



GEF-6 PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FULL-SIZED PROJECT

TYPE OF TRUST FUND: GEF TRUST FUND

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PART I: PROJECT INFORMATION

Project Title:	BOBLME: Sustainable Management of the Bay of Bengal Large Marine Ecosystem		
Country(ies):	Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Sri Lanka, Thailand	GEF Project ID: ¹	
GEF Agency(ies):	FAO (select) (select)	GEF Agency Project ID:	
Other Executing Partner(s):	UNEP, IUCN, UNIDO	Submission Date:	
GEF Focal Area(s):	IW, BD, CC-M, POPS	Project Duration (Months)	
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>	Corporate Program: SGP <input type="checkbox"/>	
Name of parent program:	[if applicable]	Agency Fee (\$)	

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES²

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	Trust Fund	(in \$)	
		GEF Project Financing	Co-financing
IW-3, Program 5. 5.1: Elimination or substantial decrease in frequency and extent of “dead zones” in sizeable part of developing countries’ LMEs	GEF		
IW-3, Program 6. 6.1: Coasts in globally most significant areas protected from further loss and degradation of coastal habitats while protecting and enhancing livelihoods	GEF		
IW-3, Program 7. 7.1: Introduction of sustainable fishing practices into xx% of globally over-exploited fisheries	GEF		
BD-1, Program 2. 2.1: Increase in area of terrestrial and marine ecosystems of global significance in new protected areas and increase in threatened species of global significance protected in new protected areas	GEF		
BD-3, Program 6. 6.1: Integrity and functioning of coral reef ecosystems maintained and increased	GEF		
BD-4, Program 9. 9.1: Increased area of production landscapes and seascapes that integrate conservation and sustainable use of biodiversity into management	GEF		
CCM-2, Program 4. A: Accelerated adoption of innovative technologies and management practices for GHG emission reduction and carbon sequestration. B: Policy, planning and regulatory frameworks foster accelerated low GHG development and emissions mitigation	GEF		
CW-1, Program 1. 1.2: Innovative technologies are successfully demonstrated, deployed and transferred	GEF		
(select) (select) (select)	(select)		
Total Project Cost			
		25	150

¹ Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submissions.

² When completing Table A, refer to the excerpts on [GEF 6 Results Frameworks for GETF, LDCF and SCCF](#).

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: Contribute to sustainable management of fisheries, marine living resources and their habitats in the Bay of Bengal region for the benefit of coastal states and communities						
Project Components	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Co-financing
<p>Component 1: Sustainable management of fisheries (SAP theme 1)</p> <p>(IW-3, Program 7; BD-4, Program 9)</p>	TA/INV	<p>1.1.The ecosystem approach to fisheries management institutionalized at national level leading to increased abundance and biomass of selected national and transboundary fish stocks by 5%</p> <p>1.2. IUU fishing in the BOBLME reduced by 20%</p>	<p>1.1.1. At least 3 EAFM plans implemented in each country ; # of target communities of fishers have adopted an ecosystem approach to fisheries management</p> <p>1.1.2. National and regional platforms established or strengthened to involve grassroots stakeholders in management decision-making</p> <p>1.1.3. EAFM training provided to at least 500 practitioners in each country</p> <p>1.2.1. One regional Plan of Action (RPOA) on IUU fishing</p> <p>1.2.2. 8 national POAs-IUU and national IUU monitoring systems and VMS established or strengthened</p> <p>1.2.3. Tools for promoting best practices, policies and national actions to combat IUU fishing developed and implemented in national pilot/investment projects</p> <p>1.2.4.Training programme on combating IUU fishing implemented with # national fisheries staff trained in each country</p>	GEFTF	4 000 000	25 000 000

³ Financing type can be either investment or technical assistance.

<p>Component 2: Restoration and conservation of critical marine habitats and protection of biodiversity</p> <p>(SAP themes 2)</p> <p>(IW-3,Program 6; BD-1, Program 2; BD-3, Program 6; BD-4, Program 9; CCM-2, Program 4)</p>	(select)	<p>2.1. Coastal and marine managed areas (MMAs) contribute to conservation of biodiversity and blue carbon</p> <p>(5% increase in biomass of higher trophic level species;10% of lost mangrove area restored; 5% of existing coral reefs under sustainable management; increase by 20% of seagrass habitats under sustainable management; and reduction/avoidance of emissions of X MtCO₂e from blue carbon)</p>	<p>2.1.1. Regional guidelines on management and evaluation of MMAs and training in their application of X national conservation staff</p> <p>2.1.2. at least one transboundary MMA each created for: (i) transboundary fisheries or VME; (ii) transboundary biodiversity and ETP species conservation or EBSA;</p> <p>2.1.3. National MMAs created on: (i) Conservation of blue carbon (mangroves and sea grass beds) (countries?) (ii) coral reef and biodiversity conservation (countries?)</p>	GEFTF	9 727 273	55 000 000
		<p>2.2 Regional consensus and agreements on reduction of threats to marine biodiversity in coastal and open waters</p> <p>(2-3 regional plans, legal frameworks in 4 countries? xx conservation measures etc.)</p>	<p>2.2.1. A regional plan of action for endangered, threatened and protected (ETP) species (e.g. whale sharks and sea turtles)</p> <p>2.2.2. Legislative frameworks on ETP species harmonized across countries</p>			
<p>Component 3: Management of coastal and marine pollution to improve ecosystem health</p> <p>(SAP theme 3)</p> <p>(IW-3, Program 5; CW-1, Program 1)</p>	(select)	<p>3.1. Discharge of untreated sewage and wastewater; solid waste and marine litter; and nutrient loading from non-industrial sources reduced or minimized in river, coastal and marine waters at X hotspots applying ICM approaches</p> <p>(5% reduction in solid waste disposal; 5% reduction in</p>	<p>3.1.1. Linkages between local, district, state and central authorities for regulating pollution and water quality strengthened in selected hotspots</p> <p>3.1.2. Coordination between existing national institutions with a mandate in pollution and/or water quality strengthened</p> <p>3.1.3. Enhanced awareness and education</p>		4 000 000	25 000 000

		<p>marine litter)</p> <p>3.2. Regional platform of Global Partnership on Nutrient Management (GPNM) strengthened and linked to CCR-BOBLME</p>	<p>of decision-makers and the general public on better pollution management</p> <p>3.1.4. Innovative pollution control technologies and approaches (e.g. PPPs) demonstrated for non-industrial wastewater management</p> <p>3.2.1. Regional protocols, guidelines, standards and indicators for managing pollution and water quality developed</p> <p>3.2.2. Platform to improve access to and sharing of data and information on pollution and water quality in the BOBLME established and linked to CCR-BOBLME</p> <p>3.2.3. Training and capacity building of selected local authorities at pollution hotspots in decentralized pollution and water quality management</p>			
		<p>3.3. Coastal and marine pollution from industrial sources reduced or minimized applying ICM approaches</p> <p>(CW indicator to be added)</p>	<p>3.3.1. A number of industrial parks/zones, clusters in e.g. Myanmar have:</p> <ul style="list-style-type: none"> • applied the UNIDO TEST integrated approach to reduce the pollution loads entering the waterway • upgraded solid waste management practices <p>3.3.2. Innovative pollution control technologies and approaches demonstrated for industrial wastewater management, including oil spills</p>			

<p>Component 4: Improved livelihoods and enhanced resilience of the BOBLME</p> <p>(SAP theme 4)</p> <p>(IW-3, Programs 5, 6 & 7; BD?)</p>	(select)	<p>4.1. Enhanced resilience of the BOBLME and reduced vulnerability to natural hazards, climate variability and change of selected coastal communities</p> <p>4.2. Enhanced sustainable livelihoods and diversification for selected coastal communities</p>	<p>4.1.1. Valuation of ecosystem services and threats related to livelihoods in at least two pilot areas per country to support decision making in the BOBLME at regional, national and local levels</p> <p>4.1.2. Inclusion of coastal fisheries and aquaculture in poverty reduction and development, as well as climate change policies, strategies and planning processes promoted</p> <p>4.1.3. Gender considerations mainstreamed into relevant policy and regulatory frameworks</p> <p>4.2.1. Gender sensitive value-chain analysis conducted for selected fisheries/fishery products</p> <p>4.2.2. Alternative sustainable livelihood options, for both men and women, identified along the fisheries value chain and non-fisheries activities, such as tourism</p> <p>4.2.3. Access to innovative financial services and insurance mechanisms to enhance resilience and improve livelihoods promoted</p> <p>4.2.4. Training programme for selected coastal communities on alternative livelihoods, ‘decent work’ and ‘social protection’ for empowerment and enhanced participation in coastal and marine resource management and conservation</p>	GEFTF	2 000 000	20 000 000
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<p>Component 5: Regional mechanism for coordination , monitoring and assessment</p> <p>(SAP crosscutting theme)</p> <p>(IW-3, Programs 5, 6 & 7)</p>	(select)	<p>5.1. Strengthened institutional mechanisms at regional and national levels for coordination, ecosystem assessment, and monitoring and planning at the BOBLME level</p> <p>5.2. Dissemination of project findings and lessons learned contribute to the LME community of practice</p> <p>5.3. Project</p>	<p>5.1.1. Consortium for the Conservation and restoration of the BOBLME (CCR- BOBLME) established to promote stakeholder participation and awareness, ecosystem assessment, and application of best practices in implementation of the SAP</p> <p>5.1.2. 8 National inter- ministry committees to strengthen coordination and the regulatory and institutional frameworks in support of SAP/NAP (including EAFM plans, NPOAs-IUU, ETP plans) implementation and linkages to NBSAPs and INDCs developed</p> <p>5.1.3. Stakeholder consultation mechanism established and coordinated by ICSF for engagement of NGOs and civil society</p> <p>5.1.4. Baseline data (on trends and threats of critical habitats and ETP species, climate change), monitoring systems, and information repository established at national and regional levels</p> <p>5.2.1. Regional information sharing mechanism enabling broad access to best practices and lessons learned in the participating countries</p> <p>5.2.2. Project findings and lessons learned identified and contribute to the LME community of practice and IWLearn</p> <p>5.3.1. Project monitoring system operating and</p>	GEFTF	3 000 000	10 000 000
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		implementation based on adaptive results-based management	providing systematic and regular information updates on project progress and on progress towards reaching BOBLME SAP targets			
			5.3.2. Mid-term and final evaluation conducted and project implementation adapted according to recommendations			
Subtotal					22 727 273	135 000 000
Project Management Cost (PMC) ⁴				(select)	2 272 727	15 000 000
Total Project Cost					25 000 000	150 000 000

