including citations of related publications.	CMPA management decisions based on good analytical information, properly documented		CMPA management decisions based on reasonably reliable information with analytical gaps		Management decisions do not indicate relation to analysis of the situation of the CMPA
D.4 What level of implementation have the CMPA general management plans?					
Suggested source:	Management effectiveness / available reliable information				
Considering the implementation according to the terms defined in the plan	≥80% implemented	60-79% implemented	40-59% implemented	20-39% implemented	≤19% implemented
D.5 What level of implementation have the harvesting and management plans of the CMPA fish refuges?					
Suggeste source:	Management effectiveness / available reliable information				
	≥80% implemented	60-79% implemented	40-59% implemented	20-39% implemented	≤19% implemented
Implementation of resources use plan					
Implementation of fish refugee management plans of the CMPA					
D.6 What level of implementation have the CMPA coral reef restoration plans?					
Suggested source:	Management effectiveness / available reliable information				
	≥80% implemented	60-79% implemented	40-59% implemented	20-39% implemented	≤19% implemented
D.7 What % of compliance of the plan / specific rules for public use has been reached? What number of visitors receives the area?					
Suggested source:	Management effectiveness / available reliable information				
	≥80% implemented	60-79% implemented	40-59% implemented	20-39% implemented	≤19% implemented
% of compliance of the plan / specific rules for public use					
	Significantly less than its capacity		According to the estimated load capacity		Significantly higher than its capacity
Number of visitors (in relation to the estimated carring capacity)					

D.8 What level of skills has the staff for the CMPA management?					
Suggested source:	Management effectiveness / available reliable information				
Average					
Number	The CMPA has ≥80% of the staff necessary for its management	The CMPA has between 60-79% of the staff necessary for its management	The CMPA has between 40-59% of the staff necessary for its management	The CMPA has between 20-39% of the staff necessary for its management	The CMPA has < than 20% of the staff necessary for its management
Training	≥80% of staff have the necessary training to perform their responsibilities	Between 60-79% of staff have the necessary training to perform their responsibilities	Between 40-59% of staff have the necessary training to perform their responsibilities	Between 20-39% of staff have the necessary training to perform their responsibilities	<20% of staff have the necessary training to perform their responsibilities
Experience	Staff have ≥10 years of experience in managing the area	Staff have between 6-9 years of experience in managing the area	Staff have between 3-6 years of experience in managing the area	Staff have between 1-3 years of experience in managing the area	Staff have no experience in managing the area
Educational background	The CMPA has technical and university staff with the appropriate academic background	The CMPA has technical and university staff but not all have the appropriate academic background	The CMPA has some technical staff but without the appropriate academic background	The CMPA has technical staff, but lacks staff with university level	The area lacks technical and university academic training staff
D.9 What level of development in infrastructure and equipment has the CMPA for its management?					
Suggested source:	Management effectiveness / available reliable information				
	The infrastructure for the management of the CMPA is appropriate, in excellent condition and timely maintenance	The infrastructure for the management of the CMPA is suitable, in good condition and limitations for maintenance	The infrastructure for the management of the CMPA is insufficient and in fair condition	The infrastructure for the management of the CMPA is insufficient, in disrepair and lack of maintenance	The CMPA has no proper infrastructure for its management, nor is it in good condition, nor it has the appropriate maintenance
	Equipment in good condition, with running maintenance plan.		Equipment works with difficulties, partial maintenance		Equipment in poor condition, there are no maintenance plans

