



Reducing Pollution and Preserving Environmental Flows in the East Asian Seas through the Implementation of Integrated River Basin Management in ASEAN Countries

Part I: Project Information

GEF ID

9654

Project Type

FSP

Type of Trust Fund

GET

Project Title

Reducing Pollution and Preserving Environmental Flows in the East Asian Seas through the Implementation of Integrated River Basin Management in ASEAN Countries

Countries

Regional, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Viet Nam

Agency(ies)

UNDP

Other Executing Partner(s)

PEMSEA Resource Facility Cambodia: Ministry of Environment Indonesia: Ministry of Public Works and Housing Lao PDR: Department of Water Resources Management Malaysia: Department of Irrigation and Drainage Philippines: Department of Environment and Natural Resources Vietnam: Vietnam Environment Agency, Ministry of Natural Resources and Environment

Executing Partner Type

Multilateral

GEF Focal Area

International Waters

Taxonomy

Focal Areas, International Waters, Pollution, Freshwater, Influencing models, Stakeholders, Type of Engagement, Private Sector, Civil Society, Communications, Gender Equality, Gender Mainstreaming, Gender results areas, Capacity, Knowledge and Research, Knowledge Generation, Knowledge Exchange, Learning, Coastal, Nutrient pollution from all sectors except wastewater, Lake Basin, Strengthen institutional capacity and decision-making, Transform policy and regulatory environments, Convene multi-stakeholder alliances, Community Based Organization, Non-Governmental Organization, Academia, Beneficiaries, Behavior change, Awareness Raising, Individuals/Entrepreneurs, Capital providers, Financial intermediaries and market facilitators, Local Communities, Consultation, Information Dissemination, Participation, Partnership, Sex-disaggregated indicators, Participation and leadership, Workshop, Field Visit, Theory of change, Capacity Development

Sector

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 1

Duration

60In Months

Agency Fee(\$)

805,517.00

A. Focal Area Strategy Framework and Program

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
IW-2_P3	IW Program 3.1: Reduce Nutrient Pollution Causing Ocean Hypoxia	GET	5,079,123.00	41,985,192.00
IW-2_P3	IW Program 3.2: Addressing the Water/Food/ Energy/Ecosystem Security Nexus	GET	3,400,000.00	65,000,000.00
Total Project Cost(\$)				8,479,123.00
				106,985,192.00

B. Project description summary

Project Objective

To improve governance and management responsiveness and capacities in integrated water resources management, pollution load reduction from nutrients and other land-based activities, protection and conservation of freshwater environmental flows, and alleviation of climate vulnerability through demonstrations, planning, and strengthening of integrated river basin management in selected countries in the East Asian Seas.

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co- Financing(\$)
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Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 1: Baseline Assessment of Source to Sea Management Continuum	Technical Assistance	Outcome 1: Improved understanding of governance, socio-economic and ecological conditions, gaps and needs of priority river basins, sub-basins and coastal areas.	<p>1.1.1 Bio-physical profiles prepared/ updated covering: a) land uses in the watershed and coastal delta, including significant planned development; b) conjunctive uses of water; c) changes and trends in river water flows and quality over time (including groundwater if available); and d) other biophysical considerations.</p> <p>1.1.2 Socio-economic and demographic profiles prepared/updated covering existing and forecast growth/development in the respective river basins/sub-basins and coastal areas.</p> <p>1.1.3 Governance and management systems assessed in each of the selected river basins/sub-basins and corresponding coastal areas, including IRBM and ICM institutional arrangements, policies, legislations/regulations, enforcement, stakeholder participation (including indigenous people, women and the</p>	GET	1,519,302.00	6,800,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 2: IRBM Pilot Projects for Improved Governance and Management of River Basins/Sub-Basins and Associated Coastal Areas	Technical Assistance	Outcome 2.1:	2.1.1 Detailed baseline assessments and feasibility studies conducted at priority hotspot locations in 7 river basins/sub-basins.	GET	4,359,700.00	87,398,794.00
		IRBM pilot projects demonstrate governance mechanisms and instruments for improved source to sea management in 7 priority river basins/sub-basins and coastal areas.	2.1.2 Agreements signed and implemented with national agencies, local governments, private sector and other interested partners to finance, construct, operate, assess. and report on IRBM pilot projects in 7 priority river basins/sub-basins and coastal areas in accordance with agreed indicators, monitoring programs, and metrics.			
			2.2.1: Assessments and recommendations for improved interagency and multisectoral governance structures in priority river basins/sub-basins and coastal areas developed and disseminated.			
		Outcome 2.2: Integrated river basin management strategies and action plans in 7 priority	2.2.2: Assessments and recommendations for improved IRBM policies, laws, financial and economic instruments, and support programs in			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 3: Knowledge management and learning	Technical Assistance	Outcome 3.1: Improved IRBM knowledge management and enabling capacities among participating countries, partners and networks.	<p>3.1.1.: Technical report/guide for a harmonized set of IRBM governance and management indicators on inputs, process, socioeconomics, governance, stress reduction, and environmental status, among others, developed, published and disseminated.</p> <p>3.1.2: Improved IRBM water quality monitoring and reporting programs implemented in connection with IRBM pilot projects in 7 priority river basins/sub-basins and coastal areas.</p> <p>3.1.3: Core capacities and skills in IRBM development and management transferred to Project Team members, managers and implementers of IRBM projects in 7 priority river basins/sub-basins and coastal areas.</p> <p>3.1.4: Regional IRBM knowledge and communication management platform operationalized including project M&E reporting.</p> <p>3.1.5. One percent of the GEF grant allocated for participation in regional and global forums, preparation</p>	GET	1,942,000.00	7,700,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
M&E		M&E	M&E	GET	254,373.00	
Sub Total (\$)					8,075,375.00	101,898,794.00
Project Management Cost (PMC)						
	GET		403,748.00		5,086,398.00	
Sub Total(\$)			403,748.00		5,086,398.00	
Total Project Cost(\$)			8,479,123.00		106,985,192.00	