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust funds here: ()

C. INDICATIVE SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE, IF AVAILABLE

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
Total Co-financing			0

D. INDICATIVE TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS^{a)}

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee (b) ^{b)}	Total (c)=a+b
FAO	GEFTF	Global	IW	(select as applicable)	15 000 000		0
(select)	(select)	Countries TBD	BD	(select as applicable)	5 000 000		0
(select)	(select)	Countries TBD	CC	(select as applicable)	5 000 000		0
(select)	(select)	Global	CW	(select as applicable)	?		0
(select)	(select)		(select)	(select as applicable)			0
Total GEF Resources					25 000 000	0	0

a) Refer to the [Fee Policy for GEF Partner Agencies](#).

E. PROJECT PREPARATION GRANT (PPG)⁵

Is Project Preparation Grant requested? Yes No If no, skip item E.

PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

⁴ For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

⁵ PPG requested amount is determined by the size of the GEF Project Financing (PF) as follows: Up to \$50k for PF up to \$2m (for MSP); up to \$100k for PF up to \$3m; \$150k for PF up to \$6m; \$200k for PF up to \$10m; and \$300k for PF above \$10m. On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

Project Preparation Grant amount requested: \$					PPG Agency Fee:		
GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	(in \$)		
					PPG (a)	Agency Fee ⁶ (b)	Total c = a + b
(select)	(select)		(select)	(select as applicable)			0
(select)	(select)		(select)	(select as applicable)			0
(select)	(select)		(select)	(select as applicable)			0
Total PPG Amount					0	0	0

F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS⁷

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	<i>Hectares</i>
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	<i>Hectares</i>
3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;	<i>Number of freshwater basins</i>
	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	<i>Percent of fisheries, by volume</i>
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO _{2e} mitigated (include both direct and indirect)	<i>metric tons</i>
5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	<i>metric tons</i>
	Reduction of 1000 tons of Mercury	<i>metric tons</i>
	Phase-out of 303.44 tons of ODP (HCFC)	<i>ODP tons</i>
6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	<i>Number of Countries:</i>
	Functional environmental information systems are established to support decision-making in at least 10 countries	<i>Number of Countries:</i>

PART II: PROJECT JUSTIFICATION

1. *Project Description*. Briefly describe: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects, 3) the proposed alternative scenario, GEF focal area⁸ strategies, with a brief description of expected outcomes and components of the project, 4) [incremental/additional cost reasoning](#) and expected contributions from the baseline, the GEFTF, LDCF,

⁶ PPG fee percentage follows the percentage of the Agency fee over the GEF Project Financing amount requested.

⁷ Provide those indicator values in this table to the extent applicable to your proposed project. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the [GEF-6 Programming Directions](#), will be aggregated and reported during mid-term and at the conclusion of the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF and/or SCCF.

⁸ For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which [Aichi Target\(s\)](#) the project will directly contribute to achieving.

SCCF, and [co-financing](#); 5) [global environmental benefits](#) (GEFTF) and/or [adaptation benefits](#) (LDCF/SCCF); and 6) innovation, sustainability and potential for scaling up.

1) **Global environmental problems, root causes and barriers**

The Bay of Bengal Large Marine Ecosystem (BOBLME) is one of the largest LMEs globally and covers 6.2 million km with depths ranging between 2 000 and over 4 000m for most of its central area. The continental shelf around its perimeter is mostly narrow. About 66 percent of the BOBLME lies within the EEZs of BOBLME countries - Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Sri Lanka, Thailand - the remainder being the high seas area; thus a large part of the BOBLME is subject to national jurisdiction. The areas of high primary production are concentrated in the coastal waters. Average sea-surface temperature is 28.6°C and has been rising slowly. The current average temperature is 0.5°C higher than it was in 1957. Many large rivers flow into the BOBLME. These include the Ganges, Brahmaputra and Meghna in the north that drain across Bangladesh and India; the Ayerawaddy and Thanlwin in the east from Myanmar; and the Mahanadi, Godavari, Krishna and Cauvery in the west from India. These rivers discharge huge quantities of fresh water and large quantities of silt into the coastal environment. The Ganges-Brahmaputra-Meghna basin covers nearly 1.75 million km, spreads across five countries and is the second largest hydrologic region in the world. Monsoonal rains and floods have a strong influence on the BOBLME dynamics, resulting in seasonal gyres and a warm, low salinity, nutrient- and oxygen-rich surface layer to a depth of 100m. Tides are mainly semidiurnal with a wide range in some coasts (up to 7m at spring tide in Myanmar) and the saline intrusion can extend up to 340km in the north-eastern estuaries of Bangladesh.

The BOBLME is rich in natural resources, including extensive mineral and energy resources; marine living resources that support major fisheries; and forest and land resources. The current fisheries production (2009) is approximately six million tonnes (seven percent of the world's brackish water and marine catch), valued at USD 4 billion (about four percent of the value of the world catch). The LME is the site of three important critical habitats – mangroves (12 percent of world mangrove resources); coral reefs (8 percent of the world's coral reefs) and seagrass. The BOBLME is an area of high biodiversity, with a large number of endangered and vulnerable species. The LME and its natural resources are of considerable social and economic importance to the bordering countries, with activities such as fishing, shrimp farming, tourism and shipping contributing to food security, employment and national economies. The Bay of Bengal is also one of the hydrocarbon-rich areas of the world, comparable to the Gulf of Mexico, Persian Gulf and Bohai Bay in China. Until recently it has been poorly explored due to a lack of financial support for exploration and international boundary disputes. An increasing emphasis on the exploration for, and exploitation of, oil and gas in the BOBLME presents many different opportunities and threats. There is also an increasing risk of pollution.

The sheer number of people is probably the most important underlying driver of all the key issues in the region. The regional human population is still growing from an already large base of about 1.78 billion and it is expected that this figure will exceed two billion by 2020. The coastal population of 450 million is also expected to increase, both as a result of the general upward trend in regional population and because of urbanization and migration to the coast. With regional population densities averaging about 410 people per square kilometer – of which at least 30 percent is concentrated along the coasts – the pressure on the coastal and marine environment of the BOBLME is likely to be one of the highest in the world. The human pressure on the BOBLME will be further exacerbated by climate change that is expected to lead to ocean acidification, sea level change (rises in most areas), rising sea surface temperatures, changes in rainfall (decrease in some areas and increase in others), and possible increased frequency or intensity of storms and cyclones. These changes are expected to affect the ecology and biodiversity of the BOBLME. As a result, the Transboundary Diagnostic Analysis (TDA) conducted for the BOBLME identified three priority transboundary concerns, including their more proximate causes:

Overexploitation of marine living resources: This includes decline in overall fish resources, changes in species composition in catches, high proportion of juvenile fish in the catch, and changes in marine biodiversity, especially through loss of vulnerable and endangered species. Many of the marine living resources in the BOBLME traverse the international boundaries of adjacent, and sometimes non-adjacent countries and many of them are targeted by several BOBLME countries. Large pelagic species, such as tunas and billfishes, range over large ocean spaces and pass through the EEZs of many countries both inside and outside the BOBLME. Smaller pelagic species, such as

anchovies, herrings, mackerels and shads, usually migrate through the coastal waters of at least two or more neighboring countries. Examples include hilsa shad, which is shared by most countries but concentrated in the waters of India, Bangladesh and Myanmar; Indian mackerel, which occurs in all countries; and sharks that are of global and regional concern. Resources that appear to be more sedentary or only locally mobile – such as reef fish, lobsters, sea cucumbers and corals – often have patterns of larval dispersal that give their distribution a transboundary dimension. The proximate causes of these problems are excessive fishing effort and overcapacity; destructive fishing methods; unselective fishing practices and gear; and illegal, unregulated and unreported (IUU) fishing, both at national and international levels. These in turn are caused by the “open access” regime, government emphasis on increasing production, inappropriate subsidies, increasing fishing effort, especially by trawlers and purse seiners, high consumer demand for fish, including for seed and fishmeal for aquaculture, weak fisheries monitoring, control and surveillance (MCS) and enforcement, and strong incentives to encroach into areas with better returns.