E. FINANCING					
E.1 What percentage of the financial needs of operation and basic investment of the CMPA are covered with the current national budget allocation?					
Suggested source:	Available reliable information				
Here are considered the basic needs of operation, maintenance and investment on the daily functioning of the area, such as operation and maintenance of vehicles, payment of personnel for protection and management of the area, and infrastructure maintenance	The national budget covers ≥80% of the basic financial needs of CMPA	The national budget covers between 60-79% of the basic financial needs of CMPA	The national budget covers between 40-59% of the basic financial needs of CMPA	The national budget covers between 20-39% of the basic financial needs of CMPA	The national budget covers ≤19% of the basic financial needs of the CMPA
E.2 What % of the financing of the CMPA came from market during the last three years?					
Suggested source:	Available reliable information				
Attention: the two options must be described inversely considering the role they have for financial sustainability	The contribution of the market covered extraordinary needs of the CMPA	The contribution of the market covered in a period the basic needs of the CMPA	The contribution of the market covered ≤ 15% of the basic needs of the CMPA	The contribution of the market covered between 16-29% of the basic needs of the CMPA	The contribution of the market covered ≥30% of the basic needs of the CMPA
E.3 What % of the financing of the CMPA came from grants during the last three years?					
Suggested source:	Available reliable information				
	The contribution from grants covered extraordinary needs of the CMPA	The contribution from grants covered in a period the basic needs of the CMPA	The contribution from grants covered ≤ 15% of the basic needs of the CMPA	The contribution from grants covered between 16-29% of the basic needs of the CMPA	The contribution from grants covered ≥30% of the basic needs of the CMPA
E.4 What percentage of funding of the past three years was executed?					
Suggested source:	Available reliable information				
Total allocated budget is understood as the MPA funds from national sources, donors, market, and other sources.	≥85% average exectution of total allocated budget	Between 70-84% average exectution of total allocated budget	Between 55-69% average exectution of total allocated budget	Between 40-54% average exectution of total allocated budget	≤39% average exectution of total allocated budget
E.5 What is the level of implementation of the CMPA financial strategy?					
Suggested source:	Available reliable information				
	The CMPA implements ≥50% of its specific financial strategy and generates own resources covering ≥15% of the needs	The CMPA implements 1-50% of its specific financial strategy and generates own resources covering 10-14% of the needs	The CMPA has no specific strategy but generates own financial resources covering ≤10% of its needs	The CMPA has specific financial strategy that does not implement	The CMPA has no specific financial strategy

Appendix 3 Methodological tools: Instructions for filling the CMPA status questionnaire

Guidelines for filling out the information questionnaire on Coastal Marine Protected Areas in the Mesoamerican Reef Ecoregion

Presented by:

Oscar E. Rojas- Consultant

September 2015

Guidelines for filling out the information questionnaire on Coastal Marine Protected Areas in the Mesoamerican Reef Ecoregion

On this year, the Mesoamerican Reef Fund (MAR Fund) will carry out a new exercise to prioritize coastal marine protected areas in the four countries of the Mesoamerican Barrier Reef System (MBRS). This exercise will be conducted in a participatory way among managers of coastal marine protected areas, scientists, NGOs and government agencies, through four national and one regional workshop, which aim to identify 14 more areas derived from the exercise that was held in 2007. The results of this prioritization process will be important to guide MAR Fund investment priorities for coming years.

