



PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FULL-SIZED PROJECT

TYPE OF TRUST FUND: GEF TRUST FUND

PART I: PROJECT INFORMATION

Project Title:	Integrated Transboundary Ridge-to-Reef Management of the Mesoamerican Reef (MAR2R)		
Countries:	Belize, Guatemala, Honduras, and Mexico	GEF Project ID: ¹	5765
GEF Agency:	World Wildlife Fund, Inc.	GEF Agency Project ID:	G0003
Other Executing Partners:	Central American Commission on Environment and Development (CCAD)	Submission Date:	7 March 2014 21 March 2014
GEF Focal Area:	International Waters	Project Duration (Months)	60
Parent program	N/A	Project Agency Fee (\$):	811,651

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK²:

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
IW-1: Catalyze multi-state cooperation to balance conflicting water uses in transboundary surface and groundwater basins while considering climatic variability and change	GEFTF	4,723,897	25,090,133
IW-2: Catalyze multi-state cooperation to rebuild marine fisheries and reduce pollution of coasts and Large Marine Ecosystems while considering climatic variability and change	GEFTF	3,006,116	20,706,465
IW-3: Support foundational capacity building for joint, ecosystem-based management of transboundary water systems	GEFTF	1,288,336	23,661,228
Total Project Cost		9,018,349	69,457,826

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: Support regional collaboration for the integrated ridge-to-reef management of the transboundary Mesoamerican Reef, by demonstrating its advantages and improving regional, national and local capacities for the integrated management and governance of its freshwater, coastal, and marine resources.

Project Component	Grant Type ³	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount	Indicative Cofinancing
1. Resource governance is strengthened and regional collaboration promoted for integrated transboundary ridge to reef management of the Mesoamerican Reef according to the Tulum+8 Action Plan.	TA	1.1 The countries have the enabling environment that allows them to establish bi and trilateral and regional collaboration and cooperation agreements in support of the ridge to reef approach.	1.1.1 Established protocols, standards, and other regional instruments for promotion of consistent ridge to reef transboundary planning (IWRM and ICM). (BZ GT HN MX). 1.1.2 At least one regional demonstration program for regional cooperation is implemented. (BZ GT HN MX).	GEFTF	858,890	21,699,497

¹ Project ID number will be assigned by GEFSEC.

² Refer to the reference attached on the [Focal Area Results Framework and LDCF/SCCF Framework](#) when completing Table A.

³ TA includes capacity building, and research and development.

		<p>1.2 Policy frameworks developed to promote ridge to reef integrated management nationally of watersheds and coasts. [linking Components 2 and 3]</p> <p>1.3 Mesoamerican Reef ecoregional assessment is updated and revised to include socioeconomic and governance issues, vulnerability to climate change, and bioaccumulation variables.</p> <p>1.4 MAR strategic planning, policy making and monitoring supported by a comprehensive information portal and monitoring system building off MBRS Regional Environment Information System (REIS).</p>	<p>1.2.1 At least two policy instruments for integrated watershed and coastal management developed (BZ, GT, HN, MX).</p> <p>1.3.1 One Transboundary Diagnostic Analysis is developed (based on the Tulum+8 Regional Action Plan, PARCA, CLME and Gulf of Honduras TDAs, MAR ecoregional assessments of 2002 and 2008, WRI 2006 MAR watershed analysis), with specific focus on improved regional watershed planning, bioaccumulation, and climate variability (BZ GT HN MX)</p> <p>1.4.1 National processes for the collection, systematization, analysis and sharing of information including watershed, coastal, and marine information improved in all four countries. (BZ GT HN MX)</p> <p>1.4.2 Facilitating CCAD's Regional Environmental Observatory as the information hub to systematize and disseminate data specific to the MAR's biodiversity, forests, coasts, better management practices and bioaccumulation and climate variability variables. (BZ GT HN MX)</p>			
2. Integrated ridge to reef management of watershed and freshwater resources to reduce terrestrial threats to the transboundary Mesoamerican Reef	TA	2.1 Integrated watershed management in priority watersheds including the Yucatan peninsula expanded.	<p>2.1.1 Demonstration projects implemented to increased number of hectares under integrated watershed management in priority watersheds, including karstic systems (BZ GT HN MX).</p> <p>2.1.2 At least two water reserves established to offer regional experience in the use of this instrument for water conservation within the two countries that compose over two-thirds of MAR (non karstic) watershed area (GT</p>	GEFTF	4,294,452	23,128,401

		<p>2.2 Public-private mechanisms (Water Funds) for integrated watershed management are consolidated.</p> <p>2.3 Stakeholder engagement in integrated watershed management and resilience building demonstrative projects in priority watershed areas</p>	<p>HN). [Linked to Output 1.2.1]</p> <p>2.2.1 One public-private mechanism (Water Fund) for integrated watershed management is strengthened (GT).</p> <p>2.2.2 Two new public-private mechanisms (Water Funds) for integrated watershed management are designed and created (BZ HN).</p> <p>2.3.1 Increase in the percentage of sugar and oil palm producers meeting the necessary conditions for certification BONSUCRO or RSPO (GT, HN).</p> <p>2.3.2 Increase in the percentage of tourism and development sector actors adopting better management practices to protect aquifers and critical habitats (BZ GT HN MX)</p> <p>2.3.4 Increase in the number of local communities implementing restoration and land cover management activities in restoration /management of forest cover (BZ GT HN MX).</p>			
3. Integrated ridge to reef management of coastal and marine resources to reduce threats to the transboundary Mesoamerican Reef	TA	3.1 Strengthening of capacities and strategic planning for integrated coastal management and for establishing the basis for regional marine spatial planning.	<p>3.1.1 At least one policy instrument is prepared for the implementation of ICM in both Honduras and Mexico in order to strengthen capacities and establish minimum planning for regional planning. (HN MX)</p> <p>3.1.2 The Integrated Coastal Zoning and Management Authority in Belize is supported with capacity building and streamlined frameworks to implement the Integrated Coastal Zoning Management plan in Belize. (BZ).</p> <p>3.1.3 Implementation of the</p>	GEFTF	2,576,671	18,744,734

		<p>Caribbean Coastal Marine Strategy in Guatemala through capacity support. (GT)</p> <p>3.1.4 Environmental, fisheries, maritime and planning government authorities prepare for integrated coastal marine management and spatial planning. (BZ GT HN MX)</p> <p>3.2 Key stakeholder engagement in integrated coastal marine management and habitat protection and resilience building demonstrative projects in coastal marine prioritized areas</p> <p>3.2.1 Demonstration projects implemented to ensure at least three fisheries improvement projects (FIP) (lobster, finfish, and others) are implemented and increased percentage of Belize shrimp aquaculture is ASC certified above baseline. (BZ GT HN MX)</p> <p>3.2.2 Increase in the percentage of tourism and marine transport sector actors adopting better management practices to coastal and marine habitats. (BZ GT HN MX) [linked to activities of Outcome 2.3.2]</p> <p>3.2.3 Number of local communities implementing coastal and marine management and number of hectares of coral reef and mangrove forest restored to improved community resiliency. (MX GT BZ HN)</p>				
4. Project Monitoring and Evaluation, and knowledge sharing for successful dissemination and replication of ridge to reef approaches	TA	<p>4.1 The project's monitoring and evaluation system employs participatory methods throughout project lifetime.</p> <p>4.2 Advantages of the</p>	<p>4.1.1 Project monitoring system provides systematic information on project progress to reach the specified outputs and outcomes.</p> <p>4.1.2. Mid-term and final evaluations developed and shared in a timely manner.</p> <p>4.1.3 Project progress reported using the GEF-5 IW tracking tool.</p> <p>4.2.1 At least three project</p>	GEFTF	858,890	3,243,621

		ridge-to-reef approach shared with local and international audiences, including the GEF IW:LEARN community.	results from country demonstrations and activities disseminated in neighboring countries for replication and upscaling.			
			4.2.2 Participation in at least two regional and two international conferences including International Waters Conference.			
			4.2.3 Knowledge products (IW:LEARN experience notes, brochures, videos, etc) on lessons learned and project best practices developed and disseminated nationally, regionally, and to international IW community.			
Subtotal					8,588,903	66,816,253
Project Management Cost (PMC) ⁴				GEFTF	429,446	2,641,573
Total Project Cost					9,018,349	69,457,826

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
National Government	Governments of Belize, Guatemala, Honduras, and Mexico	In kind	19,699,622
		Cash	29,549,434
Other Multilateral Agency	CCAD	In kind	4,226,516
		Cash	6,339,774
Private Sector	Coca-Cola (TCCC and Foundation)	Cash	2,150,000
CSO	Fundaeo	In kind	250,000
		Cash	750,000
CSO	MAR Fund	Cash	993,000
CSO	WWF MAR	In kind	1,043,560
		Cash	762,587
CSO	Wetlands International	In kind	50,000
		Cash	150,000
CSO	Fundacion Defensores de la Naturaleza	In kind	473,333
		Cash	1,420,000
GEF Agency	World Wildlife Fund, Inc.	In kind	1,000,000
		Cash	600,000
Total Cofinancing			69,457,826

D. INDICATIVE TRUST FUND RESOURCES (\$) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (\$) (a)	Agency Fee (\$) (b) ²	Total (\$) c=a+b
WWF	GEFTF	International Waters	Belize, Guatemala, Honduras, Mexico	9,018,349	811,651	9,830,000
Total Grant Resources				9,018,349	811,651	9,830,000

¹ In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

⁴ To be calculated as percent of subtotal.

² Indicate fees related to this project.