Degradation of critical habitats: This includes especially mangroves, coral reefs and seagrasses. Mangroves have been classified as either degraded or under threat in all countries. Over 4 500km² of mangroves have been lost in the region over the last 30 years. The major cause of loss of mangroves has been conversion for agriculture (82 percent) and conversion for aquaculture (12 percent). Coral reefs are also classified as degraded or under threat. Coral reefs in South Asia and Southeast Asia suffered large scale bleaching in 1998, caused by high water temperatures associated with the El Nino Southern Oscillation (ENSO)/Indian Ocean Dipole (IOD) effect. Some recovery has occurred but further damage may occur with the current ongoing ENSO/IOD event and sea temperature rise. Reefs considered to be at greatest risk from a combination of (i) coastal development, (ii) overexploitation and destructive fishing practices, (iii) the impact of inland pollution and erosion, and (iv) marine pollution, are the reefs around Aceh and the islands off Sumatra in Indonesia; Malaysia west coast; Myanmar; Sri Lanka and the Gulf of Mannar. There is insufficient information to assess the status of seagrass, although it is thought that many of the BOBLME region’s seagrass beds are either already degraded or threatened. The biodiversity supported by the seagrass beds will also be at risk, especially with regard to endangered species such as marine turtles, dugongs and seahorses, although little quantitative information is available. The productivity of the coastal fisheries supported by seagrass beds could also be declining as the seagrass beds degrade. Seagrass beds are mainly threatened by sedimentation and eutrophication, destructive fishing practices, such as trawling and push netting, and coastal modification, including dredging and mining for sand.

Pollution and water quality: The priority transboundary pollution issues in the BOBLME are sewage-borne pathogens, organic load from sewage and other sources, marine litter, increasing nutrient inputs, oil pollution, POPS and PTS, and mercury pollution. The effects of pathogens and high organic loads are likely to be localized except in the Ganges-Brahmaputra-Meghna system where sewage and other organic contaminants are shared by India, Bangladesh and Myanmar due to high river discharge and ocean circulation patterns. Marine litter, including plastic and discarded fishing gear, can be transported long distances in the marine environment and are clearly a major transboundary issue. Increasing nutrient inputs from rivers can lead to inner-shelf hypoxic zones that could adversely affect transboundary fish stocks. An increase in nutrients has also resulted in Harmful Algal Blooms (HABs), also known as red tides. There is a general lack of information in the BOBLME on the distribution of PTSs and POPs, but because of the potentially serious impacts and transboundary distribution, this is a priority issue. The proximate causes of these issues are the widespread discharge of untreated or inadequately treated domestic, industrial and agricultural wastewater; inadequate solid waste management, including widespread discharges of solid waste into rivers and coastal waters and the open burning of solid waste which generates dioxins and furans; increasing emissions of nutrients from fertilizer use in agriculture, expanding aquaculture, and atmospheric emissions from industry and fossil fuel burning; and routine operational discharges of oil from shipping and dumping of waste oil by vessels and vehicles on land.

To reverse the environmental degradation of the BOBLME and its loss of resilience and sustainability, the following key barriers have to be addressed:

Institutional, legal and administrative barriers: At the regional level, the main institutional barriers affecting a country’s ability to implement change is a lack of an appropriate forum for region-wide multi-national dialogue, planning, monitoring and reporting on the progress of sustainable development. In the BOBLME there is no

overarching mechanism for planning and coordination for the marine environment. However, there are a multitude of agencies and organizations with a partial mandate to coordinate some activities in the BOBLME region. In the planning phase of the first BOBLME Project, 12 existing sub-regional, regional and international institutions and their current mandates were examined. Some existing institutions are currently either too narrow in their sectoral mandate [e.g. Asia Pacific Fisheries Commission (APFIC)]; too narrow in their geographic competence with respect to the BOBLME [e.g. Association of Southeast Asian Nations (ASEAN)]; or both [e.g. Bay of Bengal Programme – Intergovernmental Organization (BOBP-IGO)]. However, all are very important partners of the BOBLME Project. BOBLME countries should recognize that the causes and solutions of priority issues extend beyond one or more national political jurisdiction. There are many benefits to be gained from addressing these issues through coordinated action at the regional level by establishing a supportive institutional and legal framework to facilitate inter-sectoral and transboundary planning and management between the BOBLME member countries.

The form and type of implementation agency or authority varies widely between the BOBLME countries but in each country, at least on paper, some form of authority has the mandate to conserve marine living resources, protect critical habitats and implement pollution control legislation and regulations. However, the exercising of this authority is largely ineffective, as adequate governance systems are often not in place. Achieving an effective level of compliance, and enforcement of laws and regulations, is an ongoing challenge and a major change to the social system, taxes, remuneration and incentives is required. This lack of governance is further complicated because national, state and local governments have sectoral responsibility and accountability that is divided between different governmental bodies. Responsibility and accountability are not always clearly assigned and the applicable legislation, being derived from multiple sources and as a function of its essentially sectoral nature, overlaps or conflicts in some cases leading to further lack of clarity with regard to responsibility and accountability.

Socio-economic barriers: The principal social factors affecting BOBLME countries are population growth and increasing migration to the coast; urban growth and coastal infrastructural, commercial, industrial and residential development for the expanding urban – and usually more affluent – coastal communities, e.g., tourist resorts, ports, airports, roads, harbours; lack of alternatives for securing food, livelihoods and shelter (space and materials) in the poor, rural coastal communities; and lack of stakeholder awareness of the issues and, in some cases, lack of commitment. The relatively low standard of living and working conditions of coastal communities and the high vulnerability to natural hazards, climate variability and change, is often related to undervaluation of small-scale fishing, inadequate social protection strategies, absence of social dialogue, and low levels of education and human capital. Moreover, national demand for foreign exchange is driving government policy and incentives that promote unsustainable practices (e.g. high chemical applications and clearing of land) and the increasing productivity of agriculture (and aquaculture). This puts unprecedented pressure on fish resources. Manufacturing and service industries are showing a trend of relocating to countries in the region to benefit from lower production costs that may, in part, be related to lower environmental standards. The damage to the environment – and to other sectors and public health – from industrial, agricultural pollution, unsustainable fishing and degraded habitats is not added to the cost of doing business and is not reflected in prices, taxes or national financial and development plans.

Lack of integration of climate change resilience in planning and management: While various global scenarios have been predicted (rise in sea level, increase in the frequency of major storms and the intensity of the most extreme storms, etc.), it is not clear how these will manifest in the Bay of Bengal. Relative sea level rise has been advanced as possibly the greatest threat to mangroves, especially in areas where mangrove sediment surface elevation is not keeping pace with sea level rise and there is limited area for landward migration. However, more analysis is needed to investigate where this is occurring in the BOBLME e.g. in the Ganges Delta where sea level change is caused mostly by subsidence and partly by climate change. Global climate change may also have a number of deleterious effects on other critical habitats. Sea level rise may cause lack of light at deeper levels and sea temperature warming is related to coral bleaching. Acidification causes an increase in dissolved bicarbonate and a decrease in the available carbonate in seawater. It will thus become more difficult and energy consuming for coral and reef animals and plants to make skeletons. The countries of the BOBLME need to make a concerted effort to act on the more immediate climate change threats identified above to enhance the resilience of its fisheries, critical habitats, and people's livelihoods, as current management practices will determine the possible impacts of future climate change.

2) Baseline scenario and associated baseline projects

In the next 25 years the coastal populations of the BOBLME are expected to increase by almost a quarter. Under the baseline scenario, it is inevitable that this will result in increased pressure on the environment and its resources, despite the fact that the BOBLME countries are already investing hundreds of millions of dollars per year on research and management of the marine environment and fisheries of the Bay of Bengal. The main ongoing baseline programmes and projects as outlined below by SAP and Project component:

Fisheries: The combined total of government investments by BOB LME countries in fisheries currently amounts to more than USD230 million per year. A large number of other actors also have baseline programmes and activities in the BOBLME to address IUU fishing, promote the Ecosystem Approach to Fisheries Management (EAFM), and ecosystem assessments that the proposed project will build on and receive co-financing from. Key baseline initiatives include:

The Asia Pacific Fishery Commission (APFIC) is one of the longest serving regional fishery bodies, and has the mandate to support and encourage sustainable fisheries management within the Asia-Pacific region. The Secretariat of the Commission is provided and supported by the FAO Regional Office in Bangkok, Thailand. APFIC serves as a policy forum, organizing regular sessions, meetings and workshops, developing capacity development tools (e.g. port state measures, trawl management guidelines, etc.), and other regional publications to enhance the sustainability of the fisheries sector in the Asia-Pacific.

In addition, FAO has several existing projects in the Bay of Bengal which are relevant to fisheries, such as:

- Closing in 2015: Support to Fishery Policy (FIMSUL); Fisheries legislative support to Myanmar, Maldives and Thailand; Support to combatting IUU in the Maldives; Support for implementation of Port Controls and inspections (Thailand); Italian project in Myanmar on fishery co-management;
- Coming up: Fishery legal support to Sri Lanka; Legal support to Indonesia (focusing on IUU);

The Indian Ocean Tuna Commission (IOTC) is an intergovernmental organization with the mandate of managing tuna and tuna-like species in the Indian Ocean, and has the objective of improving cooperation for the sustainable management and conservation of selected fisheries stocks. To achieve this, among other activities, the Commission gathers, analyzes and disseminates fisheries information, facilitates research, technology transfer, capacity development, etc., and adopts Conservation and Management Measures for the conservation of fish stocks.

The Southeast Asian Fisheries Development Center (SEAFDEC) is an inter-governmental body that has the mandate to develop and manage the potential of fisheries in the Southeast Asia region. Of its 11 member countries, 4 are also BOBLME countries: Indonesia, Malaysia, Myanmar, and Thailand. SEAFDEC's work is coordinated by the Secretariat, which canalizes guidance from Member Countries to address fisheries issues in the region. The BOBLME training program is being sustained through SEAFDEC in collaboration with other partners and the Governments of Malaysia and Indonesia. Moreover, the BOBLME collaboration with SEAFDEC on sharks is the essential basis for the upcoming SEAFDEC-ASEAN-regional-EU-CITES activities on sharks.