Please provide justification

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount(\$)
Recipient Country Government	Cambodia Ministry of Environment	In-kind	4,085,337.00
Recipient Country Government	Indonesia Ministry of Public Works and Housing	In-kind	3,494,667.00
Recipient Country Government	Lao PDR Ministry of Natural Resources and Environment	In-kind	958,056.00
Recipient Country Government	Ministry of Energy, Science, Technology, Environment and Climate Change, Malaysia	In-kind	74,000,000.00
Recipient Country Government	Philippines Department of Environment and Natural Resources	In-kind	918,123.00
Recipient Country Government	Vietnam Ministry of Natural Resources and Environment	In-kind	1,200,000.00
Beneficiaries	City of Depok (Indonesia)	In-kind	941,930.00
Beneficiaries	Province of Loang Namtha (Lao PDR)	In-kind	217,813.00
Beneficiaries	Province of Bokeo (Lao PDR)	In-kind	1,029,363.00
Beneficiaries	Province of Oudomxay (Lao PDR)	In-kind	993,050.00
Beneficiaries	Province of Cavite (Philippines)	In-kind	389,766.00
Beneficiaries	City of General Trias (Philippines)	In-kind	561,000.00
Beneficiaries	People's Committee of Da Nang City and Qunag Nam Province (Vietnam)	In-kind	8,000,000.00

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount(\$)
GEF Agency	UNDP	In-kind	300,000.00
Other	JICA Vietnam	In-kind	4,600,000.00
Other	PEMSEA	In-kind	296,087.00
Recipient Country Government	Philippines Department of Environment and Natural Resources	Grant	5,000,000.00
Total Co-Financing(\$)			106,985,192.00

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	NGI	Amount(\$)	Fee(\$)	Total(\$)
UNDP	GE T	Regional	International Waters		No	8,479,123	805,517	9,284,640.00
Total Grant Resources(\$)						8,479,123.00	805,517.00	9,284,640.00

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)
PPG Required **true**

PPG Amount (\$)
288,000

PPG Agency Fee (\$)
27,360

Agency	Trust Fund	Country	Focal Area	Programming of Funds	NGI	Amount(\$)	Fee(\$)	Total(\$)
UNDP	GET	Regional	International Waters		No	288,000		288,000.00
UNDP	GET	Regional	International Waters		No		27,360	27,360.00
Total Project Costs(\$)						288,000.00	27,360.00	315,360.00

Core Indicators

Indicator 7 Number of shared water ecosystems (fresh or marine) under new or improved cooperative management

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Shared water Ecosystem		Bay of Bengual, Indonesian Sea, South China Sea, Gulf of Thailand		
Count	0	4	0	0

Indicator 7.1 Level of Transboundary Diagnostic Analysis and Strategic Action Program (TDA/SAP) formulation and implementation (scale of 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Bay of Bengual Select SWE		3		<input type="checkbox"/>
Indonesian Sea Select SWE		1		<input type="checkbox"/>
South China Sea Select SWE		4		<input type="checkbox"/>
Gulf of Thailand Select SWE		4		<input type="checkbox"/>

