



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

Independent Final Evaluation Report of the UNIDO

Integrated Assessment and Management of the

Gulf of Mexico

Large Marine Ecosystem

Project Number: GEFMEX09001

December 2013

Table of Contents

EXECUTIVE SUMMARY	5
CHAPTER I - EVALUATION OBJECTIVES, METHODOLOGY AND PROCESS	11
Information on the evaluation	11
Scope and objectives of the evaluation, main questions to be addressed	11
Information sources and availability of information	12
Interviews with key players:	15
Methodological remarks, limitations encountered and validity of the findings	17
CHAPTER II - COUNTRIES AND PROJECT BACKGROUND	18
Brief countries context	18
Policy and Institutional Context in Mexico	20
Policy and Institutional Context in the United States	24
Sector-specific issues of concern to the project and important developments during the project implementation period	25
Project summary	26
Project Summary Facts	28
Project Outcomes, Components, and Budget:	31
Project Timeline	33
History of Project Implementation:	37
Project Implementation Arrangement	38
Other Institutional Arrangements	39
CHAPTER III - PROJECT ASSESSMENT	41
A. Project Relevance and Design	41
B. Effectiveness	51
C. Efficiency	65
D. Sustainability	72
E. Assessment of Monitoring, Evaluation Systems & project management	74
F. Assessment of processes affecting attainment of project results	78
CHAPTER IV - CONCLUSIONS, RECOMMENDATIONS AND LESSONS LEARNT	87
Design	87
Effectiveness	88
Efficiency	88
Sustainability	89
Monitoring and evaluation system and project management	90
Assessment of processes affecting attainment of project results	90
Lessons Learned and Recommendations	91

CECADESU	Training Centre for Sustainable Development
CICA	Research Center of Environmental Sciences
CIMARES	Interministerial Commission on Oceans and Coasts of Mexico
CIMIOC	Inter-ministerial Commission for the Integrated Management of Oceans and Coasts
CINVESTAV	Centre for Scientific Research and Advanced Studies
CITMA	Cuban Ministry for Science, Technology, and Environment
CONABIO	Intersecretarial Commission for the Knowledge and Use of Biodiversity
CONACYT	Mexican National Council for Science and Technology
CONAGUA	National Water Commission
CONAMP	National Commission for Protected Areas
CONAPESCA	National Commission of Aquaculture and Fisheries
CTA	Chief Technical Advisor
DUMAC	Ducks Unlimited of Mexico Ac
EBM	Ecosystem-based management
EPA	Environmental Protection Agency
EVA	UNIDO Evaluation Group
FAO	Food and Agriculture Organization
FSP	Full Scale Proposal
GCOOS	Gulf of Mexico Ocean and Coastal Observing System
GEF	Global Environment Facility
GoM	Gulf of Mexico
GOM/LME	Gulf of Mexico Large Marine Ecosystem
GOMA	Gulf of Mexico Alliance
HDI	Human Development Index
IMTA	Institute of Water Technologies
INAPESCA	Mexican Institute for Fisheries
IOCARIBE	UNESCO-IOC Sub-commission for the Wider Caribbean
ISC	Inter-Sectoral Committee
LBS	Land based sources
LGEEPA	General Law of Ecological Equilibrium and Environmental Protection
LUMCON	Louisiana University of Marine Consortium
LUP	Physical Land Use Planning
M&E	Monitoring and evaluation
MIN VEC	Ministry for Foreign Investment and Economic Collaboration
MOU	Memorandum of Understanding
MSAR	Magnuson-Stevens Fishery Conservation and Management Act Reauthorization
MTE	Final Evaluation
NAP	National Action Programme
NEPSDOC	National Environmental Policy for the Sustainable Development of Oceans and Coasts
NGO	Non-Governmental Organization
NMFS	National Marine Fisheries Service
PCU	Project Coordinating Unit
PPP	parity of purchasing power
R-TAG	Regional Technical Advisory Group
SAGARPA	Secretary of Agriculture, Livestock Production, Rural Development, Fisheries and Food

SAP	Strategic Action Programme
SC	Steering Committee
SEFSC	US Southeast Fisheries Science Centre
SEMARNAT	Secretaría de Medio Ambiente y Recursos Naturales
SPAW	Specially Protected Areas and Wildlife
TDA	Transboundary Diagnostic Analysis
TNC	The Nature Conservancy
UADY	Autonomous University of Yucatán
UN GA	United Nations General Assembly
UNACAR	Universidad Autónoma del Carmen
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
UQROO	University of Quintana Roo
US NOAA	US National Oceanic and Atmospheric Administration
WECAF	UNEP's Wider Caribbean Environment Program
WWF	World Wildlife Fund

Executive Summary

Purpose and methodology of the evaluation

The main purpose of the evaluation was that of providing the GEF, UNIDO and partners of both countries with an opportunity to review project advances, activities, results and achievements, as well as their relevance, in order to propose recommendations that could increase efficiency and effectiveness of project activities. Ultimately these lessons learned would be used to replicate the experience in other projects.

The main issues addressed were project relevance and design, effectiveness and efficiency as well as an assessment of sustainability of project outcomes, of monitoring and evaluation systems, project management and processes affecting attainment of project results.

The independent final evaluation followed the evaluation guidelines and policies of UNIDO and was conducted using a participatory approach. It took place at the end of the fourth year of implementation (2013) in Mexico City and Campeche. The evaluation team (ET) was composed of Mr. Cristóbal Vignal as international Evaluation Consultant and Team Leader, and Mr. Israel Núñez as National Evaluation Consultant.

Methodological remarks, sources of information

The methodology was based on a review of project documents, semi structured interviews and field visits and allowed the evaluation team to verify that progress to date corresponds to the activities, outputs and outcomes set out in the logical framework of the project and that they were measured by the indicators defined in the logical framework.

Information sources used for the assessment consisted of official project related documents, presentations by experts, progress reports, project products, and interviews with key players. Documentation was provided by different sources in Vienna, Mexico and the United States as well as the hired experts implementing the pilot projects. This information was accessible and made available in a timely manner to the evaluation team.

Through the documentary information and the information collected in the field, the evaluators consider that there was sufficient evidence to allow them to establish a baseline for the project; sources of information were sufficient to verify and document the progress and constraints encountered during the assessment; data and information derived from interviews are qualitatively satisfactory and this was verified through comparison of figures from different sources and through crosschecked interviews with relevant actors in an independent way, showing that respondents views and contributions were in full agreement.

Sector specific issues of concern

The GOM/LME is situated between the east coast of Mexico, the northwest coast of Cuba and the south coast of the US and is almost self-enclosed with one small entrance and exit in the western central North Atlantic Ocean. The GOM/LME is one of the most productive gulf areas of the world as well as an important centre of marine biodiversity, marine food production and oil and gas production.

Mexico, Cuba and the U.S. have become aware of some of the threats to, and issues associated with, the management of the GOM/LME including: serious degradation of coastal areas adjacent to urban centres of the region as a result of pollution, habitat loss and unsustainable exploitation of marine and coastal natural resources; increasing exploitation of the marine biomass by both artisanal and industrial fisheries, in the absence of an agreed long-term regional strategy for the sharing of a sustainable economic yield; increasing harmful algal blooms, oxygen depletion events, oil spills, vessel groundings on delicate coral reefs, coastal subsidence due to hydrocarbon extraction, ongoing petrogenic energy exploration, and production both offshore and in coastal areas with its attendant pollution risks; an apparent increase in the frequency of marked environmental changes in the ecosystem manifesting themselves through fluctuations in abundance and distribution of fish, birds and mammals; and an apparent opportunity for important climate change monitoring in relation to the Loop Current and the advection of nutrients and transport of Mississippi Drainage Basin effluents.

Project Summary

The Project seeks to address the transboundary concerns of the countries bordering the Gulf of Mexico Large Marine Ecosystem. These will be defined in the Transboundary Diagnostic Analysis (TDA) and prioritised in the Strategic Action Programme (SAP). The main objective of this initiative is to enhance regional efforts to address critical ecosystem and environmental problems in the GOM/LME through the development and implementation of a coordinated and integrated approach to sustainable ecosystem management.

The GEF role will be to build on pertinent activities underway and assist in the development and catalyze the implementation of a regional Strategic Action Programme for the GOM/LME.

History of project implementation

UNIDO and the US NOAA convened a meeting in Havana, Cuba in August 2000 to discuss the elaboration of a GEF proposal that would address the integrated management of the resources of the Gulf of Mexico Large Marine Ecosystem. The meeting was hosted by the Government of Cuba, and was attended by representatives from the Cuba, Mexico the US and from UNIDO. The resulting proposal for funding of a GEF PDF-Block was endorsed by the GEF Focal Points of Cuba and Mexico on November 2000, and August 2001, respectively.

The project preparatory phase was undertaken under the implementation of UNDP and the execution of UNIDO. Funding for execution was made effective in the second semester of 2005. The inception workshop which took place in January 2006, as well as subsequent technical and Steering Committee meetings were not attended by Cuba, in spite of the continuous efforts by both the Implementing and Executing Agencies to facilitate the active participation of the country in all project activities.

In February 2007 the Government of Cuba officially informed the project partners of its decision not to participate in the project. In its decision, the Government of Cuba indicated that the project did not fit within the framework of the environmental priorities established in the country's Estrategia Ambiental Nacional (National Environmental Strategy). The GEF Agencies and the participating countries recognize that Cuba exercised its sovereign

right to determine whether to participate in this initiative. Throughout the implementation of the preparatory phase, UNDP, UNIDO and the Mexican Government made continuous efforts to elicit the participation of Cuba in all project activities. Informal consultations were also carried out. Both the USA and Mexico have stated that Cuba's participation in the project would be beneficial, and that their reincorporation at any point in the process would be welcome. In the project launch workshop and subsequent steering committee meetings, the US and Mexican Delegations made statements regarding the "open door" policy for Cuban participation in the project, if the country decides to reincorporate itself in the process.

During the PDF-B implementation, the GEF agencies recommended that the TDA and SAP be integrated on a provisional basis, to be revised and completed during the FSP execution phase. This allowed for the preparatory phase to be focused on the preparation of the Project Brief for inclusion in the GEF Work Programme for 2007. Mexico and the US accepted this recommendation as an informed decision drawn from the experience of similar GEF LME projects. With the guidance provided by the GEF agencies, a preliminary TDA was drawn in order to provide the scientific basis for the priority issues to be addressed in the FSP and subsequent SAP.

The timing of the preparatory phase coincided with extensive and substantial reforms within the framework of the GEF operational policies and project cycle. For the inclusion of the project in the GEF 2007 Work Plan, and adhering to the new GEF policies, the Government of Mexico decided to finalize the preparatory phase and to continue the FSP with UNIDO as the sole GEF agency. This issue was addressed directly between the Mexican Focal Point and Council Member and the CEO and Chairperson of the GEF during the week of 25 June 2007.

Project implementation modalities

The GEF Agency for the project is UNIDO, responsible for both the implementation and the execution of the project. SEMARNAT (Secretaría de Medio Ambiente y Recursos Naturales) of México participates as National Execution Agency for the project. The US NOAA supports the SEMARNAT in the execution of the project.

Regional co-ordination and collaboration is facilitated through a Regional Project Coordination Unit (PCU), located in Mexico. A Chief Technical Advisor (CTA) is recruited to facilitate the successful technical execution of project activities and is housed in the PCU. The PCU has other staff working part-time/full-time. A Regional Project Steering Committee, consisting of high-level official country representatives from the U.S. and Mexico and relevant stakeholders, oversees the implementation / execution of the project and meets at least once a year. A Regional Technical Advisory Group (R-TAG) advises the Steering Committee and the PCU on GoM technical issues and ensures coordination in support of ecosystem-based management approaches. Finally, each country has an Inter-Sectoral Committee (ISC) or its equivalent, to assure broad intersectoral coordination and broad government stakeholder participation.

UNIDO is responsible for the overall management of the project and its funds. It assists SEMARNAT, the National Executing Agency in the execution of the project, through the provision of timely assistance at key phases of project implementation, in the review of investigations and reports prepared as outcomes to the project, in the disbursement of

funds necessary for the recruitment of international experts and other related international expenditures.

Project Assessment

Relevance was assessed by the ET at two distinct but interrelated levels: firstly, with regard to national and regional relevance; secondly to UNIDO and GEF mandates and strategies. The overall relevance of the Project was assessed by the evaluation team as being **highly satisfactory**. The relevance to target groups is also clear and was confirmed through interviews and field visits with target groups demonstrating a broader and more complete understanding of the functions of the LME, which will serve to design management strategies through the TDA and SAP processes and establish an enabling environment and EBM practices that contribute to the protection and maintenance of services and functions provided. The project has linked and integrated multiple actors across different fields and between both countries and is appealing to relevant institutions in both countries.

The final version of the TDA has been delivered and analyses the various transboundary environmental problems, major root causes, impacts and consequences. Catalytic effects were documented and pilot projects were completed. In keeping with GEF guidance, the project has been completed and the TDA constitutes the basis for the Strategic Action Programme (SAP) that will define the policy/legal/institutional reforms and priority investments, as well as on-the-ground pilots, needed to set in place regional collaboration on priority transboundary concerns for the Gulf of Mexico Large Marine Ecosystem.

The design of the project through a TDA-SAP process, contributes to remove identified constraints and barriers, develop common mechanisms and tools, and promote reforms and investments, to set the bases for application of the ecosystem approach in the management of the GoM LME, complemented by capacity-building activities and pilot projects in three critical aspects of the ecosystem approach. In this sense it is estimated that the Project design is adequate to address the problems at hand, and is fully aligned with the objectives of the preparatory phase.

The evaluation team was able to determine that a participatory project identification process was effectively applied. A Plan for Involvement of Sectoral Stakeholders at the National, Regional, and International Levels for the project was developed in order to identify the stakeholders in the GoM LME, ensuring the flow of information to them on the issues of concern in the LME and to identify potential impacts to them, as well as contributions towards their resolution.

Finally, the project is formulated based on the logical framework approach. The narrative synthesis is consistent; the products are necessary to achieve the expected results. The baselines and targets are clear; the indicators, as it was pointed out above, are suitable; the verification sources are accessible, and the risks and assumptions identified are external critical factors that are beyond the control of the project.

The effectiveness of the project was assessed against the expected outcomes and has been determined by the ET to be **highly satisfactory**. It is important to note however that as this first phase of the project is only now coming to an end, with actual delivery of all outputs, it is still too early to fully assess project outcomes and eventual impacts. This said the following have been completed:

- Outcome 1 - *Transboundary issues analysed and priorities defined,*
- Outcome 5 - *Effective Project coordination* (TDA agreed upon and published and SC, PCU, etc. fully functional);
- Outcomes 2 - *Country agreement on and commitment to regional and national policy, legal and institutional reforms to address the agreed priority transboundary issues* (SAP completed, endorsement modalities being finalized - expected to be completed in December 2013/early 2014);
- Outcomes 3 - *LME-wide EBM approaches encouraged and strengthened through successful implementation of pilot projects,* and
- Outcome 4, *Monitoring and evaluation system for the Project and the GoM LME established.*

It is important to point out that even in light of this positive assessment it is in no way guaranteed that without the active and on-going support of the Projects' main stakeholders, the opportunity for turning these outputs into meaningful outcomes and eventual impacts is to be taken for granted. This is indicated throughout this evaluation and remains a risk.

The efficiency of the project is assessed by the ET as **highly satisfactory**, with project outputs delivered either on target, or ahead of schedule. These have in addition been implemented in a cost-effective and efficient manner.

The medium term sustainability of project results depends largely on the political will of the Governments of the Parties, in terms of their willingness to implement the actions arising from the SAP, and implementing and financing the actions needed to replicate pilot projects, and promoting continuity of stakeholder involvement. However, considering that the project involves for the time being only two countries, it is estimated that project risks are manageable. The evaluation team has assessed the sustainability of the Project as **moderately likely**.

The ET was able to ascertain that a monitoring and evaluation system, covering also the administrative aspects of the project, is in place and monitoring of progress and outputs based on indicators is ongoing. The ET had access to annual implementation reports, to final reports for the pilot projects, as well as the PIRs and up to date detailed budgetary information held by the PCU. Overall the M&E component was assessed as **highly satisfactory**.

Conclusions, recommendations and lessons learned

The PCU should lead the endorsement process for the SAP to a successful conclusion as rapidly as the administrative and legal mechanisms, and political realities in both countries permit. Draft NAPs should also be completed at the earliest possible. At the time of preparation of this Final Evaluation this is expected to take place before or very shortly after end of December of 2013 for the SAP, and the NAPs are expected to be completed by both countries in the first months of 2014.

The Parties should strive to obtain timely approval of funding by GEF to ensure implementation continuity, before government changes in both countries take place.

The Parties should continue to support the enhanced political visibility for the project at the level of the federal and state level agencies of both governments to ensure that achieved

successes are not only known and understood, but maintained and/or replicated. This will also facilitate the long term sustainability of the results.

The Project should continue to support, as a priority, the strengthening of the role of the Interministerial Commission on Oceans and Coasts of Mexico (CIMARES) in project leadership, to allow high-level decision makers (Ministers) to actively involve other federal government agencies in the project, attract the participation of state governments and ensure their participation in adoption of SAP and NAP. This support should also be extended to ensure that the newly established network of universities is reinforced.

To improve project implementation and facilitate administrative processes it would be desirable to consider strengthening the management capacity of the UNIDO field office, or at least to reinforce its role in support of the project, taking into account the need to strengthen the field offices capacity to assume the subsequent technical requirements in particular as relates to ocean and coastal waters.

Based on the above, it is also suggested to consider strengthening the role of the Mexico field office in support of the project and its future iterations to facilitate and/or accelerate administrative processes and resolve any remaining of the management and contractual challenges that were identified.

CHAPTER I - Evaluation objectives, methodology and process

Information on the evaluation

The Independent Final Evaluation of the UNIDO Project: Integrated Assessment and Management of the Gulf of Mexico Large Marine Ecosystem was included as part of the design of the project as of June 2008. The Request for CEO Endorsement/Approval, indicates that in accordance with UNIDO's procedures, the project will be subjected to an independent external evaluation as follows:

“An independent Final Evaluation will be undertaken at the end of the second year of implementation. The Final Evaluation will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term”

The present evaluation was conducted at the end of the second year of implementation, between November and December 2011, in Ciudad del Carmen, Campeche, in Mexico City and, in Houston, Texas. The evaluation team was composed of Mr. Cristóbal Vignal as international Evaluation Consultant and Team Leader, and Mr. Israel Núñez as National Evaluation Consultant.

Scope and objectives of the evaluation, main questions to be addressed

The purpose of the final evaluation is for the GEF, UNIDO and partners of both countries to:

- a) Review
 - Project advances to the achievement of the Transboundary Diagnostic Analysis (TDA).
 - Activities and project results and achievements through their indicators.
 - Relevance of objectives and other design elements of the project.
- b) Propose recommendations that would increase efficiency and effectiveness of project activities.
- c) Draw lessons learned in the process to replicate the experience in other projects.

The main issues addressed by the evaluation team were the following:

- Project relevance and design
- Effectiveness: attainment of objectives and planned results (progress to date).
- Efficiency
- Assessment of sustainability of project outcomes
- Assessment of monitoring and evaluation systems and project management
- Assessment of processes affecting attainment of project results.

Information sources and availability of information

Information sources used for the assessment consisted of official project related documents, presentations by experts, progress reports, project products, and interviews with key players (see detailed list below).

Documentation was provided by the Project Coordination Unit (PCU), by the focal points of Mexico and United States and hired experts to implement the pilot projects. This information was accessible and made available in a timely manner to the evaluation team.

48 interviews were conducted with key stakeholders from Mexico (23), the United States (16), the Project Coordination Unit (5), the UNIDO Field Office in the Mexico City (1), UNIDO staff (2) and a former UNIDO staff member closely involved with the initial development of the Project.

Mexicans interviewed are officials of the Federal Government (6), the State Governments (1), academics (1), experts hired for the coordination and implementation of pilot projects and thematic reports (9) and inhabitants of local communities involved in the pilot projects (6).

The surveyed Americans are federal officials (5) and members of NGO's and academics belonging to institutions related to the implementation of the Project (11).

Five additional interviews had been scheduled with federal officials from Mexico but these could not take place due to last minute changes to their agendas.

The information sources used for the evaluation were as follows:

➤ Documentary sources:

- Original Project Brief document
- Request for CEO endorsement/Approval. 25 November 2008
- Annex A: Project Results Framework
- Progress and financial conciliatory monthly reports of UNIDO
- GEF PIR and annual progress reports on Project Evaluation
- Project Activities Report. *Joint assessment and monitoring of the coastal conditions in the Gulf of Mexico Pilot Project*. July-December 2009
- Project Activities Report. *Joint assessment and monitoring of the coastal conditions in the Gulf of Mexico Pilot Project*. January-December 2010
- Progress Report covering January-June 2010. Project number: GEFMEX09001
- Project progress report in accordance with Annex A1 to December 2011
- *Pollution and ecosystem health*. Thematic report. Víctor Ceja, Eulalia Chan-Cocom, Virginia García Ríos and Gerardo Gold Bouchot. Experts. GoM-LME, ONUDI. May 2011
- *Environmental Condition Assessment of the Ria Celestún, Campeche-Yucatán*. Gerardo Gold Bouchot, General Coordinator. July, 2011
- *Integrated Assessment and Management of the Gulf of Mexico Large Marine Ecosystem. Transboundary Diagnostic Analysis*. GoM-LME. GEF-UNIDO. September, 2011

- *Environmental Condition Assessment of the Ria Celestún, Campeche-Yucatán*. Partial Report. Gerardo Gold Bouchot, General Coordinator. October, 2011
- *Establishment of the Environmental Baseline of the Northern Platform of the Yucatán Peninsula*. Thematic report. GoM-LME, ONUDI. Gerardo Gold Bouchot, General Coordinator. November, 2011
- *Establishment of the Environmental Baseline of the Northern Platform of the Yucatán Peninsula Cruise 2*. GoM-LME, ONUDI. Gerardo Gold Bouchot, General Coordinator. November, 2011
- Display prepared by the Project Coordination Unit: *Integrated Assessment and Management of the Gulf of Mexico Large Marine Ecosystem. Mid Term Evaluation*. Ciudad del Carmen, Campeche, México, November 28, 2011
- Display *Pilot Project Natural Habitat and Ecosystem Conservation of Coastal and Marine Zones of the Gulf of Mexico: Mangroves*. Arturo Zaldivar-Jiménez. GoM-LME, ONUDI. Mangrove expert. Ciudad del Carmen, Campeche, November 28, 2011
- Display *Pilot Project Enhancing Shrimp Production Through Ecosystem Based Management*. Ignacio Fernández. GoM-LME, ONUDI. Fisheries expert. Ciudad del Carmen, Campeche, November 28, 2011
- Display *Introduction to Joint assessment and monitoring of the coastal conditions in the Gulf of Mexico Pilot Project*. Gerardo Gold Bouchot Pilot Project Coordinator et. al. GoM-LME, ONUDI. Monitoring experts. Ciudad del Carmen, Campeche, November 28, 2011
- Display *Joint assessment and monitoring of the coastal conditions in the Gulf of Mexico Pilot Project Results*. Gerardo Gold Bouchot and Virginia García Ríos. GoM-LME, ONUDI. Monitoring experts. Ciudad del Carmen, Campeche, November 28, 2011
- Display *No Commercial Marine Living Resources Pilot Project*. Paloma Ladrón de Guevara, Felicitas Sosa and Cesar Díaz. GoM-LME, ONUDI. Marine Biology experts. Ciudad del Carmen, Campeche, November 28, 2011
- *Overview of the history of Long-Term Ecosystem of the Gulf of Mexico*. Project Gulf of Mexico LME. Claudio Vadillo and Andrés Latapí, experts hired by the Project. November 30, 2011
- Briefing meeting to National Focal Points and Project Manager. Gulf of Mexico Large Marine Ecosystem. Houston Texas, 8 December, 2011
- Several numbers of the E-News Bulletin *Gulf of Mexico Large Marine Ecosystem* (GoMLME)
- Strategic Action Program (SAP) preliminary version. GoM-LME. GEF-UNIDO. May, 2013
- Replicability of the Integral Program of the GOM LME. Javier Acevedo, Paloma Ladrón de Guevara, Rosela Pérez y Arturo Zaldivar
- Independent Integrated Assessment and Management of the GoM LME. Terms of Reference. Final Evaluation of the UNIDO Project # 104047. July 2013
- Pilot Project Joint evaluation and monitoring of GoM coastal conditions. Gerardo Gold-Bouchot and Virginia García-Ríos. August, 2013
- Agreements by the Focal Points of the GoM LME Project. June 3rd, 2013
- Unido Annual Project Implementation Report (Pir). October 2013
- II Workshop of the Environmental Educators Alliance for the GoM in the context of the III Symposium of Recorecos (Conocimiento de los recursos costeros del Sureste – Knowledge of coastal resources in the SouthWest) in the UADY (Yucatán, Mérida) 27 and 28 May, 2013