E. PROJECT PREPARATION GRANT (PPG)⁵

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

	<u>Amount Requested (\$)</u>	<u>Agency Fee for PPG (\$)⁶</u>
• \$200k for projects up to & including \$10 million	155,963	14,037

PART II: PROJECT JUSTIFICATION

A.1. Project Description:

The Mesoamerican Reef System (MAR) is the world’s largest transboundary barrier reef spanning over 1,000 km of coast and 464,263 km² of ocean, coasts, and Caribbean draining watersheds of Belize, Guatemala, Honduras and Mexico. The MAR comprises cloud and tropical forests, large rivers, karstic hydrogeological systems, fertile lowlands, coastal wetlands, lagoons, mangrove forests, seagrass beds, and coral reefs. This fragile ecosystem is a biodiversity hotspot and is home to some of the world's largest populations of manatees and marine turtles and the world’s largest aggregation of whale sharks. The MAR hosts several UNESCO World Heritage sites including the Belize Barrier Reef and is home to the rich cultural diversity of Caribbean Creole, Garifuna, Maya Yucatec, Mestizo, Miskito, Mopan, and Q’eqchi’ ethnic groups.

The MAR sustains over 12 million people in the four countries, Belize, Guatemala, Honduras, and Mexico⁷, a large proportion of whom live along the coasts and islands but also inland in large urban centres such as the capital cities of Belize, Guatemala and Honduras. These four countries also share several important transboundary drainage systems, including the Bay of Chetumal (Mexico and Belize) and the Gulf of Honduras (shared by Belize, Guatemala, and Honduras). Water flows within the MAR originate in the mountains and karstic lowlands of the Caribbean draining basins of all four countries. These water flows often travel long distances from forestlands, through agricultural and urban landscapes to the coast and into the sea. Most of the sediment and nutrients delivered to the MAR come from agricultural lands in Honduras and Guatemala. The contributions of Belize and Mexico are significantly less due to the unique karst geology of the Yucatan and smaller watershed surface area, but also pose a threat to the MAR.

The MAR provides livelihood to communities, and contributes to the national economies of four bordering countries through agricultural commodities, shrimp aquaculture, commercial fishing (lobster, finfish, conch, etc), and a rapidly growing tourism sector. The rich resources have important ecological, aesthetic, and cultural value to its inhabitants. Productive fishing grounds support valuable commercial and artisanal fisheries. Millions of tourists, attracted to the sandy beaches, teeming reefs, and unique biodiversity, provide important economic revenue to the people and their governments. Because the reef system is critical to the vitality of all four countries’ economies and livelihoods as well as yielding globally significant benefits to surface and ground freshwater and marine resources and biodiversity, its protection is of global importance.

⁵ On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

⁶ PPG fee percentage follows the percentage of the GEF Project Grant amount requested.

⁷ Population in the MAR totals 12,152,175. At current growth rates, by 2050 the MAR Catchments will support 31,084,525 people.

Key threats to the ecological integrity of the MAR

As water flows from ridge to reef, freshwater quality and quantity impacts the health of the coastal and marine ecosystems. The longer the resident time, the more opportunities freshwater flows can become stressors to the MAR. Additionally, poor management practices along the coast and within the marine waters further compound the problem. The connectivity of terrestrial watersheds to critical coastal and marine habitats presents a continuum of threats that are omnipresent to the transboundary MAR system. The 2007 Tulum+8 Regional Action Plan for the MAR identifies six major threats, including: a) ecosystem and habitat degradation, b) mass tourism, c) land-based sources of pollution, d) overfishing, d) global climate change, and e) inadequate institutional, political, and human capacity.

Terrestrial threats to the MAR come from multiple sources. A rapidly growing tourism and development industry, insufficient municipal water services, large scale agriculture and industry, and other poor land-use practices create a toxic recipe of contaminated waters and eroding sediments that eventually drain into the sea. Water quality in the MAR is most affected by the application of agrochemicals, sedimentation overloads, untreated sewage, and industrial effluents from several key industrial sectors. Excess nutrients from agriculture practices, especially nitrogen, phosphorous and carbon are recognized as major stressors causing eutrophic and localized hypoxic conditions. The large scale agroindustry applies pesticides, fungicides, fertilizers and other agrochemicals to millions of hectares of commodity agriculture, while small farms continue to clear land eroding soils in the upper watersheds. Industry relies on water from its rivers as a key element of its processes but also as the vehicle to dispose of its waste

Up-land threats are further compounded from poor management practices along the coast. The beauty of the MAR's landscape has turned the ecoregion into a top tourism destination. However, the tourism and associated development industries along the coast are expanding beyond control, spreading down the Yucatan Peninsula to Belize and Honduras at an unprecedented rate. In doing so, mangrove forests are being cleared to make room for more hotels and vacation homes. Poor construction practices, weak municipal services and infrastructure, and land change are all proving to be detrimental to the marine habitats.

Unfortunately threats to the MAR do not stop at the coast, and the MAR's health is further exacerbated by human activities within the marine waters. The largest threats here include unsustainable fishing and tourism practices as well as invasive species. For over a century, the lobster fishing was the region's main economic activity, but over the past few decades catches have dwindled dramatically with too many boats competing for what until recently was a nearly open access resource with few regulations. Furthermore, in recent years a new significant threat has appeared in the form of the invasive lion fish (*Pterois miles* and *Pterois volitans*), a predatory fish native to the Indo-Pacific Ocean. In the Americas, the lion fish first appeared off the eastern coast of the United States, and has quickly spread into the Caribbean and south into Mexico, Central America and as far south as Venezuela. Lion fish were first spotted in Belize in January 2009 and in Honduras in May of the same year. Its lack of natural predators and voracious appetite threaten reef fish and mollusk species.

Additionally, the MAR has been impacted by increased ocean acidification and temperatures, sea level rise, and increased frequency of extreme climatic events associated with global climate change. Coral bleaching, floods, sea level rise, drought, storms and hurricanes have all impacted the MAR and threaten its ability to withstand the impact from other threats and its capacity to recover as rapidly as it would without the added pressure.

Barriers to the conservation of the MAR:

While the number of threats to the MAR are significant, a number of barriers preventing effective management and conservation still exist. Perhaps most worrisome of these is inadequate institutional, political, and human capacity for the effective regional management of the MAR as a shared transboundary ecoregion. The four MAR countries have recognized their shared transboundary ecoregion as a priority for conservation and collaboration via the Tulum declaration signed in 1998 by the four heads of state. The declaration was then ratified in 2006 in Tulum+8. Despite their willingness to work together, the region's ability to carry out a regional collaboration effort for the integrated management of the MAR has been weak. The Central American Commission on Environment and Development (CCAD), was commissioned by the four heads of state as the lead agency for the regional conservation of the MAR, but capacity and limited financial resources continue to limit their role despite strong political support from member countries.

In the MAR, the ridge to reef approach to resource management was first implemented in 2002, after the completion of the first ecoregional assessment which included all the MAR watersheds⁸. Although there are several parallel efforts that have a ridge to reef approach in the MAR, the integration of the approach as the overarching guiding principle to the MAR's ecoregional management is still pending. Additionally, the private sector plays a key role in how resources are used, protected or destroyed in the MAR. From tourism and fishing to commodity agriculture and industry, it has been recognized that the integrated management and conservation efforts in the MAR ought to include these key stakeholders. Although some sectors are already implementing footprint reduction policies and activities, scaling up of such initiatives is pending.

The MAR is currently amidst one of the most critical opportunities towards integrated management across the region. Although important science-based databases and analyses do exist for the MAR, the ecoregion needs to update its ecoregional assessment including additional variables that have not been considered in the past, including socioeconomic and governance issues, bioaccumulation dynamics, and climate variability. Inconsistent data collection and poor quality have been a constant barrier preventing well-informed management.

Project Baseline:

The four countries that share the MAR have a joint understanding and commitment to shared conservation efforts to ensure a healthy Mesoamerican reef. The Tulum declaration, signed in 1997 by the heads of state of the MAR countries identified the MAR as a shared transboundary ecoregion and declared it as a priority conservation area expressing their commitment to work together for its improved conservation and management. The Tulum declaration was reconfirmed and strengthened in 2007, via the declaration known as Tulum+8, where the heads of state also ratified their will to coordinate activities via the CCAD, the environmental agency comprised by the environment ministers of the region within Central American Integration System (SICA).

⁸ Kramer and Kramer, 2002. Ecoregional Conservation Planning for the Mesoamerican Caribbean Reef. WWF.

The Tulum declaration led CCAD to design a Regional Action Plan for the MAR in 1998 that was then used as the foundation of the action plans of various organizations working in the ecoregion. The 1998 Regional Action Plan guided the design and implementation of the GEF-funded World Bank Conservation and Sustainable Use of the Mesoamerican Barrier Reef System (MBRS) Project, which ended in 2006. MBRS proved to be a successful project that generated significant momentum towards supporting integrated management and regional collaboration supporting the reconfirmation of the Tulum declaration, known as Tulum+8. The MBRS project yielded important lessons learned by the region that continue to shape regional planning. The MBRS project was also successful in developing of a significant amount of data for improved management, including the Regional Environmental Information System (REIS).

The Tulum+8 declaration commissioned CCAD to update the Regional Action Plan based on the experience and knowledge accrued since 1997. This updated Regional Action Plan recognized the need for Integrated Watershed, Coastal and Marine Management via a ridge-to-reef approach that includes eleven sub-strategies: 1) Responsible tourism; 2) Consolidation of the marine and coastal Protected Areas System including Special Management Areas; 3) Sustainable fisheries management; 4) Effluent management; 5) Land-use planning; 6) Agriculture best practices; 7) Sustainable forest practices; 8) Responsible extraction of non-renewable resources; 9) Management of the main hydrological karstic systems; 10) Integrated water resources management; 11) Harmonization of policies and norms. A follow-up MBRS Phase II GEF project was planned by the World Bank but was never implemented. Many of the proposed activities in the Phase II project aimed to support the updated Regional Action Plan continue to be relevant priorities for the region.

The role of CCAD has grown steadily since it was established to contribute to sustainable development in Central America, strengthening cooperation and integration arrangements for environmental management. CCAD has a comprehensive legal framework whose Articles of Agreement were signed by the Presidents of the Republics of Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua, at the Presidential Summit in San Isidro de Coronado, Costa Rica, in December 1989. CCAD's operational capacity is well demonstrated, proving to be key player for facilitation, leading to agreement on the Common Policy Framework in the Southern Transboundary Area, bringing Mexico on board as a CCAD Observer, and facilitating discussions on a common policy framework for the Northern Transboundary Area and the signing of the Tulum+8 Declaration.