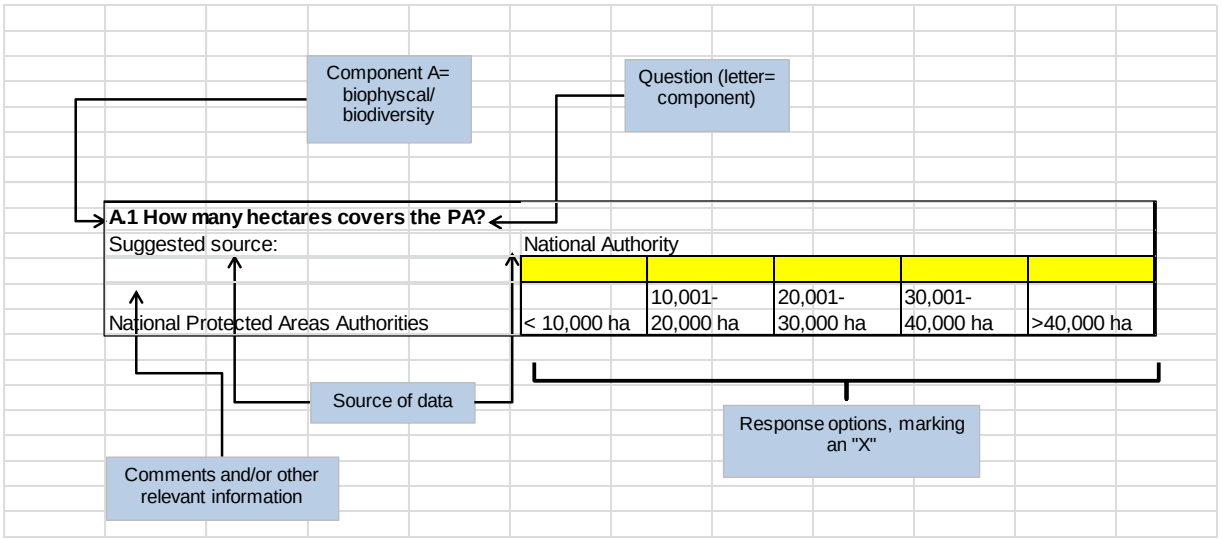
As part of the preparation process for the workshop in each country, managers of protected areas must submit, prior to the workshop, information on the situation of the areas in relation to five components: biodiversity & biophysical aspects, threats, social-cultural dynamics, institutional-management and financing. This information will be processed as the main input for the national workshops.

Purpose of the questionnaire:

To obtain quality information from reliable sources, that reflects the state of coastal marine protected areas in each country and demonstrates the potential to join the network of priority areas within the Mesoamerican Barrier Reef System.

Guidance for filling out the questionnaire:

The questionnaire has five components (biodiversity & biophysical aspects, threats, social-cultural dynamics, institutional-management and financing), and includes a series of questions that must be answered using information from reliable sources. The general outline of the questionnaire is as follows:



In general, the questionnaire is intended to collect relevant and reliable scientific, socioeconomic and management information of the CMPAs. Where there is no certain information available, the question should be left unanswered or be answered with well-justified approximations. The following guidance is provided by component:

Component A: Biodiversity & biophysical aspects. Questions A.1, A.2, A.3, A.4.1, and A.4.2 can be answered using information from the official declaration of the protected area, publicly available geographic data, specific studies, qualified observation or official lists of threatened species (e.g. the IUCN Red List of Threatened Species). In case of not having scientific information, question A.3 can be answered using the most possibly objective approach based on qualified observation, unpublished studies and others.

Questions A.4 and A.5 can be answered employing the monitoring reports from Healthy Reefs (http://www.healthyreefs.org/cms/report-cards/), using data from the closest monitoring site of the Healthy Reefs assessment subregion; you can also use other sources of scientific information of the CMPA. Question A.5 is important because it intends to reflect the trends of biodiversity in the medium and long term.

Component B: Threats. Questions B.1 and B.4 can also be answered using data from Healthy Reefs or any other scientific information. Specifically for the question B.4, there is MODIS satellite information (at http://www.servir.net/images/imageviewer/red_tides/aqua) on algal blooms (*phytoplankton*) indicating the sediment sources that threaten the Mesoamerican reef.

Questions B.2, B.3, B.5, and B.6 can be answered using information from recent studies, CMPAs monitoring reports and/or analysis from satellite images. Reports of the Intergovernmental Panel on Climate Change (http://www.ipcc.ch/report/ar5/) can be used to supplement information to answer the question B.5.

Component C: Social-cultural dynamics. Answers to questions C.1 and C.2 should be based on research made on economic and natural resources. If such data does not exist, internal reports of the CMPA and/or reliable sources can be used, including unpublished data and interviews with experts, citing the source.

Question C.3 should be based on available legal documents and/or records, prepared by the National Authority or the Director of the CMPA.

Component D: Institutional-management. Question D.1 can be answered based on documented experiences of the CMPA Directors. Questions D.2 and D.3 are related to the monitoring and evaluation system of the area, it requires a brief description of the management activities implemented in the CMPA during the last five years.