- Independent Mid Term Evaluation Report of the UNIDO. Integrated Assessment and Management of the GoM LME. Project Number: GEFMEX09001. March 2012
- Integrated Assessment And Management Of The GoM LME. Pilot project: Restoring depleted shrimp stocks through ecosystem based management practices in the Gulf of Mexico LME. Ecosystem Modelling. Francisco Arreguín-Sánchez. Centro Interdisciplinario de Ciencias Marinas del IPN. 5th GoM LME Steering Committee Meeting. Mérida, Yucatán, México. 6 – 7 November, 2012
- Integrated Assessment and Management of the GoM LME. 5th GoM LME Steering Committee Meeting. Meeting Minutes. 7-8 November 2012. Merida, Yucatan, Mexico

Interviews with key players:

Place	Name	Position	Institution
México, D.F. Semarnat	Gerardo Gold	CTA GoM LME Project	GoMLME
México, D.F. Semarnat	Rodolfo Lacy	Subsecretario de Planeación y Política Ambiental	Mexican Ministry of Environment and Natural Resources (SEMARNAT)
Ciudad del Carmen, Campeche, México	Sergio Augusto López Peña	Rector	UNACAR
Ciudad del Carmen, Campeche, México	Rocío Barreto	Expert	UNACAR
Ciudad del Carmen, Campeche, México	Emma Guevara	Expert	UNACAR
Ciudad del Carmen, Campeche, México	Paloma Ladrón de Guevara,	Expert	CICA, UNACAR
Ciudad del Carmen, Campeche, México	Felicitas Sosa,	Expert	CICA, UNACAR
Ciudad del Carmen, Campeche, México	Cesar Diaz	Expert	CICA, UNACAR
Isla Aguada, Campeche, México	Herminia Herrejón Salazar and four other users	Isla Aguada Ejido Commissioner	Local community
Isla Aguada, Campeche, México	Raul García	President	Tourist services cooperative society
México, D.F. Semarnat	Antonio Diaz de León Corral	General Director of Environmental Policies and Mexico Focal Point	Mexican Ministry of Environment and Natural Resources (SEMARNAT)
México, D.F.	Francisco Arreguín	Expert Shrimp Fisheries Pilot Project	GoMLME

Place	Name	Position	Institution
México, D.F. Semarnat	Andrés Latapi	Expert	GoMLME
México, D.F.	Sergio Cerdeira	Deputy Director of Remote Sensing Unit	Comisión Intersecretarial para el Conocimiento y Uso de la Biodiversidad (CONABIO) (Intersecretarial Commission for the Knowledge and Use of Biodiversity)
México, D.F.	Martha Merino Pérez	Deputy Director of sustainable Rural Training	Centro de Capacitación para el Desarrollo Sustentable (CECADESU) (Training Centre for Sustainable Development) SEMARNAT
México, D.F.	Guadalupe Valdéz	Expert	Comisión Nacional de Áreas Naturales Protegidas CONANP-SEMARNAT (National Commission of Protected Natural Areas)
México, D.F.	Ramón Chavez	Expert	GoMLME
México, D.F.	Orlando Iglesias	Expert	GoMLME
México, D.F.	Rafael Arreola	Expert	GoMLME
México, D.F.	Javier Acevedo	Expert	GoMLME
Miami, Florida, US	Bonnie Ponwith	Center Director and US Focal Point	Southeast Fisheries Science Center NOAA
Vienna, Austria	Igor Volodin	Project Manager	UNIDO
México, D.F.	Kai Bethke	UNIDO Field Office in the Mexico City Director	UNIDO

Methodological remarks, limitations encountered and validity of the findings

The methodology for the assessment was based on:

- A review of project documents.
- Interviews with the Project Coordination Unit (PCU), personnel associated with project management, country focal points, project beneficiaries, and key players from NGO's and staff of academic centers of Mexico relating to the implementation of the Project.
- Field visits in Laguna de Términos and Isla Aguada, Campeche, Mexico, to check the progress of the pilot projects of restoration of mangroves, environmental education and development of local capacities in order to verify that the Project Coordination Unit reported in documents that were provided to the evaluators.

Through the documentary information and the information collected in the field, the evaluators consider that there was sufficient evidence to allow them to establish a baseline for the project; sources of information were sufficient to verify and document the progress and constraints encountered during the assessment; data and information derived from interviews are qualitatively satisfactory and this was verified through comparison of figures from different sources and through crosschecked interviews with relevant actors in an independent way, showing that respondents views and contributions were in full agreement.

In addition, the information obtained allowed the team to verify that progress to date corresponds to the activities, outputs and outcomes set out in the logical framework of the project and that they are measured by the indicators defined in the logical framework.

The list of interviews prepared satisfactorily ensured that the views and experiences of all relevant stakeholder categories (men/women, project/programme staff and project/programme participants, beneficiaries and non-beneficiaries, implementing agencies, and funders) were appropriately included.

The work plan is presented in the following table.

Activity	Week			
	1	2	3	4
Collection of documentary information and data				
Field visit to the recovery of mangroves, environmental education and development of local capacities pilot project in Laguna de Términos and Isla Aguada				
Interviews in Ciudad del Carmen, Campeche				
Interviews in Mexico City				
Follow up phone interviews				
Report writing				

CHAPTER II - Countries and project background

Brief countries context

Mexico

Demographics

Mexico is the fourteenth largest country in the world, with a continental surface area of 1 959 247.98 square kilometers. The population of Mexico was of 112 336 538 inhabitants in 2010¹, the second in Latin America after Brazil and the eleventh in the world, with a growth rate of 1.4%, highlighting a large cohort of young people. It is estimated that by 2020 the population of Mexico will be of 130 million people. In addition, it is estimated that at the beginning of the 21st Century, nearly 38 million Mexicans or Mexican descendants lived in the United States. Most of them concentrated in California, Texas, New Mexico and Illinois.

In the specific case of the coastal states of the GoM, the National Population Census of 2010 registered a total of 17,001,749 inhabitants, equivalent to 15.32% of the total population of the country.

Economy

The economically active population in 2010 was 46 092 460 persons, of which about 18 million have a precarious employment or work in the informal economy. The economically inactive population is estimated at 2 458 701 persons².

Mexico economy	
GDP (nominal)	\$1.185.215 million (2011) ³
GDP variation	5.2% (2011) ⁴
GDP per capita	\$14,560(2010 estimated) ⁵
Human Development Index	0,750 (high) (2010) ⁶
<i>The values are expressed in U.S. dollars</i>	

According to data from the International Monetary Fund, the Gross Domestic Product of Mexico was 1 185 215 million dollars. On net nominal GDP, Mexico is considered the thirteenth world economy and number 11 by GDP purchasing power parity (PPP)⁷. Mexico's economy is the second largest in Latin America, and is the third largest in the Americas, after the United States and Brazilian economies.

¹ <http://www.inegi.org.mx/sistemas/mexicocifras/default.aspx?src=487>

² <http://www.inegi.org.mx/sistemas/mexicocifras/default.aspx?src=487>

³ International Monetary Fund. "Nominal GDP list of countries". Retrieved on December 14, 2011.

⁴ CEPAL. "América Latina y el Caribe Producto interno bruto total". Retrieved on December 14, 2011.

⁵ <http://www.imf.org/external/pubs/ft/weo/2009/02/weodata/index.aspx>

⁶ Human Development Index and its components. 2010 Report. Table 1. United Nations Development Programme. Retrieved on December 23, 2011.

⁷ IMF (April 2011). "Valuation of country GDP". Retrieved on December 14, 2011. "Current international dollar".

Economic activity in the country depends largely on its trade with the United States, which consumes more than 85% of Mexican exports and employs almost 10% of its population. Since the mid-1980s the country has shifted towards a neoliberal economic model with strong emphasis in commercial openness towards other markets, and has become the world leader in number of free trade agreements signed with 12 different treaties and 40 countries.

Remittances, contributions sent by Mexicans working abroad to their families in Mexico, most of them in the United States, are a substantial and growing source of the Mexican economy, estimated at 18 billion dollars in 2005⁸, making it the third country for remittances perceived; only surpassed by India and China. In 2004 they had become the second largest source of foreign revenue, after oil exports, equivalent to the foreign direct investment (FDI), and exceeding the income derived from tourism, representing 2.5% of national GDP⁹.

Although the country has a high Human Development Index (HDI), the distribution of wealth is uneven. Regional disparities and the distribution of wealth continue to be a problem in Mexico. Although all States of the Federation have an HDI superior to 0.70 (medium and high development), the States of North, Central and the South-East have development levels higher than the southern States. Chihuahua, Jalisco, Colima, Coahuila, Nuevo León, Baja California and the Federal District have HDI levels similar to that of European countries, while those of Oaxaca and Chiapas, are similar to those of Burundi or Kenya. The majority of States with high development (exceeding the 0.80) are in the northern region, Jalisco, Aguascalientes, Mexico City, Queretaro and the Eastern States of Quintana Roo and Campeche. The less developed States (with levels of development environment, increased to 0.70) are on the coast of the South Pacific, and Veracruz, located on the coast of the Gulf of Mexico. National inequality is even greater: La Colonia (borough) del Valle or Polanco in Mexico City, have an HDI similar to Germany, while Metlatonoc in Guerrero, has an HDI similar to Burundi¹⁰.

From 1993 to 2006 the coastal states of Mexico contributed 36% of the national GDP (Gross domestic product). 23% of this corresponds to Pacific coastal states and, 13% to the Gulf of Mexico states. This contribution to the GDP is expected to continue increasing, considering the historic tendency for indicators of the different economic activities in coastal and marine zones in past years. At the regional level, the states of Veracruz and Tamaulipas represented 58% of the accumulated contribution to the GDP of the Gulf of Mexico, during the above-mentioned period.

Manufacturing activities and services have been the relevant economic drivers in coastal states providing the largest contribution to GDP in the Gulf of Mexico and the Caribbean (Veracruz and Tamaulipas). The extraction of hydrocarbons in Campeche, as well as tourism (commerce, restaurants, hotels) in Quintana Roo is noteworthy in these zones.

The environmental evaluation of fisheries resources established that in the coastal areas of the Gulf of Mexico, only 6% of commercial fisheries show any developmental potential, whilst the 94% remaining have reached their maximum capacity (81%) or are in decline (13%). It is for these reasons that maintaining fisheries and aquaculture as relevant economic activities for coastal populations is considered a challenge. This implies ensuring compatibility between development and the natural environmental conditions, protecting and restoring critical habitats on which these activities depend, and obtaining a commitment from the authorities and

⁸ Migration Can Deliver Welfare Gains, Reduce Poverty, Says Global Economic Prospects 2006

⁹ Banco de México. Annual report 2004

¹⁰ Informe sobre desarrollo humano, México, 2004

producers in order to integrate them into a transparent and organized sustainable and eco-efficient production system.

Biodiversity

Mexico is one of the 12 worldwide megadiverse countries. With over 200 000 different species, Mexico is home of 10-12 percent of the world's biodiversity¹¹ and it is home to more than 12 thousand endemic species¹².

Mexico qualifies as first in biodiversity in reptiles with 733 known species, second in mammals with 448 species, fourth in amphibians with 290 species, and fourth in flora, with 26 000 different species¹³. Mexico is also considered the second country in the world in ecosystems and fourth in total of species. Approximately 2 500 species are protected by Mexican law¹⁴.

In Mexico, the National Commission of Natural Protected Areas currently administers 174 natural areas of federal character representing more than 25 334 353 hectares, including 41 reserves of the biosphere (unaltered ecosystems), 67 national parks, 5 natural monuments, 35 areas to protect the flora and fauna, 8 areas of protection of natural resources and 18 sanctuaries (zones with rich diversity of species)¹⁵.

Number of NPA	Category	Surface area in hectares	Percentage of the surface of the national territory
41	Reserves of the Biosphere	12,652,787	6.44
67	National Parks	1,432,024	0.73
5	Natural Monuments	16,268	0.01
8	Areas of Protection of Natural Resources	4,440,078	2.26
35	Areas to Protect the Flora and Fauna	6,646,942	3.38
18	Sanctuaries	146,254	0.07
174		25,334,353	12.90

Policy and Institutional Context in Mexico

The current environmental Mexican policy framework includes domestic legislation (laws, regulations, norms, and codes), international treaties and agreements, and bilateral cooperation agreements. Responsibility for the management of coastal areas and the ocean lies with federal, state, and municipal agencies. SEMARNAT is the principal government agency responsible for

¹¹ "Biodiversidad de México". SEMARNAT. Consultado el 7 de diciembre de 2011.

¹² Conservation International (2000). "Biodiversity Theme Report". Retrieved on December 15, 2011

¹³ "Biodiversidad de México". SEMARNAT. Retrieved on December 7, 2011.

¹⁴ "Sistema Nacional sobre la Biodiversidad en México". CONABIO. Retrieved on December 7, 2011

¹⁵ http://www.conanp.gob.mx/que_hacemos/

the environment, and is constituted by five decentralized entities: the National Water Commission (CONAGUA), the National Commission for Protected Areas (CONANP), the Mexican Institute of Water Technology (IMTA), the General Federal Attorney Agency for Environmental Protection (PROFEPA), and the National Institute of Ecology (INE). Other federal agencies with responsibility for the environment (including coastal and marine areas and natural living resources) include the Secretary of Agriculture, Livestock Production, Rural Development, Fisheries and Food (SAGARPA) that includes the National Fisheries Institute (INAPESCA) and the National Commission of Aquaculture and Fisheries (CONAPESCA).

At present, the federal agency responsible for fisheries management, monitoring, and enforcement is the National Commission of Aquaculture and Fisheries. The highest ranking and more specific instrument of Mexican fisheries legislation is the Federal Fisheries Law, the objective of which is to promote the conservation, preservation and rational use of fisheries resources and establish the basis for their adequate development and management. Stemming from this general law is the Fisheries Regulation, prepared by the Executive on the basis of the general guidelines given in Federal Law. A recently implemented instrument in Mexican fisheries management is the National Fisheries Chart elaborated by the National Fisheries Institute and published as an Official Decree in 2000. This chart, which can be updated regularly, defines levels of fishing effort applicable to species and groups of species in specific areas and provides guidelines, strategies, and provisions for conservation, protection, restoration, and management of aquatic resources that could affect their habitats. Also of relevance to coastal and marine living resources are the Law of National Waters and its Regulation and the establishment of marine protected areas.

Mexico's environmental policy is committed to sustainable development as embodied in the Physical Land Use Planning (LUP) and the General Law of Ecological Equilibrium and Environmental Protection (Ley General de Equilibrio Ecológico y Protección al Ambiente-LGEEPA). The LUP is an environmental policy and planning instrument with the objective of promoting the preservation and sustainable use of natural resources while protecting the natural environment. These and a number of other policies and instruments provide the framework for the sustainable use, management, and protection of both terrestrial and marine areas and their natural resources.

Of particular importance is the National Environmental Policy for the Sustainable Development of Oceans and Coasts (NEPSDOC)^{16,17}, which establishes public policy guidelines and strategies in an effort to reinforce integrated management of the coastal zone through structural reform, effective inter-institutional coordination, and wide ranging of public participation. This policy represents a mainstreaming of effort between SEMARNAT and other secretariats and federal institutions responsible for the different national economic sectors. This requires joint participation and responsibility from the authorities of the three levels of government, as well as from all the social sectors directly involved in the use and appropriation of the coastal zone and its resources. These efforts also seek to guarantee effective access to justice on environmental matters; apply integrated management approaches to watersheds and coasts; recognize the economic and social value of natural resources and environmental services; and provide a framework for economic development and improved quality of life for the inhabitants based on a better knowledge of the oceans and coasts.

¹⁶ <http://www.ordenjuridico.gob.mx/Federal/PE/APF/CI/C1130608.pdf>

¹⁷ http://www.semarnat.gob.mx/temas/ordenamientoecologico/Documents/cimares/grupo_trabajo1/doc_pnmc_5a_cima_g1.pdf

The National Strategy for Ecological Use Planning of Oceans and Coasts of 2007¹⁸ sets out the Federal Government's goals towards oceans and coasts. It provides the overall strategic framework for the conservation of oceans and coasts and includes guidelines to strengthen public policies to ensure efficient management of coastal and marine natural resources based on ecosystem management approach, including scientific knowledge and broad public participation. Thus, it strives to reach consensus among sectors and governmental levels, to generate regional strategies, execute local actions and enhance regional and local capacities as well as to reach consensus in transboundary shared marine ecosystems.

The National Strategy is setting in place key tools to further enhance the effectiveness and reach of these new policy regimes. A major development is the creation of the permanent Inter-ministerial Commission for the Integrated Management of Oceans and Coasts (CIMIOC)¹⁹. This approach represents a paradigm shift from a short-term, sectoral perspective to a long-term integrated management regime that recognizes the interconnections between biological systems and economic and social systems.

Coastal and ocean management at the regional and sub-regional and local levels is evolving in Mexico. For instance, the Agreement for the Coordination of the Regional Marine Ecological Zoning Plan for the Gulf of Mexico and Caribbean Sea²⁰ brings together federal and local governments to improve coastal zone management in this region. The Agreement was signed by the six Gulf States (Tamaulipas, Veracruz, Tabasco, Campeche, Yucatán, and Quintana Roo) and 11 federal entities.

United States

Demographics

By its extension, the United States are the third largest country in the world with a continental surface area of 9 826 675 square kilometers. According to the National Census Bureau estimates, the population of United States at the end of April 2011 amounted to 311 259 187 inhabitants²¹, including an estimated 11.2 million illegal immigrants²². This makes it the third most populous nation in the world, after China and the India. In addition, United States is the only industrialized nation where a significant increase in the population is expected²³. With a birth rate of 13.82 babies by each 1 000 inhabitants (30% below the world average), its population growth rate is 0.98%, significantly higher than those of Western Europe, Japan and South Korea²⁴. In fiscal year 2009, 1.1 million immigrants obtained legal residence²⁵. Mexico has been the main country of origin of the new residents for over two decades.

¹⁸

http://www.semarnat.gob.mx/temas/ordenamientoecologico/Documents/documentos%20ordenamiento/estrategia_nacional_oe_mares_costas.pdf

¹⁹ <http://www.semarnat.gob.mx/temas/ordenamientoecologico/cimares/Paginas/cimares.aspx>

²⁰

http://www.semarnat.gob.mx/temas/ordenamientoecologico/Documents/documentos_golfo_mexico/reunion_informativa/convenio_po_emr_gmmc.pdf

²¹ United States Census Bureau (2010). "U.S. POPClock Projection". *Census.gov*. Retrieved on December 27, 2011.

²² Camarota, Steven A. y Karen Jensenius (2008). "Homeward Bound: Recent Immigration Enforcement and the Decline in the Illegal Alien Population". *CIS.org*. Retrieved on December 27, 2011.

²³ Population Resource Center (2000). "Executive Summary: A Population Perspective of the United States". *PRC.org*. Retrieved on December 27, 2011.

²⁴ CIA (2010). "Rank Order—Birth Rate". *The World Factbook*. Retrieved on December 27, 2011.

²⁵ Randall Monger (2009). "U.S. Legal Permanent Residents: 2009". *DHS.gov*. Retrieved on December 27, 2011.

Economy

The economy of the United States is characterized by abundant natural resources, a well-developed infrastructure and high productivity. According to the International Monetary Fund, its GDP of 14 204 322 million dollars constitutes 24% of the gross world product and about 21% of it in terms of parity of purchasing power (PPP), being the largest in the world GDP. The country has the seventeenth per capita nominal GDP and the sixth GDP (PPP) per capita highest in the world²⁶.

United States is the largest importer of goods at the international level and the third in terms of exports. In 2008, the total of the U.S. trade balance was \$ 696 billion²⁷.

In 2010, the private sector was an estimated the 55.3% of the economy, the federal Government's activities amounted to 24.1 per cent and the activity of the State and local government occupied the remaining 20.6%²⁸. Despite the fact that the US economy is post-industrial, service sector contributes with the 67.8% of GDP the nation remains an industrial power²⁹. In the field of business, the leading activity by their income is trading in the wholesale and the retail; but by net income it is industry³⁰, being the most important the chemical industry³¹. United States is the third largest producer of oil in the world, as well as the largest importer of this product^{32,33}. It is also the number one producer of electrical and nuclear energy as well as liquefied natural gas, sulfur, phosphates, and salt. While agriculture accounts for less than 1% of GDP³⁴, the country is the largest producer of maize³⁵.

In the third quarter of 2009, the American workforce was of 154.4 million people. Of these employees, 81% have employment in the services sector. With 22.4 million people, the Government is the main field of employment³⁶. The estimated 2009 unemployment rate was 8.4%.

Biodiversity

The United States is considered a megadiverse country: about 17,000 species of vascular plants live in the adjacent United States and Alaska and more than 1 800 species of flowering plant found only in Hawaii, few of which grow on the continent³⁷. The country is home to more than 400 mammal, 750 bird species and 500 species of reptiles and amphibians³⁸. Also have been discovered more than 91 000 different kinds of insects³⁹.

²⁶ International Monetary Fund (2010). "[United States](#)". *IMF.org*. Retrieved on December 27, 2011.

²⁷ Martin Crutsinger (2009). "[May trade deficit falls to lowest in almost 10 years](#)". *USA Today.com*

²⁸ Christopher Chantrell (2010). "[Government Spending Overview](#)". *US Government Spending.com*. Retrieved on December 27, 2011.

²⁹ U.S. Department of State. "[USA Economy in Brief](#)". *State.gov*. Retrieved on December 27, 2011.

³⁰ Oficina Nacional del Censo (2009). "Table 724—Number of Tax Returns, Receipts, and Net Income by Type of Business and Industry: 2005". *Census.gov*. Retrieved on December 27, 2011.

³¹ United States Census Bureau (2008). "Table 964—Gross Domestic Product in Current and Real (2000) Dollars by Industry: 2006". *Census.gov*. Retrieved on December 27, 2011.

³² CIA (2010). "Rank Order—Oil (Production)". *The World Factbook*. Retrieved on December 27, 2011.

³³ U.S. Energy Information Administration (2009). "[Crude Oil and Total Petroleum Imports Top 15 Countries](#)". *DOE.gov*. Retrieved on December 27, 2011.

³⁴ U.S. Department of State. "[USA Economy in Brief](#)". *State.gov*. Retrieved on December 27, 2011.

³⁵ National Council of the U.S. Grain. "[Corn](#)". *Grains.org*. Retrieved on December 27, 2011.

³⁶ U.S. Bureau of Labor Statistics (2010). "[Employment Situation Summary](#)". *BLS.gov*. Retrieved on December 27, 2011.

³⁷ Morin, Nancy (2008). "[Vascular Plants of the United States](#)". *Fungal Jungal.org*. Retrieved on December 27, 2011.

³⁸ "Global Significance of Selected U.S. Native Plant and Animal Species". *SDI.gov* (2001). Retrieved on December 27, 2011.

³⁹ Smithsonian Institute. "Numbers of Insects (Species and Individuals)". *SI.edu*. Retrieved on December 27, 2011.

The Endangered Species Act of 1973 protects threatened species and in danger of extinction and their habitats, which are supervised by the US Fish and Wildlife Service. In total, the federal Government owns 28.8% of the total surface area of the country⁴⁰. Most of this percentage consists of fifty-eight national parks and hundreds of other protected natural areas managed by federal and State authorities⁴¹.

Policy and Institutional Context in the United States

Within Federal waters, the U.S. has sovereign rights for the purpose of exploring, exploiting, conserving, and managing the living and nonliving natural resources of the seabed and subsoil and the surface and subsurface of the waters. The Federal government also has jurisdiction over the establishment and use of artificial structures, islands, and installations that have economic purposes, and the protection and preservation of the ocean environment. Associated with these authorities is the Federal government's responsibility to ensure that ocean activities are managed for the benefit of the public. Activities towards these ends are closely coordinated with individual State governments.