While the Tulum+8 Regional Action Plan provides the framework for country strategies that are coordinated by CCAD, CCAD itself is guided by Plan Ambiental de la Región Centroamericana (PARCA). PARCA was first published in 1999 and its implementation was an exercise capacity building to address environmental challenges in the region. PARCA II (2004-2009) defined specific objectives, results and indicators to address environmental challenges and focused on the development and validation of regionally harmonized policy instruments – which influenced the MBRS Phase II project.

Now PARCA (2010-2014) focuses on environmental governance with a management model based on environmental compliance and enforcement, and a strong emphasis on inter-sectoral and inter-institutional working. PARCA III focuses on political action to achieve the mainstreaming of environmental management and coordination and technical management of the CCAD, especially in management of environmental quality, natural heritage management and adaptation to climate change. Technical management also includes the Regional Observatory for Environmental Compliance to provide CCAD's Council of Ministers and other stakeholders, current and timely

information for decision making, especially in relation to regional environmental policy agenda information. PARCA III strategic objectives and lines of action offer the regional framework and support for integrated watershed management, integrated coastal management, public private mechanisms for conservation and sustainable development, responsible fisheries, and other aspects included in this project.

The impact of land based sources of pollution in the coastal and marine systems of the MAR has been recognized since the Tulum declaration. However implementation of a ridge to reef approach to the ecoregion came later. The ridge to reef approach in the MAR can be dated back to 2002 when the first ecoregional assessment for the MAR was prepared by WWF with ample participation from government, academia, international community and civil society partners. This assessment was later updated in 2008 in a TNC led effort. The approach has since guided the both government and civil society led conservation efforts in MAR, including the Tulum+8 Regional Action Plan.

The science based support for the ridge to reef approach also includes a 2006 study by the World Resources Institute on the hydrologic analysis of the MAR's watersheds. This study assessed the impact of the sediments and nutrients discharged into the MAR from the over 400 watersheds that compose the ecoregion. The analysis also estimated increase in sediment and nutrient delivery resulting from human activities, and offered predictions of future sediment and nutrient delivery for 2025. The results show that Honduran watersheds deliver up to 80% of sediments and half of the nutrients draining into the MAR. Guatemala watersheds follow Honduras with a quarter of the nutrients and one sixth of the sediments while Mexico and Belize's contributions are much smaller. The study's scenarios into 2025 show that if free markets are favoured and regulation is weak nutrient discharge will increase by 10% and sediments by 13% whereas if the region implements environmental policies in favour of sustainable development, discharges could be reduced at least in 5% from current levels. The compelling results of the study⁹ have led to specific analysis of key watersheds and are the foundation of both government and civil society efforts for the sustainable management of the ecoregion.

The Healthy Reefs for Healthy People Initiative (HRI) monitors the coral reef biannually producing a report card on reef health status and a report on a MAR eco audit assessing progress towards reaching a set of indicators that identify the ideal conservation and sustainable use of the MAR. To date HRI results show a reef in decline but where small yet resilient patches of reef health still offer the hope for its protection. The initiative calls for an accelerated collective pace on reef management in order to safeguard the reef. This effort is a regional collaboration among coastal marine government agencies, academia and non-governmental organizations. This science-based initiative is unique in the world, having produced already three report cards and two eco audits. Other science-based data sources available in the MAR include the recently completed Transboundary Diagnostic Analyses (TDAs) carried out by the CLME and Gulf of Honduras GEF projects, though they fail to provide the necessary site-specific information desperately needed in the region. There are also existing datasets available for the first phase of the GEF/World Bank MBRS project through the successful Regional Environment Information System (REIS) that was discontinued due to funding issues. Mexico's monitoring and information system for natural protected areas offers more than ten years of information and sustained monitoring is another valuable source of information for the MAR.

⁹ WRI, 2006. Watershed Analysis for the Mesoamerican Reef, World Resources Institute, Washington, DC. Available online: http://pdf.wri.org/mar_exec_english.pdf

Integrated Water Resources Management Baseline:

Integrated watershed management as a ridge to reef management approach also has as its foundations national level policies that promote the approach. The compounding problem for transboundary management of MAR watersheds includes two major issues. First, the complex geology of the region, including karstic systems, makes implementation standard IWRM planning very challenging. Additionally, nearly two-thirds of the MAR non-karstic watershed area lies in two of the four MAR countries, Guatemala and Honduras. The result of these factors is a fragmented approach to IWRM in the region.

The Central American Strategy (ECAGIRH) and Action Plan (PACAGIRH) for hydrological resources management - Estrategia Centroamericana para la Gestión Integrada de Recursos Hídricos (ECAGIRH) and Plan Centroamericano para la Gestión Integrada de Recursos Hídricos (PACAGIRH) - represent the region's shared understanding on the need for integrated management of hydrological resources for water conservation and sustainable use. CCAD's PARCA III supports the implementation and institutional strengthening to carry out the plan and strategy as well as lead regional efforts on shared watersheds and transboundary agreements for the management of water resources.

National policy instruments for integrated watershed management exist, including Belize's Integrated water resources management policy, Guatemala's integrated management of hydrological resources policy, Honduras's Forest Law, and Mexico's Environmental and Natural Resource Sectorial plan for 2013-2018. In Honduras, two general water laws exist - the 2003 Water Framework Law and the 2009 General Water Law. However, neither policy has a focus on integrated management. The countries, suffer from weak capacity and conflicting agency mandates preventing implementation. Fragmented efforts supporting integrated watershed management are active in the ecoregion.

Some of the major aquifers and rivers in the region Yucatan Peninsula watershed and the Rio Hondo river shared by Belize and Mexico, and the Motagua river in Guatemala have developed diagnostics to guide management actions. Furthermore the Yucatan Peninsula watershed has established its Watershed Council which oversees the management of the watershed resources to ensure adequate provision to its users. The council is formed by government, civil society, businesses, users and academia, however the Council to date is only active at the planning level and lacks the capacity for implementation. Additionally its framework lacks regulatory capacities and works only in a consultative role with stakeholders.

Similarly, in Guatemala authorities have begun to establish the national authority for the sustainable management of the Motagua river basin, the major Caribbean draining watershed in Guatemala. To date, a series of baseline analysis have been undertaken in key subwatersheds including those in Guatemala City. The baseline assessment determined the magnitude of the environmental problems faced by the watershed as well as the urgency required to prevent further deterioration. The Motagua basin encompasses 14 departments and 95 municipalities in the country with millions of inhabitants. It reaches the Caribbean coast sustaining on its way a diverse array of economic activities and cultures in a succession of highly diverse landscapes and ecosystems. Wetlands International is actively participating in Guatemala's efforts towards integrated watershed management in the Motagua river.

In Mexico, water reserves activities are led by the national water commission (CONAGUA), who is promoting water reserves as a mechanism of integrated water management that builds watershed resilience and thus works as climate change adaptation measure. This project aims to share the Mexican experience in identifying key water reserves and establishing the enabling conditions to establish such reserves as an instrument of integrated watershed management.

Efforts on integrated watershed management include multiple initiatives at the local and national level with a myriad of actors from international donors to local communities and even the private sector. One of such efforts includes the participation of The Coca-Cola Company. In 2006, the TCCC partnered with WWF to establish Guatemala's Sierra de las Minas Water Fund. The mechanism was established by Defensores de la Naturaleza in collaboration with the Coca-Cola bottler and other business partners in the region. Currently plans are underway to establish a similar water funds mechanisms in San Pedro Sula and this project would aim to establish one in Belize City. The TCCC-WWF partnership promoted integrated watershed management and water stewardship, improving water use efficiency of Coca-Cola bottlers, promoting integrated watershed management among upper watershed communities while improving their livelihoods, fostering the protection of forested areas, promoting agroforestry projects and assisting sugar mills in preparation for certification. The partnership is now in its second phase that will continue until 2020 and will also focus on climate-smart integrated watershed management, Bonsucro certification of Coca-Cola sugar providers, and preparing the region to establish water reserves as a mechanism of integrated watershed management.

In 2004, WWF's Mesoamerican Reef program funded an analysis of the presence of agro-chemicals in the MAR. This baseline assessment identified nine agro-chemicals that were bio-accumulating in marine organisms. In 2007 a second round of sampling and analysis was conducted. The results, when compared to those from 2004, indicated a reduction in marine life contamination. While the complexity of bioaccumulation dynamics prevented reaching direct conclusions from only two data sets, the trend toward lower levels of chemicals was positive. The study is on-going with a third round of samples currently under analysis and a planned fourth round of sampling for 2015. The results from the 2004 bioaccumulation study were used to design a program to promote the adoption of better management practices in agriculture to reduce the amount and type of effluents draining from the watershed into the reef, to minimize the chemical contamination of the MAR's marine ecosystems and species. In the MAR more than 300,000 hectares of land are devoted to commodity agriculture, specifically banana, citrus, oil palm, pineapple and sugar have been increasingly produced with the adoption of better management practices. By replacing toxic agrochemicals with less toxic ones or even biological control, reducing chemical fertilizer use with soil organic matter management, reducing water use and contaminant rich effluents, these efforts have so far has reached an overall reduction in pesticide toxicity by 68%, reduced water and fertilizer use by 30%, and reduced soil erosion by a third.

Additionally, the adoption of these better management practices are preparing producers for adherence to voluntary standards that increase market competitiveness. The Bonsucro standard seeks to reduce social and environmental impacts of sugar production. Similarly the Roundtable on Sustainable Palm Oil (RSPO) seeks to improve environmental and social performance for oil palm production. Currently, 80% of Honduras oil palm producers and half to Guatemala's producers are preparing for RSPO certification, while two sugar mills in Honduras are preparing for Bonsucro certification.