Network of Aquaculture Centres in Asia (NACA) is an intergovernmental organisation that promotes rural development through sustainable aquaculture. NACA seeks to improve rural income, increase food production and foreign exchange earnings and to diversify farm production. All the 8 BOBLME countries are members of NACA that conducts development assistance projects throughout the region in partnership with governments, donor foundations, development agencies, universities and a range of non-government organisations and farmers. NACA supports institutional strengthening, technical exchange and the development of policies for sustainable aquaculture and aquatic resource management. NACA's partners include organisations such as FAO, UNDP, ADB, World Bank, SEAFDEC, APEC, ASEAN, European Union, DANIDA, DFID, ACIAR, AusAID, DANCED, IDRC, IFREMER, NORAD, the Asian Institute of Technology, WWF, MacArthur Foundation and the Rockefeller Brothers Fund.

International Collective in Support of Fish Workers (ICSF) is an international non-governmental organization that works towards the establishment of equitable, gender-just, self-reliant and sustainable fisheries, particularly in the small-scale, artisanal sector. The main aims of ICSF are to monitor issues that relate to the life, livelihood and living

conditions of fishworkers around the world; disseminate information on these issues, particularly amongst fisherfolk; prepare guidelines for policymakers that stress fisheries development and management of a just, participatory and sustainable nature; and help create the space and momentum for the development of alternatives in the small-scale fisheries sector. ICSF's work is focused on countries of the South and it is committed to influence national, regional and international decision-making processes in fisheries so that the importance of small-scale fisheries, fishworkers and fishing communities is duly recognized. Phase II of the BOBLME will work closely with ICSF to establish a mechanism for enhanced involvement of civil society in implementation of the SAP.

The Bay of Bengal Programme (BOBP) is an Inter-Governmental Organisation mandated to enhance cooperation among member countries, other countries and organisations in the region and provide technical and management advisory services for sustainable coastal fisheries development and management in the Bay of Bengal region. The BOBP is focused on helping the member countries in sustaining fisheries production and ensuring livelihood security for millions of fisher folk in the region. In line with their felt needs, and a range of activities are planned for implementation, such as the Regional Program on Safety at Sea for Artisanal and Small-Scale Fishermen; Regional Program for Fish Stocks Assessment in the Bay of Bengal; Capacity Building and Information Services for Fisheries Development and Management in the Bay of Bengal Region; and Taking the Code of Conduct for Responsible Fisheries to the Grassroots Level.

Phase 1 of BOBLME has already addressed the issue of multisectoral collaboration for the sustainable management of hilsa fishery in India, Bangladesh and Myanmar, and Indian mackerel fishery in all BOBLME countries; and sustainable management of sharks and rays in all countries. It has also led to improved provision of fisheries statistics to inform decision making. Strengthening of EAFM and reduction of IUU fishing will build on this baseline.

Critical habitats: The knowledge of the location of MPAs in the BOBLME was greatly enhanced during the first phase with the development of the on-line MPA Atlas with WorldFish and hosted on the ReefBase website (<http://boblme.reefbase.org/about.aspx>) and an ecosystem characterization carried out by CSIRO. Ongoing regional baseline projects supporting this component include Mangroves for the Future (MFF) Regional Programme coordinated by IUCN, which is an 11 country programme covering all of the BOBLME countries except Malaysia. To date around 30-40% of the MFF small grants have focused on restoring and managing local areas of critical habitat, mainly mangroves, but also other forms of coastal wetlands and coral reefs. This trend is likely to continue. With respect to national MMA work, several IUCN/MFF projects in Myanmar are in the pipeline. IUCN also has significant experience and networks of partners working in the key transboundary areas relevant to the BOBLME – e.g. Gulf of Mannar, the Sundarbans, important Hilsa Fishery Management Areas (Bangladesh, India). Also its MPA work in Myanmar has significant transboundary management interest for Thailand's Andaman coast, and can be linked to the work conducted in the Myeik Archipelago by the first phase of BOBLME and its cruise to survey the diversity of habitats in the entire archipelago. The MFF/AIT Regional Integrated Coastal Management (ICM) post graduate certificate course (which integrates the BOBLME EAFM training as a component) is another baseline investment. MFF will focus over the next three years to work with national university partners in select countries (including Myanmar) to tailor and national ICM courses in countries where there is a need/ interest. The training materials are currently being professionally packaged to support this process. BOBLME invested significantly in the development and delivery of the ICM regional course in Phase 1.

UNEP is supporting the South Asia Co-operative Environment Programme (SACEP) to develop the Regional Marine and Coastal Biodiversity Strategy for the South Asian Seas Region, including the five SAS countries (Bangladesh, India, Maldives and Sri Lanka, which are BOBLME countries, and Pakistan), The aim of the Biodiversity Strategy is to provide a framework for coordination and collaboration between countries' National Biodiversity Strategies and Action Plans (NBSAPs), enhancing national and regional interventions for the achievement of the Aichi Biodiversity targets, particularly those addressing coastal and marine issues relevant to the region. The First Order Draft (FOD) of the Regional Marine and Coastal Biodiversity Strategy has been developed and it is now under a review process. The six main regional Targets and related actions of the Biodiversity Strategy would include: i) Ensuring Ecosystem Services and Wellbeing, ii) Prevention of Species Extinction, iii) Control of Alien Invasive Species, iv) Sustainable

Fisheries and Aquaculture, v) Prevention of Marine Pollution and vi) Effective and Equitable Governance of Marine and Coastal Protected Areas.

In addition **UNEP's Coral Reef Unit < to be included>**. UNEP's Marine, Coastal and Freshwater Ecosystems Branch has a global programme on marine spatial planning **<details to be included>**

Water quality: UNEP's Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA) has established the Global Partnership on Nutrient Management (GPNM) as a response to the 'nutrient challenge' – how to reduce the amount of excess nutrients in the global environment consistent with global development. The GPNM reflects a need for strategic, global advocacy to trigger governments and stakeholders in moving towards lower nitrogen and phosphorous inputs to human activities. It provides a platform for governments, UN agencies, scientists and the private sector to forge a common agenda, mainstreaming best practices and integrated assessments, so that policy making and investments are effectively 'nutrient proofed'. The GPNM also provide a space where countries and other stakeholders can forge more co-operative work across the variety of international & regional fora and agencies dealing with nutrients, including the importance of assessment work. The proposed Project will build on experiences of the GPNM to establish an Asian Regional Platform. Work on marine litter under the Project will also be linked to the GPA and a regional node created of the Global Partnership on Marine Litter **<details to be included>**

Livelihoods of coastal communities: Over 50 percent of all of the world's coastal poor live in the countries of the BOBLME. All the economies are reducing reliance on the agriculture sector (including fisheries) because growth in the industrial and service sectors has driven long-term GDP growth. The contribution to GDP by fisheries, therefore, is relatively low. However, marine living resources are extremely important for the livelihoods of millions of people and communities, in particular as a source of food. Government support for urban populations is variable, with some safety nets in place. But, because of the huge areas of coast involved, many people are not covered or even aware of some of the services that are available. All the region's governments have set ambitious marine and freshwater fishery production targets, which in many cases do not acknowledge the biological limits to production inherent in these renewable resources. Most countries have relatively well-formulated legislation and policies to regulate the different sectors, but these are often not harmonized across sectors. Most government services are applied in a multi-layered system (national-provincial/state and local) without clear roles and responsibilities defined for the different players. Many countries now have "decentralization" policies that present new challenges for the coordination and implementation of law and order. Nevertheless, government, and especially local governments' baselines are significant and provides a strong basis to build on in implementing the SAP and in raising co-financing for improving the livelihoods of coastal communities. Regional baseline projects supporting this component include Mangroves for the Future (MFF), which has a strong gender component and focus on women's empowerment in coastal resource dependent communities, as well as ICSF that is focusing on gender-just sustainable fisheries in the small-scale, artisanal sector. SocMon (Socio-economic Monitoring) and its initiative in South and Southeast Asia developed in collaboration with the BOBLME will also contribute to this baseline.

Regional mechanism for coordination, monitoring and assessment: Many of the partners mentioned already have supported some level of transboundary cooperation on management of shared coastal and marine resources, such as the Association of South East Asian Nations (ASEAN), the intergovernmental organization the Bay of Bengal Programme (BOBP-IGO), the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), Asia-Pacific Fishery Commission (APFIC), Indian Ocean Global Ocean Observing System (IOGOOS), Indian Ocean Tuna Commission (IOTC), Network of Aquaculture Centres in Asia and Pacific (NACA), South Asia Association for Regional Cooperation (SAARC), South Asia Cooperative Environment Programme (SACEP), and Southeast Asian Fisheries Development Center (SEAFDEC). Phase 1 of the BOBLME developed and strengthened the networks among these organizations that has already led to better regional/sub-regional coordination related to: (i) multi-sectoral collaboration; (ii) transboundary collaboration; and (iii) multi-level collaboration within national governments. This constitutes a strong baseline for forming the Consortium for the Conservation and Restoration of the BOBLME (CCR-BOBLME) and to strengthen the coordination with NGOs/CBOs in the BOBLME and with ICSF to address livelihood and empowerment issues.