The management of offshore activities by Federal agencies is a mixed picture. A variety of agencies are involved, the main ones being the Departments of Commerce (which encompasses NOAA), Defense, Interior, and Transportation, the Environmental Protection Agency (EPA), and the Marine Mammal Commission. Some activities, such as fishing (under NOAA) or offshore oil and gas development (under Interior), are governed according to well-developed regulatory regimes established in accordance with specific legislative mandates while others, such as marine bio-prospecting, are essentially unmanaged in federal waters. Other new and emerging ocean uses, such as offshore aquaculture or wind energy, are subject to regulation by a number of authorities executing varying responsibilities, but are not managed by any comprehensive federal law. There are efforts underway to develop a coordinated offshore management regime, as recommended by the US Commission on Ocean Policy. Established in 2004 the Commission presented its final report *"An Ocean Blueprint for the 21st Century"*⁴². The report contained 212 recommendations aimed at realizing a far-reaching and comprehensive ocean policy, and emphasized the role of ecosystem-based management in the attainment of that goal. In response, the President established a permanent Committee on Ocean Policy with a subsequent Ocean Action Plan designed to implement the Commission's recommendations. The Committee consists of the Secretaries of 11 cabinet-level departments as well as the heads of numerous other Federal agencies to provide for coordination of ocean-related matters *"in an integrated and effective manner and to facilitate coordination and consultation at all government levels as well as the private sector, foreign governments, and international organizations."*

For the purposes of this project, the lead agency is NOAA, specifically the National Marine Fisheries Service (NMFS), and the main legislative driver is the Magnuson-Stevens Fishery Conservation and Management Act Reauthorization (MSAR) of 2007⁴³. In essence, MSAR confirmed the need for established national standards for fishery conservation and management in U.S. waters and strengthened the role of science in determining allowable catches for managed species. The MSAR extended eight Regional Fishery Management Councils composed of state and federal officials and fishing industry representatives that prepare and amend fishery management plans for certain fisheries (including transboundary fisheries)

⁴⁰ Republican Study Committee (2005). "Federal Land and Buildings Ownership". *House.gov*. Retrieved on December 27, 2011.

⁴¹ "National Park Service Announces Addition of Two New Units". *NPS.gov*. David Barna, Elaine Sevy (2006). Retrieved on December 27, 2011.

⁴² http://www.oceancommission.gov/documents/prepub_report/welcome.html

⁴³ <http://www.nmfs.noaa.gov/msa2007/>

requiring conservation and management. The MSAR also requires that fishery management plans identify essential fish habitat and protection and conservation measures for each managed species. In 1996, the Sustainable Fisheries Act amended the original Magnuson-Stevens Fishery Conservation and Management Act of 1976 to require NMFS to undertake a number of science, management, and conservation actions to prevent overfishing, rebuild overfished stocks, protect essential fish habitat, minimize bycatch, enhance research, and improve monitoring.

There are several Federal-State cooperative initiatives to achieve these desired outcomes, including the MSAR-extended Gulf of Mexico Fishery Management Council, the Gulf States Fisheries Management Commission (which coordinates activities of State fishery agencies), and the newly-formed Gulf of Mexico Alliance (a partnership of the states of Alabama, Florida, Louisiana, Mississippi and Texas, and thirteen Federal agencies which goal is to increase regional collaboration).

All U.S. environmental programs, including those conducted and supported by NOAA, are subject to two Executive Orders addressing equality and nondiscrimination. Executive Order 12250, *Leadership and Coordination of Nondiscrimination Laws*⁴⁴, signed in 1980, requires the U.S. Attorney General to ensure all federal agencies consistently and effectively implement various nondiscrimination provisions of federal laws, which “...provide, in whole or in part, that no person in the United States shall, on the ground or face, color, national origin, handicap, religion, or sex, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving federal financial assistance.”

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*⁴⁵, signed in 1994, also requires federal agencies to consider equality and discrimination laws and policies in the context of environmental justice. Specifically, Executive Order 12898 requires each federal agency to incorporate environmental justice into its mission and to ensure its programs, policies and activities that substantially affect human health or the environment do not exclude, deny benefits to, or discriminate against persons or populations because of their race, color or national origin.

NOAA's parent agency, the U.S. Department of Commerce, is one of eleven federal agencies who, together with several White House offices, comprise the Federal Interagency Working Group on Environmental Justice. Under the leadership of the U.S. Environmental Protection Agency, the Commerce Department integrates environmental justice principles into each individual program. This is the context within which NOAA operates. Consequently, NOAA is fully prepared and institutionally committed to integrate a gender perspective throughout the implementation of the Gulf of Mexico Large Marine Ecosystem project.

Sector-specific issues of concern to the project and important developments during the project implementation period

The GOM/LME is situated between the east coast of Mexico, the northwest coast of Cuba and the south coast of the US and is almost self-enclosed with one small entrance and exit in the western central North Atlantic Ocean. The GOM/LME is one of the most productive gulf areas of the world. It is an important centre of marine biodiversity, marine food production and oil and gas production. The GOM/LME's distinctive bathymetry, hydrography, productivity and

⁴⁴ <http://www.archives.gov/federal-register/codification/executive-order/12250.html>

⁴⁵ <http://www.archives.gov/federal-register/executive-orders/pdf/12898.pdf>

trophodynamics combine to make it one of the most productive gulf ecosystems in the world with a mean annual productivity of 300 grams of carbon per square meter per year. The high level of primary productivity of the GOM/LME supports an important global reservoir of biodiversity and biomass of fish, sea birds and marine mammals. The sediments of the GOM/LME hold rich deposits of oil and natural gas. The natural beauty of the coastal region has also enabled the development of a significant coastal tourism industry in much of the area.

Mexico, Cuba and the U.S. have become aware of some of the threats to, and issues associated with, the management of the GOM/LME. These includes: serious degradation of coastal areas adjacent to urban centres of the region as a result of pollution, habitat loss and unsustainable exploitation of marine and coastal natural resources; increasing exploitation of the marine biomass by both artisanal and industrial fisheries, in the absence of an agreed long-term regional strategy for the sharing of a sustainable economic yield; increasing harmful algal blooms, oxygen depletion events, oil spills, vessel groundings on delicate coral reefs, coastal subsidence due to hydrocarbon extraction, ongoing petrogenic energy exploration, and production both offshore and in coastal areas with its attendant pollution risks; an apparent increase in the frequency of marked environmental changes in the ecosystem manifesting themselves through fluctuations in abundance and distribution of fish, birds and mammals; and an apparent opportunity for important climate change monitoring in relation to the Loop Current and the advection of nutrients and transport of Mississippi Drainage Basin effluents.

Project summary

Objectives

The Project will address the transboundary concerns of the countries bordering the Gulf of Mexico Large Marine Ecosystem. These will be defined in the Transboundary Diagnostic Analysis (TDA) and prioritised in the Strategic Action Programme (SAP). The main objective of this initiative is to enhance regional efforts to address critical ecosystem and environmental problems in the GOM/LME through the development and implementation of a coordinated and integrated approach to sustainable ecosystem management. The GEF role will be to build on pertinent activities underway as described above and assist in the development and catalyze the implementation of a regional Strategic Action Programme for the GOM/LME. This is likely to include:

- The development of appropriate frameworks and mechanisms at both regional and national levels for consultation, co-ordination and co-operation;
- The development of institutional capacities of the key agencies and institutions in the region that contribute to the integrated sustainable management of the GOM/LME;
- The establishment of effective ecosystem monitoring systems together with mechanisms for the identification and analysis of problems and issues;
- Research to increase the understanding of the GOM/LME, its functioning, its natural evolution trends, and the factors which affect it (both biophysical and social, economic and political);
- The harmonization of policies and legislation relating to activities affecting the GOM/LME;
- Increased external support for activities to minimize and mitigate the negative impacts of development (petroleum, urbanization, tourism development, resource exploitation) through the promotion of sustainable approaches and the use of tools such as EIA;
- Measures to improve resource management;

- The development of national and regional capacities for gathering, processing and spreading environmental information;
- Measures to protect biological diversity;
- Clarification of the role of the GOM/LME as a monitoring/early warning site for global climate change.

The project will carry out these actions through 5 key outcomes. These are:

- Outcome 1 Transboundary issues analyzed and priorities defined
- Outcome 2 Country agreement on and commitment to regional and national policy, legal and institutional reforms to address the agreed priority transboundary issues
- Outcome 3 LME-wide ecosystem-based management approaches encouraged and strengthened through the successful implementation of the Pilot Projects
- Outcome 4 Monitoring and Evaluation System for the Project and the GoM LME established
- Outcome 5 Effective project coordination

Project Summary Facts

I. Project general information:

Project Name:	Integrated Assessment and Management of the Gulf of Mexico Large Marine Ecosystem
Project's GEF ID Number:	1346
GEF Agency Project ID	101299
Countries:	Mexico, United States of America
GEF Focal Area and Operational Program:	International Waters □ GEF IW Strategic Objective 1 - to foster international, multi-state cooperation on priority transboundary water concerns through more comprehensive, ecosystem-based approaches to management; and GEF4 IW Strategic Program 1 - Restoring and sustaining coastal and marine fish stocks and associated biological diversity
Agency:	UNIDO
Other Cooperating Agencies:	SEMARNAT (México)
Project Approval Date:	January 15, 2009
Date of Project Effectiveness:	June 2009
Project duration:	Four years
Total Project Cost:	US \$ 4,975,500.00
GEF Grant Amount:	USD 4,502,500
GEF Project Preparation Grant Amount (if any):	US\$ 473,000.00

Overall Costs (Including Co-Financing)

Project Components/Outcomes	Co-financing (\$)	GEF (\$)	Total (\$)
1. Transboundary issues analyzed and priorities defined	24,700,000	427,500	25,127,500
2. Country agreement on and commitment to regional and national policy, legal and institutional reforms to address agreed priority transboundary	9,000,000	1,130,000	10,130,000

issues			
3. LME-wide ecosystem-based management approaches encouraged and strengthened through the successful implementation of Pilot	41,674,780	2,160,000	43,834,780
P4.rMojoecntistoring and Evaluation System for the Project and the GoM LME established	19,400,000	469,000	19,869,000
5. Effective project coordination	2,000,000	316,000	2,316,000
	96,774,780	4,502,500	101,277,280

Dates

Milestone	Expected Date	Actual Date
Agency Approval date	January 15, 2009	January 15, 2009
Implementation start	June 2009	June 2009
Midterm evaluation	June 2011	October 2011
Project completion	June 2013	December 2013
Terminal evaluation completion	April 2013	August 2013
Project closing	July 2013	December 2013

Project Framework

Project Component	Activity Type	GEF Financing (in \$)		Cofinancing (in \$)	
		Approved	Actual	Promised	Actual
1. TDA	A	427,500		24,700,000	
2.SAP	a, b	1,130,000		9,000,000	
3.PP	a, b,	2,160,000		41,674,780	
4.M & E	A	469,000		19,400,000	
5.COORDINATION	A	316,000		2,000,000	

Total		4,502,500		96,774,780	
-------	--	------------------	--	-------------------	--

Activity types are:

- . a) Experts, researches hired
- . b) technical assistance, Workshop, Meetings or experts consultation scientific and technical analysis, experts researches hired
- . c) Promised co-financing refers to the amount indicated on endorsement/approval.

Project Outcomes, Components, and Budget:

GEF Outcome	Sub-components	Amount (\$) Year 1	Amount (\$) Year 2	Amount (\$) Year 3	Amount (\$) Year 4	Total (\$) All Years
1. Transboundary issues analyzed and priorities defined	1.1 Capacities and gaps in regional monitoring methods/standards identified	20,000				20,000
	1.2 Key ecosystem assessment and management gaps identified	60,000	60,000			120,000
	1.3 Governance analysis of relevant policy and regulatory frameworks completed [as a basis for 2.1.4]	30,000	30,000	27,500		87,500
	1.4 Analysis of the socioeconomic impacts of priority transboundary issues, including a preliminary LME wide economic valuation of near shore and marine goods and services, undertaken	30,000	70,000	50,000		150,000
	1.5 TDA revised, finalized, published and disseminated			50,000		50,000
	Sub-total	140,000	160,000	127,500		427,500
2. The SAP and associated NAPS are formulated and adopted	2.1 Strategies and actions for the reduction and control of nutrient over-enrichment, HABs and for the elimination of dead zones developed	160,000	40,000	40,000		240,000
	2.2 Strategies and actions formulated for sustainable management and use of exploited living marine resources, and for the recovery of depleted fish stocks to within safe biological limits formulated	150,000	70,000	50,000	40,000	310,000
	2.3 Establishment of representative MPA	130,000	200,000	50,000	50,000	430,000
	2.4 The SAP and NAPs formulated and endorsed			70,000	50,000	120,000
	2.5 Commitments to SAP implementation obtained and sustainable financing arrangements formulated				30,000	30,000
	Sub-total	440,000	310,000	210,000	170,000	1,130,000
3. LME-wide ecosystem-based management approaches encouraged and strengthened through the successful implementation of the Pilot Projects	3.1 Enhanced Natural Habitat and Ecosystem Conservation of Coastal and Marine Zones of the Gulf of Mexico: Wetlands, Mangroves, Sea Grass Beds and Sand Dunes achieved through pilot project	70,000	220,000	220,000	145,000	655,000
	3.2 Shrimp Production Enhanced through Ecosystem Based Management	200,000	295,000	145,000	65,000	705,000
	3.3 Joint Assessment and Monitoring of Coastal Conditions in the Gulf of Mexico undertaken	160,000	550,000	40,000		750,000
	3.4 IW:LEARN tools and biennial GEF IW Conferences	10,000	20,000	10,000	10,000	50,000
	Sub-total	440,000	1,085,000	415,000	220,000	2,160,000
4. Monitoring and Evaluation System for the Project and the GoM LME established	4.1 M&E mechanisms set up including an M & E system for the project	56,000	70,000	70,000	60,000	256,000
	4.2 Suite of GEF M&E indicators developed (process, stress, environmental status) to monitor SAP implementation.	55,000				55,000

GEF Outcome	Sub-components	Amount (\$) Year 1	Amount (\$) Year 2	Amount (\$) Year 3	Amount (\$) Year 4	Total (\$) All Years
	4.3 GoM LME Environmental Information System developed	54,000	69,000			123,000
	4.4 Bi-annual regional status report developed on large scale ecosystem impacts in the GoM LME		17,500		17,500	35,000
	Sub-total	165,000	156,500	70,000	77,500	469,000
5. Effective project coordination	5.1 Regional Project Management Unit	63,000	63,000	63,000	61,000	250,000
	5.2 Steering Committee established and meeting	4,000	4,000	4,000	4,000	16,000
	5.3 Intersectoral coordination established through the development of Intersectoral committees (ISCs) in both countries, including with private sector involvement					0
	5.4 Appropriate regional coordination mechanism jointly defined, including the possibility of establishment of an R-TAG or a Gulf of Mexico Commission (GoMC)					0
	5.5 Information needs within the relevant sectors identified and addressed in order to ensure active and informed participation					0
	5.6 Robust public awareness strategies targeted at the different stakeholder levels and groups developed		20,000	20,000	10,000	50,000
	Sub-total	67,000	87,000	87,000	75,000	316,000
	Total					4,502,500

Project Timeline

Component and Activities	Year 1				Year 2				Year 3				Year 4			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Outcome 1 Transboundary issues analyzed and priorities defined																
1.1 Capacities and gaps in regional monitoring methods/standards identified																
1.2 Key ecosystem assessment and management gaps identified																
1.2.1 Biodiversity hot spots in GoM LME assessed and key knowledge gaps identified																
1.2.2 Existing information and data on status and trends in fisheries assessed																
1.2.3 Ecosystem-wide nutrient over-enrichment and contaminant sources, flows and levels assessed																
1.2.4 Environmental impacts of transboundary pollution on the GoM ecosystem assessed																
1.2.5 Information on nutrient over-enrichment and related HABs collected and integrated																
1.3 Governance analysis of relevant policy and regulatory frameworks completed [as a basis for 2.1.4]																
1.4 Analysis of the socioeconomic impacts of priority transboundary issues, including a preliminary LME wide economic valuation of near shore and marine goods and services, undertaken																
1.5 TDA revised, finalized, published and disseminated																
Outcome 2: Country agreement on and commitment to regional and national policy, legal and institutional reforms to address the agreed priority transboundary issues																
2.1 Strategies and actions for the reduction and control of nutrient over-enrichment, HABs and for the elimination of dead zones developed																
2.1.1 Regional Plan of Action for the Yucatan Peninsula RPA-YUCATAN developed by Mexico as a major contribution to reduce land based sources of marine pollution into the GoM LME, implemented.																

Component and Activities	Year 1				Year 2				Year 3				Year 4			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2.1.2 Strategic Partnerships between GoM LME programme and institutions responsible for integrated management of the major GoM river basins, as well as the main coastal cities, developed																
2.1.3 Stocktaking of the Papaloapan watershed Commission to define opportunities for replication in the Grijalva-Usumacinta and Panuco river basins in order to provide for strong inter-linkages between watershed management authorities and coastal managers.																
2.1.4 Strategies for harmonizing legislative, policy and regulatory frameworks on agricultural practices at LME wide levels developed, building upon the Gulf of Mexico Governors Alliance.																
2.2 Strategies and actions formulated for sustainable management and use of exploited living marine resources, and for the recovery of depleted fish stocks to within safe biological limits formulated																
2.2.1 Bi-lateral initiatives for regional surveying of productivity and oceanography, stock assessment and population assessments encouraged and strengthened																
2.2.2 Review effectiveness of compliance measures with existing fisheries legal and regulatory frameworks in both countries, especially with regards to IUU, excessive fishing capacity, and enforcement and surveillance, and propose appropriate reforms and measures.																
2.2.3 Develop fisheries management plans for selected key commercial fisheries																
2.3 Establishment of representatives marine protected areas (MPA) as a basis for meeting WSSD targets																
2.3.1 Recovery plans for depleted priority non-commercial species and associated marine flora and fauna developed for additional species not currently addressed																
2.3.2 Management and capacity building requirements to restore degraded marine coastal wetlands defined																

Component and Activities	Year 1				Year 2				Year 3				Year 4			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2.3.3 Marine and coastal spatial zoning processes in individual countries strengthened and implemented thus enhancing sectoral links among sectoral users in marine and coastal zones																
2.3.4 LME-wide strategies for conserving biodiversity and habitats in the coastal zones of GoM LME supported and harmonized at a regional level Marine and coastal spatial zoning processes in individual countries strengthened and implemented, thus enhancing sectoral links among sectoral users in marine and coastal zones																
2.4 The Strategic Action Programme (SAP) and National Action Programmes (NAPs) formulated and endorsed The SAP and NAPs formulated and endorsed																
2.5 Commitments to SAP implementation obtained and sustainable financing arrangements formulated																
Outcome 3: LME-wide ecosystem-based management approaches encouraged and strengthened through the successful implementation of the Pilot Projects																
3.1 Pilot Project on Natural Habitat and Ecosystem Conservation of Coastal and Marine Zones of the Gulf of Mexico: Wetlands, Mangroves, Sea Grass Beds and Sand Dunes																
3.2 Enhancing Shrimp Production through Ecosystem Based Management																
3.3 Joint Assessment and Monitoring of Coastal Conditions in the Gulf of Mexico																
3.4 IW:LEARN Tools and GEF IW Conferences																
Outcome 4: Monitoring and Evaluation System for the Project and the GoM LME established																
4.1 M&E mechanisms set up including an M & E system for the project																
4.2 Suite of GEF M&E indicators developed (process, stress, environmental status) to monitor SAP implementation.																
4.3 GoM LME Environmental Information System developed																

Component and Activities	Year 1				Year 2				Year 3				Year 4			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
4.4 Bi-annual regional status report developed on large scale ecosystem impacts in the GoM LME																
Outcome 5: Effective project coordination																
5.1 Regional Project Coordination Unit set up																
5.2 Steering Committee established and meeting																
5.3 Intersectoral coordination established through the development of Intersectoral committees (ISCs) in both countries, including with private sector involvement																
5.4 An appropriate regional coordination mechanism jointly defined																
5.5 Information needs within the relevant sectors identified and addressed in order to ensure active and informed participation																
5.6 Robust public awareness strategies targeted at the different stakeholder levels and groups developed																

History of Project Implementation:

Project Preparatory Phase

In August 2000, UNIDO and the US NOAA convened a meeting in Havana, Cuba to discuss the elaboration of GEF proposal that would address the integrated management of the resources of the Gulf of Mexico Large Marine Ecosystem. The meeting was hosted by the Government of Cuba, and was attended by representatives from the Cuban Ministry for Science, Technology, and Environment (CITMA); from the Mexican Institute for Fisheries (INAPESCA) and the Centre for Scientific Research and Advanced Studies (CINVESTAV); from the United States National Oceanographic and Atmospheric Administration (NOAA) and from UNIDO. The resulting proposal for funding of a GEF PDF-Block was endorsed by the GEF Focal Points of Cuba and Mexico on November 2000, and August 2001, respectively.

The project preparatory phase was undertaken under the implementation of UNDP and the execution of UNIDO. Funding for execution was made effective in the second semester of 2005. After the recruitment of the Regional Coordinator and establishment of the project coordination office in Merida, Mexico, the inception workshop took place in January 2006. The inception workshop and subsequent technical and Steering Committee meetings were not attended by Cuba, in spite of the continuous efforts by both the Implementing and Executing Agencies to facilitate the active participation of the country in all project activities.

In February 2007, the Cuban Vice-Minister of the Ministry for Foreign Investment and Economic Collaboration (MIN VEC), on behalf of the Government of Cuba officially informed the project partners of its decision not to participate in the project. In its decision, the Government of Cuba indicated that the project did not fit within the framework of the environmental priorities established in the country's Estrategia Ambiental Nacional (National Environmental Strategy). The GEF Agencies and the participating countries recognize that Cuba exercised its sovereign right to determine whether to participate in this initiative. Throughout the implementation of the preparatory phase, UNDP, UNIDO and the Mexican Government made continuous efforts to elicit the participation of Cuba in all project activities. Informal consultations were also carried out. Both the USA and Mexico have stated that Cuba's participation in the project would be beneficial, and that their reincorporation at any point in the process would be welcome. In the project launch workshop and subsequent steering committee meetings, the US and Mexican Delegations made statements regarding the "open door" policy for Cuban participation in the project, if the country decides to reincorporate itself in the process.

During the PDF-B implementation, the GEF agencies recommended that the TDA and SAP be integrated on a provisional basis, to be revised and completed during the FSP execution phase. This allowed for the preparatory phase to be focused on the preparation of the Project Brief for inclusion in the GEF Work Programme for 2007. Mexico and the US accepted this recommendation as an informed decision drawn from the experience of similar GEF LME projects. With the guidance provided by the GEF agencies, a preliminary TDA (Appendix A of The Project Brief) was drawn in order to provide the scientific basis for the priority issues to be addressed in the FSP and subsequent SAP.

The timing of the preparatory phase coincided with extensive and substantial reforms within the framework of the GEF operational policies and project cycle. For the inclusion of the project in the GEF 2007 Work Plan, and adhering to the new GEF policies, the Government of Mexico decided to finalize the preparatory phase and to continue the FSP with UNIDO as the sole GEF

agency. This issue was addressed directly between the Mexican Focal Point and Council Member and the CEO and Chairperson of the GEF during the week of 25 June 2007.

Project Implementation Arrangement

The GEF Agency for the project is the United Nations Industrial Development Organization (UNIDO). UNIDO is responsible for both the implementation and the execution of the project. SEMARNAT (Secretaría de Medio Ambiente y Recursos Naturales) of México also participates as National Execution Agency for the project. The US NOAA supports the SEMARNAT in the execution of the project.

Regional co-ordination and collaboration is facilitated through a Regional Project Coordination Unit (PCU), located in Mexico. A Chief Technical Advisor (CTA) was recruited to facilitate the successful technical execution of project activities and is housed in the PCU. The PCU has other staff working part-time/full-time. A Regional Project Steering Committee, consisting of high-level official country representatives from the U.S. and Mexico and relevant stakeholders, oversees the implementation / execution of the project. It meets at least once a year. A Regional Technical Advisory Group (R-TAG) will be established that will advise the Steering Committee and the PCU on GoM technical issues and ensure coordination in support of ecosystem-based management approaches. Finally, each country will have an Inter-Sectoral Committee (ISC) or its equivalent, to assure broad intersectoral coordination and broad government stakeholder participation.

UNIDO is responsible for the overall management of the project and its funds. It assists SEMARNAT, the National Executing Agency in the execution of the project, through the provision of timely assistance at key phases of project implementation, in the review of investigations and reports prepared as outcomes to the project, in the disbursement of funds necessary for the recruitment of international experts and other related international expenditures.