Integrated Coastal Management Baseline:

Parallel to the efforts to mainstream the ridge to reef approach in the MAR, the region is also making progress towards addressing coastal and marine threats to the MAR. Like the fragmented level of IWRM planning identified in the baseline above, a similar picture exists within the region for ICM. Belize, with the largest adjacent coastline to the MAR has been a leader on ICM for the region. Belize has completed its integrated coastal management plan and is now ready for government approval and implementation. The implementation will be led by the Coastal Zoning and Management Authority and Institute (CZMAI), established in 1998 as the designated body for coordinating the sustainable use and management of resources within Belize's coastal zone.

Similarly, Guatemala has recently completed its coastal marine policy and strategic plan, which is similarly ready for implementation. Guatemala approved in 2009 its National Policy for the Integrated Coastal Marine management. Fundaeco, a Guatemalan CSO, is involved in the implementation of the policy's strategic action plan for Guatemala's Caribbean coastal marine areas with defined goals and activities from 2011 to 2016. The strategy and action plan are fundamental to the integrated management of the coastal/marine resources of the region and are an important opportunity to reach national agreement on the rational use of coastal/marine goods and services, strategic resources to national development. Guatemala has already amassed significant progress in integrated management of coastal/marine sources that will benefit from the instrument and its application.

In Honduras, the legal framework for ICM is pending and to date only fragmented municipal or community level efforts exist. An IDB demonstration project called Bay Island Environment Management Project has shown promising results at the local level, though no action was scaled up due to limited capacity and funding issues. The relevant specific objectives of the program included protecting and restoring natural resources and coastal and marine ecosystems by establishing a system of integrated management and strengthening local capacity for planning, managing and administering economic utilization of natural resources. The project is now closed, though minimum baseline planning and capacity still exists.

Mexico, plans for the ecological ordering of the territory have been undertaken at the local and municipal level, with 100% of the terrestrial portion of the state of Quintana Roo (the Mexican state within the MAR) having a land use plan. For the Mexican portion of the marine areas of the MAR, an overarching plan exists at a very large scale. These planning efforts lack connection between the terrestrial and marine portions and the marine portion needs to take into account the specific characteristics of the marine territory in the MAR. These national level efforts are the foundation on which the ridge to reef and integrated coastal management of the MAR ecoregion can be harmonized and scaled up.

The 2004 analyses on agriculture sources of pollution in the MAR identified not only the agriculture commodities, but also shrimp aquaculture as a significant source of nutrients reaching the coastal and marine system. The participation of Belizean shrimp farmers in the adoption of management practices that would reduce nutrient rich effluents and conserve important coastal habitat areas has resulted in significant reductions of effluents by up to 50 percent (when compared to 2004 levels), which has enabled the recovery of important coastal areas like the sea grass beds of Placencia Lagoon from the devastating effects of nutrient-induced algal blooms. Adoption of better management practices has also prepared farmers for Aquaculture Stewardship Council (ASC) certification. In late 2012, the Belize Shrimp Growers Association identified the improvements

needed to meet the ASC standard. Technical assistance is now needed to the BSGA to make the necessary changes in their operations. It is expected that seven out of Belize's eight shrimp farms, responsible for 95% of the country's shrimp production, can meet the ASC standard.

Another key marine threat to the MAR's ecological integrity is overfishing. Currently almost every major commercial fishery in the MAR is overfished. Multiple efforts have been implemented, addressing key fisheries at various levels including the establishment of no take zones and the protection of spawning aggregation sites in the MAR. In Mexico, exchange programs are supporting artisanal fishermen with improved organization capacities and techniques, the establishment of no take zones, and improved market opportunities. In Belize's national-level ban on the fishing of parrotfish, is protecting a key coral grazer species that had recently joined the ranks of overfished species. Parrotfish were traditionally not fished for commercial purposes but the overfishing of other commercial species such as snapper and grouper had resulted in decimating of a species key to healthy coral cover. Similarly, Honduras's "complete and permanent" moratorium on shark fishing positioned the region in the forefront of struggles to address overfishing.

Regional fisheries efforts are also working towards compatible regulations for finfish and conch through experience sharing and improved community organization, fishing gear, and establishment of no-take zones. Efforts have also led to increased regulatory compliance and harmonization between Belize and Mexico, specifically in the conch fishery. Among the most relevant regional accomplishments to address overfishing focused on lobster. A region wide effort led by OSPESCA in 2009 established a regional lobster ban. The ban adopted by the seven countries of the Central American isthmus, halted lobster fishing from Belize to Panama during the lobster reproductive season.

In Honduras, USAID and Darden Seafood funded efforts have contributed to the testing and adoption of a "juvenile-friendly" lobster trap and legislation banning unsustainable fishing practices. In 2011, Marine Stewardship Council (MSC) pre-assessment was completed for the Honduras spiny lobster trap fishery and subsequently brought together fishery stakeholders to develop a Fishery Improvement Project (FIP) Action Plan, which identified actions that would promote sustainable utilization of the resource and management of the fishery. Since 2012, efforts have been underway to implement the FIP Action Plan with stakeholders, including OSPESCA, DIGEPESCA, and trap fishermen.

In Mexico, small-scale lobster fishery in the Sian Ka'an and Banco Chinchorro Biosphere Reserves achieved and has maintained Marine Stewardship Council (MSC) certification in 2012. Regional Federation of Fishing Cooperatives in the State of Quintana Roo, the NGO Comunidad y Biodiversidad, and WWF have collaborated successfully to enable the fishery to become the first MSC-certified spiny lobster fishery in the Caribbean. In Belize, ongoing efforts have led to completion MSC pre-assessment of Belize's spiny lobster fishery in mid-2011.

The GEF/FAO Project on the Sustainable Management of Bycatch in Latin American and Caribbean Trawl Fisheries includes activities with the Mexican trawl fisheries sector. Trawl fisheries in the MAR are a relevant economic force, however are not as large as lobster and other fisheries due to the limited access of commercial trawling in the shallow reef waters. This project will ensure close coordination with this project during project document development, specifically in regards to efforts on legislation and reducing the ecosystem impact of the fishery in the MAR. The project strengthening the sub-system of coastal and marine protected areas that is about to begin implementation in Honduras will work towards the establishment of marine and coastal protected

areas and improving their management aiming to stabilize mangrove cover in specific areas and protect fisheries. This project will seek coordination where relevant with this initiative.

With the first sighting of lion fish in the MAR in 2009, the invasive predatory lion fish became the most recent threat to the ecoregion's marine systems as well as testing the regional coordination systems. At the national level, each of the MAR countries is addressing the issue, reporting sightings, developing national action plans for its control and localized innovative proposals to address the issue. In every MAR country lion fish tournaments are taking place and local restaurants are developing their customers taste to the fish. In Honduras divers are teaching reef shark to feed on the lion fish, although the effectiveness of this idea is still to be determined. Harmonization of these practices and development of a regional plan to address the threat will improve national and local efforts as well as demonstrate effective regional collaboration to manage threats to the MAR.

Mangroves protect the coast from the impact of extreme weather events, offer nursery grounds for multiple fish and mollusk species, and offer local human communities multiple economic and livelihood benefits. They are also one of the most threatened tropical ecosystems, rapid and unregulated coastal development is the greatest threat they face. Recently in the MAR several assessments have established the state of mangrove conservation in the region with compelling results. Guatemala and Honduras recently mapped their mangrove cover while Belize has also mapped its mangrove cover but also assessed their economic contributions. A World Resources Institute study assessed that Belizean mangrove contributed to the Belizean economy \$60 to 70 million per year through tourism, \$111 to 167 million via shoreline protection and \$3 to 4 million to fisheries¹⁰. Mangrove restoration activities are occurring both led by governments as well as by local communities concerned with their local landscapes and ecosystems. Some of these efforts are rooted in vulnerability assessments carried out by local communities in collaboration with government agents or CSOs. In Placencia lagoon in Belize, mangrove planting is a community and business initiative supported by the Belize shrimp growers association. In Mexico, mangrove restoration efforts include Banco Chinchorro and Sian Ka'an biosphere reserves.

Seeking to ensure the long term sustainability of conservation efforts, key CSO and government partners established the Mesoamerican Reef Fund (MAR Fund) in 2004. The goals of the MAR Fund are: a) to provide long-term financial sustainability for natural resources management and conservation initiatives in the MAR eco-region; (2) to strengthen the alliance among the four participating conservation funds; and (3) to consolidate and allocate donor contributions to common and strategic objectives in the eco-region. Ten years from its founding, the MAR Fund has become a key player offering administrative and financial support to conservation efforts in the coastal and marine habitats. Funding for the MAR Fund is provided by foundations, NGOs and bilateral donors. Recently, the MAR Fund secured a 10 million Euro grant from KfW.

Tourism in the MAR brings nine million people to the ecoregion per year. In Mexico, for example, the Yucatan Peninsula is the main destination and the industry is both regionally and nationally important to Mexico's economy. Tourism and associated construction within the MAR has grown at an unprecedented rate over the last three decades, making government proactive management and planning nearly impossible. Within Mexico, there are several government-led programs to address unsustainable tourism practices, including addressing contamination of aquifers and habitat

¹⁰ World Resources Institute 2008 Belize's Coastal Capital The Economic Contribution of Belize's Coral Reefs and Mangroves by Emily Cooper, Laretta Burke and Nadia Bood

degradation. The most appropriate program following ridge to reef integrated management includes the Interinstitutional Coordinating Agreement. This unique initiative has brought together the human and financial resources from 14 Federal Government agencies, including SEDESOL, SEMARNAT, SE, CDI, CONAFOR, CONANP, SAGARPA, SRA, FONAES, FONATUR, CPTM, INAH, FIRCO and Financiera Rural).

Additionally, there are multiple other CSO-led initiatives addressing this issue, including work by Mesoamerican Reef Tourism Initiative (MARTI), National Tourism Confederation (CNT), the Tour Operators' Initiative for Sustainable Tourism Development (TOI), WWF, and Conservation International, to name a few. For example, TOI and WWF have supported work towards the adoption of good environmental practices by TOI hotel suppliers, leading to reductions in water consumption and waste water and solid waste generation. Participation in these activities spans most agencies at the local and state levels, including several NGOs, local tourism business stakeholders and federal agencies. The dialogues spurred by these activities have led to the development of a Mexican Official Norm with the provision of rules for Siting, Design and Construction practices at the Yucatán Peninsula which started implementation in 2010. The hotel industry has been specifically targeted for environmental performance standards to bring about measurable reductions in natural resource consumption and improvements in solid waste and wastewater treatment and management. Initial success to deal with unsustainable tourism was also addressed by the GEF/World Bank MBRS project from 2001 until 2006. The project was able to achieve moderate success, but the terminal evaluation noted that there was less success in attempts to manage tourism impacts, promote sustainable tourism development, or create alternative livelihoods for those engaged in unsustainable natural resource extraction.