Regarding the baseline for monitoring and assessment of the BOBLME, the Intergovernmental Oceanographic Commission of UNESCO (UNESCO-IOC), has proposed that data on LMEs be acquired through existing databases maintained by a range of institutions including NOAA (remote sensing data on primary productivity); the University of Rhode Island (data on sea surface temperature); the University of California at Santa Barbara (mapping of cumulative human impacts in LMEs); CERMES (University of the West Indies in Barbados) and Dalhousie University (governance assessment); FAO and the University of British Columbia, Canada (fisheries data); UNEP/GRID-Arendal and UNEP-WCMC (marine habitat data); IGBP (modelling of nutrient inputs using the global NEWS model); IGBP, LOICZ and others (deltas at risk index); GCRMN, the global coral reef monitoring network; GESAMP (marine pollution); and the University of Miami (socio-economics), among others. Publicly available data from these partner institutions, as well as from regional and national sources provide a strong baseline for the monitoring and ecosystem-based assessment of the BOBLME.

3) Proposed alternative scenario

The project will address the priority transboundary environmental problems identified by the BOBLME TDA, and is built around four priority themes identified in the BOBLME Strategic Action Programme (SAP):

- (i) Marine living resources;
- (ii) Critical habitats;
- (iii) Water quality; and
- (iv) Social and economic considerations.

The SAP is designed to remove the key barriers to sustainable management of the BOBLME related to institutional, legal and administrative issues at regional and national levels, including lack of an appropriate forum for region-wide multi-national dialogue, planning, monitoring and reporting, socio-economic constraints, such as lack of incentives and alternative livelihoods, as well as lack of integration of climate resilience in planning and management of the BOBLME. The objective is to contribute to sustainable management of fisheries, marine living resources and their habitats in the Bay of Bengal region for the benefit of coastal states and communities, which will be achieved through five interlinked project components based on the SAP and with an added component to strengthen the institutional arrangements for regional for coordination and collaboration, ecosystem-based monitoring and assessment.

Component 1: Sustainable Management of Fisheries

The sustainability of fisheries and livelihoods in the BOBLME depend to a large extent on marine living resources and systematic application of the ecosystem approaches to fisheries management (EAFM), the reduction of threats from illegal, unreported and unregulated (IUU), and use of participatory and inclusive approaches. This component thus has two major outcomes and associated outputs:

Outcome 1.1. The ecosystem approach to fisheries management institutionalized at national level leading to increased abundance and biomass of selected national and transboundary fish stocks by 5%: There is a need to strengthen institutional arrangements, awareness and human capacity to apply EAFM, and a regional EAFM coordination unit will be established under the CCR-BOBLME (see Component 5) to ensure that at least three EAFM plans are implemented in each country in national pilot projects. The Essential EAFM training programme established in the previous phase will continue to be developed and translated into local languages and provided to at least 500 practitioners in each country. This also involves support to national and regional platforms and development of awareness materials to support the involvement of grassroots stakeholders in management decision-making processes. Key outputs include:

- 1.1.1. At least 3 EAFM plans implemented in each country (e.g. Myeik Archipelago, ...); # of target communities of fishers have adopted an ecosystem approach to fisheries management
- 1.1.2. National and regional platforms established or strengthened to involve grassroots stakeholders in management decision-making
- 1.1.3. EAFM training provided to at least 500 practitioners in each country

Outcome 1.2. IUU fishing in the BOBLME reduced by 20%: This will be achieved through development and implementation of a Regional Plan of Action on IUU fishing (RPOA-IUU) based on regional assessment of its nature and extent. This will be coupled with development of National Plans of Action (NPOAs-IUU) in each country, and could also involve development of MOUs between specific countries, such as Thailand and Myanmar on international IUU fishing. Establishment or strengthening of national IUU monitoring systems and installation of Vessel Monitoring Systems (VMS) on trawlers will also be important in combating IUU fishing. The countries will also benefit from common tools for promoting best practices, policies and national actions, and a training programme on e.g. effective port inspection, collection of forensic evidence of IUU fishing, and how to strengthen cooperation between relevant fishery enforcement institutions. Outputs to achieve the outcome thus include:

1.2.1. One regional Plan of Action (RPOA) on IUU fishing

1.2.2. 8 national POAs-IUU and national IUU monitoring systems and VMS established or strengthened

1.2.3. Tools for promoting best practices, policies and national actions to combat IUU fishing developed and implemented in national pilot/investment projects

1.2.4. Training programme on combating IUU fishing implemented with # of national fisheries staff trained in each country

Component 2: Restoration and conservation of critical marine habitats and conservation of biodiversity

This component will lead to improved management and status of degraded, vulnerable and critical coastal and marine habitats and endangered, threatened and protected species in the BOBLME by integrating marine spatial management tools, such as Marine Protected Areas (MPAs), Ecologically or Biologically Significant Marine Areas (EBSAs) and Vulnerable Marine Ecosystems (VMEs) into fisheries and biodiversity conservation management. This component is expected to lead to 5% increase in biomass of higher trophic level species; 10% of lost mangrove area restored; 5% of existing coral reefs under sustainable management; increase by 20% of seagrass habitats under sustainable management; and reduction/avoidance of emissions of X MtCO_{2e} from blue carbon.

2.1. Coastal and marine managed areas (MMAs) contribute to conservation of biodiversity and blue carbon: This outcome focuses on marine spatial management and involves development of regional guidelines for management of MMAs, including MPAs, as fisheries management (e.g. fisheries refugia) and biodiversity conservation tools that will be implemented and disseminated in each country. The guidelines will be used in the establishment of transboundary MMAs for transboundary fisheries or VMEs, EBSA and ETP species conservation. Through GEF STAR resources and co-financing, national MMAs will also be created with a focus on conservation of blue carbon, through improved management of mangroves and sea grass beds, and conservation of coral reefs and their biodiversity. Key outputs include:

2.1.1. Regional guidelines for management and evaluation of MMAs and training in their application of # national conservation staff

2.1.2. at least one transboundary MMA each created for (e.g. Andaman Seas):

(i) transboundary fisheries or VME - for example through learning and collaboration with the Fisheries Refugia project in the South China Sea;

(ii) transboundary biodiversity and ETP species conservation or EBSA - such as the Sundarbans mangroves area (Bangladesh and India) and the Gulf of Mannar (reefs and seagrass, Sri Lanka and India);

2.1.3. National MMAs created on:

(i) Conservation of blue carbon (mangroves and sea grass beds) (countries?)

(ii) coral reef and biodiversity conservation (e.g. Maldives?)

2.2 Regional consensus and agreements reached on reduction of threats to marine biodiversity in coastal and open waters: The outcome will be achieved through the development of 2-3 regional plans of actions as well as harmonized legislative frameworks of Endangered, Threatened and Protected (ETP) species such as Irrawaddy Dolphins, the Indian Ocean blue whales, Dugongs, whale sharks and sea turtles, in at least four countries, in line with the South Asian Seas Marine and Coastal Biodiversity Strategy. Key outputs include:

2.2.1. A regional plan of action for ETP species (e.g. whale sharks and sea turtles) - this could also focus on the critical habitats which are important for the selected ETP species

2.2.2. Legislative frameworks on ETP species harmonized across countries

Component 3: Management of coastal and marine pollution to improve ecosystem health

The health of the BOBLME is threatened by wastewater and solid waste from coastal cities and settlements, industrial zones and shipping, and excessive nutrient application in agriculture and high nutrient loads in rivers and water courses. The Project will aim at changing attitudes so that wastewater and solid waste are recognized as resources which translate into policy decisions and national actions to reduce their negative impacts, and it will also promote better nutrient management in agriculture in order to improve the status of ecosystem health in the BOBLME. Additionally, the changing of attitudes and behavior will be supported through widespread awareness raising initiatives. In Myanmar, such initiatives could be organized together or build on the awareness raising activities planned under UNIDO's Myanmar wastewater management project, which seeks to improve the understanding of industries, urban households and policy makers in terms of water pollution and the importance of wastewater treatment. The three expected outcomes and associated outputs are described below.

3.1. Discharge of untreated sewage and wastewater; solid waste and marine litter; and nutrient loading from non-industrial sources reduced or minimized in river, coastal and marine waters at X hotspots using ICM approaches: It is expected that there will be a 5% reduction in solid waste disposal and 5% reduction in marine litter and that nutrient loading is significantly reduced at coastal and marine hotspots. In order to facilitate Integrated Coastal Management (ICM) there will be a review of existing policies and legislation in each country to identify gaps, coupled with identification of links between local, district, state and central authorities that need to be strengthened for regulating pollution and water quality control, and strengthened cross-sectoral coordination. Tools and guidelines will be promoted for managing and monitoring the impacts of wastewater, solid waste and nutrients on the BOBLME, and awareness raising and education of decision-makers, the general public, farmers, etc. will be undertaken. Finally, best available technologies and environmental practices will be used in selected demonstration projects. Key outputs include:

3.1.1. Linkages between local, district, state and central authorities for regulating pollution and water quality strengthened in targeted areas

3.1.2. Coordination between existing national institutions with a mandate in pollution and/or water quality strengthened

3.1.3. Enhanced awareness and education of decision-makers and the general public on better pollution management

3.1.4. Innovative pollution control technologies and approaches (e.g. PPPs) demonstrated for non-industrial waste water management - based on previous experiences under UNIDO's Myanmar wastewater management project.