Questions D.4, D.5, D.6, and D.7 are intended to describe the extent and deadlines that are being implemented by the following plans: management plan of the CMPA, natural resources use, reef restoration and public use; in the absence of those instruments, regulations or other management tools can be included in the analysis.

Question D.8 is focused on assessing the human resources that are available to the CMPA, taking into account the number, training level and experience they have, as well as educational background. Question D.9 can be answered in terms of available infrastructure and equipment, its status and maintenance requirements.

Component E: Funding. Questions E.1, E.2 and E.3 focus on the financial sources of the CMPA and the level of contribution to the performance of its operational needs. The questions go into detail on financial government sources (E.1), the market, considered as funds generated by the CMPA itself (E.2) and external donations (E.3), which together show the funding composition of the area.

Regarding the definition of operational expenses and own sources, the questionnaire includes them in the comments section (bottom left of the questions).

Questions E.4 and E.5 must be answered based on the financial performance information for the last three years (E.4), and related with the CMPA's financial strategy implementation level (E.5).

The completed questionnaire must be sent to the following email addresses, and the Excel file name should be the name of the Coastal Marine Protected Area along with the initials of the country (Bz, Mx, Gt, Hn):

Oscar Rojas oscarojas4@yahoo.com
Claudio González cgonzalez@marfund.org

Suggested bibliography:

IPCC. 2014. Summary for policymakers. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectorial Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Field, CB, VR Barros, DJ Dokken, KJ Mach, MD Mastrandrea,TE Bilir, M Chatterjee, KL Ebi, YO Estrada, RC Genova, B Girma, ES Kissel, AN Levy, S MacCracken, PR Mastrandrea, and LL White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, p. 32.

Magrin, GO, JA Marengo, JP Boulanger, MS Buckeridge, E Castellanos, G Poveda, FR Scarano, and S Vicuña. 2014. Central and South America. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Report cards

http://www.healthyreefs.org/cms/report-cards/ (English)

http://www.healthyreefs.org/cms/es/reportes-de-la-salud/ (Spanish)

IPCC reports

http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml (English)

http://www.ipcc.ch/home_languages_main_spanish.shtml (Spanish)

Appendix 4 Methodological Tools: Table for selecting criteria by factors-parameters

	Factor	Parameter	Criteria based on the priorities of each country	
			A Option	B Option
A. BIOPHYSICAL / BIODIVERSITY	A.1 Extent of the protected area	Extent (number of hectares)*	The larger the CMPA, the higher the priority	The smaller the CMPA, the higher the priority
	A.2 Connectivity (proximity to other CMPA)	Proximity and flow to other protected areas, fish refuges and other management mechanisms	The higher the connectivity/proximity of the CMPA to other CMPA, the higher the priority	The lower the connectivity/proximity of the CMPA to other CMPA, the higher the priority
	A.3 Resilience	Ability/time of coral reefs to recover from natural and human disturbances	The greater the ability/time of coral reefs to recover, the higher the priority	The smaller the ability/time of coral reefs to recover, the higher the priority
	A.4 Presence and status of ecosystems	Reef Health Index (especies/key ecosystems: coral reefs, fleshy macroalgae, herbivorous and commercial fish)	The smaller the presence (%) of key ecosistems, the higher the priority	The greater presence (%) of key ecosystems, the higher the priority
		- coral reef areal extent (%)		
		- fleshy macroalgal areal extent %		
		- key herbivorous fish (g/100 m2)		
		- key commercial fish (g/100 m2)		
		Extent of other ecosystems in good condition, eg mangroves and seagrasses (interference level)	The greater the extent of ecosystems in good conservation status, the higher the priority	The smaller the extent of ecosystems in good conservation status, the higher the priority
		Presence of threatened/key-migratory species	The greater presence of threatened/key-migratory species, the higher the priority	The smaller presence of threatened / key-migratory species, the higher the priority
	A.5 Trends in ecosystems over time	Trends in coral / mangrove / seagrass ecosystems during the past 10-50 years	The greater the reduction from the original extent, the higher the priority	The smaller the reduction from the original extent, the higher the priority
B. THREATS	B.1 Unsustainable fishing	Trends in key commercial fish density (g/100 m2)	The larger the increase in the density of key commercial fish, the higher the priority	The lower the increase in the density of key commercial fish, the higher the priority
	B.2 Coastal and tourism development	Trends in unregulated - inappropriate coastal and tourism development	A minor coastal / unregulated tourism development, the higher the priority	A greater coastal / unregulated tourism development, the higher the priority
		Loss of coastal habitat (mangrove/coastal vegetation)	The higher the coastal habitat loss, the higher the priority	The lower the coastal habitat loss, the higher the priority
	B.3 Increased occurrence of natural disturbances	Frecuency of natural disturbances (eg hurricanes)	The lower the frequency of natural disturbances, the higher the priority	The higher the frequency of natural disturbances, the higher the priority
	B.4 Level of water pollution	Level of physical-chemical water pollution	The lower the level of water pollution, the higher the priority	The higher the level of water pollution, the higher the priority
	B.5 Climate threats	Scope of climate threats (water acidification / increase in water temperature, resulting: coral bleaching) in % of CMPA	The smaller the extent of climate threats, the higher the priority	The larger the extent of climate threats, the higher the priority
	B.6 Other threats	Number of threats significantly affecting the CMPA (eg. lionfish, tigerfish, oil extraction)	The larger the extent / impact of the threat, the higher the priority	The smaller the extent / impact of the threat, the higher the priority