In Belize, Guatemala and Honduras efforts towards responsible tourism focuses on the promotion of better management practices in the hotel and tour operator industries. Ecotourism is a key strategy to reduce the impact of mass tourism which is much more difficult to control. In that regard, cruise ships and the ports developed for them have been a central component of efforts towards sustainable tourism. Maritime commercial transportation was at the focus of a completed GEF/IDB Gulf of Honduras project in the MAR. The Gulf of Honduras project for environmental protection and pollution control from maritime transport, created local capacities for the adequate control of maritime transport pollution and sought to improve navigational safety and environmental management in the Gulf. The project's TDA as well as the list of identified projects to be implemented will be consulted by this proposed project. Lastly, the Caribbean Regional Fund for Wastewater Management (CRew) is addressing the problem of sewage pollution from land sources and from ships in the wider Caribbean, including Belize, Guatemala and Honduras. The project offers sustainable financing, technology and policy responses to tackle the problem and a valuable wealth of baseline information to assist country management. However, within the MAR, CRew is only actively financing activities in Belize due to the countries large coastal zone.

The baseline of local, national, and regional projects and programs addressing threats to the MAR varies at all scales. Overall, the baseline can be described as encouraging and has seen significant improvement, in part, due to previous GEF investments with a focus on biodiversity. However, there continue to remain large gaps and poor coordination among programs within and between countries. Further, regional activities and collaboration through CCAD, while prime for implementation and with clear mandate since MBRS Phase I, has lacked capacity to have a high impact on the globally important reef.

Proposed alternative scenario:

The proposed project will enable countries to advance beyond the above mentioned baseline initiatives to enhance regional collaboration for the ecological integrity of the MAR and scale up the ridge to reef approach to its management as outlined in the Tulum+8 Regional Action Plan. The focus of the project will be on integrated management of the MAR by addressing the six major threats to the MAR outlined in the Tulum+8 Regional Action Plan mentioned above, with a specific concentration on addressing land-based threats and improved management of watersheds and freshwater resources. The proposed project aims to create the enabling conditions necessary to bring the unique actors along the ridge to reef continuum for the first time. In doing so, demonstration projects and existing frameworks, strategies, and plans/policies where IWRM and ICM communities can be most effective will be identified. The proposed project objective is to support regional collaboration for the integrated ridge-to-reef management of the Mesoamerican Reef, by demonstrating its advantages and improving regional, national and local capacities for the integrated management and governance of its freshwater, coastal, and marine resources. The project has four components designed scale up existing baseline programs to address key threats and barriers to the integrated management and conservation of the transboundary MAR resources. The four proposed components include:

Component 1: Strengthen resource governance and regional collaboration for integrated ridge to reef management in the MAR [GEF \$858,890]: The focus of Component 1 will be strengthening regional coordination through CCAD. The Tulum declaration and its ratification Tulum +8 clearly outline a commitment towards regional collaboration for the integrated ridge to reef management of the MAR, led by the CCAD. Although the political will and policy framework exist, the region still lacks capacity for a scaled up ridge to reef management in the MAR. This component will address the need for increased capacity and collaboration.

The component will support CCAD to provide critical services to its member countries, including establishing of standards, protocols, and other instruments to ensure consistency and foster easier transboundary cooperation and ridge to reef management (Outcome 1.1). The component will also capitalize on nascent baseline activities with demonstration projects to improve regional cooperation. The project will catalyze on opportunities identified during project preparation to showcase and test systems for regional cooperation. The component will also develop policy frameworks that promote ridge to reef integrated management by linking IWRM and ICM activities together (Outcome 1.2). In doing so, this expected outcome provides the linkages of the freshwater/land-based and coastal and marine project components (Components 2 and 3, respectively) to ensure an overall regional ridge to reef is implemented by the project and adopted by CCAD per the guidance of the Tulum+8 Regional Action Plan.

Component 1 will also develop a specific Transboundary Diagnostic Analyses (TDA) for the MAR building upon existing TDAs for the CLME and Gulf of Honduras and ecoregional assessments (Outcome 1.3). The four countries have expressed very strong support for creating a specific TDA for the MAR that compliments the CLME and Gulf of Honduras TDAs. The CLME TDA is seen in the region to be too broad to be used as a proper management tool and the Gulf of Honduras was too specific of a geographic area and did not include all four countries. This outcome will also include mainstreaming updates of ecoregional assessments carried out in the MAR since 2002 by a civil society partners as well as other available information, including data and assessments from MBRS Phase I. By building on this existing information, the proposed MAR TDA will be a critical step for supporting the Tulum+8 Regional Action Plan to address specific watershed issues. The MAR TDA will place special emphasis on assessments to set the foundation for regional integrated watershed

management planning at the transboundary scale. The MAR TDA will provide a comprehensive assessment that will address socioeconomic and governance issues. By the end of the project, the MAR TDA will provide the countries with a clear roadmap for Tulum+8 Regional Action Plan implementation, develop a complimentary strategic plan for regional transboundary watershed management, and improve the regional understanding to better manage issues associated with climate variability and bioaccumulation. Because the Tulum+8 Regional Action Plan sets the groundwork for technical implementation to address threats to the reef, the MAR TDA will be drafted so that development of a Strategic Action Programme (SAP) will be an option for countries to discuss during the development of the project document and through project execution.

The last element of Component 1 will establish national processes, and build CCAD's capacity to collect, manage, and base decisions on a regional monitoring database called the Regional Environmental Observatory (Outcome 1.4). The Observatory is identified in PARCA III as a high-priority for CCAD. The activity will build off of the highly successful MBRS Phase I Regional Environmental Information System (REIS).

Component 2: Integrated ridge to reef management of watersheds and freshwater resources [GEF \$4,294,451]: Component 2 will focus on addressing land-based threats to the reef as identified in the Tulum+8 Regional Action Plan in all four countries. Because Guatemala and Honduras make up more than two-thirds of the MAR (non karstic) watershed surface area, some specific project activities in this component will address national issues in these countries in order to target specific threats with major impact to the MAR.

To support the mainstreaming of the ridge to reef approach to effectively reduce the sediment and contaminant rich effluents flowing into the MAR, this component will select key watersheds per country to implement demonstration activities, including the karstic landscapes of the Yucatan Peninsula. These activities will scale up national baseline IWRM activities that vary significantly between countries and are compounded by the unequal distribution of watershed area across the four countries as well as varying geology (Outcome 2.1). Additionally, specific instruments promoting integrated watershed management will be demonstrated and replicated, including water reserves (Output 2.1.2), following a legislative foundation established by the project (Output 1.2.1). This activity will scale up lessons learned as described in the baseline section into Belize, Guatemala, and Honduras. Specifically, water reserves activities in Mexico led by the national water commission (CONAGUA) will be promoted as a mechanism of integrated water management.

The project will also build off water fund activities in Guatemala, leveraging public-private mechanisms for integrated watershed management (Outcome 2.2). These innovative tools to promote IWRM build off of experienced results in other watersheds within Guatemala and scaled up to the region within Belize and Honduras. Specifically, water fund activities through the TCCC will be scaled up in San Pedro Sula, Honduras and Belize City, Belize. In addition to private stakeholder engagement in water funds, key stakeholders currently engaged in IWRM processes will be trained and capacity improved for the adoption of better management practices that support integrated watershed management (Outcome 2.3). The promotion of better management practices, including Bonsucro and RSPO certifications, with key sectors actors from the palm oil and sugar plantations builds upon initial baseline projects identified above. The agriculture sector continues to be critical actors for managing the main land-based threats to the reef. In addition, the tourism and coastal development sectors, will also be addressed to scale up ongoing work from project partners. Like agriculture, tourism and overdevelopment have been identified as key threats that will be addressed by this project jointly in both Components 2 and 3, under Output 2.3.2 and Output 3.2.2. Lastly,

local community engagement for better land-use practices will be critical to long-term protection of both freshwater and watershed habitats, permanent reductions in threats to MAR, and improving readiness for climate variability.

Component 3: Integrated ridge to reef management of coastal and marine resources

[GEF \$2,576,671]: Component 3 will focus on addressing coastal and marine threats to the reef as identified in the Tulum+8 Regional Action Plan. Coastal and marine management within MAR has advanced significantly over the last two decades, but key elements of a full ridge to reef approach remain pending, including integrated coastal zone management and creating stronger linkages to land-based activities that threaten the reef and direct marine threats on the reef/marine habitats.

Within Outcome 3.1, the project will support development of ICM planning where none exists as well as build off existing ICM planning where it does, to bring all four MAR countries to a minimum level of planning to facilitate regional management and spatial planning as well as assist implementation of integrated coastal management frameworks. Within Belize and Guatemala, the Integrated Coastal Zoning Management Plan and the Caribbean Coastal Marine Strategy, respectively, are recognized ICM plans ready for implementation. In Mexico and Honduras, ICM planning is considerably weaker and fragmented, and project activities will assist in development. The project will ensure planning is done in close coordination with all relevant technically ministries, including environment, fisheries, maritime, planning, and land-based agencies, such as agriculture, water, and land-use, to promote proper ridge to reef management within each country.