Within its mandate, UNIDO brings to international waters projects not only a wealth of expertise on industrial pollution control, but also the experience and ability to draw together government and industrial sectors to cooperate and support programmes that pursue a common good. Its water related projects are projects directed towards a sound water environment, including projects on cleaner production, controlling water pollution from land based activities mainly from domestic and industrial sources, and integrated ecosystem-wide management of transboundary waters especially large marine ecosystems and river basins.

UNIDO's water portfolio contributes to strengthening of national and regional institutional capacities as well as of policy and legal frameworks, including harmonization of national laws to conform with international and/or regional agreements/conventions; introduction of sound environmental management practices and technologies; forging public-private partnerships in water management amongst decision makers working in public authorities, industrial and commercial enterprises, including companies in the commercial pollution-control and waste-management sectors. Personnel working in related sectors such as consultancy, trade associations, industrial park development and management, and finance can also benefit.

UNIDO has been very active in the international waters focal area, developing and executing several GEF funded projects and participating in the United Oceans Network, GESAMP, UN Water as well as in several Global Forum activities in the WSSD, Global Forum on Oceans, Coasts and islands and the African Regional initiative for the Development and protection of the

coastal and marine environment of Sub-Saharan Africa. Four important issues have taken prominence in the programmes of UNIDO relating to the coastal and marine environment and have formed its contribution to debates and discussions at the various Global Forum functions:

- Restoration of the global Large Marine Ecosystems;
- Industrial Globalized Fisheries and bridging of the north/south divide in artisanal and industrial fisheries (the unrestricted activities of global industrialized fisheries are encroaching on the artisanal fisheries of the developing countries large marine ecosystems, placing at risk food security and economic returns from fisheries for the people of the regions);
- Sustainable coastal tourism development to mitigate degradation of the coastal areas and sensitive ecosystems and conserve threaten biodiversity;
- Reduction of mercury pollution in artisanal gold mining operations.

Other Institutional Arrangements

Over the last four decades the countries have demonstrated a willingness to co-operate in matters relating to the environment of the Gulf of Mexico both through bilateral programmes and active participation in regional programmes. These include:

- International agreements such as MexUS-Gulf between INAPESCA and the US Southeast Fisheries Science Centre (SEFSC) established in 1976;
- Annual U.S. - Mexican Bilateral Fisheries Talks providing a basis for exchange of information and co-operation as well as management of enforcement;
- Attendance of Mexican officials at meetings of the U.S. Gulf of Mexico Fishery Management Council with subsequent information exchange;
- The North American Free Trade Agreement Good Neighbor Environment Committee and General Committee on Environmental Co-operation, which addresses priority cross transboundary pollution issues between the U.S. and Mexico;
- The EPA led Gulf of Mexico Programme which co-ordinates environmental quality efforts in the U.S. Gulf of Mexico and has reached out and invited Mexican and Cuban participation in events such as a large marine ecosystem symposia;
- Northern Border Environmental Programme.

Both countries belong to IOCARIBE, the UNESCO-IOC Sub-commission for the Wider Caribbean (which includes the Gulf of Mexico), the Western Central Atlantic Fishery Commission (WECAFC) of FAO, and UNEP's Wider Caribbean Environment Program, coordinated from Kingston, Jamaica. IOCARIBE serves as a coordinating organization for ocean science in the region to provide the basis for management decision. The network that IOCARIBE has established is strong, but the lack of financial resources has prevented extensive, science-based products for management. WECAFC has served as a forum for discussion and exchange on fishery management, but lacks the capacity for implementation. UNEP's Wider Caribbean Regional Sea Programme covers a very large geographical area (33 States and Territories) and has funding constraints but it has negotiated important legal agreements including the 1985

Cartagena Convention and its protocols on oil spills, land based sources (LBS), and Specially Protected Areas and Wildlife (SPA) to which both states are party.

The countries' ownership of the project is also shown by the endorsement of the GEF Project Brief. The countries have committed significant financial resources in support of the project, including in-kind contributions. The governments will also provide necessary scientific expertise to the GoM LME project from national organizations, at-sea facilities for data collection, ship time, and meeting space as required.

Potential donors and private sector will be involved in all stages of the SAP formulation process to ensure that the SAP is responsive to donor requirements. In addition, the SAP will include a detailed financing strategy. The strategy will determine traditional and innovative mechanisms (inter-governmental, governmental, non-governmental, private and financial institutions) for financing the priority activities identified in the SAP. The project will focus on identifying these mechanisms from the outset. In particular, the role of the private sector towards long-term sustainability will be explored.

CHAPTER III - Project Assessment

A. Project Relevance and Design

- **Relevance to national development and environmental agendas, recipient country commitment, and regional and international agreements**

Relevance was assessed by the ET at two distinct but interrelated levels: firstly, with regard to national and regional relevance; secondly to UNIDO and GEF mandates and strategies. The overall relevance of the Project was assessed by the evaluation team as being **highly satisfactory**, as detailed below.

The GOM LME project was found to have a direct linkage to Mexico's National Development Plan for 2006-2012, its National Sectoral Program for Environment and Natural Resources for 2006-2012, guidelines established under the National Environmental Policy for Sustainable Development of Oceans and Coasts and, more specifically to goals and projects set out in the National Strategy for the Ecological Use and Management of Oceans and Coasts.

This National Strategy provides the specific framework for the conservation and sustainable use of oceans and coasts, including sea and land use planning projects to articulate public and sectoral policies to reach consensus among sectors and all government actors, considering regional strategies and local actions. In order to enhance the effectiveness and reach of these National Strategies, the permanent Inter-ministerial Commission for the Integrated Management of Oceans and Coasts (CIMIOC) was created. The Project has become a "permanent guest" of the CIMIOC, with the responsibility of establishing a system of integrated long-term management that recognizes the interconnections between biological and economic and social systems, in order to develop integrated management actions based on the ecosystem approach.

The Project references a direct linkage to the Agreement for the Coordination of the Regional Marine Ecological Zoning Plan for the Gulf of Mexico and Caribbean Sea, signed by the six Gulf States (Tamaulipas, Veracruz, Tabasco, Campeche, Yucatán, and Quintana Roo) and 11 federal entities, a process started by the Mexican government in 2006, which involves the characterization, diagnosis, prognosis and definition of an action program for this given area.

In addition, the Project is contributing to the implementation of the Federal Fisheries Law, the objective of which is to promote the conservation, preservation and rational use of fisheries resources and establish the basis for their adequate development and management, as well as the implementation of specific policies and programs for the protection of specific resources, for example, those relating to marine mammals and the National Waters Law and Regulations and the establishment of marine protected areas.

As well, the National Development Plan for 2013-2018 contemplates a general strategy geared towards increasing productivity through five national goals and three transverse strategies.

Goal number 4, A prosperous Mexico, includes objective 4.4 to promote and orient inclusive green growth which preserves natural capital while generating riches, competitiveness and jobs, and 4.10 to develop productive agricultural and fisheries sectors in order to guarantee the food security of the country. In order to achieve this the following strategies and action lines are planned:

Strategy 4.4.1 - Implementation of an integral development policy, linking environmental sustainability with costs and benefits to society.

Action lines

- To promote a policy for oceans and coasts that promotes economic opportunities, facilitates competitiveness and coordination and faces the effects of climate change while protecting goods and environmental services.
- To orient and strengthen information systems tomorrow night trend of value eight the results of environmental policy.

Strategy 4.4.3 – strengthen the national climate change and environmental protection policy to facilitate the transition towards a competitive, sustainable, resilient and low carbon economy.

Action lines

- Carryout scientific and technological research, generate information and develop information systems to design environmental, mitigation and adaptation policies for climate change.

Strategy 4.10.1 - Promote productivity in the food and agriculture sectors through investments in physical, human and technological capital.

Action lines

- Support production and revenue generation for farmers, small producers and fishermen from the poorest rural zones, generating alternatives so that they may join the economy in a more productive manner.

Strategy 4.10.4 – Promote the sustainable use of the natural resources of the country

Action lines

- Promote automatic irrigation and reduce water use.
- Promote sustainable practices in agricultural, farming, fisheries and aquaculture activities.

The project also directly relates to the mandates of the US National Marine Fisheries Service (NMFS) Office of Habitat Conservation. The mission of this Office is to protect and conserve habitats important to NOAA and NMFS trust resources. The NMFS Office of Habitat Conservation focuses on ensuring that living marine resources have sufficient healthy habitat to sustain populations. Those mandates emphasize wetlands (including marshes, seagrasses, and mangroves), anadromous fish habitat, and habitat of other marine and estuarine species. These efforts frequently include close partnerships with state and federal agencies, local governments, industry, environmental groups, and academia. Within the NMFS Office of Habitat Conservation, the Restoration Center helps to achieve the mission by restoring degraded habitats, advancing the science of coastal habitat restoration, transferring restoration technology to the private sector, the public and other government agencies, and fostering habitat stewardship and a conservation ethic. There are large, on-going wetlands conservation and restoration activities in the US Gulf of Mexico. In particular, NMFS has oversight of the multi-million dollar Coastal Wetlands Planning, Protection, and Restoration Act program to reduce erosion and restore wetlands in coastal Louisiana, as well as the Community-based Restoration Program which distributes funds for in-the-ground habitat restoration actions. In addition, NMFS participates in various regional restoration efforts such as the large-scale South Florida Ecosystem Study,

which is attempting to revitalize the mangrove-seagrass-marsh grass complex, and smaller seagrass and marsh restoration and evaluation efforts throughout the US Gulf states.

For the purposes of the Project, the main legislative driver is the Magnuson-Stevens Fishery Conservation and Management Act Reauthorization (MSAR) of 2007, which establishes the need for national standards for fishery conservation and management in U.S. waters and strengthened the role of science in determining allowable catches for managed species. The MSAR also requires that fishery management plans identify essential fish habitat and protection and conservation measures for each managed species. In 1996, the Sustainable Fisheries Act amended the original Magnuson-Stevens Fishery Conservation and Management Act of 1976 to require National Marine Fisheries Service (NMFS) to undertake a number of science, management, and conservation actions to prevent overfishing, rebuild overfished stocks, protect essential fish habitat, minimize bycatch, enhance research, and improve monitoring.

The MSAR extended Regional Fishery Management Councils composed of state and federal officials and fishing industry representatives that prepare and amend fishery management plans for certain fisheries (including transboundary fisheries) requiring conservation and management. In this sense, the project is associated with the MSAR-extended Gulf of Mexico Fishery Management Council, the Gulf States Fisheries Management Commission (which coordinates activities of State fishery agencies), and the Gulf of Mexico Alliance (a partnership of the states of Alabama, Florida, Louisiana, Mississippi and Texas, and thirteen Federal agencies whose goal is to increase regional collaboration).

Recipient country commitment

The SEMARNAT of México is the National Execution Agency for the project, through the Undersecretariat of Planning and Environmental Policy leadership and has the responsibility for monitoring the implementation of project activities in accordance with the agreed work plans and budgets. The US NOAA supports the SEMARNAT in the execution of the project.

The countries have committed to and are providing financial resources in support of the project, including in-kind contributions. The governments are also providing necessary scientific expertise to the GoM LME project from national organizations, data collection facilities at-sea, ship time, and meeting space as required by the Project.

Regional and international agreements

Bilateral and regional agreements related to the environment of the Gulf of Mexico include:

- MexUS-Gulf - between Mexico's National Fisheries Institute and the US Southeast Fisheries Science Centre (SEFSC) established in 1976;
- Annual U.S.-Mexican Bilateral Fisheries Talks - providing a basis for exchange of information and co-operation as well as management of enforcement;
- Attendance of Mexican officials at meetings of the U.S. Gulf of Mexico Fishery Management Council with subsequent information exchanges;
- The North American Free Trade Agreement Good Neighbor Environment Committee and General Committee on Environmental Co-operation, which addresses priority cross-transboundary pollution issues between the U.S. and Mexico;

- The EPA led Gulf of Mexico Programme which co-ordinates environmental quality efforts in the U.S. Gulf of Mexico and has reached out and invited Mexican and Cuban participation in events such as a large marine ecosystem symposia.
- Northern Border Environmental Programme

Both countries belong to IOCARIBE, the UNESCO-IOC Sub-commission for the Wider Caribbean (which includes the Gulf of Mexico), the Western Central Atlantic Fishery Commission (WECAFC) of FAO, and UNEP's Wider Caribbean Environment Program. IOCARIBE serves as a coordinating organization for ocean science in the region to provide the basis for management decision. WECAFC has served as a forum for discussion and exchange on fishery management. UNEP's Wider Caribbean Regional Sea Programme covers a very large geographical area (33 States and Territories) and it has negotiated important legal agreements including the 1985 Cartagena Convention and its protocols on oil spills, land based sources (LBS), and Specially Protected Areas and Wildlife (SPAW) to which both states are party.

- ***Relevance to target groups: relevance of the project's objectives, outcomes and outputs to the different target groups of the interventions (e.g. companies, civil society, beneficiaries of capacity building and training, etc.)***

The relevance to target groups is clear. Interviews and visits provided ample evidence that, in general, the target groups demonstrated a broader and more complete understanding of the functions of the LME, which will serve to design management strategies through the TDA and SAP processes and establish an enabling environment and ecosystem-based management practices that contribute to the protection and maintenance of services and functions provided. It is expected that the Project will contribute to the reduction of coastal pollution, restoration of damaged habitats and of depleted stocks, through implementation of information systems, exchange of knowledge and of scientific information, strengthening of capacities, of environmental education and of mechanisms for stakeholder participation.

The pilot projects within the GOM LME project, focus on three priority concerns identified during the preparation of the TDA framework and addressing specific issues of concern; namely, depleted shrimp stocks through ecosystem-based management practices, joint assessment and monitoring of coastal conditions, and habitat and ecosystem conservation of coastal and marine wetlands, mangroves, sea grasses and sand dunes. Experiences gained through these activities contribute to enhance the knowledge base relating to LME.

The project has linked and integrated multiple actors across different fields and between both countries and is appealing to relevant institutions in both countries.

In the US the Gulf of Mexico LME project has established a strong relationship with federal, state, local, NGO, and academic constituencies.

Particular attention has been given to NOAA as focal point of the LME project, and its institutions such as NMFS, NMSP, NOS, NWS, NDBC, and other Federal agencies currently appointed to conduct the Gulf restoration process, the EPA and its Gulf Task Force. NOAA is currently supporting and promoting among the US federal agencies, the recognition of the LME program as the bilateral link with Mexico and the EPA Task Force for the Gulf's restoration program. Such recognition will allow a stronger cooperation in the region between Mexico and the US.

At the state level, the LME program inclusion and recognition within the Gulf of Mexico Alliance is an asset that will allow further cooperation and consensus of the Strategic Action Program. The LME program had permanent cooperation with each of the Priority Issue Teams, such as the water quality, HABs, habitat and coastal restoration, education and outreach, among others.

The academic institutions also recognized the LME Program efforts and constantly developed networking and access to information for the Gulf and for particular actions to lead pilot projects. The partnership with the Heart Research Institute of Texas A & M. University-Corpus Christi has conducted several activities and its members are part of the LME program Steering Committee. The Louisiana University of Marine Consortium (LUMCON) has supported the LME program and engaged with the Hypoxia Mississippi Task Force to reduce nutrients in the Gulf, better understanding of the phenomena and scientific and technical cooperation through the cruises carried out in the Northern Gulf. The University of South Florida has also cooperated on education, climate change, HABs, productivity and other areas of expertise.

The Gulf of Mexico Ocean and Coastal Observing (GCOOS) has developed productive cooperation with the GOM LME project, on the engagement of information users in the Gulf and other monitoring activities, such as the Harmful Algal Bloom Integrated System, to provide the Gulf region with a unified observing system for HABs.

In Mexico, the Commission for Oceans and Coasts (CIMARES) has been appointed as the InterSectoral Committee to deal with the LME Program and the CTA has been designated as a permanent participant in all CIMARES sessions, acting as special advisor to its Secretariat. Within the SEMARNAT, the Project promotes the implementation of Mexico's National Ocean Policy participating in all oil spill related sessions as well as its expert working groups. The Project provides advice and partnership to Mexico and its institutions in the field of oceans monitoring. CONABIO (the National Commission on Biodiversity) invited the Project to take part in the installation of a buoy in the Gulf and support its other actions. This pilot project will facilitate the development of consistent regional cooperation and the eventual installation of an observing system for the whole region.

The Ministry of Foreign Affairs invited the GOM LME project to its binational MEX-US meeting for science and technology with the scientific community from both countries. As regards water pollution, watershed management and, clean oceans, the project has been working with Mexico's National Commission for Water (CONAGUA), for the understanding of pollutant reduction entering the Gulf of Mexico.

At the state level the Project has promoted networking and the creation of a coastal states group to engage with the GOMA existing program in the U.S. A meeting was held in Veracruz, Mexico in February 2011, and activities were explained to state representatives of Mexico jointly with the U.S. representatives.

As a result of these actions, multiple institutions based in Mexico are now interested in joining the GOM LME project such as the Fondo Mexicano para la Conservación de la Naturaleza (FMCN), ProNatura, TNC, DUMAC, WWF, among others.

There are several actions with the University of Veracruz, with respect to the Mexican Universities Consortium in the Gulf, including a second workshop and course on Governance and watersheds inviting students from the U.S., Mexico and Cuba, in co-operation with the Federal Governments and academia of both countries.

In the University of Campeche (UNACAR), the GOM LME project developed a series of actions towards mangrove restoration, education, monitoring of the ecosystem health, fish and fisheries, sea grass beds, and stakeholder participation. The Commission for Forestry has allocated financial resources to enhance project's actions on mangrove restoration. The project has also conducted courses for training, information exchange and capacity building among universities in the region.

The CINVESTAV in Merida also plays a key role in the region and the Project has directly engaged with several of its scientists. There are other academic organizations such as ECOSUR, Universidad Juarez de Tabasco, Epomex, Universidad Autónoma de Yucatán (UADY), University of Quintana Roo (Uqroo), with whom actions are currently being developed.

- **Relevance to the GEF and UNIDO: In retrospect, were the project's outcomes consistent with the focal areas/operational program strategies of GEF? Were they in line with the UNIDO mandate, objectives and outcomes defined in the Programme & Budget and core competencies? Can the likely nature and significance of the contribution of the project outcomes to the wider portfolio of the GEF Operational Programme (OP) #14 be ascertained?**

In keeping with GEF guidance, the project has been completed and the TDA constitutes the basis for the Strategic Action Programme (SAP) that will define the policy/legal/institutional reforms and priority investments, as well as on-the-ground pilots, needed to set in place regional collaboration on priority transboundary concerns for the Gulf of Mexico Large Marine Ecosystem.

The project is fully compliant with the priorities identified for International Waters under GEF4 and with Strategic Objective 1 (SO1): *To foster international, multi-state cooperation on priority transboundary water concerns through more comprehensive, ecosystem-based approaches to management, given in particular that its focus is on the development of response and mitigation measures to address identified priorities: land-based sources of marine pollution that create anoxic "dead" zones in coastal waters, depletion of fisheries, and degradation of coastal resources and processes.* It is important to point out that in terms of SO1, the project expands foundational capacity building to a highly strategic international water body and, moreover, constitutes the first GEF Large Marine Ecosystem project in Latin America and the Caribbean.

In terms of Strategic Programs in the international waters focal area for GEF 4, the project conforms to both SP1 and SP2. Strategic Program 1 is concerned with restoring and sustaining coastal and marine fish stocks and associated biological diversity. Strategic Program 2 focuses on reducing nutrient over-enrichment and oxygen depletion from land-based pollution of coastal waters in LMEs consistent with the GPA.

As called for in the International Waters Focal Area Strategy and Strategic Programming for GEF4, land-based sources of pollution that create anoxic "dead" zones are a priority for the project given the Mississippi-Atchafalaya River Basin and Gulf of Mexico hypoxic zone (over 18,000 km²) that forms every year in the Gulf of Mexico. The project addresses the cross-sectoral collaboration and synergies required in order to coordinate regional efforts to address the distribution, dynamics and causes of hypoxia. The project will also develop mechanisms and undertake reforms for maintaining fisheries resources to within safe biological limits, and encourage the sustainable use of all exploited living marine resources in the GOM LME.

Through the International Waters focal area, the GEF has helped to establish management and policy frameworks in large marine ecosystems that provide the necessary foundation for marine protected areas to be successful. One of the pilots in the project specifically focuses on the rehabilitation and restoration of coastal areas and critical habitats.

As an Operational Programme 9 (OP9) initiative, it emphasizes the multi-focal connections that characterize the system, and seeks to create a co-operative framework, together with the necessary capacities, thereby enabling riparian countries that share the ecosystem to address both imminent threats to the water body and develop joint ecosystem-based management approaches.

The Program addresses GEF eligibility criteria agreed under the International Waters focal area by:

- a) Assisting groups of countries to better understand the environmental concerns of their international waters and work collaboratively to address them;
- b) Building capacity of existing institutions, or through new institutional arrangements, to utilize a more comprehensive approach for addressing transboundary water-related environmental concerns; and
- c) Implementing sustainable measures that address priority transboundary environmental concerns.

The project fits within the mandate of UNIDO's international waters projects related to industrial pollution control; sound water environment, cleaner production, controlling water pollution from land based activities mainly from domestic and industrial sources, and integrated ecosystem-wide management of transboundary waters especially large marine ecosystems and river basins. The project also contributes to UNIDO's water portfolio in terms of strengthening of national and regional institutional capacities as well as of policy and legal frameworks, including harmonization of national laws, and introduction of sound environmental management practices and technologies; restoration of the global Large Marine Ecosystems; industrial fisheries and the reduction of the gap between artisanal and industrial fisheries; sustainable coastal tourism development to mitigate degradation of the coastal areas and sensitive ecosystems and conserve threaten biodiversity.

• ***Is the project's design adequate to address the problems at hand?***

The Project design is fully aligned with the objectives of the preparatory phase (PDF-B). As explained in Annex D, Cuba was an original participant of the project, but later decided not to participate in the preparatory phase. The Project would realize a substantial gain with the participation of Cuba. However as has been clearly stated in the above referenced document, the Project remains open to its later incorporation⁴⁶.

The Project concept was elaborated with the participation of the three countries that share the resources of the Gulf of Mexico: Cuba, México, and the United States of America. However, the Government of Cuba chose not to participate at this stage in the project implementation. The possible integration of Cuba during project implementation may require adjustments to the project structure. Otherwise no major concerns have been identified.

⁴⁶ CEO Endorsement Document

Considering that existing management approaches are not consistent with an ecosystem-based approach; that the two countries have institutional frameworks for the protection of coastal and marine resources; that there is currently no mutually agreed management programmes between the two countries to manage the resources of the GoM, nor is there an effective mechanism of regional intersectoral coordination, the anthropogenic threats on the LME make it necessary to develop an ecosystem-based management approach to mitigate them effectively in the long term.

In this context, the design of the project through a TDA-SAP process, contributes to remove identified constraints and barriers, develop common mechanisms and tools, and promote reforms and investments, to set the bases for application of the ecosystem approach in the management of the GoM LME, complemented by capacity-building activities and pilot projects in three critical aspects of the ecosystem approach. The design includes convergence of policy tools through long-term joint programs and actions, a clearer distribution of competencies at all three levels of government, and a monitoring and evaluation program.

The project's design seeks to create a co-operative framework, together with the necessary capacities, thereby enabling Mexico and the U.S. to address both imminent threats to the water body and develop joint ecosystem-based management approaches.

Considering the above, it is estimated that the Project design is adequate to address the problems at hand, and is fully aligned with the objectives of the preparatory phase.

As mentioned before in 2007 Cuba, through its Ministry for Foreign Investment and Economic Collaboration (MINVEC), officially informed the project partners of its decision not to participate in the Project. In its decision, the Government of Cuba indicated that the project did not fit within the framework of the environmental priorities established in the country's Estrategia Ambiental Nacional (National Environmental Strategy), indicating that part of the LME will not be addressed by the Project. Given this situation it appears essential to the evaluation team - to ensure the success and applicability of the Project and its results to the GoM LME - to continue efforts that could lead to the reincorporation of Cuba.

- ***Was the project formulated with the participation of national counterpart and/or target beneficiaries? Was a participatory project identification process applied and was it instrumental in selecting problem areas and national counterparts?***

The evaluation team was able to determine that a participatory project identification process was effectively applied. A Plan for Involvement of Sectoral Stakeholders at the National, Regional, and International Levels for the project was developed in order to identify the stakeholders in the GoM LME, ensuring the flow of information to them on the issues of concern in the LME and to identify potential impacts to them, as well as contributions towards their resolution. In addition, an online bulletin has been created for stakeholders to have easy access to information on the project's objectives, activities carried out and achievements, on a bi-monthly basis, and to provide feedback and articulate their concerns, and carry out information workshops.

Furthermore, from 24 to 26 June 2009 in Mérida, Yucatán, the Inception Workshop of the Integrated Assessment and Management of the Gulf of Mexico-Large Marine Ecosystem Project was celebrated, with the participation of UNIDO representative office in Mexico; the Director of the Southeast Fisheries Science Center of NOAA; the Delegate in Yucatán of the Ministry of Foreign Affairs; the General Director of Environmental Policy and Regional and Sectorial Integration of SEMARNAT; the Head of the Harte Research Institute of Texas; the Head of the

Environmental Unit of Pemex; the Secretariat of Environment of the State of Campeche; the Secretary of Urban Development and Environment of the State of Yucatán; and a number of stakeholders from the United States and Mexico whom acknowledged the importance of the project and provided suggestions, concerns and recommendations.

The topics addressed included:

- The GoM-LME Project Structure and Implementation Arrangements
- The LME Approach
- Current conditions of the US portion of the Gulf of Mexico LME
- Current conditions of the Mexican portion of the Gulf of Mexico LME
- Background, framework, organigram, justification, goals and objectives, structure, components, expected outcomes, and status of the project
- General consideration and concept work of the project concentrated in Laguna de Términos as a pilot site
- “Advancements in Ecosystem Observations and Monitoring”
- Pilot Project “Monitoring of Ecosystem Health Conditions”
- “Gulf of Mexico LME & HRI - Parrallel Thinking”
- Pilot Project “Rehabilitation of Costal Ecosystems”
- “Estuarine habitats and fishery production“
- Pilot Project on “Restoring Fisheries Stocks”

At the same time, June 26th 2009, the First Steering Committee Meeting Integrated Assessment and Management of the Gulf of Mexico-Large Marine Ecosystem, took place and the constitution of the initial GoM-LME Steering Committee (SC) was formalized. Members of the Steering Committee were selected and confirmed, including high-level officials from the United States and Mexico; representatives from National Institutions (NOAA, SEMARNAT, SEMAR, CONANP, INAPESCA) and International Institutions (UNIDO); Academia (UAC-EPOMEX), NGOs (TNC, CEMDA), and observers with various affiliations.

This meeting addressed, among others, the following issues:

- Expansion of the scope of the project beyond the coastal zone
 - Adaptive and flexible management of the GoM LME project
 - Mechanism to shield the project from institutional changes
 - Establish a Binational or Trinational Gulf of Mexico Commission
 - Review the work plan and the budget
-
- ***Does the project have a clear thematically focused development objective, the attainment of which can be determined by a set of verifiable indicators?***

The diagnosis of the GOM developed during the preparatory stage of the project, embodied in the Justification written into the Project Brief, clearly demonstrates that the high productivity of the Gulf of Mexico Large Marine Ecosystem is at risk from a suite of anthropogenic threats that include excessive fishing, destruction of critical coastal and marine habitats, and nutrient-enrichment resulting in a “Dead Zone” of over 18,000 km² that forms every year. Additionally, the LME is the focus of extensive oil and gas production as well as a rapidly increasing tourism industry.

Although the bilateral activities in the Gulf of Mexico addressed a wide range of topics including wildlife, habitat, shipping, petroleum industry-related emergency contingency plans, and shared watersheds, these efforts are predominately sectorial, and do not yet promote the necessary synergies through an ecosystems approach.

Considering the above, it is estimated that both the long-term development/environmental goal (*Sustainable development of the Gulf of Mexico LME enhanced through ecosystem-based management approaches*), and the project objective (*To set the foundations for LME-wide ecosystem-based management approaches to rehabilitate marine and coastal ecosystems, recover depleted fish stocks and reduce nutrient overloading*) are thematically focused development objectives. They are oriented towards the elimination of the problems impeding the implementation of an ecosystem approach for the management of the GoM LME, through the joint development of mechanisms and tools and through reforms and investments. These are required to achieve significant progress in the reduction of nutrient over-enrichment from land-based pollution creating anoxic “dead” zones in coastal waters, the restoration and maintenance of coastal and marine fish stocks and associated biological diversity, and encourage the sustainable use of all exploited living marine resources in the GOM LME.

The selected indicators (Improved national and regional capacities for monitoring, rehabilitation and sustainable management of the GoM LME Y4, and Strategic partnerships established with key stakeholder groups in the main watersheds draining into the GoM, as well as with coastal cities, to support initiatives to reduce land-based sources of pollution Y4), are specific, measurable, achievable, relevant, and time framed. For this reason it is considered that they are suitable to determine the attainment of the Objective.

- ***Was the project formulated based on the logical framework approach?***

Yes, the project is formulated based on the logical framework approach. The narrative synthesis is consistent; the products are necessary to achieve the expected results. The baselines and targets are clear; the indicators, as it was pointed out above, are suitable; the verification sources are accessible, and the risks and assumptions identified are external critical factors that are beyond the control of the project.

B. Effectiveness

The effectiveness of the project was assessed against the outcomes, as stated in the project document, and effectiveness has been determined by the evaluation team to be **Highly Satisfactory**, as detailed below.

- **What outputs and outcomes has the project achieved so far (both qualitative and quantitative results)? Has the project generated any results that could lead to changes of the assisted institutions? Have there been any unplanned effects?**

The effectiveness of the project was assessed against the expected outcomes, as stated in the initial project document⁴⁷. The 5 project components are listed and succinctly reviewed below, and a detailed review of progress towards achieving each of the expected outcomes is presented under Annex I.

The evaluation team was able to document significant qualitative and quantitative results for all outcomes (TDA, SAP, and pilot projects, including the environmental education component). Although the evaluation team reviewed the progress under each of these headings in detail, only a summary of results is presented in this chapter. Given that most of the outputs were completed at time of the preparation of the Mid Term Evaluation, and that the same ET was selected to carry out the Final Evaluation, only activities that were completed after the Mid Term Evaluation took place have been covered below in detail.

Outcome 1 - Analysis of transboundary issues and definition of priorities

The ET found that highly satisfactory results have been achieved as the Transboundary Diagnostic Analysis (TDA) has been completed, ahead of schedule.

The final version of the GoM LME TDA, formulated by Mexico and the USA, analyses the various transboundary environmental problems, major root causes, impacts and consequences from an ecosystem perspective and provides the scientific and technical basis for actions to be proposed in the SAP and NAPs. In particular issues of Productivity, Pollution and Ecosystem Health, Biodiversity, Fish and Fisheries, Socioeconomics, Governance, Climate Change, and Environmental Education, are analyzed in depth. The TDA was completed approximately 8 months ahead of schedule and meets the requirements of the GoM Project Brief.

This required not only the preparation of a large number of studies and compilations, but as well the implementation of consensus-building activities to strengthen communication, ties and, eventually build relationships of trust between the relevant stakeholders⁴⁸. These consensus and trust building exercises not only laid the foundation for achieving a shared diagnosis around the state of the GoM LME, but also helped to visualize options that could be translated into actions through the Strategic Action Program (SAP).

In order to disseminate this TDA, copies were distributed at all workshops and meetings attended by the Project including major conferences in Boston and Tallahassee.

⁴⁷ CEO Endorsement Document - pp 2-5 and 24-40

⁴⁸ Annual Project Implementation Report (PIR) 2011

Outcome 2 - Formulation and adoption of the Strategic Action Plan (SAP) and associated National Action Plans NAPs

The ET reviewed the 5 main activities under this outcome and found that at this stage highly satisfactory progress has taken place under this component for all 5 activities.

On ***Strategies and actions for the reduction and control of nutrient over-enrichment, harmful algal blooms (HABs) and for the elimination of dead zones*** the Regional Plan of Action for the Yucatan Peninsula, or the stocktaking of the Papaloapan Watershed Commission to define opportunities for replication have not been completed. However, The Gulf of Mexico Ocean and Coastal Observing (GCOOS) has developed productive cooperation with the GOM LME project, on the engagement of information users in the Gulf and other monitoring activities, such as the Harmful Algal Bloom Integrated System, to provide the Gulf region with a unified observing system for HABs. In addition, an oceanographic buoy was installed in Holbox, with the participation of various institutions including the GoM LME, the Mexican Navy, CONABIO, SEMARNAT, UNAM, UABC, and others. The buoy can take weather forecast measures, superficial currents, and water quality data, and transmit them in real-time. One more buoy is to be installed in Telchac, Yucatan to support current monitoring efforts, contributing to the deployment of an early alert system for the detection of HABs in support of decision-making⁴⁹.

The ET was also informed that the Steering Committee had discussed and agreed to present as a stand alone project a Medium Size Project (MSP) prepared by the PCU seeking to obtain additional GEF funds for the GoM LME region to cover issues related to hypoxia in the Mexican portion of the Gulf of Mexico and of the Grijalva-Usumacinta watershed to sustain living resources and economies.

On ***Strategies and actions formulated for sustainable management and use of exploited living marine resources, and for the recovery of depleted fish stocks to within safe biological limits***, the evaluation found that highly satisfactory progress has been accomplished under this heading leading the Project to establish links in both countries with authorities to build mutual understanding and improve management of species. At the regional level an MOU was signed between NOAA and the SEMARNAT to support enhancement of Mexico's existing technical capacities and strengthening mutual understanding. Efforts to protect manatee populations have started, and other LMRs such as turtles, birds, dolphins, tonina dolphins, porpoises, for example, are part of the work to be carried out by the LME Project and MEX-US partners.

At the local level the LME program has enhanced performance towards LMRs, particularly those moving across the Gulf. There are clear examples of these transboundary interactions, such as the Whale Sharks, of which unknown numbers were lost during the BP managed Macondo well oil spill in 2010.

Living marine resources offer an economic alternative to communities within an ecosystem-based framework. The work has been undertaken in close collaboration with CONANP at the local level, linking environmental training and social participation processes to the sustainable production projects. Progress demonstrates that informing, discussing, and agreeing are better

⁴⁹ 5th GoM LME Steering Committee Meeting (Nov, 2012, Yucatán, Mexico)

than imposing rules and regulations regardless of the community. In such a context, a number of workshops and planning meetings have been held so far with stakeholders and local authorities, which have been crucial for full stakeholder involvement in order to raise awareness of the importance of living marine resources. The conservation and sustainable management of living marine resources has a social component and only by considering this is it feasible to carry out economic and ecologically sustainable activities.

On ***Establishment of representative marine protected areas*** an important number of activities have been documented and the Project is actively developing partnerships and diversifying its participation in national and regional efforts.

An MOU between Semarnat and NOAA has been signed as mentioned above, containing guidelines for the establishment of a network of MPAs and establishing a cooperative framework to allow the Participants, within their own competences, to carry out joint activities in order to contribute to the conservation, administration and management of marine protected areas, especially those located in the Gulf of México and the Pacific Coast regions. In addition the Project has secured funding for the design of a network of MPAs and to bolster MPA management capacity in the GOM region.

On ***Formulation and endorsement of Strategic Action Programme (SAP) and National Action Programmes (NAP)*** actions are at the time of preparation of this report, almost complete (the document is considered to be “technically complete”). A SAP document has been prepared, building on consultative and integrative processes put in place during technical forums and multi-stakeholder SAP integration workshops. The Project also prepared an analysis of existing instruments in both countries and engaged consultations with officials to define the mechanism and approach to facilitate its signature at the highest level.

Although the process to legally review, finalize and define the endorsement mechanism for the signature of the SAP took several months, it is important to note that further to the decision by Mexico to have this signed by the Undersecretary for Planning and Environmental Policy of the SEMARNAT, the overall profile of the SAP has been raised and it is now expected that this will be signed, in the US by the Assistant Administrator for Fisheries. It must also be noted that finalization of the SAP was also affected by internal administrative processes (UNIDO), which led to the change of the CTA and required a number of readjustments.

It is worthwhile noting that the Project, through strengthening of relationships with the Federal government (in this case the Ministry of Foreign Affairs) and with the support of the US government, has contributed to the successful inclusion by the UN General Assembly of a specific mention in the UN GA Resolution of the GoM LME. This clearly provides an opportunity to pursue cooperation and foster understanding among Gulf of Mexico countries and provides strong support towards the signature of the SAP and NAPs and the continuation of the project in subsequent years.

On ***Commitments to SAP implementation obtained and sustainable financing arrangements formulated*** an assessment of institutions and organizations in the GoM LME region with the potential for establishing synergies with the project objectives is being conducted with the aim of joining efforts and setting common goals.

A series of workshops on Governance have taken place to identify, analyze and discuss watersheds and their relationship to coastal zones resulting in specific strategies to reduce pollutants, and harmonize legislative, regulatory and policy issues. It is important to point out that

Cuba will host the third workshop (October 2012, Havana) and that partners of the Project will continue supporting this regional Governance initiative and the continued engagement of institutions from Cuba, Mexico and the US.

The Project has also held meetings at the federal and state level to agree on the way forward for the construction of SAP strategies for the restoration, conservation and recovery of natural resources in the Gulf of Mexico, and to fully engage them in the bilateral processes and actions towards TDA and SAP development and to further identify areas and opportunities for cooperation.

High-level consultations with project Focal Points in both countries have taken place to define the road map to construct and endorse the SAP during 2012, and Focal Points have agreed to prepare and conduct national consultations to define the timing and mode for its endorsement. In light of the ongoing presidential and political electoral processes in Mexico and the United States, and taking into account the fact that by law there is a ban on public announcement of government achievements and results in the pre-electoral period in Mexico, SAP bilateral signature should be conducted either before the electoral period in Mexico (June 2012) or before the November presidential elections in the US.

Outcome 3 - Strengthening of the LME-wide ecosystem-based management approaches through the successful implementation of the Pilot Projects

The evaluation mission reviewed the 4 main activities under this outcome and found that all activities have been delivered. The ET participated in a field mission to the Laguna de Términos where the three Pilots are being implemented and had access to extensive documentary evidence as regards progress accomplished under the Pilots. In addition a field visit took place to a mangrove restoration site and this allowed for direct exchanges and semi-structured interviews with representatives of the communities, which are directly involved - and now spearheading - the implementation of the pilot project.

In order to maintain Gulf wide ecosystem connectivity, the GoM LME project promoted the creation of an International Gulf of Mexico Marine Protected Area Network. This was agreed to in Veracruz, in July 2012 with the participation of Mexico, Cuba, and the US. The implementation of this network aims to support the fishing industry by creating refuge areas that enable reproduction, breeding, and nursing of a number of commercial species that sustain commercial fisheries, likely contributing to the sustainable catch of commercial species⁵⁰.

- **Natural Habitat and Ecosystem Conservation of Coastal and Marine Zones of the Gulf of Mexico: Wetlands, Mangroves, Sea Grass Beds and Sand Dunes**

The evaluation team was able to document completion of this pilot as in particular, management and capacity building requirements to restore degraded marine coastal wetlands have been defined and successfully demonstrated. Through this over 300ha of mangroves are in process of restoration and the Project has the financial support of the SEMARNAT's Temporary Employment Program (PET), which has helped to ensure that the local community of the Isla Aguada Village on the pilot restoration site be actively involved, benefiting tangibly from this, as was observed during the field mission by the ET. The Project approached villagers (in a first step

⁵⁰ PIR GoM LME, June 2013

the women, as men are traditionally fishermen and not present during the day) and helped them to complete the paperwork required to access the PET.

This was observed to be a highly successful activity and provided the ET with an opportunity to observe a very positive example of community buy-in. The benefits of the PET and the Projects interventions are far reaching and this, in combination with efforts taking place under other activities of the Project to share experiences with tourism oriented initiatives in other MPA of the region are providing the stimulus for similar collaborative activities to start taking shape in the Laguna de Términos MPA. A technical visit to Los Tuxtlas in the State of Veracruz was also carried out by the Project to allow relevant stakeholders to define a strategy for restoration in the Pantanos de Centla reserve.

The promotion of best management practices, information and experience exchange is also taking place, as documented by active efforts to link the upper watershed and coastal protected areas, in particular regarding potential for replication of ecotourism activities, an issue of major importance in the framework of ecosystem-based management.

As regards the sea grass beds of Laguna de Términos it appeared that at this stage, the Project has prepared an updated study of the current conditions of this habitat and characterized its health and spatial extension, incorporating a model simulating different hydro-biological conditions to represent distribution maps and other causes of degradation. The Project carried out additional consultations with regional experts, including the Dauphin Sea Lab of Alabama to finalize sea grass beds characterization and diagnostic, the final steps in preparation of the next phase to develop appropriate strategies and actions and ensure best restoration practices are defined.

As regards sand dunes, the evaluation team found that a series of workshops have taken place to advance on defining the most suitable reforms to the legal, regulatory, and management frameworks in Mexico. The objective being that of granting long-term protection and conservation to beach systems, coastal dunes and wetlands in order to stop their ongoing exploitation and destruction, which at present results from an inadequate management of the territory and associated natural resources. The team was informed that a document that will include the necessary legal instruments for the protection of coastal zones in Mexico is being developed.

The ET was also informed of the fact that one of the partners (CONAFOR) has also provided additional resources, has adopted the methodology and is replicating the experience in new sites.

- ***Enhancing Shrimp Production through Ecosystem Based Management***

The ET found that the project has been completed, however the general objective of "restoring depleted shrimp stocks through EBM practice", which was developed under an overfishing assumption - and which considers fishing as the main driver of depletion - had to be revised. This revision took place in November of 2012, during the 5th Meeting of the SC when it was argued that scientific evidence suggested that overfishing was not the only/main driver for the decline of pink shrimp stock and that it was in fact reinforced by short-term hazardous events. The agreed upon global objective of the project became "adaptability for the management of depleted shrimp stocks under climate change effects, based on EBM practice"⁵¹.

⁵¹ Presentation by Francisco Arreguín Sánchez to the 5th Steering Committee Meeting, Merida, Yucatan 6-7 Nov 2012

The project has shown that the GoM comprises a variety of ecosystems, and even those that appear to be similar show important differences in their dynamics and in their responses to perturbations. A common aspect for all ecosystems is that they have been subjected to climate change over the last 5-6 decades, but their evolution is not known, nor the intensity of the perturbation and the systems responses. However, as has been demonstrated by the project, the ecosystem dynamics behind these processes are relevant for the management and adaptability to climate change, under EBM criteria. Adjusting of the parameters to reflect regional specificities has provided strong data, tools and the basis to replicate the experience in other regions of the GoM.

Given that the distribution of stocks is related to types and quality of habitats, the project identified resource management based follow up actions, focussed on spatial-dynamic ecosystem modelling of stocks and fleets. It concludes that a series of hypothesis concerning habitat are of relevance for ecosystem and stocks management, and will have to be tested, such as:

H1: The role of the habitats in the organization, structure and ecosystem function is different; implying this is key knowledge for management (e.g. protection of nursery habitats can facilitate recruitment recovery when environmental conditions are favourable)

H2: Some habitats play a key role for sustainability of ecosystems, as well as for their self-organization capacity and resilience, among other attributes (e.g. resistance, robustness, vigour, performance, etc.)

H3: Habitat-selective distribution of fleets' operations can contribute to the sustainable use of marine resources under EBM strategies.

The project provides an opportunity to build on the results of the different pilot projects (cross fertilization) and argues this will be of high relevance for testing hypothesis, and implementation of management, given in particular that the pilots provide information on quality/degradation of habitats. However, for this to take place, field information that is required is clearly identified and includes:

- Habitat identification
- Key-biological and physical elements that characterize habitats
- Identification of seasonal variability
- Link species/functional groups to habitats
- Spatial distribution of fleet operations

The project has demonstrated that given the particular importance of a number of resources, the ecosystems of particular interest that could be focussed on are the northern continental shelf of Yucatan (red grouper and octopus), the coasts of Tamaulipas-Veracruz (the shrimp fishery), the northern Caribbean littoral (lobsters and shrimp), and coral reefs. In addition the project argues that all of these cases offer a strong possibility for bilateral cooperation.

It is important to note that the GoM LME Project has shared and informed Mexican fisheries officers on Project components, goals, and objectives all along, and has explained that the co-financing of the fisheries sector was committed by former authorities during the PDF-B phase prior to the full size project approval. During technical meetings organized by the Mexican fisheries authorities, the GoM LME expressed interest in integrating them into the regional project activities and invited them to all workshops relevant to issues concerned with living marine resources and fisheries. Although initially fisheries sector participation was limited, this has changed and in May of 2013, a management strategy was proposed in Campeche, during a joint meeting with the fisheries sector (including Conapesca, Inapesca, and other institutions) and the results of this pilot project will serve as the basis for future management plans of the

shrimp fishery. The proposed scheme met with a positive response, to such an extent that Conapesca has proposed to include it in the agenda for discussion with the State Committee on Fisheries and intends to promote this initiative by presenting results to fishermen and other stakeholders.

- **Joint Assessment and Monitoring of Coastal Conditions in the Gulf of Mexico**

The evaluation team was able to verify that this pilot project has been completed, including analysis and measurements of samples taken during the baseline sampling missions (water and sediment quality, benthic community, coastal habitat, fish tissue contaminants and biomarkers), the application of QA/QC programs which have been prepared for each module, and the preparation of a results data base.

The pilot project provides the basis for bilateral cooperation and has established a consistent design for monitoring of the LME; monitoring has been initiated in the Mexican portion of the Gulf of Mexico and has defined a set of indicators as well as the design for the sampling, to assess the state and trend of the coastal environment, in order to evaluate the efficiency of management decisions. This will also lead to fiscal and environmental reports being prepared.

As regards replicability, two sites that were initially not contemplated in the Terminos Lagoon were monitored. A third site monitoring mission was funded by the SEMARNAT in the Jamapa basin, which drains into the Veracruz Reef National Park and an additional 4th evaluation is proposed in Mecoacán, Tabasco. This provided the opportunity to apply the GoM LME EBM approach. Three oceanographic cruises applying the same methodology (with the exception of habitat degradation) and an online survey for research institutions, universities and Government agencies in charge of monitoring were carried out. The objective of the survey was to evaluate capacity to work as a team, as well as technical and human capacities and capacity to use QA/QC protocols.

Additionally, in collaboration with CIMARES, a Geoportal is being established at CONABIO, which will be used to identify HAB'S through field data triangulation and share information publicly. This has been designed as a web site for research institutions as well as in order to make available to the public pertinent information. The ET was informed that this Geoportal will be ready at the end of the year.

- **International Waters (IW): LEARN Tools and GEF IW Conferences**

The evaluation mission was presented with information relative to the Project having developed a web-based bi-national educational and outreach component, in association with the Gulf of Mexico Alliance (GOMA). Further to this, a new alliance for education has been proposed with The Gulf of Mexico Foundation in the US and the Center for Environmental Education (CECADESU) in the SEMARNAT. The resulting Awareness Program on EBM project web site is considered to be an effective learning tool for EBM and for the communication/sharing of project results and activities.

Outcome 4 - Monitoring & Evaluation mechanisms set up including an M & E system for the project; Suite of GEF M&E indicators developed (process, stress reduction, and environmental and socioeconomic status) to monitor SAP implementation; GoM LME

Environmental Information System developed; Bi-annual regional status report developed on large-scale ecosystem impacts in the GoM LME

The evaluation team received a detailed presentation on the M&E system in place for the overall Project. The full time Monitoring and Evaluation expert has been involved in numerous activities and is considered to be keeping a satisfactory record of program progress. Additionally M&E is actively involved in support of workshops and administrative procedures and is also providing valuable inputs for preparation of quarterly and semi-annual reports to UNIDO, and bi-annual regional status reports to GEF⁵². As well, information dissemination bulletins have been produced by the M&E officer, reporting on the main activities carried out by the project on a bi-monthly basis.

From the presentations made to the team, it appeared that monitoring of components is followed in detail through an electronic database designed for this purpose. The information contained in this database has been presented in agreement with accepted GEF M&E indicators and includes, in addition to the basic information (outputs, expected outcomes, indicators, etc., per activity), all of the required indicators to monitor and track progress (status at a given time, observations, pending activities, etc.). This database has been integrated into a tracking system that also developed in "Visual Fox", but which allows in addition for integration of the administrative aspects, as well as the technical ones.

The PCU has developed a monitoring system based on indicators of pressure, state, response, obtained from the logical framework matrix, in order to have access to a rapid reporting tool and clearer indicators of progress. As regards detailed monitoring of the results of the pilot projects, specific indicators have been defined to monitor and measure the ecosystem health and state. These indicators cover contaminants, sediments, nutrients, mangrove coverage, and maximum yields on catch per unit effort, among others.

Outcome 5 - Project Coordination and Management

The ET was able to document that⁵³ during the period covered by this evaluation, notwithstanding the administrative challenges mentioned above, the Project Coordination Unit (PCU) maintained its capacity to ensure the implementation of the project components, in particular the SAP.