3.2. Regional platform of GPNM strengthened and linked to CCR-BOBLME: In order to strengthen the GPNM Asia Regional Platform, regional protocols, guidelines and standards and indicators will be developed and tools such as N-Calculator, 'nitrogen footprint' model, N-Visualization will be made available with policy-makers and farmers through training sessions. A platform will be established to improve access to, and sharing of data and information and be linked to the CCR-BOBLME that will be established under Component 5 (5.1) and its knowledge management system. Key outputs include:

3.2.1. Regional protocols, guidelines, standards and indicators for managing pollution and water quality developed

3.2.2. Platform to improve access to and sharing of data and information on pollution and water quality in the BOBLME established and linked to CCR-BOBLME

3.2.3. Training and capacity building of selected local authorities at pollution hotspots in decentralized pollution and water quality management

3.3. Coastal and marine pollution from industrial sources reduced or minimized using ICM approaches: A number of industrial parks/zones/clusters, either discharging directly into a water body or discharging indirectly through a municipal wastewater system will receive support to apply the UNIDO TEST integrated approach to reduce the pollution loads entering the waterway. This includes improving the legal and regulatory framework governing the

discharges. Solid waste management practices will also be upgraded in the same parks/zones/clusters through the adoption of the waste management hierarchy principles: prevention is given highest priority, followed in order of priority by internal recycling/reuse, external recycling/reuse, energy recovery, destructive treatment, landfilling. This project could hereby coordinate its efforts with and benefit from UNIDO's Myanmar wastewater management project, which will apply pilot demonstrations to implement the TEST approach in selected enterprises that are located in Mandalay and Yangon. The planned pilot demonstrations will focus on means of saving water and recognizing wastewater as a potential resource of fresh water, energy and nutrients. Key outputs include:

3.3.1. A number of industrial parks/zones, clusters have:

- applied the UNIDO TEST integrated approach to reduce the pollution loads entering the waterway
- upgraded solid waste management practices

3.3.2. Innovative pollution control technologies and approaches demonstrated for industrial wastewater management, including oil spills

Component 4: Improved livelihoods and enhanced resilience of the BOBLME

This component will lead to positive changes in the overall well-being of coastal people and their involvement in fisheries management and biodiversity conservation, which is expected to lead to both enhanced ecosystem resilience of the BOBLME and of local livelihoods. Vulnerability to natural hazards, and climate variability and change will be reduced and livelihoods diversified for selected coastal communities, with equal opportunities for women and men.

4.1. Enhanced resilience and reduced vulnerability to natural hazards, climate variability and change of at least 30% of coastal communities: At the regional level, valuation of the BOBLME ecosystem is further developed and reported to COBSEA and SACEP. At national level, baseline data and monitoring systems for social and economic information will be established, and there will be at least two valuations of ecosystem services from pilot areas for each country. The Project will also make use of FAO's recent recommendations with regard to climate change vulnerability assessment in the fisheries and aquaculture sector⁹. Information on values of ecosystem services, livelihoods and economics will be used to support decision making in the BOBLME by national as well as local governments. Local communities will be engaged in the valuations through local NGOs and CBOs and ICSF that will act as a coordinator of NGO/CBO engagement in the SAP (see component 5). Capacity needs will be identified and institutional linkages and processes strengthened for improved cross-sectoral and multi-scale coordination and integration of coastal fisheries and aquaculture, including gender considerations and small-scale fishery rights, in poverty reduction, development, and climate change policies, strategies and planning processes. To achieve this outcome, the Project will actively engage with national and local governments, civil society and the private sector. Key outputs include:

4.1.1. Valuation of ecosystem services and threats related to livelihoods in at least two pilot areas per country to support decision making in the BOBLME at regional, national and local levels

4.1.2. Inclusion of coastal fisheries and aquaculture in poverty reduction and development, as well as climate change policies, strategies and planning processes promoted

4.1.3. Gender considerations mainstreamed into relevant policy and regulatory frameworks

4.2. Enhanced sustainable livelihoods and diversification for selected coastal communities: To enhance livelihoods and promote diversification through improved market linkages, gender sensitive value-chain analysis will be conducted for selected fisheries and non-fisheries activities (e.g. tourism) to identify entry points for value addition, integration of environmental considerations and diversification through new product development. A training programme on selected alternative livelihoods and 'decent work' and social protection will be implemented in each country and coordinated by ICSF. Scaling up of sustainable and more resilient livelihood options will be promoted through enhanced access to financial services and insurance mechanisms, including micro-finance, and training on alternative livelihoods with a focus on women. Key outputs include:

⁹ Brugère, C. & De Young D., 2015. Assessing climate change vulnerability in fisheries and aquaculture: available methodologies and their relevance for the sector. FAO Fisheries and Aquaculture Technical Paper 597, FAO.

- 4.2.1. Gender sensitive value-chain analysis conducted for selected fisheries/fishery products
- 4.2.2. Alternative sustainable livelihood options, for both men and women, identified along the fisheries value chain and non-fisheries activities, such as tourism
- 4.2.3. Access to innovative financial services and insurance mechanisms to enhance resilience and improve livelihoods promoted.
- 4.2.4. Training programme for selected coastal communities on alternative livelihoods, ‘decent work’ and ‘social protection’ for empowerment and enhanced participation in coastal and marine resource management and conservation.

Component 5: Regional mechanism for coordination, monitoring and assessment of the BOBLME

The ability to implement ecosystem management at the regional level in the BOBLME depends on the capacity to undertake ecosystem assessment for the whole ecosystem and to monitor and plan management activities at regional level. This can only be achieved through strengthened regional cooperation between countries and between government agencies within countries and to engage civil society. The Project will therefore focus on achieving the following outcomes under this component:

Outcome 5.1. Strengthened institutional mechanisms at regional and national levels for coordination, ecosystem assessment, and monitoring and planning at the BOBLME level: In 2013, the BOBLME Project Steering Committee endorsed an institutional arrangement for SAP implementation which would consist of a consortium of countries and major partners and donors working in the areas of fisheries, environment, water quality and their social and economic dimensions. This is envisaged as an intermediate arrangement, while the possibility of a permanent arrangement will be explored during the SAP implementation phase. This “Consortium for the Conservation and Restoration of the BOBLME” (CCR-BOBLME) will meet regularly (at least annually) to:

- promote information exchange and capacity development
- monitor BOBLME health and status
- monitor progress of the SAP implementation activities and projects

The establishment of the CCR-BOBLME will involve the development of a cooperative agreement between SACEP, SEAFDEC, COBSEA and A-P Fishery Commission for monitoring ecosystems targets in the SAP. It also includes compilation, analysis and safe storage of historical baseline ecosystem data at national and levels. The implementation of the national elements of the SAP (SAP/NAPs) and associated national plans for EAFM, IUU fishing, ETP species, etc. will also be supported by national inter-ministry committees to strengthen coordination and regulatory and institutional frameworks at national level. NGO and civil society engagement in the SAP will be coordinated by ICSF and a stakeholder consultation mechanism will be established. Key outputs include:

- 5.1.1. CCR-BOBLME established to promote stakeholder participation and awareness, ecosystem assessment, and application of best practices in implementation of the SAP
- 5.1.2. 8 National inter-ministry committees to strengthen coordination and the regulatory and institutional frameworks in support of SAP/NAP (including EAFM plans, NPOAs-IUU, ETP plans) implementation and linkages to NBSAPs and INDCs developed
- 5.1.3. Stakeholder consultation mechanism established and coordinated by ICSF for engagement of NGOs and civil society
- 5.1.4. Baseline data (trends and threats of critical habitats and ETP species, climate change), monitoring systems, including indicators to measure project progress and biodiversity trends, and information repository established at national and regional levels

Outcome 5.2. Dissemination of project findings and lessons learned contribute to the LME community of practice: A Project communication strategy will be developed and implemented and the existing BOBLME website will be updated and developed into a regional information sharing mechanism to support wide dissemination of Project findings and lessons to the participating countries as well as to the LME community and the GEF IWLearn programme. Key outputs include:

5.2.1. Regional information sharing mechanism enabling broad access to best practices and lessons learned in the participating countries

5.2.2. Project findings and lessons learned identified and contributing to the LME community of practice and IWLearn

5.3. Project implementation based on adaptive results-based management: Effective monitoring and evaluation (M&E) is recognized as an indispensable tool in management of the Project and in implementing the SAP. M&E will be one of the key functions of the CCR-BOBLME coordination unit that will be supporting the monitoring and evaluation of project progress as well as progress with implementing and reaching the targets of the BOBLME SAP. Key outputs include:

5.3.1. Project monitoring system operating and providing systematic and regular information updates on project progress and on progress towards reaching BOBLME SAP targets

5.3.2. Mid-term and final evaluation conducted and project implementation adapted according to recommendations

4) Incremental cost reasoning, expected contribution from the baseline, the GEFTF, and co-financing

The baseline situation is characterized by a multitude of sector-specific interventions that are not coordinated or harmonized either across national agencies or at the regional level, hampering more holistic ecosystem-based management interventions at all levels. However, there are many regional bodies, organizations and partnerships – with a range of mandates and competencies – working towards similar environmental goals in the Bay of Bengal. Therefore there is considerable potential for them to collectively provide momentum and synergy for SAP implementation at the national, sub-regional and regional levels.

The BOBLME Project worked with more than 20 institutions, bodies and agencies during its first phase. This has contributed to improved understanding of fisheries resource, habitat status and coastal and marine pollution and related management activities in the Bay of Bengal; fostered collaborative action and exchange of information; reduced duplication of work; and promoted the optimal use of funding and other resources. The SAP comprises a broad range of activities relating to a diverse spectrum of topics and sectoral interests that span a wide geographical area. At present, there is no single body or environmental convention that has a complete mandate to cover all aspects of the SAP across its entire geographical range. Incremental GEF support to establishing a regional mechanism for coordination and collaboration at the BOBLME level is therefore crucial in order to catalyse the implementation of the SAP and bring all baseline programmes under one umbrella.