Indicator 7.2 Level of Regional Legal Agreements and Regional management institution(s) (RMI) to support its implementation (scale of 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
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Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Bay of Bengual Select SWE		2		<input type="checkbox"/>
Indonesian Sea Select SWE		2		<input type="checkbox"/>
Gulf of Thailand Select SWE		2		<input type="checkbox"/>
South China Sea Select SWE		2		<input type="checkbox"/>

Indicator 7.3 Level of National/Local reforms and active participation of Inter-Ministeral Committees (IMC; scale 1 to 4; See Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
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Indicator 7.4 Level of engagement in IWLEARN throught participation and delivery of key products(scale 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Bay of Bengual Select SWE		4		<input type="checkbox"/>
Indonesian Sea Select SWE		2		<input type="checkbox"/>

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Gulf of Thailand Select SWE		4		<input type="checkbox"/>
South China Sea Select SWE		4		<input type="checkbox"/>

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female		132,948		
Male		132,948		
Total	0	265896	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

PART II: Project JUSTIFICATION

1. Project Description

Change in Number of Participating Countries: The number of countries participating in the project has been reduced from 8 to 6. Thailand was unable to sign the PIF.

Baseline Scenario: Change in National River Basins as Potential Sites for the IRBM Project

During the PPG Inception Workshop (August 2017), the 6 participating countries developed and agreed to criteria for the selection of river basins for the IRBM project. The criteria and final list of selected priority river basins may be found in Table 1. Upon applying the selection criteria, four of the seven participating countries changed the river basins/sub-basins from those identified in the PIF (i.e., Indonesia, Myanmar, Philippines, and Vietnam). Information on the analysis and selection of river basins within each country is summarized in the National IRBM Project Proposals (Annex K of the Project Document), including identification of ongoing and planned initiatives (governance, management, scientific, investment) in each river basin that will serve as a foundation for the IRBM project.

Table 1: Country Selection of Priority River Basins

Country	River System/Coastal Area/LME	Basin Area (km2)	Population
Cambodia	Kampong Bay River (Gulf of Thailand LME)	3,018	184,946
Indonesia	Ciliwung River (Jakarta Bay/Indonesian Seas LME)	937	8,704,185
Lao PDR	Nam Tha River (Mekong River/South China Sea LME)	8,924	195,681
Malaysia	Deda-Muda Rivers (Andaman Sea/Bay of Bengal LME)	7,070	2,304,351
Philippines	Imus Ylang Ylang Rivers and Pasac-Guagua Rivers (Manila Bay/South China Sea LME)	1,709	3,141,022
Vietnam	Vu Gia Tu Bon Rivers (Da Nang Bay/South China Sea LME)	10,350	2,533,971
	Total	32,008	17,064,136

Change in Outputs: Based on inputs from government and non-government stakeholders in the 6 participating countries, as well as the downsizing of the project budget from \$11.5 million to \$8.47 million, the outputs in Component 2 have been modified. The project has adopted a four-tiered approach to planning, development and implementation, namely regional, national, river basin, and pilot project tiers. Output 2.1.1 focuses on the pilot project tier, and involves developing and implementing an IRBM pilot project at an identified hotspot location in each river basin. The pilot projects will focus on priority issues within the river basins, and will serve as hands-on learning experiences for improved IRBM governance and management, from which to build and up-scale IRBM to the river basin/sub-basin tier. Outputs 2.2.1 and 2.2.2 relate to the river basin/sub-basin tier and are about reviewing and assessing options for improving: a) governance and institutional mechanisms; and b) IRBM policies, laws, financial and economic instruments, and support programs in the priority river basins based on the pilot project experience. Output 2.2.3 involves developing, building consensus, adopting and initiating IRBM strategies and action plans in the 6 priority river basins. The IRBM strategies and action plans will incorporate action agenda that were identified in the Outputs 2.2.1 and 2.2.2, as modified and agreed to through a public consultation process, in addition to: inputs from SORB reports (Outcome 1); good practices and lessons from pilot projects; and the development goals and objectives of river basin organizations, local governments, communities and social and economic sectors in the river basin and coastal region. The strategies and action plans will be submitted to the respective government approval processes for adoption.

As indicated in Output 2.2.3, initiation of adopted river basin strategies and action plans will specifically target commitments of adequate human and financial resources to scale-up or replicate at least one priority management intervention in each river basin.

In response to the comments received from STAP on Component 3 (Knowledge Management, Capacity Development and Monitoring and Evaluation) a single outcome was identified for the Component, namely "Improved IRBM knowledge management/sharing and enabling capacities among participating countries, partners and networks." The outcomes previously identified in the PIF were transformed into 5 outputs, as follows:

? Output 3.1.1: Technical report/guide for a harmonized set of IRBM governance and management indicators on inputs, process, socioeconomics, governance, stress reduction, and environmental status, among others, developed, published and disseminated.

? Output 3.1.2: Improved IRBM water quality monitoring and reporting programs implemented in connection with IRBM pilot projects in 7 priority river basins/sub-basins and coastal areas. A series of

? Output 3.1.3: Core capacities and skills in IRBM development and management transferred to Project Team members, managers and implementers of IRBM projects in priority river basins/sub-basins and coastal areas.

? Output 3.1.4: Regional IRBM knowledge and communication management platform operationalized including project M&E reporting.

? Output 3.1.5: One percent of the GEF grant allocated to participation in regional and global forums, preparation of experience notes, and organization and conduct of regional twinning activities in collaboration with GEF LME/IW Learn.

Innovativeness and Sustainability and Potential for Scaling up: During the preparatory phase, it became quite apparent that participating countries were being challenged with the transition from an IWRM governance and planning mode to a functional IRBM management program. For the project to assist with this transition, it was agreed that each river basin initiative would include a "pilot project" to provide countries with a hands-on learning experience in tackling (a) priority challenge(s) to IRBM. In this way, the pilot project would serve as a learning site and show place in the river basin/country during project implementation, and a knowledge base for up-scaling and replication beyond the life of the project.

It was further recognized by countries that the capital financing for the planned pilot projects was beyond the available budget of the GEF-supported IRBM project. Thus, one of the major challenges the IRBM project will be to put in place the partnerships and financings for the pilot projects. This, in fact, is the major stumbling block currently faced by local governments and river basin organizations. By walking local governments and river basin organizations through the process of project development, financing and sustainable implementation, a legacy of approaches, experiences and networking will be created. In particular, the project will facilitate the development, assessment and operationalization of financing options (e.g., public, public-private, private) and partnership arrangements. One innovative financing option that will be explored is referred to as a ?PPP Inclusive Growth Fund?. This option will assess opportunities for an effective and equitable financing structure that facilitates pro-active participation of the private sector, the government and the community in the financing, ownership and operation of the pilot project.

Table 2: IRBM Pilot Sites and Priority Issues

River Basin/Country	Pilot Project Sites	Priority Issues at the Pilot Sites
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1. Kampong Bay River Basin, Cambodia	Kampot City	Pollution reduction/nutrient management; water resource management (i.e., environmental flows from upstream hydroelectric dam operation and saltwater intrusion); seasonal flooding; protection and conservation of natural resources; reforestation
2. Ciliwung River Basin, Indonesia	Depok City	Pollution reduction/nutrient management
3. Nam Tha River Basin, Lao PDR	Loungnamtha Town Proper	Reforestation and sustainable management of forests; pollution reduction/nutrient management
4. Kedah River Basin, Malaysia	Alor Setar City	Pollution reduction/nutrient management; water resource management (i.e., environmental flows from upstream hydroelectric dam operation and agricultural irrigation)
5. Imus-Ylang Ylang and Pasac-Guagua River Basins, Philippines	General Trias City Guagua Municipality	Pollution reduction/nutrient management; water resource management (environmental flows; sustainable water supply) Water resource management (environmental flows; sustainable water supply for domestic, agricultural and aquacultural purposes)
6. Vu Gia Thu Bon River Basin, Vietnam	Quang Nam Province and Da Nang City	Pollution reduction/nutrient management; water resource management (environmental flows for salt water intrusion; hydroelectric dam operation; sustainable water use/security for domestic, agriculture and aquaculture purposes)

[1] 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.

A.2. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

NA

A.3. Stakeholders

Please provide the Stakeholder Engagement Plan or equivalent assessment.

Documents

Title

Submitted

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement.