A Steering Committee (SC) was installed in 2009 and is considered to be fully operational in its function to receive reports on achievements and oversee and support the Project's development and implementation.

The Intersectoral Committees (ISC) of both countries has been appointed by the country Focal Points: for Mexico ISC is the CIMARES; for the USA ISC is the Gulf of Mexico Alliance (GOMA). The objective of the ISCs is to improve wider cross-sectoral public participation⁵⁴.

The GoM LME Project has been invited to participate in numerous international meetings, such as the International Conference on Sea Level Rise, the Board of Directors Meeting of the Gulf of Mexico Coastal and Ocean Observing System (GCOOS), which has allowed to develop strategic

⁵² The PIR report has been used as a source of information throughout this evaluation

⁵³ Interview data,

⁵⁴ Progress Report covering Jan to Jun 2010, dated 7 Sept 2010 (GEFMEX09001.pdf)

links with different national and international institutions, and to discuss formal coordination mechanisms between the US and Mexico which has led, for example, to the signature of a collaborative MOU between the SEMARNAT and the GCOOS. In addition, participation in these fora has also led to aspects that were previously not fully developed to be incorporated into the scope of the project, such as those relating to climate change and sea level rise which are expected to allow the project to develop actions that could contribute to the development of adaptation mechanisms for the protection of coastal areas.

The Gulf of Mexico LME project has served as element to further design cooperative efforts among academic and research institutions. The project has been involved in organizing two training courses and workshops on Governance including both US and Cuban experts.

GoM LME project has been able to closely work with Mexico's National Commission for Protected Areas (CONANP), providing information on Gulf's coastal and marine ecosystems, technical support and training. CONANP is the key regional strategic partner as it has a responsibility to work in the field with all kind stakeholders from up-stream to coastal areas in the Gulf. CONANP and the GoM LME project have demonstrated a way to cooperate and obtain the best results of the GEF funded program. Currently the GoM LME project is also instrumental in the update process of the Laguna de Términos Action Plan as the LME project has fresh updated information on the ecosystem health status and fieldwork.

Ecosystem restoration and forest recovery has been a long discussed issue. After the results of community based work to restore the hydrological conditions for mangrove recovery, CONAFOR has recognized the importance of adopting this model, based on robust diagnostics provided by the GoM LME project (such as the forensic diagnosis), as well as on community allies to restore mangrove ecosystems. As the GoM LME project was able to improve and develop a strong partnership with local Universities, the CONAFOR provided additional funds to link pilot project on ecosystem restoration to their regional program for mangrove and wetland conservation.

The GoM LME project is serving and will be instrumental in strengthening academic relationships between US and Mexican universities. The Mexican Marine Universities Consortium⁵⁵ was initially introduced with the aim of linking all Mexican coastal states with existing mechanisms in Mexico and developing synergies with the US Gulf of Mexico Marine Universities Research Consortium (GOMURC). This is an initiative intended to strengthen regional networking by:

- Enhancing multi-disciplinary collaboration;
- Improving financial resources best use;
- Improving communication;
- Collaborating on the Gulf of Mexico LME SAP execution;
- Enhancing regional development based on the ecosystem approach;
- Strengthening ocean research and development;
- Fostering ocean cultural heritage.

In addition, the SC has endorsed the idea that this consortium be linked to CIMARES, CONABIO and the CONACYT networks using the SAP as the baseline for the consortiums operation, as well as to other initiatives such as the Cousteau Observatory for ocean and marine monitoring data integration.

⁵⁵ 5th GoM LME Steering Committee Meeting (Nov, 2012, Yucatán, Mexico)

- **Are the project outcomes commensurate with the original or modified project objectives? If the original or modified expected results are merely outputs/inputs, the evaluators should assess if there were any real outcomes of the project and, if there were, determine whether these are commensurate with realistic expectations from such projects.**

The evaluation evidenced that the project as it is being developed and implemented is fully aligned with the original project objectives. In addition, as was pointed out above, and as per the calendar for implementation of activities⁵⁶, the project is considered to be ahead of schedule as regards delivery of the different outputs. Its efficiency is therefore rated as highly satisfactory. This would tend to indicate that it is very likely that on a purely results based management approach, the intended final outputs will be delivered in support of achievement of the outcomes.

Outcome 1 - *Transboundary issues analyzed and priorities defined*, Outcome 4 - *Monitoring and evaluation system for the Project and the GoM LME established* and Outcome 5 - *Effective Project coordination* have been achieved (TDA agreed upon and published and SC, PCU, etc. fully functional); Outcomes 2 - *Country agreement on and commitment to regional and national policy, legal and institutional reforms to address the agreed priority transboundary issues* is achieved (SAP formal endorsement ongoing); and Outcomes 3, *LME-wide EBM approaches encouraged and strengthened through successful implementation of pilot projects* are considered to have a highly likely possibility of being completed.

This said, it is important to point out that even in light of this optimistic outlook it is in no way guaranteed that without the active and ongoing support of the Projects' main stakeholders, the opportunity for turning these outputs into meaningful outcomes and eventual impacts is to be taken for granted. This is indicated throughout this evaluation and remains a risk.

- **To what extent have the expected outputs and outcomes been achieved? How do the stakeholders perceive their quality? Were the targeted beneficiary groups actually reached?**

The majority of expected outputs has or is well on target/ahead to being achieved, with only minor delay in the delivery of one of the pilot projects (Enhancing Shrimp Production through Ecosystem Based Management), which has been reoriented and is now concluded. It is estimated that with the support from the Parties to promote the project at the federal level, expected outputs have a highly likely possibility of being achieved.

During the field visits the evaluation team was able to document extensive support for the pilot projects, in particular the mangrove restoration pilot. It was clear that there is a very favorable opinion of the project quality and achievements, in particular from the perspective of the project beneficiaries (local communities) and especially for stakeholders of the United States.

Although the basis has been established achievement of the higher end objective of the Project of *setting the foundations for LME-wide ecosystem-based management approaches to rehabilitate marine and coastal ecosystems, recover depleted fish stocks and reduce nutrient overloading*, will depend on the second phase of the project being approved and implemented. However in light of the information obtained and reviewed by the ET, as well as the interviews

56 CEO Endorsement Document (p76, calendar of activities)

and visits to the pilot project area, the team considers as likely, at this stage, that this will be reached.

- **Identify the potential longer-term impacts or at least indicate the steps taken to assess these (see also below “monitoring of long term changes”). Wherever possible, evaluators should indicate how findings on impacts will be reported to the GEF in future.**

Potential longer-term impacts of the Project are considered fully aligned with the expectations laid out in the original project document, as previously mentioned. The steps taken to assess these are in part picked up in the present final review, and are continuously being tracked by the projects well-established M&E unit. This will provide a valuable source of data for ulterior evaluations where these longer-term impacts will be easier to assess.

At this stage however the following appear to be some of the impacts that have a highly likely possibility of, or are taking place:

- Localized mangrove recovery with a high potential for replication;
- Mechanisms for ongoing and long term monitoring of the state of the ecosystem being implemented;
- Cluster of universities (USA) linked with a cluster in Mexico carrying out long-term research and monitoring;
- Alliance of Environmental Educators;
- Monitoring and evaluation system for the Project and the GoM LME.

Finally, as evidenced during the evaluation, it is also expected that once the projects have fully matured there will be numerous opportunities for technology transfer.

- **Catalytic or replication effects: the evaluation will describe any catalytic or replication effect of the project. If no effects are identified, the evaluation will describe the catalytic or replication actions that the project carried out. No ratings are requested for the project’s catalytic role.**

Although this has been covered at the beginning of the chapter, it was explained to the evaluation team that a high potential for replicability of the pilot projects, in particular mangrove restoration, exists outside of the projects main area of implication, in a related project, the Caribbean LME. To quote one of the interviewees “What is being learned in the Términos Lagoon will be applicable in broader GoM, habitats and is not exclusive to the Términos Lagoon”.

Catalytic effects were documented by the evaluation team and are described below under two main headings, one related to the response mechanisms and actions deployed to address the April 20th 2010 explosion of the Deepwater Horizon platform (DWH - drilling the Macondo well), and in particular the resulting oil spill into the Gulf of Mexico, and the other regarding the establishment of a Mexican counterpart to the University Research Collaborative established in the US.

The additional activities that staff was involved in - above and beyond those contemplated in the initial TDA - put pressure on the budget of the Project, however this appears to have been an acceptable risk, given the valuable contribution that establishment of clear channels of

communication and a meaningful and sustained dialogue have made to the project. These steps have all contributed to the definition of actions required to address the issues, as well as to their incorporation in the TDA and facilitated the preparation and early approval of the TDA.

In order to address the DWH oil spill, the Project supported Mexico in the identification of possible consequences. GoM LME project and SEMARNAT prepared an Expert Synthesis Report that states the potential damages of oil to the Gulf marine biodiversity, ecosystems, and human health. GoM LME Project presented two additional products, a Gulf of Mexico ocean circulation model simulating oil particle movement and a report on oil spill extension. The expert report and model were provided to SEMARNAT's chief of staff and used with mass media and other national authorities, and at the Mexican Congress. During this period, the Project is reported to also have strengthened its ties to the CONABIO and also to have contributed directly to linking organizations with the objective of establishing a baseline of the state of the Gulf⁵⁷.

The first step in this response was the identification of the available capacities of institutions, a task facilitated by the Project, and required in order for the extent of the spill and potential damage to be properly understood (preparation of a baseline). This was followed shortly by the organization of an Experts Meeting for the Deepwater Horizon Oil Spill in the Gulf of Mexico on May 14th of 2010 - and resulting weekly Expert Opinion Summaries⁵⁸ - as well as the active participation of project members in the special groups and follow up meetings formed to address the spill⁵⁹. A number of strategies to restore the Gulf had been released by the governments, academia and NGOs around this time, and in Mexico, Federal and State level Agencies had also finalized a regional Coastal and Marine Spatial Planning process for the Gulf of Mexico and the Caribbean Sea, its newest tool.

A high level bi-national meeting also took place in Washington DC at the State Department and allowed parties to openly discuss the potential implications of the oil spill, and 12 agreements were signed by both governments. GoM LME helped in the preparation of the minutes of the meeting, later signed by both governments.

As part of the bilateral commitments and agreements derived from the meeting, GoM LME held a workshop in September 2010 in Mexico City with both national technical focal points to define the contents and structure of a Project Information Format (PIF) to be submitted to the Global Environment Facility (GEF). Experts from both countries expressed their views and concerns on the recently controlled oil spill and agreed on the components that a new project should address as the current GoM LME project has limited resources focused on different aspects of the marine and coastal ecosystems of the Gulf, but not directly involved on the oil spill scenario. The PCU finalized the PIF and submitted to PM in Vienna and both US and Mexico's technical focal points. However this did not come to fruition, as the document was not submitted to the GEF.

In relation to the above, through the joined evaluation and monitoring pilot project on the coastal conditions of the Gulf of Mexico, three oceanographic cruises took place (coordinated by INECC and SEMARNAT) in order to establish the environmental baseline for the northern part of the continental platform and the Yucatan peninsula. This took place in 88 sampling stations, which increased to 88 in 2012 and we're paid for by the SEMARNAT.

⁵⁷ Interview data

⁵⁸ Reported during interviews to have been linked with NOAA and to have been used as the basis for weekly briefings with the President.

⁵⁹ Progress Report covering Jan to Jun 2010, dated 7 Sept 2010 (GEFMEX09001.pdf)

Further to this the GoM LME was placed on the agenda of a bi-lateral science and technology meeting jointly organized by the US State Department and the Secretaría de Relaciones Exteriores (Foreign Affairs Ministry of Mexico) held in Mexico City in March 2011. United States technical focal point supported the initiative to establish a particular item on Oceans in the bilateral meeting and report on the Gulf of Mexico LME project as an important element to allow bi-national efforts towards scientific research on oceans. Mexico's technical focal point supported the initiative and the meeting concluded with two main tasks given to the GoM LME project: i) define bi-national priorities for ocean and coastal scientific research, and ii) use the Gulf of Mexico region as a pilot place to further enhance scientific research and capacity building in this subject.

The GoM University Research Collaborative (GoMURC - created since the oil spill) and the Heart Research Institute of Texas A & M. University-Corpus Christi worked through the Project to facilitate the creation of an equivalent structure in Mexico. To this effect, the Project presented an initiative to create a Mexican Consortium to be linked to GoMURC, inviting University of Veracruz scientists to the Southeast Marine Laboratories Association (SMLA) meeting held in Beaufort, NC in the US in 2011. The GoM LME also invited University of El Carmen (UNACAR), UNAM and other institutions to participate in the development of the Mexican Marine Universities Consortium, established to, amongst others, allow them to jointly contribute to solve common regional problems through creation of bi-national projects to study the Gulf, and capacity building as well.

The evaluation team was also informed that the Project has requested the Mexican technical focal point to actively engage the Mexican National Council for Science and Technology (CONACYT) to further consider the importance of the creation of a regional scientific task force through the Mexican Marine Universities Consortium and to develop mechanisms to ensure they are fully involved in this issue.

Additionally, the SC had discussed a Medium Size Project (MSP) prepared by the PCU to obtain additional GEF funds for the GoM LME region to cover issues related to hypoxia in the Mexican portion of the Gulf of Mexico and of the Grijalva-Usumacinta watershed.

In addition in 2013, with the support of the GoM LME Project, the Environmental Educators Alliance for the Gulf of Mexico was created as a new social network model that share values in support of marine and coastal environmental protection in the region. The alliance includes diverse educational and governmental institutions, civil society organizations from the states of Tamaulipas, Veracruz, Tabasco, Campeche Yucatán and Quintana Roo where State committees have been formed and include representatives of academia, civil society organizations, and the three levels of government.

Finally, in order to better articulate work towards environmental monitoring, habitat restoration, recovery of marine resources and other relevant regional issues as well as the SAP implementation between the two participating nations, the GoM LME program promoted the creation of the International Excellence Centre of the Gulf LME and the Marine Research Institutions Consortium of the Gulf of Mexico (CiiMar-GoM), which will facilitate the implementation of the bi-national SAP. The Gulf-wide Regional Centre of Excellence, would allow the expansion of regional cooperation in marine and coastal issues, seen as an innovative initiative intended to pursue a regional transboundary vision in the Gulf of Mexico through:

- Building joint bi-national actions
- Building a collective observing system

- Tackling common challenges for the future
- Building robust science based decisions
- Strengthening regional governance and institutional coordination
- Enhancing Regional Scientific and Technological cooperation

Yucatan's new Science and Technology Park could be the hub for this regional Centre, as it will gather research centres and universities, the science & technology state library, laboratory facilities, a technology transfer centre, a convention centre, an aquarium and museums, housing, etc. The Centre for Advanced Research and Studies (CINVESTAV) has expressed support to the creation of the Regional Centre of Excellence and offered to link the facilities and cover operational cost of the new Center ⁶⁰. CINVESTAV has also offered to provide the GoM LME Regional Excellence Centre with a physical space within their facilities including full coverage of all related technical and operation services. The International Excellence Centre of the Gulf LME represents a hub for contact and cooperation not only for Mexico and the US, but also for the rest of the nations surrounding the Wider Caribbean. Likewise, the region's academic institutions will be able to play a proactive role in all relevant priority issues defined in the SAP ⁶¹.

⁶⁰ 5th GoM LME Steering Committee Meeting (Nov, 2012, Yucatán, Mexico)

⁶¹ PIR GoM LME June 2013

C. Efficiency

The efficiency of the project is assessed by the ET as **highly satisfactory**, with project outputs delivered either on target, or ahead of schedule. These have in addition been implemented in a cost-effective and efficient manner.

- **Was the project cost effective? Was the project the least cost option? Was project implementation delayed, and, if it was, did that affect cost effectiveness**

To date, the project has made considerable progress, at a reasonable cost, towards the diagnosis of the identified priority needs (state of marine and coastal ecosystems, state of depleted fisheries, and magnitude of the overload of nutrients resulting from economic activities taking place inland from the Gulf of Mexico), by applying an evaluative approach that takes into account productivity of the LME, fisheries, pollution, ecosystem health and socio-economic and institutional structures in different countries associated with the problems that characterize the ecosystem.

Given the negative impact of anthropogenic activities on ecosystem productivity of the Gulf of Mexico, and the fact that marine resources, and the effects of pollution on the ecosystem, do not recognize political boundaries, both countries have agreed to collaborate to address common concerns through best environmental management practices. This is particularly relevant since national and sectoral management approaches applied so far have not achieved the necessary changes to effectively conserve the environment and living resources of the GOM LME. In this sense, it is believed that a comprehensive and multisectorial project approach is the better option.

The project has committed/spent all of the budgeted resources on programmed activities as shown in the table below:

Integrated Assessment and Management of the Gulf of Mexico Large Marine Ecosystem						
Budget planned and exercised (USD dollars) - 2009 - 2013						
Project No.	Bud Line	Allotments \$ (a)	Unliquid Oblig \$ (d)	Disbursements \$ (e)	Total Exp \$ (f=d+e)	Funds Avail \$ (g = a-b-c-d-e)
GMEX09001	2009	\$277,083.28	\$12,315.60	\$264,767.68	\$277,083.28	\$0.00
	2010	\$1,120,193.20	\$26,211.31	\$1,093,981.88	\$1,120,193.19	\$0.01
	2011	\$1,040,775.24	\$59,530.72	\$981,244.54	\$1,040,775.26	-\$0.02
	2012-2013	\$4,502,500.00	\$721,420.25	\$3,390,406.10	\$4,111,826.35	\$390,673.65

Sources of Co-financing ⁶²	Name of Co-financer	Type of Co-financing ⁶³	Amount Confirmed at CEO endorsement /	Actual Amount Materialized at Midterm	Actual Amount Materialized at Closing
---------------------------------------	---------------------	------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------

⁶² Sources of Co-financing may include: Bilateral Aid Agency(ies), Foundation, GEF Agency, Local Government, National Government, Civil Society Organization, Other Multi-lateral Agency(ies), Private Sector, Other

⁶³ Type of Co-financing may include: Grant, Soft Loan, Hard Loan, Guarantee, In-Kind, Other

			approval		
National Government	SEMARNAT	In-kind & in cash	15,574,000	28,361,800 USD	UPDATE
National Government	NOAA & EPA	In-kind & in cash	80 M USD	80 M USD	UPDATE
		TOTAL	95.574 M USD	108.361 M USD	UPDATE

In terms of implementation, the project has been designed to ensure that results are achieved efficiently. The design includes three pilot projects, all located in the Términos Lagoon, Campeche, Mexico, in order to achieve greater efficiency in the use of financial resources, greater synergy between them and to lay the foundation for integrated ecosystem based approaches for natural resource management.

In addition, the development of pilot projects in the same area is generating practical experience to address a complex situation characterized by complex overlapping policies and institutional responsibilities relating to the conservation of protected areas, social and economic development and threats to terrestrial and coastal and marine biodiversity.

It is estimated that the pilot projects will constitute cost efficient models from different perspectives, some focusing on fisheries management and rational use of resources, others in habitat management and restoration, and other on building solid monitoring and evaluation tools. Overall, the project's progress in establishing functional approaches and effective ecosystem-based management are cost effective, considering the impacts that land-based activities have on the LME and the complex linkages and feedback mechanisms existing between natural systems, productive uses, and the different institutional frameworks (involving federal, state and municipal) in addition to local communities organizations.

Two aspects stand out in particular: TDA and the pilot projects. The first has been prepared in accordance with the specifications but ahead of schedule, which results both in financial savings and in savings in terms of the time available for its review and approval, which would ideally have allowed for accelerated progress in the design of SAP and NAP, however as explained below, this did not occur. The completion of the pilot projects shows these have delivered quality information, guidance on the design of specific mechanisms to address problems, broad participation of social groups involved and in general have helped to build awareness of the participants and parties on the fact that specific joint actions can result in significant improvements.

As was noted before, further to the administrative process leading to the change of CTA of the project, and the subsequent delays imposed on outstanding outputs (mainly SAP and NAPs) readjustments to ensure the finalization of the outstanding outputs, as well as to seek the necessary support from the GEF to embark on the second phase, were required. In particular, during the SC meeting of June 3rd, the following agreements proposed by the CTA were adopted to help ensure the continuity of the project:

- a) The PCU will prepare the documentation for the preapproval of the second phase, the Project Information File (PIF), to be submitted to GEF as soon as possible;

- b) The current version of the Strategic Action Plan (SAP) should be sent to GEF for an informal evaluation. The PCU must revise the SAP according to GEF’s comments, and send it to the focal points for approval;
- c) The project must be extended at least until May of 2014, to ensure all necessary documents are prepared, reviewed and submitted to GEF;
- d) The CTA should submit to the focal points a reviewed list of activities, reducing as much as possible the costs, without compromising the substantive activities of the project;
- e) The CTA should plan for a reduced staff, so that the funds available allow their continuity in the project until at least May 2014.

Finally, the ET received confirmation that the PIR of the GEF had granted a no cost extension to the project until September 2014. This will allow a reduced PCU to continue supervising the project, and finalizing the preparation of the PPG request for the next phase.

- ***Have the donor, UNIDO and Government/counterpart inputs been provided as planned and were adequate to meet requirements? Was the quality of UNIDO inputs and services as planned and timely?***

GEF resources have been provided as planned and the overall GEF disbursement is as follows:

Year	Disbursement/ year, USD
2009	277,083
2010	1,120,193
2011	1,040,775
2012	994,782
Total	3,432,834

As for the quality and timeliness of inputs and services of UNIDO the evaluation team found that although these did not have a measurable negative effect on the project as the CTA and Project team were able to adapt and work around these, the potential consequences should these not be addresses could delay or derail the Project:

- There is some delay in the issuance of authorizations for the purchase of equipment, in requests for resource expansion or for change of suppliers, which has resulted in increased purchase prices, procurement delays and risk of cancellations;
- The time required to process expenditure requests during the regular season (10 days notice) are difficult to meet, considering Project workload and the number of documents and formats required for each individual application;
- Deficiencies in the official notification of reduction or cancellation of administrative procedures, making it difficult to have certainty in project planning activities and fulfilment of commitments;
- Deficiencies in the official notification of procedural changes to renew contracts, to issue new contracts and relative to contract duration, which have placed at risk the continued involvement of key project personnel.

Regarding the provision of support by governments, it is clear that the U.S. has more than fulfilled its commitments as in June of 2007, the Director of the Southeast Fisheries Science

Center at the time committed approximately \$20M per year over five years as co-financing for the Gulf of Mexico Large Marine Ecosystem program.

The ET was provided with information stating that over those years, co-financing has been committed in two major categories – in-kind activities that promoted or complemented activities within the program plan and, direct involvement in program activities.

Since 2009, annual in-kind contributions include:

Monitoring surveys in collaboration with the Gulf States	\$3.0M
NOAA vessel costs for monitoring surveys	\$4.5M
Fishery-independent data collections including biological sampling	\$2.0M
Habitat research, monitoring and restoration	\$3.0M
Marine protected area research	\$1.0M
Economic and social science research and scientific advice	\$1.0M
Fishery observers to monitor bycatch of fish and protected species	\$4.0M
Gear studies to reduce bycatch	\$1.0M
Tagging of highly migratory species	\$1.0M

In addition, the year of the oil spill (2010) an additional \$10.0M was invested in work in 2010 and 2011 to increase sampling rates in the Gulf of Mexico to better document the impacts of the oil spill. These resources were used to increase: spatial and temporal resolution of fishery-independent sampling programs, the collection and processing of biological samples, observer coverage and to make improvements in fishery-dependent statistics programs to improve quality and timeliness of the data.

Participation in other Gulf-wide activities that also addressed the objectives of the program has been high. Examples of this are participation in the State of the Gulf of Mexico Symposium, held in December of 2011 and participation in the Beyond the Horizon workshop that explored the value of marine protected areas to the ecosystem.

Direct contributions to the program came in the form of participation in program planning and execution. Estimates for travel costs for direct participation in program activities are below. These values do not include estimates of salaries of the participants for preparation for follow up after the activities (e.g. document preparation and review; development of presentations for workshops) and for their time while in attendance at the activities.

Activity	Date	US Participants	Travel Cost
Planning Meeting - Mexico City	Feb 2009	2	\$4,000
Inception Workshop - Merida	Jun 2009	8	\$17,000
Steering Committee Mtg. - Miami	Feb 2010	6	\$15,000
Watersheds & Oceans - Mexico City	Oct 2010	6	\$15,000
Steering Committee Mtg - Mexico	Feb 2011	8	\$20,000
TDA Development - Miami	Jul 2011	14	\$28,000

Regarding the support from Mexico, the evaluation team was provided with information detailing these contributions as follows:

SEMARNAT INVESTMENT IN THE GoM LME Project	
2009	
Concept	Estimated annual cost (USD dollars)
Office Semarnat (2009)	\$ 12,711.86
Office CINVESTAV (2009)	\$ 16,711.86
Focal Point Expenses (salary, attending workshops and meetings)	\$ 10,769.23
SEMARNAT (TEMPORAL EMPLOYMENT PROGRAM)	\$ 6,154,802.77
TOTAL	\$ 6,194,995.73
2010	
Concept	Estimated annual cost (USD dollars)
Office Semarnat Focal Point (2010)	\$ 25,423.73
Office Semarnat CONANP ANFFLT (2010)	\$ 1,514,803.39
CINVESTAV 2010 (offices)	\$ 16,711.86
UNACAR - FORDECYT (laboratories, offices)	\$ 593,220.34
SEMARNAT (TEMPORAL EMPLOYMENT PROGRAM)	\$ 6,796,659.92
Oceanographic cruises	\$ 750,000.00
Workshops	\$ 84,908.00
Focal Point Expenses (salary, attending workshops and meetings)	\$ 29,196.00
TOTAL	\$ 9,810,923.25
2011	
Concept	Estimated annual cost (USD dollars)
Office Semarnat (sep 2011)	\$ 19,067.80
Office Semarnat CONANP ANFFLT (2010)	\$ 121,525.42
CINVESTAV 2011 (offices)	\$ 16,711.86
UNACAR - FORDECYT (laboratories, offices)	\$ 721,615.93
SEMARNAT (TEMPORAL EMPLOYMENT PROGRAM)	\$ 9,064,327.50
Oceanographic cruises	\$ 750,000.00
Workshops	\$ 84,288.76
Monitoring of Harmfull algae blooms (CONABIO-FOPREDEN)	\$ 1,101,694.92
Pilot project on Joint Evaluation and Monitoring of the Coastal Conditions of the Gulf of Mexico (Ria Celestún in Campeche-Yucatán)	\$ 66,101.69
Focal Point Expenses (salary, attending workshops and meetings)	\$ 83,117.85
TOTAL	\$ 12,028,451.74
2012	
Pilot project on Joint Evaluation and Monitoring of the Coastal Conditions of the Gulf of Mexico (Reefs of Veracruz)	\$ 150,442.48

Monitoring of Harmfull algae blooms	\$ 176,991.15
TOTAL	\$ 327,433.63
Incremental spending summary 2009-2012	Estimated annual cost (USD dollars)
2009	\$ 6,194,995.73
2010	\$ 9,810,923.25
2011	\$ 12,028,451.74
2012	\$ 327,433.63
CUMULATIVE TOTAL	\$ 28,361,804.34

It is important to note that during the evaluation exercise it was possible to document the following figures that are part of this commitment.

For the pilot project Natural Habitat and Ecosystem Conservation of Coastal and Marine Zones of the Gulf of Mexico: Mangroves:

- Implementation of a national workshop of experts in CONABIO facilities was funded (Mexico City 7 and 8 October 2009), with representatives from SEMARNAT, Secretary of the Navy, CONABIO, CINVESTAV, EPOMEX, INECOL, CONANP, UAM and GoM LME;
- Arrangements were made for approximately US\$200,00 (\$1,933,245 MX pesos) with the CONAFOR for a contribution from the Federal Fund for Special Projects to strengthen the UNACAR and implement the "Programme for Conservation and Restoration of mangroves on Isla del Carmen";
- Contribution of approximately US\$600,000 (\$ 6,107,876 pesos) made between 2010 and 2011, for the environmental characterization and social diagnostic, ecological restoration (recovery of the water flow) and maintenance of restoration actions.

For the pilot project on Joint Evaluation and Monitoring of the Coastal Conditions of the Gulf of Mexico:

- A national workshop on planning, harmonization of indicators and benchmarks was funded (City of Campeche, 1 to 2 October 2009), with participation of staff from CNA, IMTA, and EPOMEX Cinvestav;
- A meeting of the Technical Committee for the Management of the Gulf of Mexico was organized (Chetumal, Quintana Roo, March 25, 2010), with participation of representatives from federal and state governments, academia, NGOs and social organizations;
- The training course on control and quality assurance was delivered (QA / QC) (18 to 19 March 2010), with participants of UAT, UV, ECOSUR, UNACAR, EPOMEX, CINVESTAV, IMTA, CICY, INE, Tamaulipas, Veracruz, Tabasco, Campeche, Yucatan, Quintana Roo and Mexico City;
- A basic statistics training course was organized (4 to 6 August 2010) for staff of the National Water Commissions of Tamaulipas, Veracruz, Tabasco, Campeche, Yucatan, Quintana Roo, Mexico City, Nuevo Leon and Chiapas;

- A training course on sampling design (22 to 25 November 2010) UAT personnel, UV, ECOSUR, UNACAR, EPOMEX, CINVESTAV, CONAGUA from Tamaulipas, Veracruz, Tabasco, Campeche, Yucatan, and City Mexico;
- Support of the SEMARNAT to extend the sampling of the Evaluation of the environmental conditions of the Ria Celestun, Campeche, Yucatan, for US\$ 70,000;
- Coordination of two oceanographic cruises for the INE (SEMARNAT) for US\$ 750,000, to establish the environmental baseline of the northern continental shelf of the Yucatan Peninsula and 80 sampling stations related to the oil spill in the Gulf of Mexico in 2010.

D. Sustainability

The medium term sustainability of project results depends largely on the political will of the Governments of the Parties, in terms of their willingness to implement the actions arising from the SAP, and implementing and financing the actions needed to replicate pilot projects, and promoting continuity of stakeholder involvement. However, considering that the project involves for the time being only two countries, it is estimated that project risks are manageable. The evaluation team has assessed the sustainability of the Project as **moderately likely**.

- **Financial, Socio-political, Institutional Framework and Governance, and Environmental Risks**

The continuity of the project depended largely on the learning curve for both new administrations, but more particularly of Mexico's, and on the political changes of the administrations. It is of the utmost importance that the basic documents are signed (TDA and SAP) to ensure the commitment of the Parties to provide the necessary long-term resources through formal written commitments and, the timely management of the financing of the implementation phase of the SAP and respective NAPs, provided by the GEF.

In financial terms the project's sustainability after GEF involvement ceases will depend on the importance attached to the future actions (SAP and NAPs) in the 2012-2018 National Development Plan of the Government of Mexico and in the environmental and trade policy of the U.S. administration. This said, in the course of the interviews with government officials of both countries the ET documented clear expressions of interest in favour of the continuity of the project and noted that steps are on-going to ensure the inclusion of funding in the countries respective federal budgets.

The development of infrastructure for tourism, commercial fishing industry, the oil industry and agriculture are important economic activities for both countries. Taking into account that for some sectors ecosystem conservation is contrary to the entrepreneurial efforts, it is likely that some resistance and objections will be registered, both locally and nationally, to the changes and reforms that the project will bring. This reinforces the need to promote broad stakeholder participation and support, through the planning and implementation of advocacy strategies and information focused on the social groups concerned in order to promote their effective incorporation in planning, management and decision making of the project. However, and decreasing this risk, it should be noted that environmental investments by different government agencies and various private companies has been increasing, so it is estimated that there is a support base able to facilitate the participation of relevant and concerned economic sectors.

Taking into account that the objectives of the LME can enter into conflict with local and national interests of some of the economic sectors, it is likely that full participation of the private sector will be difficult to attain.

Although stakeholders have actively participated on the Mexican side, this participation of stakeholder groups has been derived largely from the contribution of government subsidies and financial support in the form of wages, materials delivery, and environmental education workshops and outreach activities. These contributions, in turn, depend on the priority assigned to them in the budgets of government agencies collaborating in the project. To ensure the maintenance of these resources it is critical to secure the active involvement of specific agencies like the Department of Finance and the Ministry of Foreign Affairs in the project and of all

government agencies that are part of the CIMARES, especially SAGARPA and in particular its fisheries component.

The fact that this has not fully happened yet can be explained by the permanent opposition between the economic interests of commercial fishermen (organized in fishing cooperatives), and the activities of artisanal fishermen. Commercial fishermen are regulated by the SAGARPA, so the latter's active participation is critical to the project in the short term to ensure that adequate and effective actions are incorporated in this area. It is also of great relevance to ensure the direct collaboration of the Ministry of Health (also part of the CIMARES), as it governs the state public health laboratories in each coastal state, and these are responsible for monitoring the quality of water. Ensuring that government agencies that make up the CIMARES and other relevant agencies contribute to the objectives of the project will require intense outreach activities, as well as demonstration of the benefits of the project, both from the standpoint of commercial interests and convenience of political participation of those actors. This will require more technical and analytical support.

It is also important to more actively engage state governments, given that under current legislation in Mexico, the seas are under federal jurisdiction, but the states are responsible for local public health and economic development. The United States have already joined the governments of the Gulf in an association (Governors Alliance), but in Mexico this is still very much in progress.

Meanwhile, to ensure the permanent generation of validated information, Mexico should continue supporting the network of universities to contribute to maintaining the scientific activities of the project, after the intervention of the GEF, as has been done in the United States. This aspect is also dependent on the availability of sufficient funds in the long term, which are usually provided by federal and state budgets.

To support the sustainability of its results, the project should strengthen dissemination of information to productive sectors regarding the long-term benefits that can be derived from a jointly defined regional coordination mechanism. Emphasising that future investments in the project will be less than the costs that would accrue if these mechanisms were not operating.

Another important element for the sustainability of the project rests on the participation of civil society agencies and institutions. Although there is always the risk that the magnitude of the government budgets (agencies at all levels, federal, state and local) may limit participation, it is likely that these agencies and organizations will continue to maintain interest in the results of the project, which represents a groundswell of support and social pressure in favour of the long term continuity of results. For this, the dissemination of project results as a whole and of the pilot projects will be a catalyst to encourage civil society to appropriate itself of the project, leading to sustainable results.

Although the project does not seem to have perceptible or evident negative environmental impacts associated with its proposed activities, the same can't be said regarding meteorological effects on the current or future mangrove restoration pilots. These are located in a geographic zone that is prone to repeat, if not yearly, weather related phenomena. However, the risks associated with this are not considered to put in danger the long-term sustainability of the outcomes. Indeed, the fact that mangrove areas will be restored and that this will likely be replicated in the area can only serve to increase the buffer effect of mangrove on the cost line and erosion associated with this type of event.

E. Assessment of Monitoring, Evaluation Systems & project management

The ET was able to ascertain that a monitoring and evaluation system, covering also the administrative aspects of the project, is in place and monitoring of progress and outputs based on indicators is ongoing. The ET had access to annual implementation reports, to final reports for the pilot projects, as well as the PIRs and up to date detailed budgetary information held by the PCU. Overall the M&E component was assessed as **highly satisfactory**.

- **M&E design and implementation**

The ET was able to ascertain the existence of an M&E system that includes the technical characteristics detailed in the ToRs, namely:

- SMART indicators for project implementation for monitoring that will deliver reliable and valid information to management;
- SMART indicators for results (outcomes);
- Baseline for the project, with a description of the problem to be addressed, with indicator data;
- Identification of evaluations that was undertaken, such as mid-term; and
- Organizational set-up and budgets for monitoring and evaluation.

Monitoring of project components is carried out by filling in a database designed to report the progress of activities, objectives and key indicators per activity. This format is integrated into a monitoring system that has also been developed in “Visual Fox”. Currently, as mentioned above, this contains the technical information regarding integration of the administrative aspects of the project.

A monitoring system, based on indicators of pressure-state-response, derived from the logical framework matrix of the project was developed in order to provide access to a quick reporting tool and more precise progress indicators.

As regards pilot projects, for each of them, specific indicators were defined to monitor and measure the health and status of the ecosystems. These indicators include information on pollutants, sediment, nutrients, mangrove coverage, maximum yields per unit of effort, among others. The PCU designed and implemented a database to analyze information quickly.

As part of monitoring and evaluation activities, there has been a series of newsletters to disseminate information. These newsletters provide information about the main activities carried out by the project, on a bi-monthly basis since 2010.

Budgeting and Funding

As regards budgeting, the ET is of the opinion, based on information received and analyzed, that an adequate level of resources was made available, in a timely manner, to implement the M&E system.

Monitoring of Long Term Changes

The pilot project for evaluation and monitoring of the conditions of the Gulf of Mexico contributes through analysis of key indicators to the long term monitoring of the GoM. Indeed, the pilot projects form the basis for monitoring and evaluation activities of the GOM LME in the long run, to be established in the SAP.

This pilot project aims to build capacity for assessment and monitoring of coastal systems to achieve the management of the GoM LME by:

- Providing the basis for bilateral cooperation;
- Establishing a consistent design for the monitoring of the GoM LME;
- Begin monitoring in the Mexican portion of the Gulf of Mexico;
- Establishing a common set of indicators and sampling design;
- Allowing countries to assess the status and trends of the coastal environment to evaluate the efficiency of environmental management decisions;
- Allowing for fiscal and environmental accountability.

Although no shortcomings were identified in the establishment of the system, at this stage it is ignored if this will remain a sustainable and fully financed activity however, the ET was informed by the Project team of the intent to not only maintain, but also strengthen the system. This will depend at least in part on the support the Project receives, as well as on the importance given to the Project by the current administration.

Project Management

The management by the PCU is considered to be highly satisfactory both as regards the supervision of experts, and in delivering outputs going well beyond expectations, and this notwithstanding the fact that the necessary support and resources could not always be counted on in a timely manner.

The ET was able to ascertain that the PCU has full recognition of the Parties and stakeholders, governmental institutions and civil society alike, academia and the local communities where projects are implemented. It has obtained additional resources for the project, and has managed to deliver the outputs established in the project.

Roles of Partners

SEMARNAT participates as National Executing Agency for the project, and US NOAA supports the SEMARNAT in the execution of the project.

In addition, the parties undertook to co-finance the project as shown in the following tables.

Co-financing by Parties (USD)

<i>Name of co-financier (source)</i>	<i>Classification</i>	<i>Type</i>	<i>Project</i>	<i>Total</i>	<i>%*</i>
SEMARNAT	Nat'l Gov't	In-kind	15,574,780	15,574,780	16,30
US NOAA	Nat'l Gov't	In-kind	78,400,000	78,400,000	81,04
US EPA	Nat'l Gov't	In-kind	1,600,000	1,600,000	2,66
Total Co-financing			95,574,780	95,574,780	100%

**Co-financing by component
(USD)**

Outcome	Total	GEF	Co-finance
TDA finalized	25,127,500	427,500	24,700,000
SAP finalization and implementation	10,130,000	1,130,000	9,000,000
Pilot projects	42,634,780	2,160,000	40,474,780
Monitoring and evaluation	19,869,000	469,000	19,400,000
Coordination	2,316,000	316,000	2,000,000
Total	100,077,280	4,502,500	95,574,780

As was noted in detail above, the provision of support by governments has been mixed.

While the U.S. has more than fulfilled its commitments, Mexico has fulfilled its financial obligations as expected, but in the course of the evaluation it was possible to document delays in provision of administrative support from Mexico (the project did not count on office space initially, nor were the working conditions favourable for delivery of results), as well as in provision of technical support. However these issues have been resolved in a satisfactory manner, and improvements noted.

UNIDO HQ Based Management

UNIDO is responsible for the overall management of the project and its funds. It assists SEMARNAT, the National Executing Agency in the execution of the project through the provision of timely assistance at key phases of project implementation, in the review of investigations and reports prepared as outcomes to the project, in the disbursement of funds necessary for the recruitment of international experts and other related international expenditures.

The ET was able to evaluate the administrative burden placed on HQ as regards project management, and this was assessed as elevated. Although very limited purchases were required for the Project (equipment), approximately 25 to 35 personnel are part of the project at any given time and contracting requirements for experts are therefore high (including short term). Although the evaluation team found that a number of contracts are managed and/or prepared by the PCU, during interviews with the administrative personnel of the project in Vienna reference was made to a relatively high turnaround of experts as compared to other projects in the portfolio, further adding to the administrative demands. Although the ET was not supplied with a precise number or rotation percentage considered acceptable by UNIDO, or with comparable information from other projects to determine if this constitutes, or not, a management related issue, considering the administrative burden, and the good implementation progress, the overall efficiency of administration is considered to be high.

However, several issues posed risks to the project and it is only due to the dedication of project staff in Mexico and administrative staff at UNIDO HQ that these issues were resolved.

Firstly, regarding the quality and timeliness of inputs and services of UNIDO, the ET found that there had been some delay in the resolution of authorization for the purchase of equipment, and in applications for resource expansion or change of suppliers, which had resulted in increased purchase price, procurement delays and possibly a cancellation.

Secondly, the ET found that there had been some deficiencies in the official notification of changes in procedure to renew contracts, to issue new contracts and on contract duration, and although these were likely linked to the implementation of a new administrative support system at UNIDO headquarters (SAP) these risked the retention of key project personnel, making it in addition difficult to have certainty in project planning activities and fulfillment of commitments.

The fact that these issues are likely linked to the accelerated implementation schedule of the Project in no way diminishes the potential consequences, should administrative/contracting issues not have been addressed and resolved, ad hoc as they may have been addressed, but implies that measures must be taken by UNIDO to avoid a repeat of these situations.

The ET was also able to determine that there was, from the beginning of the phasing in of the new administrative system, and until approximately the beginning of 2013, on the side of the Project, a relatively low understanding of the administrative procedures and associated constraints intrinsic to International Organizations and in particular the UN. This likely stems from the fact that unlike in the case of other Projects where full briefings/presentations to Project Administrators and CTAs takes place at inception, this was only partially completed for this Project. The CTA was invited to Vienna but was only given a short administrative briefing and provided with printed material.

Appart from the purely administrative challenges, it also appeared during the assessment that there was weak technical support from HQ in the field, in terms of discussing and steering, and that stronger technical support is required to ensure that an adequate understanding of progress, products and outcomes of the project are obtained, thus enhancing needs assessments. In addition, the late intervention of HQ during the period of the change of the CTA – which was strongly noted by the Focal Points of the project as well as at the level of the UNIDO Country Office – directly affected the project and led to delays and cancellation of various activities (Including a series of meetings, summer teacher training workshops, 3rd Meeting of the Alliance of Educators, GOMA All Hands Meeting, printing of an ecotourism best practices manual, etc.). This also affected communication between the parties as during this period, official information, officially provided, was not available. This led to triangular ad hoc communication mechanisms being established.

In order to avoid unnecessary complications/risks, when implementing projects, it is considered necessary to establish mechanisms to ensure that adequate capacity of the CTAs and their teams is built-up as regards administrative procedures and associated processing times. ASAP Accelerated project implementation demands that Project team members (CTA and administrative) have a thorough understanding of administrative processes and constraints of UNIDO. UNIDO should consider urgent complementary retraining of appropriate LME staff.

It is also apparent from this analysis that although there is value added in managing from Vienna as main allotment and alternate allotment holders, travel, finance, procurement etc. are located there, if capacities of the Field Office were strengthened, and processes were established to transfer some of the control to this Office, this could make the process more efficient. Additionally a fully implemented SAP could facilitate this process.

F. Assessment of processes affecting attainment of project results

- **Preparation and readiness. Were the project's objectives and components clear, practicable, and feasible within its time frame?**

In light of the progress made to date, and possible risks discussed above, it is estimated that the project objectives and components were clear, practical and achievable within the established time frame.

- **Were counterpart resources (funding, staff, and facilities), and adequate project management arrangements in place at project entry?**

Yes. The project preparatory phase was undertaken under a modality contemplating the implementation by UNDP and the execution by UNIDO. Funding for execution was made effective in the second semester of 2005. During PDF-B implementation, the GEF agencies recommended that the TDA and SAP be integrated on a provisional basis, to be revised and completed during the FSP execution phase. This allowed for the preparatory phase to be focused on the preparation of the Project Brief for inclusion in the GEF Work Programme for 2007. Mexico and the US accepted this recommendation as an informed decision drawn from the experience of similar GEF LME projects. With the guidance provided by the GEF agencies, a preliminary TDA (Appendix A of The Project Brief) was drawn in order to provide the scientific basis for the priority issues to be addressed in the FSP and subsequent SAP.

The timing of the preparatory phase coincided with extensive and substantial reforms within the framework of the GEF operational policies and project cycle. For the inclusion of the project in the GEF 2007 Work Plan, and adhering to the new GEF policies, the Government of Mexico decided to finalize the preparatory phase and to continue the FSP with UNIDO as the sole GEF agency. This issue was addressed directly between the Mexican Focal Point and Council Member and the CEO and Chairperson of the GEF during the week of 25 June 2007.

After the recruitment of the CTA and establishment of the project coordination office in Mexico City, from 24 to 26 June 2009 in Mérida, Yucatán, the Inception Workshop of the Integrated Assessment and Management of the Gulf of Mexico-Large Marine Ecosystem Project, was celebrated with the participation of UNIDO representative office in Mexico; the Director of the Southeast Fisheries Science Center of NOAA; the Delegate in Yucatán of the Ministry of Foreign Affairs; the General Director of Environmental Policy and Regional and Sectorial Integration of the SEMARNAT; the Head of the Harte Research Institute of Texas; the Head of the Environmental Unit of Pemex; the Secretariat of Environment of the State of Campeche; the Secretary of Urban Development and Environment of the State of Yucatán; and a number of stakeholders from the United States and Mexico.

Further to this, on June 26th 2009, the First Steering Committee Meeting Integrated Assessment and Management of the Gulf of Mexico-Large Marine Ecosystem was held, where the constitution of the initial GoM-LME Steering Committee (SC) was formalized. Members of the Steering Committee were selected and confirmed, including high-level officials from the United States and Mexico; representatives from National Institutions (NOAA, SEMARNAT, SEMAR, CONANP, INAPESCA) and International Institutions (UNIDO); Academia (UAC-EPOMEX), NGOs (TNC, CEMDA), and observers with various affiliations.

- **Country ownership/drivenness. Was the project concept in line with the sectoral and development priorities and plans of the country—or of participating countries, in the case of multicountry projects?**

Yes. The GOM LME project has a direct linkage to Mexico's 2006-2012 National Development Plan, to the 2006-2012 National Sectoral Program for Environment and Natural Resources, to guidelines established in the National Environmental Policy for the Sustainable Development of Oceans and Coasts and, more specifically to goals and projects set out in the National Strategy for the Ecological Use and Planning of Oceans and Coasts.

The project references a direct linkage to the Agreement for the Coordination of the Regional Marine Ecological Zoning Plan for the Gulf of Mexico and Caribbean Sea, signed by the six Gulf States and 11 federal entities, process started by the Mexican government in 2006, through which runs the characterization, diagnosis, prognosis and definition of an action program for a given area.

In addition, the project aims to contribute to the implementation of the Federal Fisheries Law, the objective of which is to promote the conservation, preservation and rational use of fisheries resources and establish the basis for their adequate development and management, as well as the implementation of specific policies and programs for the protection of specific resources, for example, those relating to marine mammals and the Law of National Waters and its Regulation and the establishment of marine protected areas.

To date, as was mentioned above, the project is integrated into the priorities of the new National Development Plan of the Government of Mexico for 2013 -2018.

The project is also directly related to the mandates of the US National Marine Fisheries Service (NMFS) Office of Habitat Conservation. The mission of this Office is to protect and conserve habitats important to NOAA and NMFS trust resources. The NMFS Office of Habitat Conservation focuses on ensuring that living marine resources have sufficient healthy habitat to sustain populations. Those mandates emphasize wetlands (including marshes, sea grasses, and mangroves), anadromous fish habitat, and habitat of other marine and estuarine species. These efforts frequently include close partnerships with state and federal agencies, local governments, industry, environmental groups, and academia. Within the NMFS Office of Habitat Conservation, the Restoration Center helps to achieve the mission by restoring degraded habitats, advancing the science of coastal habitat restoration, transferring restoration technology to the private sector, the public and other government agencies, and fostering habitat stewardship and a conservation ethic. There are large, on-going wetlands conservation and restoration activities in the US Gulf of Mexico. In particular, NMFS has oversight of the multi-million dollar Coastal Wetlands Planning, Protection, and Restoration Act program to reduce erosion and restore wetlands in coastal Louisiana, as well as the Community-based Restoration Program, which distributes funds for in-the-ground habitat restoration actions. In addition, NMFS participates in various regional restoration efforts such as the large-scale South Florida Ecosystem Study, which is attempting to revitalize the mangrove-seagrass-marsh grass complex, and smaller seagrass and marsh restoration and evaluation efforts throughout the US Gulf states.

- **Are project outcomes contributing to national development priorities and plans?**

Yes. The project has 5 key outcomes:

Outcome 1 Transboundary issues analyzed and priorities defined

- Outcome 2 Country agreement on and commitment to regional and national policy, legal and institutional reforms to address the agreed priority transboundary issues
- Outcome 3 LME-wide ecosystem-based management approaches encouraged and strengthened through the successful implementation of the Pilot Projects
- Outcome 4 Monitoring and Evaluation System for the Project and the GoM LME established
- Outcome 5 Effective project coordination

Through these outcomes the project will contribute to build and assist in the development and catalyze the implementation of a regional Strategic Action Programme for the GOM/LME that includes:

- The development of appropriate frameworks and mechanisms at both regional and national levels for consultation, co-ordination and co-operation;
 - The development of institutional capacities of the key agencies and institutions in the region that contribute to the integrated sustainable management of the GOM/LME;
 - The establishment of effective ecosystem monitoring systems together with mechanisms for the identification and analysis of problems and issues;
 - Research to increase the understanding of the GOM/LME, its functioning, its natural evolution trends, and the factors which affect it (both biophysical and social, economic and political);
 - The harmonization of policies and legislation relating to activities affecting the GOM/LME;
 - Increased external support for activities to minimize and mitigate the negative impacts of development (petroleum, urbanization, tourism development, resource exploitation) through the promotion of sustainable approaches and the use of tools such as EIA;
 - Measures to improve resource management;
 - The development of national and regional capacities for gathering, processing and spreading environmental information;
 - Measures to protect biological diversity;
 - Clarification of the role of the GOM/LME as a monitoring/early warning site for global climate change.
- ***Were the relevant country representatives from government and civil society involved in the project?***

Yes, as mentioned before, the Project has since the beginning incorporated actors from the government, civil society, academia, amongst which the following:

- NOAA as focal point of the LME project, and its institutions such as NMFS, NMSP, NOS, NWS, NDBC, and other Federal agencies currently appointed to conduct the Gulf restoration process;
- The EPA and its Gulf Task Force;
- The Gulf of Mexico Alliance;

- The Heart Research Institute of Texas A & M. University-Corpus Christi who is part of the LME program Steering Committee;
- The Louisiana University of Marine Consortium (LUMCON)
- The University of South Florida;
- The Gulf of Mexico Ocean and Coastal Observing (GCOOS);
- The Commission for Oceans and Coasts (CIMARES), which has been appointed as The Intersectoral Committee to deal with the LME Program;
- The Ministry of Foreign Affairs;
- The Mexico's National Commission for Water (CONAGUA);
- The Commission for Forestry;
- CONANP;
- The Fondo Mexicano para la Conservacion de la Naturaleza (FMCN);
- ProNatura;
- TNC;
- DUMAC;
- WWF;
- The University of Veracruz;
- The University of Campeche (UNACAR);
- The CINVESTAV;
- ECOSUR;
- The Universidad Autonoma Juarez de Tabasco;
- Epomex;
- The Autonomous University of Yucatán;
- The University of Quintana Roo;
- Local communities involved in the implementation of pilot projects.

- ***Did the recipient government maintain its financial commitment to the project?***

As stated earlier, the U.S. has more than fulfilled its commitments, and Mexico has fulfilled its own. In addition, data were collected related to some aspects most notably support of the financing of various activities relating to pilot projects and the provision of offices for the PCU.

- ***Has the government—or governments in the case of multi-country projects—approved policies or regulatory frameworks in line with the project's objectives?***

During the evaluation the evaluation team did not identify frameworks adopted in relation to the objectives of the project.

- ***Stakeholder involvement. Did the project involve the relevant stakeholders through information sharing and consultation? Did the project implement appropriate outreach and public awareness campaigns? Were the relevant vulnerable groups and powerful supporters and opponents of the processes properly involved?***

In addition to the information provided above in which it is stated that relevant stakeholders have been involved in consultation and project information shared by various means (bimonthly newsletter, diffusion workshops, regional meetings, bi-national and local addressing specific topics, among others), it is important to emphasize four issues of concern:

- In Mexico, commercial fishermen have not yet been incorporated in the project activities at the regional level. This is a highly relevant actor as regards the rational utilization of fishery resources.
- The full incorporation of various government agencies has not been secured yet, especially the SAGARPA (which regulates fishing and agriculture) and the Ministry of Health (which regulates the state public health laboratories in each coastal state, responsible for monitoring water quality).
- It is important to engage more actively state governments, as under current legislation in Mexico, seas are under federal jurisdiction, but the states are responsible for local public health and economic development statewide.
- ***Financial planning. Did the project have the appropriate financial controls, including reporting and planning, that allowed management to make informed decisions regarding the budget and allowed for timely flow of funds? Was there due diligence in the management of funds and financial audits? Did promised co-financing materialize?***

Yes. There are financial controls carried out from Vienna and by the PCU. There were no reports of audits having been prepared at this stage.

- ***UNIDO supervision and backstopping. Did UNIDO staff identify problems in a timely fashion and accurately estimate their seriousness? Did UNIDO staff provide quality support and advice to the project, approve modifications in time, and restructure the project when needed? Did UNIDO provide the right staffing levels, continuity, skill mix, and frequency of field visits for the project?***

As was raised in previous parts of this evaluation, it is clear from the assessment that there initially was a weak participation from HQ in the field and that stronger technical support is required to ensure that an adequate understanding of progress, products and outcomes of the project are obtained, thus enhancing needs assessments.

Additionally, regarding the quality and timeliness of inputs and services of UNIDO, the evaluation team found that:

- Due to a less than complete understanding/ familiarity with UNIDO administration and procurement processes, there is some delay in the resolution of authorization for the purchase of equipment, in applications for resource expansion or change of suppliers, which has resulted in the increased purchase price, procurement delays and possible cancellations;
- The time required to manage spending authorizations in the regular season (travel request 7 days prior to travel, 7-10 days in advance for example for travel) are difficult to meet considering Project workload and the number of documents and formats to be integrated for each individual application;
- Deficiencies in the official notification/understanding of modification or cancellation of administrative procedures, making it difficult to have certainty in project planning activities and fulfillment of commitments;
- Deficiencies in the official notification of changes in procedure to renew the contract, to issue new contracts and contract duration, which risk the maintenance of key project personnel.

In addition, the late intervention of HQ during the period of the change of the CTA – which was strongly noted by the Focal Points of the project as well as at the level of the UNIDO Country Office – directly affected the project and led to delays and cancellation of various activities (Including a series of meetings, summer teacher training workshops, 3rd Meeting of the Alliance of Educators, GOMA All Hands Meeting, printing of an ecotourism best practices manual, etc.). This also affected communication between the parties as during this period, official information, officially provided, was not available. This led to triangular ad hoc communication mechanisms being established.

- ***Co-financing and project outcomes and sustainability. If there was a difference in the level of expected co-financing and the co-financing actually realized, what were the reasons for the variance? Did the extent of materialization of co-financing affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?***

Answer has been provided under previous questions. Benchmark against which progress was measured is as per text below ⁶⁴:

GEF

The GEF is financing costs related to: the establishment of a project implementation team; conducting studies in the Gulf of Mexico to identify mutually agreed indicators; sampling strategies, sample and data analysis; provision of training on sampling design, quality assurance and control (QA/QC), monitoring, incorporation of biological monitoring into existing monitoring program, and a workshop to develop and plan the joint monitoring, and to develop the mutually agreed set of common indicators.

The total contribution requested from GEF was USD 770,000 for a three-year period.

Government of Mexico

The Government of Mexico, through the SEMARNAT, CONAGUA and INE/IMTA is to assign financial resources of approximately USD \$ 2,500,000 to complement the GEF grant. Additionally, Mexico and the United States will provide in kind contributions in terms of staff support from relevant government agencies that will provide technical inputs to the project, as well as costs associated with telecommunications and provision of office space. It will be the responsibility of the two Governments to ensure the sustainability of the project upon completion of the GEF component of the project.

Government of the USA

US coastal monitoring by US EPA has targeted \$8.4M to conduct a national survey of estuarine resources in 2010. Of this amount, approximately \$1,000,000 per year will be expended in the Gulf of Mexico in the states of Florida, Alabama, Mississippi, Louisiana and Texas, in close coordination with this proposed pilot project. Activities will focus on sampling, sample analysis, statistical analysis and reporting. This figure includes about \$100,000 per state for sample collection, and about \$100,000 per state for sample analysis, statistical analysis and reporting (for a total of approximately \$200,000 in each of the five states).

NOAA will spend \$1,000,000 per year for the offshore component of the sampling survey (formally called SEAMAP, the Southeast Area Monitoring and Assessment Program), expended across 5 US Gulf states and in cooperation with each state's fisheries agency. SEAMAP

⁶⁴ CEO Endorsement Document (pp402-403)

provides sampling opportunities during synoptic fisheries collections to obtain appropriate samples for bio-monitoring analyses. This figure includes cooperative sample survey design (with US EPA), sample and data collection, appropriate analyses, reporting, vessel operations, and all necessary personnel.

- ***Delays and project outcomes and sustainability. If there were delays in project implementation and completion, what were the reasons? Did the delays affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?***

The only delay identified concerns part of the shrimp pilot Project, however, the pilot project was reassigned to another expert and further to his recommendations, the SC reoriented the objectives initially set. This allowed for the successful completion of the pilot, as detailed above.

Criterion	Evaluator's Summary Comments	Evaluator's Rating
Attainment of project objectives and results (overall rating) Sub criteria (below)	No shortcomings were evidenced by the evaluation	HS
Effectiveness		HS
Relevance		HS
Efficiency		HS
Sustainability of Project outcomes (overall rating) Sub criteria (below)	Rating of ML given, however indicators tend towards L, as parties' commitment level appears to be high	ML
Financial		ML
Socio Political		ML
Institutional framework and governance		ML
Ecological		ML
Monitoring and Evaluation (overall rating) Sub criteria (below)	No shortcomings were evidenced by the evaluation	HS
M&E Design		HS
M&E Plan Implementation (use for adaptive management)		HS
Budgeting and Funding for M&E activities		HS
UNIDO specific ratings		MS
Quality at entry		S
Implementation approach		S
UNIDO Supervision and backstopping	Some weaknesses require addressing	MS
Overall Rating		S

RATING OF PROJECT OBJECTIVES AND RESULTS

- Highly Satisfactory (HS): The project had no shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Satisfactory (S): The project had minor shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Moderately Satisfactory (MS): The project had moderate shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Moderately Unsatisfactory (MU): The project had significant shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Unsatisfactory (U) The project had major shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Highly Unsatisfactory (HU): The project had severe shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Please note: Relevance and effectiveness will be considered as critical criteria. The overall rating of the project for achievement of objectives and results **may not be higher** than the lowest rating on either of these two criteria. Thus, to have an overall satisfactory rating for outcomes a project must have at least satisfactory ratings on both relevance and effectiveness.

RATINGS ON SUSTAINABILITY

Sustainability will be understood as the probability of continued long-term outcomes and impacts after the GEF project funding ends. The evaluation will identify and assess the key conditions or factors that are likely to contribute or undermine the persistence of benefits beyond project completion. Some of these factors might be outcomes of the project, i.e. stronger institutional capacities, legal frameworks, socio-

economic incentives /or public awareness. Other factors will include contextual circumstances or developments that are not outcomes of the project but that are relevant to the sustainability of outcomes.

Rating system for sustainability sub-criteria

On each of the dimensions of sustainability of the project outcomes will be rated as follows.

- Likely (L): There are no risks affecting this dimension of sustainability.
- Moderately Likely (ML). There are moderate risks that affect this dimension of sustainability.
- Moderately Unlikely (MU): There are significant risks that affect this dimension of sustainability
- Unlikely (U): There are severe risks that affect this dimension of sustainability.

All the risk dimensions of sustainability are critical. Therefore, overall rating for sustainability will not be higher than the rating of the dimension with lowest ratings. For example, if a project has an Unlikely rating in either of the dimensions then its overall rating cannot be higher than Unlikely, regardless of whether higher ratings in other dimensions of sustainability produce a higher average.

RATINGS OF PROJECT M&E

Monitoring is a continuing function that uses systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing project with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds. Evaluation is the systematic and objective assessment of an on-going or completed project, its design, implementation and results. Project evaluation may involve the definition of appropriate standards, the examination of performance against those standards, and an assessment of actual and expected results.

The Project monitoring and evaluation system will be rated on ‘M&E Design’, ‘M&E Plan Implementation’ and ‘Budgeting and Funding for M&E activities’ as follows:

- Highly Satisfactory (HS): There were no shortcomings in the project M&E system.
- Satisfactory(S): There were minor shortcomings in the project M&E system.
- Moderately Satisfactory (MS): There were moderate shortcomings in the project M&E system.
- Moderately Unsatisfactory (MU): There were significant shortcomings in the project M&E system.
- Unsatisfactory (U): There were major shortcomings in the project M&E system.
- Highly Unsatisfactory (HU): The Project had no M&E system.

“M&E plan implementation” will be considered a critical parameter for the overall assessment of the M&E system. The overall rating for the M&E systems will not be higher than the rating on “M&E plan implementation.”

All other ratings will be on the GEF six point scale.

HS	= Highly Satisfactory	Excellent
S	= Satisfactory	Well above average
MS	= Moderately Satisfactory	Average
MU	= Moderately Unsatisfactory	Below Average
U	= Unsatisfactory	Poor
HU	= Highly Unsatisfactory	Very poor (Appalling)

CHAPTER IV - Conclusions, Recommendations and Lessons learnt

Considering that existing management approaches are not consistent with an ecosystem-based approach; that the two countries have institutional frameworks for the protection of coastal and marine resources; that there is currently no mutually agreed management programmes between the two countries to manage the resources of the GoM, nor is there an effective mechanism of regional intersectoral coordination, the anthropogenic threats on the LME make it necessary to develop and implement an ecosystem-based management approach to mitigate them effectively in the long term.

In this sense the Project as it has been developed and as it is being implemented is considered to be, overall, an appropriate vehicle to assist the governments to reach these objectives.

Design

In this context, the design of the project through a TDA-SAP process, contributes to remove identified constraints and barriers, develop common mechanisms and tools, and promote reforms and investments, to set the bases for application of the ecosystem approach in the management of the GoM LME, complemented by capacity-building activities and pilot projects in three critical aspects of the ecosystem approach.

Considering the above, it is estimated that the Project design is adequate to address the problems at hand, and is fully aligned with the objectives of the preparatory phase.

The relevance of the Project was assessed by the evaluation mission at two distinct but interrelated levels: firstly, with regard to national and regional relevance; secondly to UNIDO and GEF mandates and strategies. The overall relevance of the Project was assessed by the evaluation team as being highly satisfactory.

The countries have provided financial resources in support of the project, including in-kind contributions. The governments have also provided necessary scientific expertise to the GoM LME project from national organizations, data collection facilities at-sea, ship time, and meeting space as required.

The relevance of the GoM LME Project to target groups is clear. Interviews and visits provided ample evidence that, in general, the target groups demonstrated a broader and more complete understanding of the functions of the LME. It is expected that the Project will contribute to the reduction of coastal pollution, restoration of damaged habitats and of depleted stocks, through implementation of information systems, exchange of knowledge and of scientific information, strengthening of capacities, of environmental education and of mechanisms for stakeholder participation.

The evaluation team was able to determine that a participatory project identification process was effectively applied. Also, it is estimated that both, the long-term development/environmental goal and the project objective are thematically focused development objectives.

The selected indicators are specific, measurable, achievable, relevant, and time framed. For this reason it is considered that they are suitable to determine the attainment of the Objective.

Effectiveness

The effectiveness of the project was assessed against the expected outcomes, as stated in the project document, and effectiveness has been determined by the evaluation team to be highly satisfactory.

The Final version of the GoM LME Transboundary Diagnostic Analysis (TDA), formulated by Mexico and the USA, has been delivered and analyses the various transboundary environmental problems, major root causes, impacts and consequences.

Catalytic effects were documented by the evaluation team. The additional activities that staff was involved in put pressure on the budget of the Project, however this appears to have been an acceptable risk, given the valuable contribution that establishment of clear channels of communication and a meaningful and sustained dialogue have made to the project. These steps have all contributed to the definition of actions required to address the issues, as well as to their incorporation in the TDA and facilitated the preparation and early approval of the TDA.

The evaluation team was able to document significant qualitative and quantitative progress for all of the pilot projects including the environmental education component.

The evaluation mission found that highly satisfactory progress has been accomplished related the TDA that has been completed, ahead of schedule.

The evaluation mission reviewed the 5 main activities under outcome 2 and found that at this stage highly satisfactory progress has taken place under this component for all 5 activities.

The evaluation mission reviewed the 4 main activities under outcome 3 and found that highly satisfactory results have been achieved.

The evaluation team received a detailed presentation on the M&E system (outcome 4) in place for the overall Project. The full time Monitoring and Evaluation expert has been involved in numerous activities and is considered to be keeping a satisfactory record of program progress.

Related the outcome 5, the evaluation team was informed and provided with evidence to document that during the period covered by this evaluation, the Project Coordination Unit (PCU) increased its capacity to develop and implement the multiple project components.

The evaluation evidenced that the project as it is being developed and implemented is fully aligned with the original project objectives. It is important to point out that longer term results are in no way guaranteed without the active and ongoing support of the Projects' main stakeholders, and the opportunity for turning these outputs into meaningful outcomes and eventual impacts is not to be taken for granted.

Efficiency

The efficiency of the project has been assessed by the evaluation team as being highly satisfactory given that project outputs are either on target, or ahead of schedule and have been implemented in a cost-effective and efficient manner. To date, the project has made considerable progress, at a reasonable cost, towards the diagnosis of the identified priority needs.

As for the quality and timeliness of inputs and services of UNIDO the evaluation team found that although these did not have a measurable negative effect on the project as the CTA and Project team were able to adapt and work around these, the potential consequences should these not be addresses could delay or derail the Project.

Sustainability

The evaluation team has assessed the sustainability of the Project as moderately likely.

The continuity of the project depends largely on the political changes of the administrations in the short term, so it is of the utmost importance that the basic documents are signed (TDA and SAP) prior to these changes taking place to ensure the commitment of the Parties to provide the necessary long-term resources through formal written commitments. In financial terms the project's sustainability after GEF will depend on the importance attached to the future actions (SAP) in the 2012-2018 National Development Plan of the Government of Mexico and in the environmental and trade policy of the new U.S. administration.

In addition, although stakeholders have actively participated on the Mexican side, this participation of stakeholder groups has been derived largely from the contribution of government subsidies and financial support in the form of wages, materials delivery, and environmental education workshops and outreach activities. These contributions, in turn, depend on the priority assigned to them in the budgets of government agencies collaborating in the project. To ensure the maintenance of these resources it is critical to secure the active involvement of specific agencies like the Department of Finance and the Ministry of Foreign Affairs in the project and of all government agencies that are part of the CIMARES, especially SAGARPA and in particular its fisheries component.

It is also of great relevance to ensure the direct collaboration of the Ministry of Health (also part of the CIMARES), as it governs the state public health laboratories in each coastal state, and these are responsible for monitoring the quality of water.

It is also important to more actively engage state governments, given that under current legislation in Mexico, the seas are under federal jurisdiction, but the states are responsible for local public health and economic development. The United States have already joined the governments of the Gulf in an association (Governors Alliance), but in Mexico this is still very much in progress.

To ensure the permanent generation of validated information, Mexico should continue supporting the recently established network of universities to contribute to maintaining the scientific activities of the project, after the intervention of the GEF. This aspect is also dependent on the availability of sufficient funds in the long term, which are usually provided by federal and state budgets.

Taking into account that the objectives of the LME can enter into conflict with local and national interests of some of the economic sectors, it is likely that full participation of the private sector will be difficult to attain. For some sectors ecosystem conservation is contrary to the entrepreneurial efforts, it is likely that some resistance and objections will be registered, both locally and nationally, to the changes and reforms that the project will bring. This reinforces the need to promote broad stakeholder participation and support, through the planning and implementation of advocacy strategies and information focused on the social groups concerned in order to promote their effective incorporation in planning, management and decision making of

the project. However, and decreasing this risk, it should be noted that environmental investments by different government agencies and various private companies has been increasing, so it is estimated that there is a support base able to facilitate the participation of relevant and concerned economic sectors.

Another important element for the sustainability of the project rests on the participation of civil society agencies and institutions. Although there is always the risk that the magnitude of the government budgets (agencies at all levels, federal, state and local) may limit participation, it is likely that these agencies and organizations will continue to maintain interest in the results of the project, which represents a groundswell of support and social pressure in favour of the long term continuity of results. For this, the dissemination of project results as a whole and of the pilot projects will be a catalyst to encourage civil society to appropriate itself of the project, leading to sustainable results.

Monitoring and evaluation system and project management

The evaluation team was able to ascertain that a monitoring and evaluation system, covering also the administrative aspects of the project, is in place and monitoring of progress and outputs based on indicators is ongoing. Overall the M&E component was assessed as highly satisfactory. The pilot project for evaluation and monitoring of the conditions of the Gulf of Mexico contributes through analysis of key indicators to the long term monitoring of the GoM.

The management by the PCU is considered to be highly satisfactory both as regards the supervision of experts, and in delivering outputs going well beyond expectations, and this notwithstanding the fact that the necessary support and resources could not always be counted on in a timely manner. The evaluation team was able to ascertain that it has full recognition of the Parties and stakeholders, governmental institutions and civil society alike, academia and the local communities where projects are implemented.

Assessment of processes affecting attainment of project results

In light of the progress made to date and possible risks, it is estimated that the project objectives and components were clear, practical and achievable within the established time frame.

The counterpart resources and adequate project management arrangements were in place at project entry. The project concept was in line with the sectoral and development priorities and plans of the participating countries, and the project outcomes are contributing to national development priorities and plans.

It is clear from the assessment that there is a weak participation from HQ in the field and that stronger technical support is required to ensure that an adequate understanding of progress, products and outcomes of the project are obtained, thus enhancing needs assessments.

It was explained to the evaluation team that a high potential for replicability of the pilot projects, in particular mangrove restoration, exists outside of the projects main area of implication, in a related project, the Caribbean LME. To quote one of the interviewees "What is being learned in the Términos lagoon will be applicable in broader GoM, habitats and is not exclusive to the Términos lagoon". However, at this stage in the implementation of the projects life it is not possible to arrive at a definite conclusion regarding the replicability of the pilots. In addition it is important to point out that not only have the projects not concluded, but this replicability will also depend on mechanisms that are yet to be fleshed-out/approved as part of the SAP.

Lessons Learned and Recommendations

Considering that existing management approaches are not consistent with an ecosystem-based approach; that the two countries have institutional frameworks for the protection of coastal and marine resources; that there is currently no mutually agreed management programmes between the two countries to manage the resources of the GoM, nor is there an effective mechanism of regional intersectoral coordination, the anthropogenic threats on the LME make it necessary to develop and implement ecosystem-based management approaches to mitigate them effectively in the long term. This said, the Project as it has been developed and as it is being implemented is considered to be, overall, an appropriate vehicle to assist the governments to reach these objectives.

The PCU should lead the endorsement process for the SAP to a successful conclusion as rapidly as the administrative and legal mechanisms, and political realities in both countries permit. Draft NAPs should also be completed at the earliest possible. At the time of preparation of this Final Evaluation this is expected to take place before or very shortly after end of December of 2013 for the SAP, and the NAPs are expected to be completed by both countries in the first months of 2014.

The Parties should strive to obtain timely approval of funding by GEF to ensure implementation continuity, before government changes in both countries take place.

The Parties should continue to support the enhanced political visibility for the project at the level of the federal and state level agencies of both governments to ensure that achieved successes are not only known and understood, but maintained and/or replicated. This will also facilitate the long term sustainability of the results.

The Project should continue to support, as a priority, the strengthening of the role of the Interministerial Commission on Oceans and Coasts of Mexico (CIMARES) in project leadership, to allow high-level decision makers (Ministers) to actively involve other federal government agencies in the project, attract the participation of state governments and ensure their participation in adoption of SAP and NAP. This support should also be extended to ensure that the newly established network of universities is reinforced.

To improve project implementation and facilitate administrative processes it would be desirable to consider strengthening the management capacity of the UNIDO field office, or at least to reinforce its role in support of the project, taking into account the need to strengthen the field offices capacity to assume the subsequent technical requirements in particular as relates to ocean and coastal waters.

Based on the above, it is also suggested to consider strengthening the role of the Mexico field office in support of the project and its future iterations to facilitate and/or accelerate administrative processes and resolve any remaining of the management and contractual challenges that were identified.