Moreover, it has been estimated that halting the degradation of marine and coastal environments and maintenance of existing ecosystem services through the implementation of the SAP will generate economic benefits worth more than USD1 350 billion from BOBLME resources and habitats over the next 25 years. Conversely, under a business as usual scenario of continued ecosystem degradation and loss, economic values will decrease to around USD 110 billion. Thus the added value and costs avoided by incremental GEF funding to implementing the SAP are substantial for local, national and even international economies, and would build on a substantial baseline of support from BOBLME countries, multilateral and bilateral institutions and programs, and the private sector as described above.

5) Global environmental benefits

The project will generate global environmental benefits in the International Water, Biodiversity, Climate Change Mitigation, and **Chemicals and Waste** focal areas, which will include:

- Introduction of sustainable fishing practices in the BOBLME, including (IW):
 - At least 3 EAFM plans implemented in each country and introduction and adoption of EAFM among target fisher communities
 - 1 RPOA-IUU and 8 NPOAs-IUU fishing implemented leading to reduction of IUU fishing in the BOBLME by 20%
 - Increased abundance and biomass of selected national and transboundary fish stocks by 5%

- Restoration and conservation of critical marine habitats in the BOBLME:
 - RPOA-ETP (e.g. whale sharks and sea turtles) developed and implemented leading to enhanced abundance of threatened and endangered species (IW/BD)
 - X ha of mangroves protected/conserved and sequestration of XMtCO₂ (CC)
 - X ha of coral reefs protected/conserved (BD)
 - Improved management effectiveness of new MPAs according to GEF METT effectiveness score. The baseline will be determined during the PPG phase (BD)
- 8 functioning national inter-ministry committees (one in each BOBLME country) ensure coordination of policy reform and adoption of ICM plans to:
 - Reduction in pollution from non-industrial and industrial sources, including littering and marine debris, in X coastal/marine hotspots in the BOBLME (IW/CW)

The global environmental benefits will be underpinned by socio-economic benefits related to improved and diversified livelihoods and food security, accruing from improved ecosystem health as a result of improved management of fisheries and marine habitats, as well as reduction of pollution and improved water quality.

6) Innovation, sustainability and potential for scaling up

The Project promotes an innovative approach to bringing together key stakeholders in the BOBLME for collective action to ensure sustainable management of its fisheries and critical marine habitats, and improved management of coastal and marine pollution to ensure ecosystem health. The establishment of the Consortium for the Conservation and restoration of the BOBLME (CCR-BOBLME) as a forum for stakeholder interaction and engagement in assessing ecosystem status, will for the first time enable a concerted approach to removing barriers to institutional cooperation and awareness raising at national and regional levels.

Institutional strengthening at regional, national and local levels coupled with mainstreaming of SAP priorities into national development policies and frameworks and sector budgets, and improved access to innovative financing for demonstration of innovative practices will contribute to the sustainability of project interventions. In addition, the project's win-win approach to generating interlinked global environmental and socio-economic benefits will ensure sustained support and interest from local communities to adopt measures such as EAFM and spatial management of critical marine habitats for provision of ecosystem services important for sustainable livelihoods and ecosystem health of the BOBLME.

Experiences and lessons learned from the demonstration projects in the first phase of BOBLME project will be replicated and scaled up, as appropriate, as best practices examples of how to address common concerns related to coastal and marine management in the BOBLME. This includes experiences with implementing the Ecosystem Approach to Fisheries Management (EAFM), Integrated Coastal Management (ICM), spatial management regimes and Marine Spatial Planning (MSP), as well as human rights-based approaches. Best practices for possible scaling up will be expanded by the proposed Project to include experiences from governance reforms supporting ecosystem-based management, establishment of MPAs, and ecosystem-based adaptation to climate change in coastal areas.

2. Stakeholders. Will project design include the participation of relevant stakeholders from civil society organizations (yes x /no) and indigenous peoples (yes x /no)? If yes, identify key stakeholders and briefly describe how they will be engaged in project preparation.

The BOBLME SAP implementation project will include a wide array of stakeholder from international, regional, national and local level:

SAP partners	Roles and responsibilities
<i>International partners</i>	
Asian Development Bank (ADB)	Infrastructure development, livelihoods
Fauna and Flora International (FFI)	Biodiversity conservation
Food and Agriculture Organization (FAO)	Fisheries and aquaculture

Government of Norway	Sustainable development, human rights-based approach
Government of Sweden	Sustainable development, human rights-based approach
Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (UNESCO-IOC)	Large-scale processes, climate change
International Collective in Support of Fishworkers (ICSF)	Small-scale fisheries, human rights-based approach
International Union for the Conservation of Nature (IUCN)	Environment, ICM, MPAs, biodiversity
International Labour Organization (ILO)	Decent work conditions
National Oceanic and Atmospheric Administration (NOAA) of the United States	Large-scale processes, climate change, EAFM
United Nations Environment Programme (UNEP)	Environment, marine spatial planning, land-based pollution, nutrient management, biodiversity
United Nations Development Programme (UNDP)	Sustainable development interventions
World Bank (WB)	Infrastructure development
WorldFish	Fisheries research
<i>Regional partners</i>	
Asia-Pacific Fishery Commission (APFIC)	Fisheries policy forum
Association of South East Asian Nations (ASEAN)	Policy and technical input
Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)	Technical cooperation
Bay of Bengal Programme – Intergovernmental organization (BOBP-IGO)	Fisheries, safety at sea
Indian Ocean Global Ocean Observing System (IOGOOS)	Large scale processes, climate change
Indian Ocean Tuna Commission (IOTC)	Fisheries
Network of Aquaculture Centres in Asia and Pacific (NACA)	Aquaculture
Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)	Sustainable development, ICM
South Asia Association for Regional Cooperation (SAARC)	Policy and technical input
South Asia Cooperative Environment Programme (SACEP)	Environment, biodiversity
Southeast Asian Fisheries Development Center (SEAFDEC)	Fisheries, training
<i>National partners</i>	
Bangladesh: Ministry of Fisheries and Livestock – Bangladesh Fisheries Research Institute; Ministry of Environment and Forests	Implementation and coordination of SAP/NAP
India: Ministry of Agriculture – Dept. of Animal Husbandry, Dairying and Fisheries; Ministry of Environment and Forests	Implementation and coordination of SAP/NAP
Indonesia: Ministry of Marine Affairs & Fisheries - Directorate General of Capture Fisheries; Ministry of Environment and Forestry – Coastal and Marine Environmental Degradation Control	Implementation and coordination of SAP/NAP
Malaysia: Ministry of Agriculture and Agro-based Industry – Dept. of Fisheries Malaysia, Fisheries Research Institute; Ministry of Natural Resources and Environment – Dept. of Marine Parks, Malaysia	Implementation and coordination of SAP/NAP
Maldives: Ministry of Fisheries and Agriculture; Ministry of Environment and Energy – Environmental Protection Agency	Implementation and coordination of SAP/NAP
Myanmar: Ministry of Livestock, Fisheries, and Rural Development – Dept. of Fisheries; Ministry of Environmental Conservation and Forestry	Implementation and coordination of SAP/NAP
Sri Lanka: Ministry of Fisheries and Aquatic Resources Development; State Ministry of Mahaweli Development and Environment	Implementation and coordination of SAP/NAP
Thailand: Ministry of Agriculture and Cooperatives – Dept of Fisheries; Ministry of Natural Resources and Environment Dept. of Marine and Coastal Resources	Implementation and coordination of SAP/NAP
<i>Sub-national/local partners</i>	
Local Governments	
Local environmental and social/cultural NGOs	
CBOs...	

<i>Private sector</i>	
Integrated Marine Management Ltd (IMM)	
VMS Companies	

3. *Gender Equality and Women's Empowerment.* Are issues on [gender equality](#) and women's empowerment taken into account? (yes X /no). If yes, briefly describe how it will be mainstreamed into project preparation (e.g. gender analysis), taking into account the differences, needs, roles and priorities of women and men.

The Project is consistent with GEF's Policy on Gender Mainstreaming and will be designed in line with FAO's Gender Policy and contribute to four of its five objectives:

1. Women participate equally with men as decision-makers in rural institutions and in shaping laws, policies and programs.
2. Women and men have equal access to and control over decent employment and income, land and other productive resources
3. Women and men have equal access to goods and services for agricultural development and to markets
4. Women's work burden is reduced by 20% through improved technologies, services and infrastructure

Entry points to mainstream gender in the BOBLME SAP were identified through a targeted study in the first phase, and included the addition of a statement in the SAP of commitment to addressing gender issues. Other gender-sensitive actions included: the addition of a section on cross-cutting issues covering gender training, communication, legislation, capacity building at field level, gender-disaggregated data collection and research on gender issues; the consideration of incentives and accounting mechanisms; the earmarking of a specific budget for gender-related activities at project level and strategic actions; the addition of a pathway to impact, and the use of outcome mapping as a form of monitoring and evaluation.

In addition, key recommendations for future action by the BOBLME partner countries that will be addressed under Component 4 of the proposed Project include:

- Commissioning of a gender-sensitive review of legislation and regulatory frameworks in the BOBLME partner countries
- Gender-disaggregated data collection
- Support to coastal women's livelihood diversification and strengthening of resilience in pilot areas at national level
- Supporting gender training and capacity building at all levels, beyond the life of the project

4 *Risks.* 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).