	Factor	Parameter	Criteria based on the priorities of each country	
			A Option	B Option
C. SOCIAL AND CULTURAL	C.1 Dependence of communities of the goods and services of the CMPA	Estimated % of income of the people that depend on ecosystem goods and services of the CMPA	The higher the contribution to the income of the people, the higher the priority	The lower the contribution to the income of the people, the higher the priority
	C.2 Social, cultural and economic importance of local species of the CMPA	Number of species of plants or animals that are of local social, cultural or economic importance	The greater the variety of traditional uses, the higher the priority	The lower the variety of traditional uses, the higher the priority
	C.3 Social participation in the management of CMPA	Spaces of social participation in the management of CMPA	The higher the social participation in the management of the CMPA, the higher the priority	The lower the social participation in the management of the CMPA, the higher the priority
D. INSTITUTIONAL /MANAGEMENT	D.1 Alternative dispute resoluction	Level of implementation of ADR methods	The greater the application of ADR methods, the higher the priority	The lower the application of ADR methods, the higher the priority
	D.2 Information for CMPA management	Threat analysis	The lower the quality of threat analysis, the higher the priority	The greater the quality of threat analysis, the higher the priority
	D.3 Using information for CMPA management	Using information to make management decisions	The greater the use of information for management decisions, the higher the priority	The smaller the use of information for management decisions, the higher the priority
	D.4 Capacity to implement CMPA management plans	Level of implementation of management plans	The greater the capacity to implement management plans, the higher the priority	The lower the capacity to implement management plans, the higher the priority
	D.5 Capacity to implement harvesting plans	Level of implementation of harvesting and management plans of fish refuges	The greater the capacity to implement harvesting plans and fish refuges, the higher the priority	The lower the capacity to implement harvesting plans and fish refuges, the higher the priority
	D.6 Capacity to implement restoration plans	Level of implementation of coral reef restoration plans	The greater the capacity to implement coral reef restoration plans, the higher the priority	The lower the capacity to implement coral reef restoration plans, the higher the priority
	D.7 Tourist use of the CMPA for tourism	Level of compliance of the plan / specific rules for public-recreational use of CMPA	The higher the compliance of the plan for public use, the higher the priority	The lower the compliance of the plan for public use, the higher the priority
	D.8 CMPA staff	Staff skills level	The higher the capabilities of the CMPA staff, the higher the priority	The smaller the capabilities of the CMPA staff, the higher the priority
	D.9 Infraestructure for the CMPA management	Level of development in infrastructure and equipment for the CMPA management	The lower the development of infrastructure and equipment for the management, the higher the priority	The higher the development of infrastructure and equipment for the management, the higher the priority

	Factor	Parameter	Criteria based on the priorities of each country	
			A Option	B Option
E. FINANCING	E.1 National budget allocation	National budget meets the needs of CMPA management	The greater the coverage of budgetary requirements from national funds, the higher the priority	The lower the coverage of budgetary requirements from national funds, the higher the priority
	E.2 Financial support from the market	% of market financing	The more sources of funding come from the market, the higher the priority	The less sources of funding come from the market, the higher the priority
	E.3 Financial support from donations (grants)	% of grant financing	The more sources of funding come from grants, the higher the priority	The less sources of funding come from grants, the higher the priority
	E.4 Financial performance	Level of butget implementation of the CMPA	The greater the financial performance, the higher the priority	The lower the financial performance, the higher the priority
	E.5 Financial stability	Implementation of a financing strategy of the CMPA	Greater priority to areas that implement financial strategy	Greater priority to areas that not implement financial strategy

Appendix 5 National Workshops Program

Activity	Responsible
Registration of participants	
Welcome and introduction of participants	MAR Fund
Introducing the situation of CMPA – MAR	National CMPA Authority
Explanation of objectives and methodology	Consultant
Initial discussion of MCPA and available information, questionnaires filled	Plenaria / trabajo de grupos
Valuation of each of the components Discusión en plenaria - Plenary discussion - Valoración acordada Valuation of factors-parameters - Plenary discussion - Valoración acordada	Participants / Consultant
Selection of evaluation criteria - Plenary discussion - Valoración acordada	Participantes / Consultant
Assessment questionnaires for each of the CMPA - Setting values of questionnaires - Tabulation - Discussion of Results - Investment priorities	Participants / Consultant
Prioritization of the CMPA using the workshop results	Consultant
Closing ceremony	Representative National Authority

Appendix 6 Participants in national and regional workshops

Name	Organization
Rodolfo Rioja Nieto	UNAM – SISAL
José Juan Pérez Ramírez	CONANP
Natalia Mendizábal Berido	Fondo Mexicano para la Conservación de la Naturaleza
Stuart Fulton	COBI
José Luis Funes	SEMARNAT
Jaime González Cano	CONANP
Anastazia Banaszak	UNAM Puerto Morelos
Concepción Molina Islas	Fundación Carlos Slim A.C.
Judith Morales López	WWF
Oscar Rojas	Consultant MAR Fund
Denisse Ángeles Solís	CONANP-APFFYB
Cristopher González Baca	CONANP-PNAC
Lorenzo Álvarez Filip	UNAM Puerto Morelos
Rosa María Loreto Virel	Amigos de Sian Ka'an
José Juan Domínguez	R. Chinchorro-X'calac
Ricardo Gómez Lozano	CONANP
Adrián M. Ramos	Razonatura
Olmo Torres	Razonatura
Adriana Amador Colz	CONANP
Mercedes Isabel Sánchez	CONANP PNAPM
Emanuel Paz Pérez	SEMA X cacel
Oscar A. Rojas	Consultant

Belice (16)

Name	Organization
Alicia Eck	Belize Fisheries Deptartment –BDF-
Estela Requena	TASA

Name	Organization
Arreini Palacio	SEA
Joe Villafranco	TIDE
Samuel Novelo	BFD
Juan Chub	BFD
Roberto Carballo	BFD
Nayari Díaz Pérez	PACT
Jennifer Chapmann	Blue Ventures
Roberto Pott	Healthy Reefs Initiative
Lee Mcloughlin	Ya´axché
Said Gutiérrez	Ya´axché
James Azueta	Fisheries Dept
Isaías Majil	Fisheries Dept
Arlene Maheia-Young	CZMAI
Zoe Walker (Por internet)	Wildtracks
Coralia Rivera	Traslator
Ángela Alvarado	Traslator
Arabella Samayoa	Consultant
Oscar Rojas	Consultant

Guatemala (18)

Name	Organization
Sergio David Hernández	CONAP Punta de Manabique
Ana Beatriz Rivas	MAR Fund
Manuel Alberto Henry	CONAP
Eduardo Carmona	CONACAR
Luis Castillo	Defensores de la Naturaleza
Ximena Flamenco Rieckmann	MAR Fund
Silja Ramírez Yela	Fundaeco
Ana Gabriela Díaz	MAR Fund
Jorge Ordoñez	FCG
Heidy García	Defensores de la Naturaleza
Oscar Santos Gutiérrez	CECON USAC
Andrés Caal Chalib	CONAP PNRD
Carlos Rodríguez Olivet	MAR Fund
Raquel Sofía Leonardo	Defensores de la Naturaleza
Claudia Ruíz	Fundaeco
Fernando García Barrios	PNUD / Guatemala
Claudio González	MAR Fund
María José González	MAR Fund
Arabella Samayoa	Consultant
Oscar Rojas	Consultant

Honduras (20)

Nombre	Institución
Eduardo Rico Valladares	Fundación Biosfera
Roger Flores	Cuerpos de Conservación Omoa
Rosalina Martínez	ICF/RFA
Ely Augustinos	ICF/DVS
Sergio Martínez	ICF/ ORFA
Diana Mencía	ICF/ ORFA
Mariela Ochoa	CEM
Pamela Ortega	Coral
Marcio Aronne	HCRF
Alicia Medina	FAO/ UNAH
Jeicel Yadely López	FUCAGUA

Nombre	Institución
Natán García C.	ICF/ RENO
Francisco Cabañas	Fundación Islas de la Bahía
Oscar Lanza	FUCSA
José Emilio D´Curie	PROLANSATE
Grazzia Matamoros	WWF
José Herrero	FUCSA
María Arteaga Rosales	Bica Utila
Irma Brady	Bica Utila
Ana Beatriz Rivas	MAR / Fund
Arabella Samayoa	Consultant
Oscar Rojas	Consultant

Taller Regional (21)

Name	Organization
Carlos Vigil	Fundación Biosfera Honduras
Pamela Ortega	Coral Honduras
Alicia Medina	UNAH/Biología Honduras
Heidy García	MAR Fund – FDN Guatemala
Carlos Leonel Rodríguez	MAR Fund
Gina de Ferrari	MAR Fund
Jorge Ascencio del Cid	CECON-USAC Guatemala
Francisco Javier Pérez Navarrete	SEMA- Gob. Quintana Roo México
Nallely Hdez Palacios	CONANP México
Concepción Molina-Islas	Fundación Carlos Slim México
Lorenzo J. de Rosentweig	FMCN México
Juan Bezaury	TNC México
Vanessa Dávila	CONAP Guatemala
Claudio González	MAR Fund
Yvonne Ramírez	FCG Guatemala
Manuel de Jesús Ixquiac	FUNDAECO Guatemala
María José González	MAR Fund Guatemala
Francisco Castañeda Moya	CECON-USAC Guatemala
Enrico Gasparri	MAR Fund
Sonia Solís	WWF Guatemala
Manuel Henry	CONAP Guatemala
Arabella Samayoa	Consultant
Oscar Rojas	Consultant

Taller Regional Complementario – Belice (8)

Name	Organization
Estela Requena	TASA
Nayari Díaz Pérez	PACT
Jennifer Chapmann	Blue Ventures
Isaías Majil	Fisheries Department
Ellen McRae	FAMRACC Sbr
Inés García	Fisheries Department
Eric Wade	Fisheries Department
Ali Cancino	Fisheries Department
Carlos Rodríguez	MAR Fund
Oscar Rojas	Consultant

Appendix 7 Map of the Coastal Marine **Protected Areas prioritized in 2015 – Results of regional workshops**