The project will also promote better management practices within key sectors identified to have largest impact on the health of the MAR by the Tulum+8 Regional Action Plan, including commercial fisheries (lobster, conch, and finfish) and aquaculture (shrimp), tourism sector, and maritime transport (Outcome 3.2). Various tools, including certifications, fisheries improvement projects (FIPs), will be utilized for fishing and aquaculture sectors. Within the tourism and maritime transport sectors, the project will utilize existing dialogue fora identified in the baseline and recommendations from MBRS Phase I to spur enabling conditions for improved ridge to reef management as well as implement pilot demonstration activities to increase the percentage of sector actors adopting better management practices. Lastly, local communities will be actively involved in Outcome 3.2 as key stakeholders in for implementation of better management practices and restoration activities. Local community engagement will include coastal habitat restoration as well as select demonstration projects for improved long-term protection of the MAR to coastal and marine threats, including resilience to climate variability.

Component 4: Project Monitoring and Evaluation, and knowledge sharing [GEF \$858,890]:

Component 4 will focus on ensuring a quality system is in place to capture project results, lessons learned, and other experiences (Outcome 4.1). This component will also ensure timely monitor and evaluation of project's progress as well as develop communication and knowledge products to share the advantages of a ridge to reef approach to conservation and management both within the region and among MAR countries, but also to the larger international community (Outcome 4.2). Capturing project results are critical for this project because of the use of demonstration activities in all four countries. The component also has an essential project activity specifically targeting knowledge sharing and dissemination.

Activities associated with IW:LEARN, including production of experience notes, participation in IW conferences and workshops, and timely submission of the IW tracking tool, will be funded from at least one percent of the total project grant.

Incremental reasoning:

GEF support for this project, through the International Waters focal area will, first and foremost, catalyze regional efforts towards a region-wide implementation of the ridge to reef approach for the conservation and sustainable development of a transboundary ecoregion. Furthermore, the GEF International Waters support will allow the MAR to demonstrate how a ridge to reef approach to the management of an ecoregion can yield globally important benefits at the local and national level. The proposed GEF increment for the project rests in supporting the baseline commitments of Belize, Guatemala, Honduras, and Mexico to implement the Tulum+8 Regional Action Plan. All proposed activities within this project aim to support national and regional actions towards addressing threats and barriers outlined by the Regional Action Plan. In doing so, the necessary capacity of CCAD, as the regional organization responsible for the implementation of the Regional Action Plan must be strengthened to ensure sustainable success. Specifically, GEF funding will be invested to support CCAD's role as the leader of regional efforts for the MAR's, supporting regional collaboration and developing various policy and analysis instruments for integrated resource management. CCAD will play a critical role to ensure multi-country support for addressing the MAR as a regional transboundary issue.

Because the Tulum+8 Regional Action Plan promotes integrated Ridge to Reef management, the proposed GEF investment is well aligned with CCAD's mandate and encourages national and local level integrated management of watersheds, coastal zones, and marine habitats. The Regional Action Plan and respective national plans also call for stronger private sector engagement. The GEF increment would be used to promote local-level private sector stakeholder engagement through the adoption of better management practices to reduce threats on the MAR and its natural resources. While CCAD must play a strong role in regional coordination, the four countries must also work together bi- and tri-laterally to address common transboundary problems. The GEF increment will improve local capacity to ensure successful implementation of developed instruments, including regional watershed planning and marine spatial planning and creating the enabling conditions for better cooperative management through the development of a MAR-specific TDA.

At the national level, GEF funding will be used to build off existing baseline programs on IWRM and ICM, water reserves, water funds, and other innovative tools while also engaging with private sector actors by building capacity and supporting dialogue to promote better management practices. Specifically within Mexico, for example, the project will capitalize on existing dialogues with the tourism associations to reduce the sector's impact on local aquifer contamination and promote better habitat management. In Belize, proposed project activities will catalyze ongoing efforts to implement the Integrated Coastal Zoning Management plan through support to the Coastal Zoning and Management Authority and Institute (CZMAI). In Guatemala, GEF support will be used to improve capacity for successful implementation of the Caribbean coastal marine strategy. Existing work on water funds and reserves in Honduras will be used as a critical baseline for scaling up and replication across the country and with its neighbors. While GEF funding will be essential for implementation of national plans that promote ridge to reef integrated management, it is the sum of the parts, or overall improved transboundary health of the MAR, that GEF investments will ultimately yield.

GEF investments to promote ridge to reef approaches have demonstrated the challenges faced with catalyzing cooperation and integrated management among multiple sectors, including land, freshwater, coastal and marine, and fisheries. Transaction costs to facilitate integrated management

at the national level can be high and progress can be slow as multiple stakeholders must be consistently engaged throughout the process to gain mutual support. Under the proposed project, GEF funding will be essential to address the national level challenges and cover the scaled up transaction costs must to promote ridge to reef approaches in all four countries for overall health of the transboundary system. GEF funding will also be critical to cover the cost associated with addressing specific within-region transboundary watersheds and other water systems where GEF International Waters catalytic funding can have biggest impact.

In the absence of GEF support, each of the four MAR countries will continue to support the proper management of the reef and its associated ecosystems, but efforts will be fragmented country-level interventions that may not be designed in a coordinated fashion. This will be compounded by increased sectoral management, weakening the chances that integrated ridge to reef management would be applied. The net result from this could lead to increased sectoral management within each country leading to a lack of communication, data sharing, and sharing of resources that will ultimately lead to mismanagement of both freshwater and marine natural resources impacting the Mesoamerican Reef. The important enabling conditions and increase capacity that would not be provided with GEF funding would result in IWRM and ICM plans, certifications and other tools, and better management practices not being adopted. Poor integrated management at the national level would most certainly lead to equally poor, if not worse, management among shared transboundary watersheds and other water resources within the MAR system, ultimately having a very negative impact on the health of the reef and the communities, economies, and livelihoods it supports.

Moreover, without GEF funding, the regional approach to transboundary watershed, coastal zone, and marine waters would be severely weakened. Currently CCAD has a strong mandate, but relatively low capacity to implement. Without GEF support, CCAD's role as the regional environmental management body could be greatly diminished. Further capacities available in the region will continue be insufficient to consolidate a comprehensive and integrated management regime to ensure proper reef health and safeguard the economic potential of the MAR as a source of income, aesthetic beauty, and environmental benefits to the region and the world. CCAD would be unable to facilitate any sort of regional monitoring program and the updates to the ecoregion and better informed decision making would be severely hampered.

Global Environmental Benefits:

As an integrated ridge to reef management project addressing terrestrial, coastal, and marine threats to the largest transboundary reef in the world, this project will produce significant global environmental benefits. First and foremost, the integrated ridge to reef management approach aims to reduce land-based sources of pollution loads onto the reef from nutrient enrichment and sedimentation that flows across national boundaries. In conjunction, restored and sustained freshwater flows and better integrated water resource management across the region will be improved. Additionally coastal and marine ecosystem habitats and overall health will be targeted to improve important biodiversity, including globally important species of marine turtles (hawksbill, loggerhead, leatherback, and green) as well as whale sharks and manatees. Such species are globally important as their home range extends beyond national borders within the MAR, making transboundary cooperation critical. Tourism is also especially important to the Mesoamerican Reef region. Healthy reefs and other coastal habitats not only provide critically important areas for foraging, spawning, and protection of globally important species, but provide other important goods and services, such as shoreline protection from storms and erosion, supporting artisanal fisheries, improved water quality, and sequestering carbon.

Lastly, the regional approach proposed by the project will strengthen multi-country cooperation to reduce threats to both transboundary watersheds as well as coastal and marine areas of the Mesoamerican Reef. Through CCAD's lead role in the project, multi-country cooperation as well as support to regional institutional capacity building will ensure long-term and sustainable regional results with a global impact. Sustainable multi-country management is reinforced through the project by assisting countries reduce their vulnerability to climate variability and climate-related risks across freshwater, coastal, and marine sectors through improved capacity, and data management and decision making.

Innovativeness, Sustainability and Scaling Up

As the first ridge to reef transboundary project for the region, better integration of land and marine management nationally and regionally is already an innovate concept in itself that the project will demonstrate at multiple levels. The proposed project will also be implementing several innovative measures at the demonstration level within the terrestrial and marine components. For example, the project will be rehabilitating coastal and marine habitats through planting of mangroves and climate resilient coral fragments to demonstrate cost-effective ecosystem-based tools to protect against climate variability. On land, innovative water funds will be replicated across the region to improve watershed management and water-use. Water funds, a public-private mechanism, bring together civil society, businesses and governments for the management of a specific watershed or watersheds. These activities will be complimented with several other unique engagements with private sector actors not often participating in the conservation dialogue, including the agriculture, development, and tourism sectors.

With several GEF investments in the Mesoamerican Reef to date, the consideration of long-term sustainability of results is essential to ensure future investments have a lasting impact. Unlike previous investments, which often had a specific national focus, the proposed project aims to promote regional cooperation and management through CCAD. By strengthening capacity at the regional level in an organization with the appropriate political mandate, CCAD is already empowered to provide the necessary services that are needed during the project and beyond. More specifically, the project aims to improve CCAD's ability to manage data to improve regional decision making as well as build capacity to promote regional cooperation, and integrate climate variability into planning and management processes. Through the proposed development of a MAR-specific TDA, the project will ensure there is multi-country cooperation for addressing transboundary issues after the project ends. In building CCAD's ability for management, true integrated ridge to reef management will be achieved at the transboundary scale.

The sustainability of project results will also be ensured by engaging with private sector partners, as these are often the stakeholders with the highest economic interest and adoption of better management practices by these stakeholders does not end with a project. Demonstrating the economic savings associated with improved management provides a strong financial incentive for the private sector entities that impact the reef to make better management decisions well beyond the life of any project. Lastly, the project will also ensure sustainable results by building off of previous GEF investments, specifically the MBRS Phase I project. For example, the proposed data facilitation by CCAD (Output 1.4.2) is building off the success of the Regional Environmental Information System (REIS) platform from the MBRS Phase I project. Significant experiences from key project partners, including Coca-Cola, OSPESCA, and the MAR Fund will ensure GEF funds are invested wisely and in addition to existing baselines.

Because many of the issues affecting the reef are of a transboundary nature, it will be essential that activities are scaled up to have an impact. As a result, replication and scaling up are key elements of Component 4 of the proposed project. Lessons learned and results from demonstration activities within each country will be captured and disseminated within each country and throughout the region (Output 4.2.3). It will be the responsibility of CCAD, as the regional organization in charge of multi-country cooperation, to replicate and scale up project results (Output 4.2.1). However, integrated ridge to reef management is not exclusive to the Mesoamerican Reef region. Examples of success and lessons learned will be shared to a large audience via participation in IW:LEARN activities, allowing investments made through this project capable of being scaled up elsewhere in the world.

A.2. Stakeholders. Identify key stakeholders (including civil society organizations, indigenous people, gender groups, and others as relevant) and describe how they will be engaged in project preparation:

The conservation work in the MAR includes a vast diversity of stakeholders that range from on-site implementers, local organizations and communities, local natural-resource users, national- and state-level governmental agencies, the private sector and academia, and regional bodies. Although they all have a specific and important role within the regional institutional context, most of them still have a limited thematic and geographic approach for the large land- and seascape conservation. Thus, the role of a stakeholder who can conciliate similar goals into one single agenda becomes paramount.

Specific activities to ensure active engagement of minority and indigenous groups as well as mainstreaming of gender will be identified during project development. The project will ensure that these under-represented groups are given an equal voice through participatory planning and other mitigation measures as part of adherence to WWF GEF Agency social safeguard policies.

Stakeholder(s)	Engagement
CCAD - Central American Commission on Environment and Development	CCAD is the environmental division under the Central American Integration System (SICA) the economic and political organization of Central American states. CCAD was appointed by the Tulum declaration and ratified in Tulum +8 as the leader of regional efforts for the conservation and management of the MAR as a shared transboundary ecoregion. CCAD was central in preparation of this proposed PIF. The governments of Belize, Honduras, Guatemala, and Mexico have requested CCAD to lead the development and execution of the proposed project, in close coordination with CCAD’s National Heritage Committee that is comprised of representatives from ministries of environment within each of the four countries. Implementation arraignments and project structure will be defined by project partners during project development.
OSPESCA - Central American Fisheries and Aquaculture Organization	OSPESCA is the fisheries and aquaculture division under the Central American Integration System (SICA) the economic and political organization for Central American integration. OSPESCA supports regional fisheries and as such is a key player in the MAR. As a peer organization to CCAD under SICA, the project will ensure close coordination with OSPESCA during project development, specifically in regards to the development of fisheries related activities such as invasive species

	demonstrations.
Environment Ministries of Belize, Guatemala, Honduras and Mexico.	As members of CCAD's board, the environment ministers of Belize, Guatemala and Honduras will be actively engaged in the project. Furthermore, the environment ministers are also members of the Ministers Council for the MAR, established by the Tulum declaration. Currently this council has stopped meeting regularly, but it will be engaged by the project. Mexico participates both as an observing member of SICA and CCAD and a MAR Ministers council member.
Protected Area and Planning agencies of Belize, Guatemala, Honduras and Mexico.	Several government agencies will be engaged by the project, including protected areas, agriculture and planning in order to carry out effective ridge to reef scaling efforts, integrated management of both watersheds and coastal/marine areas and demonstrative projects.
Local communities in the ridges, coasts and reefs of the MAR	Local communities living and working in the watersheds, coastal zones, critical habitats and protected areas will be engaged early during project development and throughout project execution. Participatory planning will be central to local stakeholder engagement facilitated by government partners and WWF. Local communities will be targeted specifically to ensure opportunities to mainstream gender during project execution, especially through the proposed demonstration activities.
Non-government organizations	The MAR has a strong non-government organizations community that has actively participated in the ridge to reef and other conservation efforts in the ecoregion. Several of these NGOs will actively participate in project implementation. These NGOs include both international, regional and national organizations, and for this project will include: MAR Fund, Healthy Reefs Initiative, Amigos de Sian Ka'an, Fundacion Defensores de la Naturaleza, Wetlands International, Fundaeco, and potentially others that will be engaged during project development.
WWF	In the MAR, WWF is one of few conservation organizations with a strong, specific focus on ridge to reef conservation. After more than a decade in the region WWF has the technical knowledge and strong relationships with government, private industry and civil society, and has ties to local communities in those areas where we work. WWF is recognized in the MAR for its work on public-private mechanisms for watershed management (Water Funds), water reserves, voluntary standards for agriculture, aquaculture, fisheries and other sectors, and on climate change and adaptation.
Private sector stakeholders of Belize, Guatemala, Honduras and Mexico.	Engagement with private sector stakeholders is a critical aspect of ridge to reef management. The proposed project will engage with multiple private sector actors whom have the largest impact to the MAR: <ol style="list-style-type: none"> 1. <u>The Coca-Cola Company (TCCC)</u>: At a technical level, participation includes The Coca-Cola Company (TCCC) whose global alliance with WWF includes the Mesoamerican Reef as one of its priority watersheds. The Coca-Cola Company has supported WWF's efforts in integrated watershed management and was instrumental in the establishment of the first Water Fund in the ecoregion.

	<p>2. <u>Sugar and Palm Oil Producers</u>: The project will catalyze the established relationship of WWF with sugar and oil palm growers in Guatemala and Honduras to preparation for adoption of voluntary standards of RSPO and Bonsucro. The Roundtable on Sustainable Palm Oil (RSPO) was established in 2004 with the objective of promoting the growth and use of sustainable oil palm products through credible global standards and engagement of stakeholders. Bonsucro Certification is the first global metric standard for sugar cane to reduce environmental and social impacts of sugar cane production.</p> <p>3. <u>Shrimp Aquaculture</u>: The project will support shrimp aquaculture producers. Specifically, promotion of best management practices that will to prepare the sector for Aquaculture Stewardship Council (ASC) certification will be explored in Belize. WWF has been collaborating with the Belizean shrimp industry for many years and is a key stakeholder in maintaining a healthy coastal and marine environment. Other opportunities to work with the shrimp aquaculture sector in the MAR will be explored during project document development.</p> <p>4. <u>Fisheries (Lobster, Conch, and Finfish)</u>: The project will engage key commercial and artisanal fishing sectors in all four countries for promotion of better management practices for improved sustainability. Stakeholder engagement will build off existing productive dialogues that have led to the 2009 regional lobster ban and efforts to improve standards towards MSC certification. Demonstration Fisheries Improvement Projects (FIPs) will be determined during project preparation based on best success for replication and upscaling.</p> <p>5. <u>Tourism</u>: The tourism sector in Mexico has participated in both government and civil society led initiatives to improve their operations to reduce their impact in the ecoregion. The project will engage with key tourism actors, such as Tour Operators' Initiative for Sustainable Tourism Development (TOI), Mesoamerican Reef Tourism Initiative (MARTI), National Tourism Confederation (CNT), and others through existing efforts by Mexican government programs through Federal Ministry of Tourism (SECTUR), the Mexico Tourism Board, and CONAMP. Identification of investments during project preparation to address better management of aquifers and habitats will be based on key stakeholder priorities. Other tourism actors, including coastal development and marine transport actors in all four countries will also be engaged during project preparation to identify specific activities and geographies. The existing relationships with these key actors build off on-going dialogues that resulted in the Gulf of Honduras TDA.</p>
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A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

Risk	Level	Proposed Mitigation
Low regional	L	The Tulum and Tulum+8 declarations are solid foundations for

government capacity or interest to commit to regional and transboundary collaboration for ridge to reef integrated management of the MAR by the four participating countries.		regional collaboration in the MAR, however progress towards full adherence to their principles has been weak. The CCAD led efforts have had some key developments in the past and despite the limited resources available for implementation progress has been made. Supporting the CCAD will mitigate the risk of weak transboundary collaboration among countries, which needs to be strengthened to assist with the timely and effective decision making and consensus building.
Low national capacity or interest to commit to ridge to reef integrated management of the MAR in the four participating countries.	L	The Tulum and Tulum +8 declarations are not only a solid foundation for government led efforts but have also provided a regional framework for national governments and civil society led conservation efforts. However, similar to the regional government scenario, progress has been made but it still requires significant support towards a scaling up. This project will support national and civil society efforts with capacity building and supportive national level policy instruments.
Weak engagement of private sector stakeholders in ridge to reef integrated management of the MAR and in the adoption of voluntary practices.	L	Private sector actors are already an active participant of conservation and integrated ridge to reef management in the MAR ecoregion. WWF among other organizations has established a long standing working relationship with many stakeholders from the private sector including sugar and oil palm growers, water bottlers, shrimp aquaculture, and fisheries. The long-term relationship WWF has established with these sectors ensures that their engagement in this project is nearly secured. Furthermore, WWF and other project partners including government agencies have working relationships with stakeholders from fisheries, tourism, and construction sectors which will be the foundation for their engagement in this project.
Increased frequency of extreme weather events, sea level rise and acidification can lead to detrimental socioeconomic and environmental impacts.	M	The project will directly address this threat via vulnerability assessments, development and implementation of vulnerability reduction and adaptations plans. Furthermore, this project will support resilience building in the MAR, thus increasing the MAR's ability to withstand the impacts of climate change in the ecoregion.

A.4. Coordination. Outline the coordination with other relevant GEF financed and other initiatives:

In order for the proposed project to be successful, it will be critical that it is closely coordinated with other GEF and non GEF-financed initiatives. To ensure close coordination, the project will maintain effective coordination with a wide range of stakeholders in the region during project development and execution. With respect to other GEF-financed initiatives, there will be specific coordination will be ensured during project development with the GEF/UNDP Honduras MPA project, GEF/IDB Gulf of Honduras Maritime Pollution Project, the GEF/IDB Caribbean Regional Fund for Wastewater Management, the GEF Wider Caribbean LME Project, the Guatemala Coastal/Marine

project in the Pacific (specifically in regards to integrated coastal management policy instruments). The project will also maintain dialogue with the progress from the GEF-funded Gulf of Mexico LME project team as well as nascent projects including the GEF/FAO Sustainable Management of Bycatch in Latin America and Caribbean Trawl Fisheries and the GEF/UNDP/UNEP Implementing Integrated Land, Water & Wastewater Management in Caribbean SIDS projects via IW:LEARN and coordinated regional organizations of OSPESCA and CCAD.

The proposed project was designed to complement and build off the initial GEF/World Bank MBRS project as well as proposed GEF International Waters activities under the GEF/World Bank MBRS Phase II project that was approved by the GEF Secretariat but never implemented. While largely a GEF Biodiversity project, MBRS Phase II aimed to support elements of the 2007 Tulum+8 Regional Action Plan, including addresses land-based threats. CCAD was to play a central role in MBRS Phase II and continues to be the desire of the four countries as expressed in this proposed ridge to reef project. To avoid similar issues to those that prevented MBRS Phase II from reoccurring during the development of this project, the four countries have proposed a different project structure. Under Phase II, national coordinators were used to execute national-level activities due to the lack of a strong regional body to lead execution and because of linkages to country allocations under GEF RAF. This project management structure created a poor enabling environment for regional cooperation during development that led to significant delays and ultimate cancelation by the World Bank. The proposed project will focus on transboundary cooperation with the GEF International Waters focal area, moving the focus away from the national level to regional cooperation. During a workshop in February 2014, the four countries requested CCAD to play the lead role in developing and executing the proposed project instead of national coordinators. CCAD has grown in capacity since MRBS Phase II, now working on several other GEF projects, including the GEF-funded Caribbean Large Marine Ecosystem project. Evaluations, lessons learned, and other captured experiences from the MBRS Phase I will be critical to the development of this proposed project to build on many of the past successes.

The proposed project will also coordinate with the MAR Fund and other partner strategic plans for the ecoregion and also with other stakeholders to identify opportunities for joint collaborations. Project investments will seek to provide added value to future initiatives in the MAR countries. The project will also coordinate with the Healthy Reefs for Healthy People Initiative as well as potential future investments from bilateral aid such as KfW and USAID. Sustainable protection of the MAR is a high priority for many local, national, and international partners. The project fully expects to collaborate with additional partners and their initiatives as the project is designed to ensure as successful a project as possible.

Description of the consistency of the project with:

B.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAs, NAPs, NBSAPs, national communications, TNAs, NCSAs, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.:

As mentioned previously, the proposed project is consistent with the commitments outlined in the Tulum and Tulum+8 declarations, regional agreements endorsed by all four participating countries. The proposed project was also designed to be consistent with CCAD's Regional Environmental Plan for Central American (PARCA), including the most updated PARCA III for 2010-2014, and with OSPESCA's policy for the management of regional fisheries. The proposed project is also consistent with the Transboundary Diagnostic Analysis (TDA) and Strategic Action Programs (SAPs) from the

CLME and Gulf of Honduras projects. The project is also consistent with WWF MAR Strategic Conservation Planning for 2010 – 2015.

At the national level, the project is consistent with priorities identified in multiple national plans and strategies that were used to develop the Tulum+8 Regional Action Plan. The proposed project is consistent with existing National Biodiversity Strategy and Action Plans, National Environmental Action Plans, and National Plans of Action for the Reduction of Land-Based Sources of Pollution of the four countries. As of February 2014, Guatemala (1999), Honduras (2001, and Mexico (2000) were in the processes of updating their NBSAPs (respective year of completion in parentheses), while the NBSAP for Belize was completed in 1998 and is not currently under revision.

B.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities:

The proposed project is well-aligned with the GEF-5 International Waters Focal Area Strategy. Because the proposed project will be implementing integrated ridge to reef management across the Mesoamerican Reef and associated watersheds in Belize, Guatemala, Honduras and Mexico, the project is consistent with both freshwater and coastal and marine priorities under GEF-5 **IW Objectives 1 and 2**, as well as establishing foundational capacity building in the region for long-term sustainable results under GEF-5 **IW Objective 3**.

Under **IW Objective 1**: Catalyze multi-state cooperation to balance conflicting water uses in transboundary surface and groundwater basins while considering climatic variability and change – the proposed project will specifically target **Outcome 1.3** that aims to implement innovative solutions for reduced pollution by working with the agriculture sector, improved water use efficiency, IWRM, and aquifer and catchment protection. Specifically, this will be achieved through project Component 2, where IWRM plans are implemented, including in difficult to manage karstic systems, and water reserves are established to help manage water use. Water use efficiency will also be improved through engagement with key private sector stakeholders to establish water funds, better management practices, and improving enabling conditions to lead toward certifications. The expected results from this component will lead to measurable water-related reductions to watersheds that drain into the reef.

Under **IW Objective 2**: Catalyze multi-state cooperation to rebuild marine fisheries and reduce pollution of coasts and Large Marine Ecosystems while considering climatic variability and change – the proposed project will specifically target **Outcome 2.3** to implement innovative solutions for reduced pollution, rebuilding and protecting fish stocks with rights-based management, ICM, and habitat restoration and conservation. Specifically, this will be achieved through project Component 3, where ICM plans and marine spatial planning are strengthened with participation from key stakeholders, including private sector commercial fisheries and aquaculture partners. The expected results from this component will lead to measurable reductions of transboundary land-based threats to the reef via strengthened ICM and improved commercially valuable fisheries and habitats.

Under **IW Objective 3**: Support foundational capacity building, portfolio learning, and targeted research needs for joint, ecosystem-based management of trans-boundary water systems – the proposed project will specifically target **Outcome 3.1**: to create the enabling conditions for political commitment, shared vision, and strengthened institutional capacity for joint, ecosystem-based management of watersheds and coastal and marine zones. Foundational capacity building for the Mesoamerican Reef region will be address through Component 1, which aims to improve regional

governance and collaboration for an integrated ridge to reef management to support the Tulum+8 Regional Action Plan. Specifically, this will include establishment of bi- and tri-national collaboration and cooperation agreements addressing regional concerns, including transboundary watershed management and invasive species control, as well as improving existing regional assessments with climate variability. Component 1 will also support the development of a TDA to establish a shared vision and strengthened institutional capacity for joint, ecosystem-based management specifically for the four MAR countries. The TDA will also play a second, and more important, role by providing the necessary strategic planning that will lead to the creation of a regional transboundary watershed plan that compliments the Tulum+8 Regional Action Plan and its focus on reef threats with additional protection on transboundary watersheds. Improved regional capacity of CCAD will also be facilitated through its role in improved regional data sharing to improve regional management. The project will also target **Outcome 3.2**: with on-the-ground demonstration projects implemented to highlight specific innovative activities to improve terrestrial, coastal, and marine natural resource management. Demonstration projects for improved climate resilient coastal habitat restoration will be implemented under Component 3.

B.3 The GEF Agency's comparative advantage for implementing this project:

The comparative advantage of World Wildlife Fund, Inc. as GEF Project Agency rests in the extensive experience of over 50 years of field implementation of conservation programs throughout the WWF's Global Network: supported by over 5 million members worldwide, working in 80 offices across over 100 countries, supporting around 1,300 conservation and environmental projects led by 13 Global Initiatives and WWF's programmatic pillars of Species Conservation, Forest Conservation, Climate Change and Energy, and Freshwater, as well as crossing cutting issues, especially on Social Inclusion and Sustainable Livelihoods. As a key Program Office of the WWF Network, WWF MAR has been leader in ridge to reef conservation.

The Mesoamerican Reef is recognized as one of WWF's Global 200 ecoregions and as a regional priority within its Global Programme Framework. WWF has worked in the Mesoamerican Reef for over twenty years, initially as part of comprehensive conservation programs within specific MAR countries through offices in United States, Mexico, and Central America, and since the mid-1990s through a targeted ecoregion conservation approach based out of Guatemala City, Guatemala, and presence in each of the four MAR countries. Additionally, WWF Mexico supports activities by WWF MAR through its Cancun office. It was through ecoregional planning that WWF MAR assisted the four governments in developing an early MBRS Action Plan, which led to the development of the GEF-funded MBRS program executed by the four governments of the ecoregion through CCAD. Since then, WWF activities have continued to scale up and WWF MAR continues maintains a very strong working relationship with all four MAR countries as well as SICA, CCAD, and OSPECSA at both the political and technical levels.

In 2004, WWF helped to establish the MAR Fund to coordinate, fund and implement multi-national reef conservation strategies across national country boundaries. In 2007, The Coca-Cola Company and WWF identified the Mesoamerican Reef as a priority freshwater basin for conservation and protection of freshwater resources to enhance the health of the Reef by protecting the upper watershed while providing sustainable livelihoods for local people, and in 2013 the Mesoamerican Reef was selected as one of two core watershed sites under the WWF-Coca Cola Global Partnership. In addition to its demonstrated capacity to apply science in its conservation work and along with its know-how on specific themes, WWF has a holistic and multidisciplinary perspective and the ability


to constructively work with multiple sectors, important components for achieving success in conservation. Moreover, WWF has built credibility and maintains productive dialogues in the four countries of Mesoamerican Reef, is well positioned as a key player in the development of international policies, and innovative initiatives, qualities that underpin the possibilities of success for long term conservation in the Mesoamerican Reef. The updated 2010 WWF Mesoamerican Reef Program's Strategic Plan aims to, "...maintain its ecological health and functionality and is socially, ecologically and economically value as a unique ecosystem in the world, thanks to a conservation approach that integrates the upper watersheds, the coast and the reefs, promotes human development through sustainable economic activities, and addresses critical threats to ecosystems and human wellbeing, in particular caused by climate change."

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINTS AND GEF AGENCY

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template. For SGP, use this [OFP endorsement letter](#))

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Martin ALEGRIA	Chief Environment Officer	Department of the Environment, Ministry of Natural Resources and the Environment	03/05/2014
Michelle Melisa MARTINEZ KELLY	Minister	Ministry of Environment and Natural Resources	03/06/2014
Graciela ARIAS	Interim Director of External Cooperation	Natural Resources and Environment Secretariat	03/06/2014
Jorge Alberto MUHLIA ALMAZAN	Deputy Director General	Ministry of Finance and Public Credit	03/07/2014

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Herve Lefeuvre, World Wildlife Fund, Inc.		03/07/2014	Herve Lefeuvre	202-495-4442	herve.lefeuvre@wwfus.org