The risks to the successful implementation of the SAP fall into two broad categories: risks to project management (internal) and risks relating to the project context or political environment (external).

Risk	Level	Mitigation measure
<i>Internal</i>		
The SAP implementation mechanism is ineffective and inefficient (not well resourced, and technically and administratively not sufficiently competent) to implement the SAP.	M	The CCR-BOBLME consortium of countries and major partners and donors is envisaged as an intermediate arrangement, and the possibility of a permanent arrangement will be explored during the SAP implementation phase. The baseline funding to the project is already impressive and the SAP objectives will be further mainstreamed into relevant national sector budgets to ensure that the CCR-BOBLME will be sufficiently resourced and supported by competent national staff.
Countries demonstrate insufficient political will to effectively participate in	L	The Project is in line with the agreed SAP and country specific priorities, and other relevant strategies and priorities at regional, sub-regional and

SAP implementation and fall short in maintaining consensus to collaboratively implement the SAP.		national levels and is thus strongly anchored in existing policies. Strong stakeholder participation in the project will further reinforce support from policy and decision makers at all levels.
<i>External</i>		
Climate change impacts and/or other natural disasters exceed the adaptive capacities of countries and overwhelm a country's capacity to cope.	L	The project will introduce measures to enhance the resilience of coastal and marine ecosystems, involving improved habitat management, and adaptive management of fish stocks through training of key technical staff in ecosystem-based management and adaptation. It will also enhance the awareness of policy and decision makers of climate change threats to the BOBLME through information dissemination and outreach.
Changes in the security conditions of participating countries affect SAP implementation.	L	The countries of the BOBLME have become gradually more stable during the implementation of the first phase of the BOBLME and this trend is expected to continue.
Pressing domestic economic and social issues prevent senior national political decision-makers from realizing the long-term need to sustainably manage the living marine resources and environment of the BOBLME.	L	Socio-economic development of coastal communities is closely tied to the resources provided by the BOBLME. Economic valuation of the ecosystem services provided by the BOBLME and their contribution to sustainable livelihood will therefore be further refined and findings will be widely disseminated to decision-makers.

External risks pertaining to climate change, natural disasters, security conditions, political changes and economic conditions will be monitored using available public information sources. Any political developments that lead away from an emphasis on joint regional action towards a unilateral and national focus of actions shall be monitored and mitigated, or influenced as far as possible through effective communication and the generation of high-level political support.

5. *Coordination.* Outline the coordination with other relevant GEF-financed and other initiatives. The proposed Project will coordinate with relevant ongoing GEF-financed and other initiatives across the eight countries to ensure synergies and exchange of experiences to support effective implementation of the BOBLME SAP in its priority areas. In particular the following projects and programmes will be consulted in the PPG phase to ensure synergies and to avoid duplication of efforts:

- Building Partnerships to Assist Developing Countries to Reduce the Transfer of Harmful Aquatic Organisms in Ships' Ballast Water (GloBallast Partnerships) (UNDP/GEF)
- IND-BD: GEF Coastal and Marine Program (IGCMP) (UNDP/GEF)
 - Mainstreaming Coastal and Marine Biodiversity Conservation into Production Sectors in the Godavari River Estuary in Andhra Pradesh State
- Ridge to Reef: Integrated Protected Area Land and Seascape Management in Tanintharyi (UNDP/GEF)
- EAS Reducing Pollution and Rebuilding Degraded Marine Resources in the East Asian Seas through Implementation of Intergovernmental Agreements and Catalyzed Investments (PROGRAM)
 - EAS: Scaling up the Implementation of the Sustainable Development Strategy for the Seas of East Asia (UNDP/GEF)
 - Sustainable Management of Highly Migratory Fish Stocks in the West Pacific and East Asian Seas (UNDP/GEF)
- World Bank/GEF Partnership Investment Fund for Pollution Reduction in the Large Marine Ecosystems of East Asia
 - LME-EA: Applying Knowledge Management to Scale up Partnership Investments for Sustainable Development of Large Marine Ecosystems of East Asia and their Coasts
 - LME-EA Coral Triangle Initiative Project (COREMAP III-CTI) (WB/GEF)
- CTI The Coral Triangle Initiative (PROGRAM)
 - CTI Coastal and Marine Resources Management in the Coral Triangle: Southeast Asia (ADB/GEF)
 - Coral Reef Rehabilitation and Management Program-Coral Triangle Initiative, Phase III (COREMAP-CTI III) (ADB/GEF)
 - CTI Strategies for Fisheries Bycatch Management (REBYC II FAO/GEF/SEAFDEC)

- Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA Phase II UNDP/GEF)
- Enhancing the Conservation Effectiveness of Seagrass Ecosystems Supporting Globally Significant Populations of Dugong Across the Indian and Pacific Ocean Basins (UNEP/GEF)
- Implementing the Strategic Action Programme for the South China Sea (UNEP/GEF)
- Establishment and Operation of a Regional System of Fisheries Refugia in the South China Sea and Gulf of Thailand (UNEP/GEF/SEAFDEC)
- Capturing Coral Reef and Related Ecosystem Services (CCRES) (WB/GEF)
- Global Sustainable Supply Chains for Marine Commodities (UNDP/GEF)
- Enabling Transboundary Cooperation for Sustainable Management of the Indonesian Seas (FAO/GEF ISLME)
- Coastal Fisheries Initiative (FAO/GEF/WWF CFI PROGRAM)
- Maldives. Integrating Climate Change Risks into Resilient Island Planning (UNDP/GEF)
- Implementing Integrated Water Resource and Wastewater Management in Atlantic and Indian Ocean SIDS (UNEP/GEF)
- Participatory Coastal Zone Restoration and Sustainable Management in the Eastern Province of Post-Tsunami Sri Lanka (IFAD/GEF)
- MyCoast: Ecosystem-Based Conservation of Myanmar's Southern Coastal Zone (FAO/GEF)
- FishAdapt: Strengthening the adaptive capacity and resilience of fisheries and aquaculture-dependent livelihoods in Myanmar (FAO/LDCF)
- Community-based Climate Resilient Fisheries and Aquaculture Development in Bangladesh (FAO/LDCF)
- India: Climate Resilient Coastal Protection and Management (ADB/SCCF)

6. *Consistency with National Priorities.* Is the project consistent with the National strategies and plans or reports and assessments under relevant conventions? (yes /no). If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.

Linkages to national priorities in BOBLME SAP/NAPs: The BOBLME SAP identifies national actions under each of its components in each participating country. All eight countries commit to either continue supporting and aligning actions in support of the SAP components or initiate new actions necessary to meet the common targets under the SAP. For example, EAFM will be new to the Maldives, Myanmar and Sri Lanka, while it is already ongoing in the other countries, but in need of strengthening; development of NPOAs for ETP species will be new to Bangladesh, Maldives and Sri Lanka, but ongoing in the other countries; and introduction of new measures to improve management of nutrients will be important to most countries. The project development phase will further take stock of country specific priorities in the SAP/NAPs to ensure that the suite of actions selected by each country are adequately reflected in the final project design. The NAP priorities developed under Phase I further depend on a national process to elaborate actions and concomitant commitments to put them into action.

Linkages to CBD NBSAPs: The project is fully consistent with the countries National Biodiversity Strategies and Action Plans (NBSAPs) that all have elements focusing of conservation of biodiversity in the coastal and marine environment. The project will also collaborate with UNEP/SACEP Marine and Coastal Biodiversity Strategy, which aims to provide a framework for coordination and collaboration between South Asian Seas countries' NBSAPs, enhancing national and regional interventions for the achievement of the Aichi Biodiversity targets, particularly those addressing coastal and marine issues relevant to the region.

Linkages to UNFCCC NCs/INDCs and NAPAs/NAPs:

All countries have developed National Communications to the UNFCCC where forestry is a priorities sector for emission reduction. Bangladesh and Myanmar have also developed National Adaptation Plans of Action (NAPAs) to protect vulnerable populations and ecosystems, including coastal areas. However, to prepare for the post Paris climate change agreement, all BOBLME countries, except Malaysia have submitted their Intended Nationally Determined Contributions (INDCs) to the UNFCCC. Reduction of emissions from the forestry sector, including mangroves, is a high priority of the INDCs, and protection of coastal and marine resources is a key adaptation priority.

7. *Knowledge Management.* Outline the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

The Project has a strong focus on knowledge management and will start with upgrading the existing BOBLME website and develop it into a regional information sharing mechanism to support wide dissemination of Project findings and lessons to the participating countries as well as to the LME community and the GEF IWLearn program. The Project is also going to focus on sharing lessons with other relevant programs and projects in the Asia-Pacific region, such as PEMSEA for pollution reduction approaches, such as ICM working with local governments, and UNEP/GEF projects on fisheries refugia as one approach to sustainable fisheries management....

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT¹⁰ 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 [SGP OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies¹¹ and procedures and meets the GEF criteria for project identification and preparation under GEF-6.

Agency Coordinator, Agency name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email

C. ADDITIONAL GEF PROJECT AGENCY CERTIFICATION (APPLICABLE ONLY TO NEWLY ACCREDITED GEF PROJECT AGENCIES)

For newly accredited GEF Project Agencies, please download and fill up the required [GEF Project Agency Certification of Ceiling Information Template](#) to be attached as an annex to the PIF.

¹⁰ For regional and/or global projects in which participating countries are identified, OFP endorsement letters from these countries are required even though there may not be a STAR allocation associated with the project.

¹¹ GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF