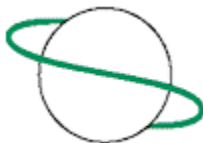




COMISION
CENTROAMERICANA
DE AMBIENTE
Y DESARROLLO



SAM/MBRS



CONSERVATION AND SUSTAINABLE USE OF THE MESOAMERICAN BARRIER REEF SYSTEM (MBRS)

ANNUAL WORK PLAN Period: 2003-2004 *(Revised for Web Publishing)*

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List of Acronyms

AWP	Annual Work Plan
BEMAMCCOR	Belize-Mexico Alliance for the Management of Coastal Resources
CCAD	<i>Comisión Centroamericana de Ambiente y Desarrollo</i>
CICESE	<i>Centro de Investigación Científica y de Estudios Superiores de Ensenada</i>
CINVESTAV	<i>Centro de Investigación y de Estudios Avanzados del IPN</i>
CZMA/I	Coastal Zone Management Authority and Institute
GEF	Global Environmental Facility
ICRI	International Coral Reef Initiative
INWEH	International Network for Water, Environment and Health
IUCN	International Union for the Conservation of Nature
MBCP	Mesoamerican Biological Corridors Project
MBRS	Mesoamerican Barrier Reef Systems Project
MOU	Memorandum of Understanding
MPA	Marine Protected Area
NCORE	National Center for Coral Reef Research
PCU	Project Coordinating Unit
PDF	Project Development Fund
PROARCA	<i>Proyecto Ambiental Regional para Centroamérica</i>
PY	Project Year
REIS	Regional Environmental Information System
RSC	Regional Steering Committee
SEMARNAT	<i>Secretaría de Medio Ambiente y Recursos Naturales</i>
SMP	Synoptic Monitoring Program
TNC	The Nature Conservancy
TORs	Terms of Reference
TRIGOH	Tri-national Alliance of the Gulf of Honduras
TWGs	Technical Working Groups
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
WRI	World Resources Institute
WWF	World Wildlife Fund
WWF-CA	World Wildlife Fund for Nature, Central America Office

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1. Executive Summary

The concept for the Mesoamerican Barrier Reef System Project (MBRS) was born with the signing of the Tulum Declaration in June of 1997. Since then, and under the auspices of the Central American Commission for Environment and Development (CCAD) and the World Bank, the four MBRS countries and other interest groups throughout the region have cooperated with each other in the design and preparation of the Project, leading up to the declaration of effectiveness on November 30th, 2001.

To ensure the proper implementation of the Project, funds will be disbursed against an approved Yearly Work Plan. A Draft MBRS Work Plan for the third year of the Project (PY3) has been prepared by the PCU, and will be presented to the Project's Technical Working Groups (TWGs) during the third round of meetings to be held in Chetumal, Quintana Roo, Mexico, on June 5 and 6, 2003. The Draft Plan describes the technical activities to be conducted under the four technical components of the Project, as well as activities related to Project Management.

During PY3, under the Marine Protected Areas Component, major investments will continue in MPA infrastructure support, the launching of a program for the monitoring of MPA effectiveness, the development of 4 Master Plans, training of park staff in MPA Administration, training in Tourism Development Related to MPAs, Exchange Programs for Park Staff, and a continuation of the Transboundary Parks Commission. These activities have an estimated budget of \$1,120,520. Activities under the Regional Environmental Information System Component (REIS), will comprise mainly of the installation and launching of the REIS and the Network, training in the use and management of these systems, and expansion of the Web Site. The Synoptic Monitoring Program (SMP) will focus at launching the SMP, the completion of the Oceanographic Model, a second round of training on the use of the SMP Manual, and the initiation of data collection in the field. The estimated budget of this component for PY3 is \$525,105.

The Sustainable Use Component of the MBRS project focuses on two sectors: Fisheries and Tourism. During PY3 the fisheries sub-component will support the launching of the monitoring program for spawning aggregation sites for multiple sites along the MBRS region, training in sustainable livelihood activities, including 'kayaking', fly-fishing, recreational scuba diving, and tour guiding, and a fisher-folk exchange program. Fisheries Management support will also be provided to the four countries.

In Tourism, the Regional Fora on Marine Tourism will continue, as well as the development of Codes of Conduct for tourist operations, in association with other partners in the region, the development of a Catalogue of Exemplary Practices based on the Sustainable Tourism Forum, and the implementation of an Exemplary Practices Tour. Also, and with the assistance of the United Nations Environment Program (UNEP), a Pilot Program of the “Blue Flag” Campaign will be implemented in selected zones of the MBRS. The budget estimation for this component is \$537,800. During PY3, the Public Awareness and Environmental Education component will continue investments in the implementation of the Environmental Awareness Campaign developed by the Project, and especially on radio and video spots. Resources will also be invested for the incorporation of MBRS Concepts into the curricula at the primary and secondary schools level, as well as the implementation of a student forum. The translation of technical products into policies will also be accomplished under this component, which will require an estimated budget of \$369,200.

Project Management will be centered on procurement, contracting, financial management and the supervision of all activities programmed for PY3. Regional coordination and efforts aimed at establishing work and cooperation alliances with other agencies and projects in the region will represent an important part of Project Administration activities. More details on this can be found in the section on Project Management on page 41. For PY3, as has been the case with PY2, this Project component also includes the cost of translating key documents and simultaneous translation, as well as a budget-line for contingencies. Budgetary estimation for Project Administration for the following four quarters is \$881,555 and the total estimation for PY3 is \$3,434,180.

The activities proposed for PY3 are consistent with the objectives and goals of the Project, and they are representative of the high level of dynamism that characterizes the MBRS Project. The budgetary estimations are approximate, and the counterpart contributions agreed by the countries will be fundamental to the successful implementation of the Project.

2. Introduction

The Mesoamerican Barrier Reef System (MBRS) includes the second longest barrier reef in the world. The MBRS is unique in the Western hemisphere on account of its size, its array of reef types, and the luxuriance of corals it contains. The outstanding ecological and cultural significance of the MBRS has resulted in several sites being designated World Heritage Sites.

Recognizing the importance of the MBRS to the economy of the region and to the natural and cultural heritage of its people, and conscious of the increasing threats to its overall health, the leaders of the four countries bordering the MBRS convened in Tulúm, Mexico in June 1997 to pledge their commitment to protect this outstanding public resource. The Tulúm Declaration called on the four littoral states of the MBRS and its partners in the region to join in developing an Action Plan for its Conservation and Sustainable Use. The Central American Commission on Environment and Development (CCAD) approached the GEF through the World Bank to request support for the development of the Plan and a strategy for its implementation. With GEF funds and technical support from the World Bank, IUCN, and WWF, CCAD convened a multi-stakeholder workshop with representatives from the four participating countries to draft an Action Plan for management of the MBRS.

The MBRS Project is the first phase of a 15-year conceptualized program, and was designed based on the regional components of the Action Plan. The activities developed in the project are representative of the priorities identified and agreed by the four countries, and they are primarily focused on the transboundary zones. These are distributed along five components in the Project: Marine Protected Areas, Regional Environmental Information System, Sustainable Use of MBRS, Public Awareness and Environmental Education, and Project Administration. The objectives and goals of the activities will support, at all moments, the formulation of national and regional policies that are necessary for the conservation and sustainable use of the MBRS, with special consideration to the well-being of the interest groups in the region.

This Annual Work Plan describes the activities to be carried out during the period July 2003 and June 2004. During the 2002-2003 financial year, an accelerated rate of execution was adopted, in an effort to minimize the effects of the delay in the Declaration of Effectiveness of the Project. This adaptive approach to Project execution has resulted in the recuperation of most of the time lost, allowing for a better focus on the consolidation of processes required for the Project to have the desired impact on the sustainability of MBRS resources.

The activities to be carried out are very much characterized by actions devoted to the continuation of infrastructural support to MPAs, the monitoring of MPA management effectiveness, the implementation of the PMS, the installation and launching of the REIS and Network, the monitoring of spawning aggregation sites, the continuation of the forum on sustainable tourism, more training of fishers, and the continued implementation of the education and public awareness campaign. An important effort will be devoted to the consolidation of alliances and work cooperation with other agencies with a common interest in the MBRS area.

3. Component 1: Marine Protected Areas
Sub-component A: Planning, Management and Monitoring of Marine Protected Areas

Background

The main objective of this component is to strengthen the effectiveness of the management and protection of the Marine Protected Areas (MPA's), thus supporting the sustainability of the conservation action plans.

In addition, this component also seeks to support the existing capacity of governmental and non-governmental organizations involved in the management of the MPAs, through the training of their personnel in workshops and training courses linked to the subject matter.

Sub-component A: Planning, Management and Monitoring of MPAs

Progress on the 2002-2003 Work Plan:

In order to guarantee the effective management of the MPAs, this sub-component has followed a process that began in the first year, with the design of a methodology to establish the base line for monitoring programs on management effectiveness.

The report describes the current situation of the 15 priority MPAs in the MBRS and presents indicators and recommendations to start the Monitoring Program on Management Effectiveness. The next step will be the launching of the monitoring program on management effectiveness in all 15 priority areas. At the same time, the component seeks to strengthen existing capacities in planning and management of MPAs, through the preparation of Master Management Plans for the next 10 years in four transboundary MPAs. A regional expert is in the process of being hired to conduct this activity.

The product of this activity will allow us to visualize tendencies and projections on areas such as protection strategies for the most vulnerable resources within MPAs, management of visitors the MPAs, income generation, Park Development, educational and community relations programs, etc.

In addition, the Project has supported the implementation of Management Plans, including support to the proposed Marine Reserve in Omoa Barracoa in Honduras, the Rio Sarstun Multiple Use Reserve in Guatemala, the Arrecife de Xcalak National Park in Mexico and the Punta de Manabique Special Protection Area, in Guatemala. In the case of Belize, a training

program was held in the Florida Keys Marine Sanctuary, for rangers of 6 Marine Reserves and National Parks in Belize.

The effective management and planning of the MPA's requires, besides the processes described above, adequate infrastructure that is necessary to implement the actions presented in the Management Plans. Consistent with this need, the design of Multiple Use Centers for four transboundary MPA's has been completed. At present, construction has begun in Bacalar Chico, Belize, and we are in the process of hiring builders for the other three areas.

In the same manner, the process has began for the purchasing of equipment and materials necessary to efficiently carry out the Management Plans for the priority MPA's in the Project. The first delivery in Belize has been conducted in Belize and contracts with suppliers in Mexico and Guatemala have been signed.

An accomplishment of transcendental importance for this component has been the process to consolidate regional policies in the management and planning of the transboundary MPA's. To date, the Transboundary Parks Commission, for both the northern and southern regions have held meetings. As a result of these meetings, the Policy Work Group (PWG) has been activated, including the Legal Advisors for the Natural Resources and Environment Ministries and Secretariats in the four countries and an expert in Environmental Policy from the IUCN Center for Environmental Law. The PWG has devised a proposal on regional policies, that has been discussed in consultation meetings with key participants, in order to produce a draft that will be submitted for approval to the CCAD Council of Ministers, and subsequently define national mechanisms that would allow its implementation.

Many of the previous actions are already in progress and should continue within the 2003-2004 Work Plan along with specific activities to be conducted in order to consolidate the processes initiated above.

Work Plan 2003-2004

The specific activities for the third year of the current sub-component are as follows:

1. Monitoring of Management Effectiveness in MPA's

A meeting will be held to consolidate the methodology for Monitoring the Management Effectiveness in the 15 target MPAs, using the design, the indicators and the recommendations

presented in the corresponding report produced by the Project, but taking into account the systems currently in existence in each country, for management effectiveness monitoring.

The purpose of this meeting is to produce a methodology which integrates the indicators that can feasibly be measured, indicated in the report, with the national elements that are used by each country and that could be applied regionally. The product from the meeting will be a document, which offers a hybrid methodology, with steps to follow, measurement tables, indicators, monitoring frequency and responsible parties.

For the above-mentioned meeting, the Project will seek to establish synergies with the PROARCA/APM, who conduct activities related to the monitoring of management effectiveness in the Gulf of Honduras. Likewise, the results produced by the representatives of the MPA's in the MBRS region in the World Parks Congress will be incorporated.

The report, which currently exists, includes socio-economic, physical, environmental and biological parameters that must be measured. The report also includes reference to measurement, purpose, location, replicas, frequency, methods, tasks, personnel and possible collaborators of the monitoring program.

However, analysis show that the current personnel for the 15 MPAs is not enough to carry out the minimum set of requirements, much less the complete set of 43 measurements (an average of 3.9 persons in each of the MPAs), therefore it is recommended to form alliances and networks for data collection within management authorities and a series of local, national and international organizations.

The objective here is for this process to be continuous, in which the activities this year are the first steps in the right direction to accomplish a standardization of the minimum protocol required to measure management effectiveness in MPAs located in transboundary areas. This process will contribute to highlighting connectivity between MPAs in the MBRS region and will seek to guarantee the conservation of the inter-connected ecosystems, as a key step in securing the betterment of the quality of life for the communities associated with these areas.

2. Master Management Plans

A process to formulate 10-year Master Management Plans has begun for Omoa Barracoa in Honduras, Corozal Bay and Sapodilla Cayes in Belize and Arrecifes de Xcalak in Mexico. Expertise are currently being hired to assist in the development of these plans.

In the case of Xcalak and Gladden Spit, both reserves have 5-year Management Plans; Omoa Barracoa is about to complete the second stage on the production of their 5-year Management Plan and Corozal Bay still does not have a Management Plan. Where 5-year plans already exist, these would form the basis upon which the 10-year Master Plans will be developed.

The process includes participatory consultation workshops, preparation and formulation of Master Plans, publication and dissemination of said plans. The expected impact is to produce and implement long-term planning tools that allow us to visualize tendencies and to project the desired state of conservation of the site for the next 10 years.

3. Incremental Support to MPA Management

With the purpose of contributing to the effective implementation of management plans in the MPAs, support has been provided to a ranger exchange program from 6 MPAs in Belize with the Florida Keys National Marine Sanctuary, at the request of the MBRS National Coordinator for Belize.

At the request of the MBRS National Coordination in Honduras and Guatemala, support has been provided for the development of the second phase of the Management Plan for Omoa Barracoa in Honduras, and the creation of a final version for the Management Plan for the Rio Sarstún Multiple Uses Reserve in Guatemala. In both cases, the final product will be the Management Plans of both reserves.

Furthermore, we are supporting the revision and actualization of the Management Plan for the Sian Ka'an Biosphere Reserve in Mexico, and the elaboration of an executive version of the Management Plan for the Punta de Manabique Special Protection Area in Guatemala, including dissemination material that allows the human communities to learn about the conservation process on the site.

For the aforementioned cases, the products will be an updated and condensed version of management objectives for Sian Ka'an and an executive version of the Management Plan and

dissemination material for Punta de Manabique. Support for the production of the Master Management Plan for the Manatee Sanctuary in Mexico will be provided.

4. MPA Infrastructure

During the third year of the Project, we will continue acquiring the necessary materials and equipment for implementing the management plans for the MPAs. At present, we have started the process in Belize, Mexico and Guatemala, by delivering the first lot of equipment to the MBRS National Coordination in Belize; and the delivery to the MBRS National Coordination in Mexico is programmed for June, 2003.

At the same time, the process for the construction of the Multiple Use Center the five transboundary MPAs will proceed as planned. Construction has started on the Bacalar Chico Marine Reserve in Belize and we expect to have a contract very soon with the builders in the other three countries.

5. Transboundary Parks Commission

The Project will continue to support at least one annual meeting of each of the Transboundary Parks Commissions, in the northern and southern regions, in order to consolidate efforts for the formulation of policies geared towards the integrated management of the natural resources in the MBRS region. Consistent with this effort, the development of regional policy proposals on the standardization of closed seasons for fishing, basic regulations for environmentally friendly tourism and management of transboundary MPA's are in process, using participative processes of bilateral consultation.

New recommendations to be discussed during 2003-2004 include: establishing Memorandums of Understanding between national and regional agencies, which have a range of activity within the MBRS region with focus on the conservation and sustainable use of the resources in the Mesoamerican Barrier Reef. The anticipated impact from this previous recommendation is to optimize the financial and personnel resources in the actions to be developed, avoiding duplication of efforts and thus making the investment efforts more effective.

Other recommendations are related to permanent training programs to strengthen the installed capabilities of the local organizations, especially control authorities and personnel involved in fisheries, tourism operations and MPA management.

6. Policy Working Group

For the third year of the Project, the PWG will consolidate the propose Regional Policy Proposals, using the resources of the last meeting with the key participants. The final version will be submitted for consideration and approval by the CCAD Council of Ministers. The next step will be to define the mechanisms to implement strategic actions in each country that allow the approved policies to be effective, as well as the definition of the legal instruments necessary for its compliance.

In addition, the PWG will have to meet at least twice in order to develop the policy proposals emanated from the next meetings of the Transboundary Parks Commissions, which will have to be consolidated, in consultation with key participants and interested groups.

Sub-component B: Institutional Strengthening

Progress on the 2002-2003 Work Plan:

In order to further strengthen the existing capacity of governmental and non-governmental organizations involved on the management of the MPAs, the present sub-component is linked to the subject matter through the training of their personnel in workshops and training courses. During PY2, over 65 officials from the four countries involved in the Project, were trained in the following three thematic areas: Design and Elaboration of Management Plans for MPAs, Management Principles for MPAs and Community Relations of MPAs.

With the vision that the present sub-component will make a positive impact on the strengthening of existing capacities of the governmental and non-governmental organizations involved on the management of the MPAs, for PY3 the Project has programmed training courses that complement the courses taken during PY2.

Work Plan 2003-2004:

The specific activities of the present sub-component for PY3 are as follows:

1. Basic Training to MPA Rangers:

The effective management of MPAs depends fundamentally on the installed capacity of the personnel, especially rangers, who are very much involved in the execution of activities in all the components of the Management Plan, including patrolling, environmental education, research,

handling of visitors, and monitoring the management effectiveness of the area. As a result, and in an effort to consolidate and strengthen such capacities, the MBRS Project has programmed the present training, addressed to rangers of the transboundary MPAs, which in addition to training them on management subjects, favors the exchange of experiences, sharing of problems and the resolve them.

Similar to the previous trainings, the course includes the formulation of a rough draft of a manual, to be used during the training that will enrich the participant's view, in order to produce a final version in both languages, by adding those experiences.

In this activity, the establishment of synergies with PROARCA/APM, who have developed training courses and a manual on this topic, will be explored.

2. MPA Personnel Exchange

This activity is focused on giving the opportunity to the MPA's personnel, to interact with their equivalent in other countries on subjects of mutual interest. This exchange is flexible, according to the needs identified during the management of the MPAs.

During PY3, efforts will be made to support a delegate from each MBRS country, to make a presentation on cases of MPA management in MBRS priority areas, at the World Parks Congress to be held in Durban, South Africa, in September 2003.

3. Training on Tourism Programs and Public Use of the MPAs:

One important aspect in the Management Plans of MPAs are the programs for Tourism and Public Use. The implementation of such programs require tools to develop actions such as the design of nature trails, production and dissemination of educational material, guided visits, among others. Consistent with this need, training in the aforementioned thematic areas will be made to MPA personnel, those of the tourism Institutes, local tourism entrepreneurs, tour guides and tour offices, and representatives of local community based organizations involved in tourist operations.

Through this training, we expect to expose people to the processes related to the generation of income for MPAs, through the charging of visitors fees, sale of promotional material and other services offered to tourists. In addition, this activity will help to identify practical and viable methodologies for determining the tourist carrying capacity in the different MPAs.

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4. Component 2: Regional Environmental Monitoring and Information System
Sub-component A: Creation and Implementation of a Distributed Regional Information System (REIS)

Background

The primary task of this sub-component is to design and implement an electronic information system, which will manage, and make accessible to the project's clients, the information relevant to the management of the MBRS and related ecosystems and to the human communities that depend on it for their livelihood. The work of this sub-component, therefore, is intricately tied to the processes and results of the other project components and specifically to the Synoptic Monitoring Program. These other components would determine the overall scope and data processing methods for the information to be managed by the Regional Environmental Information System (REIS.)

In the past year, the MBRS Project completed the design of the environmental monitoring and MPA management effectiveness monitoring programs. Consequently, the MBRS Project now has the information needed to complete the design of the REIS. Additionally, during the past year, the Project completed the design of the regional data communications network, on which the REIS will be housed, and chose agencies, which will function as network nodes in each country involved in the Project. Based on this design, the Project has purchased computing equipment in order to implement the regional network, a task that will take place during June of 2003.

Implementation of the Regional Environmental Information System

The third year of the Project will see the launch of the monitoring programs and, in parallel, the implementation of the REIS, where the data collected by the monitoring programs will be stored and managed. A primary step in this activity is determining the data flow process, from the point of data capture in the field to its posting into the database. Additionally, the Project will conduct training workshops for the users from all the agencies that will be collecting data under the monitoring program, so that authorized users can enter the data collected into the REIS, submit queries, and conduct scientific analyses. The workshops will take place shortly after the launch of the monitoring program.

Since the user requirements of any dynamic system are constantly changing and growing in accordance with to the usage of the system, the identification of new requirements will be an

integral part of the annual project planning and of the on-going maintenance of the REIS. To this end, in the final quarter of the third Project year, the Project will consult with the users of the REIS to identify new requirements and to plan the growth of this database in order to accommodate the users' requirements in the long term.

The Regional Network and the Node Agencies

In the first quarter of the next Project year, the nodes of the regional network will become operational, an event which will require the delivery of computing equipment and telecommunications services from the Project to the nodes, and the signing of memoranda of understanding, which will define the terms of operation of the nodes. During the year, the Information Systems Specialist will visit the node agencies at 6-month intervals to ensure the smooth functioning of the network, to resolve any problems found, and to plan the next steps in the on-going growth of the network.

In the final quarter of the third year, the Project will collect and analyze statistics on the use and function of the network in order to identify and mitigate performance bottlenecks in the network.

Ultimately, in order to guarantee the long-term success of these information technology (IT) initiatives, it will be necessary to establish, within the region, a corps of professionals in the conservation sciences sector that has IT capacity. In order to accommodate the imminent growth in this sector, the Project will consult with the node agencies, the Technical Work Group for Environmental Information System, and Project partners, to identify the regional needs for institutional strengthening in the application of information technologies to coastal and marine conservation.

The Project's Website and Electronic Information Clearinghouse

The Project Website was launched in July 2001 at the start of the Project. Since then, it has been housed by an Internet Service Provider (ISP) in Belize. With the installation of the regional network, the Website will be transferred to a server within the network managed by the Project. Since the REIS will be based in the World Wide Web and located on the Project Website, the site architecture will need to evolve to accommodate the database, an event that will require a transition from being a static Website to being a dynamic Website. This will involve a new design and the re-programming of some existing web pages. This task will be done in parallel with the implementation of the REIS.

In addition to housing the REIS, where the data collected specifically through the Project's information generating activities will be stored, the Website is envisioned as an electronic clearinghouse for information related to the Mesoamerican Barrier Reef System and marine and coastal conservation. To this end, the Project established an electronic library of scientific and administrative documents based on the Website. This library will continue growing for the entire lifetime of the Project with the aim of establishing a permanent record of information related with these themes that are critical to the region, in the expectation that the widespread availability of such information will enable improved decision-making by governments and the managers and users of marine and coastal resources. In this way, the Website is a key tool in the implementation of the Project's public education campaign.

The Website will also house other database and information catalogs, including descriptions of marine protected areas in the MBRS region, lists of key players in the conservation and management of the MBRS, as well as scientific and geographic data in the form of maps and reports, and metadata on all this information. The discovery, preparation and entry of this information, as well as the design and programming of mechanisms by which to display and make them accessible on the Web will be an on-going process during the following year, which will require the joint efforts of the Project, node agencies, Project partners, consultants and interns.

In order to reach those people who do not have Internet connectivity, this information will also be made available for distribution on CD and printed media. As an additional strategy for the efficient dissemination of information to the public, the MBRS Project will make its information "searchable" by other regional and international networks such as the Sistema de Información Ambiental Mesoamericano (SIAM) and the Inter-American Biodiversity Information Network (IABIN.)

Technical Working Group (TWG) Meetings

An essential functional of the TWG's is their participation in the annual planning process. To this end, near the end of the third year, the Project will meet with its counterparts from the four participating countries in order to revise the status of the REIS and the regional network, taking into account any new events, which may influence their development.

Additionally, the active participation of the Technical Working Groups is essential for the successful implementation and on-going development of the REIS and the regional data

communications network. Since the Project does not have staff located in each country, it depends on the contributions of the members of the TWG's to provide up-to-date information on the situation and the specific needs of each country and to assist in the execution of certain national activities. This information and participation guarantee that the efforts of the Project remain relevant and useful for the participating countries.

4. Component 2: Regional Monitoring and Environmental Information System

Sub-component B: Establishing an MBRS Synoptic Monitoring Program

Background

The main objective of the *Synoptic Monitoring Program (SMP)* is to establish a **long-term** monitoring program that will address regional issues based on reliable information, in order to provide a sound basis for data management and decision support to aid in the conservation and sustained use of the MBRS. Therefore, it becomes necessary for the SMP to be sufficiently flexible to accommodate the development and/or acquisition of future data. The initial focus of the SMP will be centered on priority monitoring activities. The reports generated by the SMP will be available to the public by means of the MBRS Project's website.

Due to the complex biologic, ecologic and oceanographic nature of the MBRS, it is essential to generate information on these processes, including research and monitoring on the oceanographic current regimens and their influence on the status and processes of the critical ecosystems in the MBRS.

Focus of the SMP

The immediate objective of the SMP is to provide high quality information to improve the management of the reef system and its associated ecosystems. For this reason, it is indispensable to consider the processes occurring in the region through time, thus requiring for the SMP to be a long-term process that may be expandable in its coverage of ecosystems and species, as well as geographically.

SMP Development

Several regional and national activities were carried out this year relating to the three core themes of the SMP (i.e.: coral reef ecology, marine pollution and physical oceanography/models), which aided the design for the SMP and incorporated the most significant characteristics of the Mesoamerican Region.

Amongst the key achievements during 2003-2004 Period are the revision of the existing monitoring methodologies and the preparation of the *Manual of Methods for the MBRS Synoptic Monitoring Program* (soon to be available in both languages through in the MBRS Project's Website). Another key achievement was establishing Memoranda of Understanding (MOU) between the MBRS Project and the National Center for Caribbean Coral Reef Research (NCORE) and the World Resources Institute (WRI), to collaborate in mutually beneficial

activities. There are continuing efforts to establish MOUs with other institutions in the future such as CICESE, CINVESTAV and Amigos de Sian Ka'an, Mexico; the University of California Santa Cruz, the University of Mississippi and International Conservation, USA.

During the 2003-2004 Period the process to launch the long-term SMP that began during the two previous Periods (2001-2002 and 2002-2003) will continue. Key follow-up activities include the consolidation of the Support Agencies; the selection and training of monitoring personnel; and the establishment of synergies and strategic collaboration with other institutions that are working on, or have a common interest to ours in the MBRS Region and in the Caribbean. Some of these organizations include TNC, WWF, WCS, ICRAN, the Sabana-Camagüey Project (Cuba), the Mesoamerican Biological Corridor, PROARCA, Meteorology Offices, and universities in all four countries.

While editing the draft of the monitoring manual, it became evident that the two MBRS transboundary areas: the Bay of Chetumal (Belize-Mexico) and the Gulf of Honduras (Belize-Guatemala-Honduras), including Bahía de Amatique (Table 1) should have been included to the list of priority Locations for the SMP, which increases the number of Locations to a total of **25**. Additionally, 20 supplementary Locations were recommended for inclusion as part of the SMP during the Monitoring Training Workshop held on November 2002 in Belize, to increase the geographic and ecosystem representation of the MBRS; they are presented in Table 2. There is a need to continue considering new Locations to achieve a larger spatial as well as ecosystemic and socio-economic representation, as the SMP becomes established in the previously selected Sites. Such a selection must be based on the biological, ecological, oceanographical and socio-economic processes that are present in the region.

The aforementioned workshop is a part of the long-term process that the SMP represents. During this course, 27 scientists of the four MBRS countries were trained on the selected methodologies; initiating the training of trainers on the three core themes of the SMP. The workshop included short field trips.

Establishment of the SMP

Throughout the last year, several Support Agencies have been consolidated, the process of selecting monitoring personnel has continued. Furthermore, the process of equipment acquisition continues and the formulation of four additional national workshops for the SMP is being contemplated.

Amongst the new activities that will take priority during the Period 2003-2004 are: the follow-up to the regional training of the monitoring personnel through four national courses, covering theoretical and practical aspects of the MBRS methodology for the SMP, including species identification, data analysis and interpretation of results. Similarly, in order to achieve the timely completion of the multiple activities relating to the SMP themes: coral reefs, seagrasses, mangroves, marine pollution and physical oceanography, the urgent need to strengthen the SMP with additional support has been identified.

Challenges for the SMP

The main challenge for the SMP is still the significant collaboration of the Support Agencies and the confirmation of some key Agencies. In addition, there is equipment acquisition and its prompt delivery including other materials necessary for the program. Nevertheless, the foremost challenge may be the timely launching of the SMP in all four countries during the summer of 2003, ideally, during the months of June and July or as close to that time frame as is possible.

Launching of the SMP

In order to assure the launching of the SMP next summer, we plan to hold four national training courses as soon as possible, covering monitoring subjects for **a) coral communities, mangroves and seagrasses; and b) marine pollution**. These two themes are linked to the proposed time-frame (June-July) for the synoptic monitoring; therefore, it is of extreme importance to make the necessary efforts on the part of UPC as well as the Support Agencies and other SMP collaborators in all four countries, in order to launch the SMP on time this year. Consequently, the SMP will need the decisive assistance of its collaborators.

Oceanography as a subject is sufficiently different to the previous themes as most of the data collection is completely automated and continuous, and does not need to be linked to any time frame. Consequently, it has not been included in the plans for national training at the moment. Obviously this will require proper consideration when the oceanographic instruments arrive, which are in the process of being acquired.

The long-term nature of the SMP gives us the opportunity to utilize this first year of monitoring as a “pilot year” that will serve us to become familiar with the methodologies and data base, refine techniques, consolidate monitoring personnel, data revision, etc. This is an important opportunity to identify any problems; no matter how small, in the methodology, data processing and interpretation of results, or on the SMP’s geographical coverage. However, we must be

aware of the fact that these are valuable data to all of us and the more careful we are in their collection, the more useful they will be for future interpretation.

Technical Work Group – Chetumal 2003

It is of the utmost importance to define, during this GTT meeting, the following points relating to the responsibilities per Agency/Monitoring Group relating to the SMP:

National Courses

- Coordinators and support personnel for each of the national training courses planned
- List of possible participants to these training courses per country
- Technical and logistical assistants for each course, per country and per subject (e.g. coral, fish, algae, pollution, etc.)

Synoptic Monitoring

- List of Agencies by country that will participate in the SMP and their selected theme
- Define specific responsibilities for the Support Agencies
- List of people by country, who will participate in the SMP and the topics to be covered by each person; e.g., who will be responsible for monitoring the fish, corals, data entry, etc.
- Identification of Monitoring Coordinators and their responsibilities
- Responsibility delimitation on data entry into the REIS
- List of Locations, Ecosystems and Sites, per country, per Agency/Group, including monitoring frequency for each Location and/or Monitoring Site
- Alternative list of contingency monitoring equipment for the MBRS teams

Table 1. Priority Monitoring Locations Identified for the MBRS Synoptic Monitoring Program for the period of 2001-2002

Country	Monitoring Locations	Status
Belize	Bacalar Chico	MPA
Belize	Corozal Bay	MPA
Belize	South Water Caye	MPA
Belize	Glover's Reef	MPA
Belize	Gladden Spit	MPA
Belize	Sapodilla Caye	MPA
Belize	Port Honduras	MPA
Belize	Belize River	SS
Belize	Hol Chan	MPA
Belize	Caye Caulker	MPA
Belize	Sarstoon-Temash	MPA
Guatemala	Río Sarstún	MPA
Guatemala	Punta de Manabique	MPA
Guatemala	Río Dulce	SS
Guatemala	Bahía Santo Tomás	SS
Honduras	Puerto Cortés	SS
Honduras	Omoa-Baracoa	MPA
Honduras	Turtle Harbor	MPA
Honduras	Tela	SS
Honduras	La Ceiba	SS
Mexico	Santuario del Manatí	MPA
Mexico	Banco Chinchorro	MPA
Mexico	Arrecife de Xcalak	MPA
Mexico-Belize	Bahía de Chetumal	TS
Belize-Guatemala-Honduras	Golfo de Honduras	TS

SS = Strategic Site; PMA = Protected Marine Area; TS = Transboundary Site

Table 2 List of the 20 Monitoring Locations Recommended for Inclusion in the SMP during the November 2002 Workshop

Country	Recommended Locations	Status
Belize	Gallows Point	SS
Belize	Goffs Caye	SS
Belize	Caye Chapel	SS
Belize	Ragged Caye	MPA
Belize	Lighthouse Reef	MPA
Belize	Turneffe Atoll	MPA
Belize	Laughing Bird Caye	MPA
Honduras	Cayos Cochinos	MPA
Honduras	Roatán	MPA
Honduras	Guanaja	MPA
Honduras	Río Aguán	SS
Honduras	Biósfera de Río Platano	PA
Honduras	Laguna de Caratasca	PA
Mexico	Isla Convoy	MPA
Mexico	Cancún	MPA
Mexico	Puerto Morelos	MPA
Mexico	Cozumel	MPA
Mexico	Sian Ka'an	MPA
Mexico	Akumal	SS
Mexico	Majahual	SS

SS = Strategic Site; PMA = Marine Protected Area; PA = Protected Area

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5. Component 3: Promotion of Sustainable Use of the Mesoamerican Reef System
Sub-component A: Promotion of Sustainable Fisheries Management

Background

The objective of the present component is to promote the introduction of new regional policies and management tools, to strengthen the established institutional capacity, the dissemination of key information and the creation of necessary incentives for the users and interest groups while seeking the patterns of sustainable resource use in the MBRS.

Sub-component A: Promoting Sustainable Fisheries

Progress on the Operational Plan 2002-2003:

During PY2, the present sub-component focused on training in reef fish monitoring and fisheries co-management. In this regard, training of over 430 delegates was achieved in the four countries including fishers, MPA managers, fisheries government officials, fisheries authorities and NGOs in the following themes: Reef Fish Monitoring, Regional Training in Co-management Techniques and four national courses on Fisheries Co-management.

We have had some obstacles regarding purchases and acquisitions, due to the fact that these administrative processes take time, such that the training on sustainable livelihoods is still pending because the required equipment was not forthcoming. This activity will have to be transferred to the 2003-2004 period.

However, the first lot of equipment to support the Fisheries Department in the monitoring of spawning aggregation sites has been acquired in most countries and delivery is in process.

Work Plan 2003-2004:

The specific activities that have been programmed for 2003-2004 are as a follow up to those initiated during the last period.

1. Monitoring of Reef Fish Aggregation Sites

The monitoring program will be able to commence as soon as agencies in the four countries have the required equipment to conduct the monitoring. At present, the MBRS National Coordinating Office in Belize has identified the Fisheries Department as the party responsible for conducting such monitoring in Belize. On a different matter, the resulting protocol designed

by GreenReef, which was a product of the training in reef fish and was presented at this training, has been standardized for use in the four countries.

During the current year, the MBRS Project will focus its efforts on completing the acquisition of equipment and material necessary for the monitoring of the selected sites; it will also publish and disseminate the standardized monitoring protocol, the report on the spawning aggregation sites, the data base to be used and the maps that indicate site location.

Likewise, the Project will facilitate a national workshop in Honduras on the monitoring of the sites, in response to the concern expressed by the Honduran delegates in the Technical Working Groups, as well as a regional workshop, for theoretical and practical training on monitoring and analysis of data, with the participation of instructors from Belize and Mexico.

2. Promoting Alternative Sustainable Livelihoods

This activity focuses on the training of fishers on alternative livelihoods in the two transboundary areas. It will be necessary to count with the basic equipment to initiate this process. Presently, the equipment has been identified and we have received quotes. Selection, payment and delivery will follow shortly. The equipment that has been identified relates to field identification books for tour guides, equipment for training in free diving (snorkeling), SCUBA diving, sports fishing, and kayaking.

Through a public invitation for bids, experienced and capable organizations able to conduct training and carry out equipment maintenance, will be identified with a view to conduct replicate training in the near future, using the same equipment. Two organizations will have to be contracted to conduct the training, one in each transboundary zone. It is expected that a minimum of 8 persons will be trained this year in the northern zone and 12 persons in the southern zone, making a total of 20 trained personnel. This small number of trainees is due to limitations in equipment. The Project has to purchase a complete set of equipment for each potential trainee to use. All efforts will be made to maximize the number of persons to be trained.

The desired impact of the present activity will be to promote new capacities and alternative sources of income for the fishers in the MBRS region, giving them the opportunity to hire the equipment at a nominal cost, so that they may initiate their own operations immediately after training.

In accordance with the recommendations of the Technical Working Groups, as a follow-up to this activity, additional training for fishermen will be conducted, in topics requested by each country, related to business management, diversification possibilities, product design, etc. through the exchange of fisherfolk.

3. Conflict Resolution

With the aid of regional technical assistance, an analysis of the socio-economic inter-relationships will be conducted between fisheries and other uses of the coastal zone in the MBRS region. This will aim to identify positive relationships as well as conflictive relationships, and will recommend guidelines to strengthen those found to be positive and mutually beneficial, as well as those measures to assist conflict resolution. The findings of this analysis will provide useful topics for discussion by the Transboundary Parks Commission.

The Technical Working Groups have recommended specific issues, which should be taken into account in the development of the Terms of Reference for the consultant. A draft of these terms will be circulated within the members of the Group to guarantee that they include the suggested recommendations.

4. Professional Exchange

In each country, professionals will be identified to participate in the exchange, the content of the exchange program will be defined, and exchange agreements between institutions will be drafted. To date, we have had a proposal from the Belize Fisheries Department, for fisheries officials from the government offices to conduct an internship at academic institutions in Quintana Roo, Mexico. This will allow them acquire first-hand experience and training on easily applicable methodologies used in fisheries research.

On the part of Mexico, we have a proposal for an exchange between representatives from fisheries cooperatives with those of Belize, to improve their vision on products, marketing and exchange information, and co-management arrangements. We are in the process of reconciling both proposals and identifying the needs for Honduras and Guatemala on the subject of professional exchanges. The expected impact is that through the exchange of investigative experiences, marketing strategies and regulations, regional capacity and cooperation are strengthened for the integrated management of the fisheries resources.

The delegates from Mexico have made available to the countries that may need it, a course which is annually given by ECOSUR, in sections or by subject areas for professionals in the respective Fisheries Departments.

5. Training in Ecosystems Management

This sub-component will support a training course for officials of the Fisheries Departments or Units in all four countries, as well as for participants in the monitoring of spawning aggregation sites, and will be focused on the management of coastal ecosystems in the MBRS. The objective here is to promote a more holistic and integrated approach to fisheries management, instead of the traditional expensive, time dependent species-specific approach. The above mentioned is of vital importance in the processes that the Project supports, emphasizing the need to recognize ecosystem connectivity as the central issue in the integrated management of marine resources.

Sub-component B: Facilitation of Sustainable Coastal and Marine Tourism

Progress of the 2003-2004 Work Plan:

In the process of disseminating examples as to how to minimize adverse impact from tourism and to increase those effects beneficial to the coastal and marine resources and ecosystems as well as to the human communities close to tourist destinations, the I Regional Sustainable Tourism Forum was held during PY2. As a result, we now have a document containing two sections: a Forum's Operative Manual, that describes proceedings as to how to promote and implement the Forum in the long-term, and a second section, that is a forum's report, including the subjects discussed, recommendations and an estimate on model practices for marine and coastal tourism, that are already in place. The document is in the editing stage of its publication in both languages and will be printed before the II Forum.

In regard to the analysis of tourism operations that could potentially be certified and the mechanisms to be implemented for accreditation and certification, consultation meetings with regional initiatives were held, to conclude that the time and financial investment is beyond the purposes of the Project. On this matter, it was determined to redirect the activity towards the establishment of Codes of Conduct on coastal and marine tourism operations.

On a different subject, 20 delegates representing government tourism offices of the four countries responsible for authorizing coastal and marine operations and tourism infrastructure,

along with MPA personnel, were trained in Environmental Impact Studies for Coastal and Marine Operations and Tourism Infrastructure.

Work Plan 2003-2004:

As a follow up to the process of formulating policy guidelines and improved practical models for better practices on coastal and marine sustainable tourism in all four countries in the MBRS, the following actions will be developed during the third year:

1. Regional Coastal and Marine Tourism Forum:

Following the establishment and implementation of the I Forum, the Project will facilitate a Second Forum, to consolidate agreements between the tourist industry, human communities and organizations responsible for the management of the MPAs, on the evaluation of environmental impacts of tourism, acceptable visitation limits and development of consensus on priority actions and regional strategies for better practices.

The Project will support the participation of 10 delegates per country, to allow for ample participation of the interested sectors, especially the private sector involved in coastal and marine tourism operations, local tourist operators, community tourism cooperatives, guides, local authorities, representatives of government offices and MPA personnel.

It is expected that local experiences of exemplary coastal and marine tourism practices continue to be presented in this forum, as well as experiences at an international level that can be implemented in our region and thus contribute to the Catalogue of Exemplary Tourism Practices being developed by the Project.

The Technical Working Groups recommended that in the second forum, the document produced in the first forum be improved and that the facilitation of the forum be left to regional and national professionals.

2. Code of Conduct for Coastal and Marine Tourism Operations and Catalogue of Exemplary Practices:

After analysis and discussions during the I Forum, it was recommended that efforts be directed towards establishing a Code of Conduct for Coastal and Marine Tourism Operations in the MBRS region instead focusing on certification, as well as the mechanisms necessary for its adoption and implementation. The establishment of those codes will be supported this year,

through regional technical assistance with experiences in the four countries of the Project. The product of this activity must be assessed by the Policy Working Group and by the II Regional Tourism Forum.

The intention is to develop Codes of Conduct that can be voluntarily adopted, instead of certification, due fundamentally, to the existence of various initiatives working on the processes of certification and accreditation, which require extensive time and budget. In addition, the Codes of Conduct are easily disseminated and its promotion allows for an immediate response and voluntary adoption.

The Technical Working Groups recommended that within the same technical assistance, the Catalogue of Exemplary Practices be incorporated, since they related to similar subject areas. It is necessary that the coastal and marine tourism industry, considers and voluntarily adopts codes of conduct and exemplary practices, which have been developed by different regional institutions and stakeholders, that have invested considerable resources in their formulation. The Project will define mechanisms and strategies with other agencies to develop a working network tied to other initiatives existent in the region, such as UNESCO, Tour Operators Initiative of UNEP, the International Eco-tourism Society, Rainforest Alliance, Conservation International, RARE, among others.

The Catalogue of Exemplary Practices will essentially be developed from inputs provided during the Sustainable Tourism Forum, but will be supported by an extensive revision of Literature and interviews to confirm the best practices provided during the forum. The Catalogue will be assessed by the Policy Working Group in order to promote its adoption by the four countries.

4. Study Tour on Exemplary Practices in Coastal and Marine Tourism

This tour will be designed to offer an opportunity to newly recruited operators of coastal and marine tourism, who have not yet completed their marketing, or are initiating the process of marketing their products, so that they establish working networks with successful businessmen and companies in the field.

During this tour, experts will lead seminars on different topics, including development of products, trade and marketing strategies, environmental conservation and management, marketing investigation and packages to offer. Material on environmental practices, community participation, interpretation and financing of conservation will be prepared. Subsequently, a final

report will be produced and will be widely distributed in the tourism industry, interested NGO's and government officials, in order to share lessons learned, case studies, avoid errors in the process of marketing campaigns, development of tourist products bound to local communities and the development of tourism routes.

The expected impact of the activity will be an increase in the promotion and marketing of regional tourism routes, an increase in the number of local organizations involved in tourist destinations and the standardization of coastal and marine tourism in the MBRS region.

The Terms of Reference for the activities which require technical assistance will be distributed amongst the members of the Technical Working Group, in order to guarantee that their recommendations were included.

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6. Component 4. Public Awareness and Environmental Education

Background

The process to develop educational and environmental awareness through different instruments that are intended to promote a great diversity in targets and circumstances.

In the case of **formation and environmental training**, it aims to enhance the knowledge of environmental problems, both local and global, and the appreciation of biophysical processes in economic and social contexts, and train people to critically analyze information they received from varying sectors.

On the other hand, **awareness** aims to promote the attainment of new pro-environmental values and to encourage favorable attitudes to social change in the socio-environmental surrounding, and to encourage the active participation of the society in collective matters, especially in regards to the shared environment.

The MBRS project, through its Environmental Education and Public Awareness component, proposes to facilitate the understanding of the complex interactions between the societies and the coastal marine environment from a global and interdisciplinary perspective.

Among the most significant achievements of the component over the previous year are: the finalization of the documentation and establishment of the Regional Environmental Awareness Strategy, the drafting of the MBRS Concepts Infusion Document, and the development of teaching guidelines for Primary and Secondary schools.

Similarly, during this year training has been given to the public relations officers of the Environmental Ministries, which has resulted in the production of four news articles about the MBRS: three in the printed press and one on television. Also achieved was the development and distribution of promotional material including more than 1,000 folders, 9,000 school rulers, 200 shirts and promotional hats with the Project's logo, 900 posters and more than 1,000 brochures on the cultures of the MBRS region in the English, Spanish and Garifuna languages.

In addition, there have been radio broadcasts on responsible fishing in the English, Spanish and Garifuna languages, the inclusion of coastal marine issues in the information produced by UNEP's Sustainable Human Development Report. In coordination with the CCAD, a chapter on the MBRS was prepared for the World Summit on Sustainable Development, held in

Johannesburg – a significant contribution to MBRS' international promotion. Furthermore, the production of the MBRS video is in process, and this will be ready by the second week of June.

These activities allow us to make required changes with respect to the population coverage being achieved by the media.

Objective of the Component

The objectives of the Environmental Education and Public Awareness component are to develop relevant marine coastal management capabilities and to enhance the general population's knowledge of the aims and benefits of MBRS and its resources. This must be done while ensuring maximized comprehension of the potential impacts that development trends may exert on natural resources and their users.

The means for the achievement of the sub-component's objectives are:

- Through the implementation of actions integrated with the activities of all the other components of the project. These integrated actions will be evident through the training planned in all the Project components and campaigns.
- The identification of coastal and marine environmental problems that may be generated through resource exploitation and coastal development. This will be achieved through the national collaborating organizations, from whom the Project will request information on the socio-economic evolution of the region's coastal communities. Building on this, the Project will support public participation initiatives (meetings) intended to develop solutions to these problems.
- The analysis of the main policies, plans, programs and environmental strategies being implemented in the region. This activity will result in the creation and maintenance of a document data bank that will process the information, which, in turn, will be gathered through the national organizations in each member country.
- The managing of the Project's expansion of activities in additional population sectors, with a strong emphasis on the various ecological and socio-cultural issues as they relate to the MBRS. This process will be undertaken with consideration to the various technical and scientific reports that identify and analyze these issues. Under these criteria, the Project will strive to involve stakeholders with the MBRS marine coastal environmental program, while making available graphic educational material and assuring the effective dissemination of radio campaigns in all appropriate zones.

Population Awareness Sub-component

This component is strongly related to the MBRS Environmental Awareness Strategy, which commences from the recognition of the value of the resources in the MBRS region and the analysis of its ecological, socio-economics and cultural characteristics. The strategy involves the promotion of a substantive change in the vision and conduct of the resource users through the recognition of social values and the need to conserve the available resources in the MBRS region. Another important aspect of the strategy is the sensitization of the region's societies on the movement for regional participation in the management of environmental problems.

Under the above concept, during the year 2003-2004 this sub-component will simultaneously develop three campaigns.

1. One on tourism: oriented to promote good tourism practices in a sustainable manner.
2. A second on Marine Protected Areas: oriented to promote the value of the benefits derived from the existence and management of protected areas in the MBRS.
3. The third corresponds to a campaign on the health of marine ecosystems: oriented toward practices intended diminish terrestrial and marine pollution.

These awareness campaigns will involve the following activities:

- a. Development of an ecological marine coastal calendar. (Second period).
- b. Development of two stickers on flag-ship species of the region. (Second period).
- c. Development of a regional booklet on manatees, including their biology, location, reserves, and other initiatives for their conservation. The member countries will contribute the relevant information based on a matrix elaborated by the Project. (First period)
- d. Production of a poster on Marine Protected Areas and tourism. (Second period).
- e. Production of a pamphlet on MBRS' activities. (Second Period)

- f. Development and dissemination of radio broadcasts on all the above themes. (On-going).
- g. Development of four student forums on the campaign themes. This activity will be developed in conjunction with the Project's partner organizations and the time for its realization will depend on the technical working groups' recommendations.

The awareness campaigns will be undertaken throughout the MBRS region, yet with a special emphasis on its two trans-boundary zones: Chetumal / Corozal Bay, and the Gulf of Honduras.

These zones have been identified as being both determining and critical to the implementation of sustainable development actions, in which some of the communities with particularly well-defined cultural characteristics play an important role. For example, in Honduras a dynamic population migration movement is noticeable in the coastal zone, especially among the Garifuna and Misquita communities. For this reason, the campaign on tourism, protected areas, and pollution will be extended to include the Garifuna and Misquita communities of the Department of Colon and Honduran Mosquitia.

Without losing sight of the parameters in the previous Annual Work Plan on the selection of the communities, their ethnic origin will now be taken into consideration, as well as migratory flow characteristics, gender considerations, influential technological issues, economic activities, environmental vulnerability, public participation levels, traditional knowledge, fishery resource conflicts and others related to the use of the marine coastal resources. The fulfillment of MBRS' plan for indigenous populations will be implemented through the identification of new communitarian leaders and the development of their participation in issues in local and regional environmental problems and the adoption of new policies.

The development of realistic indicators for each public goal must recognize the phases through which the public will develop until changes in attitude become evident. Consistent with this the following is proposed:

1. The public will become sensitized to the messages being given out (their attention would have been caught.)
2. The public will understand the message that is being transmitted (comprehension of the message.)

3. The public will agree that the message is true and that other people should also listen.
4. The public recognizes the benefits that they can receive by internalizing the message.
5. The public will change its attitudes.
6. New attitude will result in a change in behavior.

In this way the indicators will measure the following, within the target population:

- Increase in consciousness (short term)
- Change of attitude (medium and long term)
- Promote appropriate actions - self motivation (long term)

The indicators should be developed by focusing on multiple methods of continuity, combining qualitative and quantitative elements from the target population. This is due to the difficulty in establishing just one tool as the best in evaluating the complexity of MBRS socio-environmental conditions. To facilitate the application of this qualitative and quantitative evaluation mechanism, a structured regional poll will be developed that is intended to measure the effectiveness of the campaigns in the pilot communities selected by the Project.

Environmental Education Sub-component

This sub-component proposes to integrate the principles and activities of some key actors of the region, while influencing both present and future environmental education actions. This will be achieved through the integration of MBRS programs within the educational primary and secondary school curricula.

The activities planned for this sub-component are:

- a. The development of workshops on the use of the MBRS guidelines in curricular development. These workshops will be conducted by the teachers that have been trained in the use of the MBRS guidelines, as supported by the Project. Its goal will be the training of the highest possible number of teachers within the MBRS region. (First period)

- b. 10,000 school packages to be distributed, that will contain the practical elements for the development of the curricular guides. (First period)

MBRS thematic areas that are particularly suitable for inclusion in the development of school curricula are: (Three main educative areas) Coral Reef Biology and Ecology; People and Coral Reefs; Transboundary Connectivity, with a total of 20 thematic areas.

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7. Project Management

The implementation of the MBRS project actually started in November 30, 2001, with the signing of the GEF Grant Agreement and its ratification. Since then the Project has been involved in an intense contracting and consultation program, according to the stipulations of the Work Plan approved for the July 2001 to July 2002 period. As can be appreciated from the design of the MBRS Project, many of the activities under the Project are really 'processes' and require multiple investments to be able to achieve the desired impact. Likewise, other activities are 'punctual' and may require one-time investments. From now on, the activities of the Project will be characterized by a blend of processes and punctual investments, in proportions that guarantee the highest efficiency in Project execution.

The draft Work Plan for the July 2003 - June 2004 period elaborated by the PCU describes a series of critical activities that will be necessary to follow up the activities initiated in PY1 and PY2, as well as the introduction of new topics, consistent with the global and specific objectives of the Project. The current Work Plan also intends to respond to the changes in the reality of the MBRS region in the best possible way. Besides providing technical validation to the activities proposed in the draft, the TWGs will have a key role in ensuring that the Work Plan reflects the institutional and human realities of the different priority geographical areas of the MBRS region. The TWGs will have the additional responsibility to ensure that the activities proposed in PY3, supports the implementation of those processes that may have started during the last two Project years. The success in the implementation of the Work Plan will depend on the continuous consolidation of the counterpart commitments from the four countries involved.

In the process of validating the Work Plan, the TWGs will have the difficult task of concretizing the recommendations for the execution of the activities of the Project, clearly defining the existing and available counterpart contributions in the MBRS countries. TWGs will meet once during PY3; in June 2004 to develop the Work Plan for the 2004-2005 period.

During the 2003-2004 period, the Project will also have specialized technical support through experts in the MBRS countries, as well as experts from different parts of the world. However, efforts will be made to maximize the use of experts from the region. Contributions from experts are useful in maintaining the highest possible technical level, even though during the 2003-2004 period, there will be an important reduction in the number of consultants to be hired by the Project.

The *Technical Advisory Committee* (TAC) will have a key role in the contribution of technical support. Even though it does not have a specific budget within the Project, and though it only exists virtually, this Committee plays an important role in the Project Management. The TAC will provide impartial input on technical matters, according to experiences acquired in different parts of the world. Inputs from the TAC will be requested for all components of the Project.

Consistent with the need to ensure regional participation from all interest groups, the Project will be supported by the *Consultative Group* (CG), which is actually a forum of “donors”, where it will be possible to compare Regional Work Agendas, in an effort to identify synergies, overlapping, and gaps in the regional actions focused at the MBRS. This is useful to avoid duplication of effort, and to be able to optimize the use of human and financial resources available in the region. During the Second Ordinary Meeting of the Regional Steering Committee (RSC), CCAD presented a proposal for the establishment of a single *CCAD Institutional Consultative Group*, instead of a group for each project that exists within CCAD’s framework. Each Project will have separate sessions during the meetings for of this single CG. Matters specific to projects will be discussed in these separate sessions. Efforts made during 2002-3003 to program a meeting of the CG have not been successful due to a lack of genuine interest on the part of many actors of the MBRS region. The Regional Coordinator has participated in numerous “coordination meetings” with different actors in the MBRS region, and in most cases the meetings seemed to have been dominated by permanent battles to promote institutional agendas, instead of focusing on discussions to conduct joint investments. During 2003-2004, the Project will continue its efforts to conduct a meeting of the CG at the end of September 2003.

The **Regional Steering Committee** (RSC) will meet at least three times during PY3, and the Project will cover all expenses related to said meetings. Since the Project is in a process of consolidation of actions and objectives, the inputs of the RSC will be crucial for necessary streamlining of the processes and products. In addition, and as is expected, circumstances in the countries are under a continuous process of change, resulting in the need for the RSC to adopt highly dynamic decision-making mechanisms. These decisions will of course have immediate effects on the implementation of the Project’s activities, cost implications and changes in the execution periods of some activities. It is fundamental to include an item for “contingency” so that the PCU can respond and follow-up on the incidents that could arise as a result of this dynamism.

During the Second Regular Session of the RSC, the need of a mechanism for translation of technical products into policies, to facilitate their adoption by the countries was identified. It was agreed to contract the services of the Environmental Law Center at UICN to carry out those translations. This will be a continuous activity for the rest of the Project life, in which new draft policies will be produced, discussed and adopted. The present policy formulation process has given us important lessons as to the level and intensity of consultations necessary to be able to produce a proper policy document. It is clear that at least two meetings of the Policy Working Group and one Policy Consultation Workshop with members of the Transboundary Parks Commission will be necessary to obtain the level of consultation necessary. Translation of key documents from Spanish into English and contracting simultaneous translation services for the regional meetings of the Project have will continue to represent important expenditures in the annual budget. The publication of technical documents during 2002-2003 turned out to be much more expensive that originally budgeted, resulting in an important increase in this budget line for 2003-2004.

The PCU is the nucleus of the MBRS Project and it is responsible for the implementation of the Project daily activities. Communication and coordination costs between the four MBRS countries, CCAD, UNDP, and the World Bank, as well as with other partners in the region are high, and thus, they represent an important part of the budget. This situation is multiplied by logistic costs related to the preparation and execution of regional meetings. Undoubtedly, the need to establish alliances with other organizations and Projects in the region will result in an increase of regional coordination costs as well. The cost of annual auditing has also been included in the budget.

UNDP will continue supporting the Project in specific aspects of procurement and disbursement. These services will be remunerated at a rate of 3.2% of funds disbursed by UNDP on behalf of the MBRS Project.