Annex 8 of the Project Document provides a comprehensive analysis of key stakeholders at the regional, national and local levels in the priority river basins and coastal areas in the 6 countries. During project implementation, stakeholders will be engaged in a highly participatory and inclusive manner, including consultations relating to:

- ? The identification and prioritization of demonstration and replication sites in the priority river basins;
- ? Baseline assessments and the development of State of River Basin Reports covering physical, chemical, biological aspects of environmental flows, as well as socio-economic, demographic and governance and management conditions in the river basins and coastal regions;
- ? Capacity needs and gap analysis of stakeholders in IRBM;
- ? Governance system analysis for the sustainable management of the priority river basins with linkages to national, regional and global priorities, targets and commitments including the SDGs, climate change, biodiversity conservation, pollution reduction, and waste management;
- ? Gender inequities relating to water resources management;
- ? Broader social inclusion at the community level in relation to decision-making around the use of water resources;
- ? National consultations relating to planning, activity design, setting of targets/indicators, monitoring and evaluation, and consolidation of outputs, among other things; and

? Scaling up and replication of good practices in IRBM at the river basin and national levels.

The IRBM project focuses on improving environmental flows, reducing pollution and enhancing climate resiliency by strengthening management mechanisms, planning and decision-making. The project is also aimed to improving linkages with industry, civil society including private sector and NGOs and communities as well as development partners. Continued consultations with stakeholder groups throughout project design and implementation stages are also important. In support of effective communication among stakeholders at the river basin, national and regional levels, the Regional Project Management Unit will establish an IRBM portal to serve as knowledge sharing platform and information depository for the project.

[1] As per the GEF-6 Corporate Results Framework in the GEF Programming Directions and GEF-6 Gender Core Indicators in the Gender Equality Action Plan, provide information on these specific indicators on stakeholders (including civil society organization and indigenous peoples) and gender.

Select what role civil society will play in the project:

Consulted only; Yes

Member of Advisory Body; Contractor;

Co-financier; No

Member of project steering committee or equivalent decision-making body; No

Executor or co-executor;

Other (Please explain)

A.4. Gender Equality and Women's Empowerment

Please briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

Documents

Title

Submitted

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

If yes, please upload document or equivalent here

To advance women's equal participation with men as decision makers in the IRBM project work, a gender action plan (GAP) was developed during the project preparation phase based on desk top research as well as the gender analysis in each of the river basins. Apart from the equitable representation of women in all aspects of project processes, meetings and activities, the GAP also seeks to promote gender mainstreaming in all project components, implementation of project activities and at all stakeholder levels. The IRBM project requires that project attention to gender perspectives is explicit and integrates gender-responsive budgeting into IRBM finance.

The GAP includes gender-related activities for all river basins to promote and facilitate gender balance, women's participation and leadership, as well as special actions which systematically support women's skills, livelihood development, and engagement in river basin management. Activities vary in terms of measurability, project effort and scope. Some activities will be supported by organizations that are already involved in related development work in the river basins or have local know how. The designed gender actions are not static, they will be completed and adapted with the ongoing project and the individual requirements of the hotspots.

The following recommendations for all project components and countries are made to promote opportunities, drivers of change and positive gender dynamics as well as to manage and mitigate potential adverse risks over the duration of the project:

? The presence of gender equality goals, outcomes and outputs are reflected in each project component and women will be represented in all aspects of the project work;

? Indicators and monitoring targets are set in terms of the gender objectives of reducing gender gaps, including gender-disaggregated monitoring indicators;

? Support and control mechanisms, such as gender focal points in each river basin are defined;

? Expenditures for gender-balanced capacity building and activities are allocated in each component and calculated in the project budget; and

? Participatory monitoring and evaluation processes are captured, reflecting gender beneficiaries and monitoring improvement for women's welfare and status.

The following directives have been identified for specific gender actions listed in the GAP to complement the IRBM approach to the components:

? Implementation of women-specific livelihood activities and associated benefits (e.g., livelihoods along the recycling systems);

? Skills development (e.g. IRBM/ICM management; sewerage treatment; reforestation);

? Strengthening of women's involvement in planning and decision-making at national and subnational levels (e.g., equal participation; strengthening women's empowerment); and

Participation of women as agents of economic, social and political change at the community level (e.g. waste awareness; waste reduction/segregation; sanitation).

[1] Same as footnote 8 above.

If possible, indicate in which results area(s) the project is expected to contribute to gender equality:

Closing gender gaps in access to and control over natural resources;

Improving women's participation and decision making

Generating socio-economic benefits or services or women

Will the project's results framework or logical framework include gender-sensitive indicators?

A.5. Risks

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.

1. Environmental risks: Impacts of pollution, land development, conflicting water uses and climate change in the selected river basins undermine the sustainability of S2S/ IRBM management, by adversely impacting environmental flows and biological processes that underpin provisioning, regulating and supporting ecosystem services.

To mitigate these environmental risks, which vary in scope and severity across the river basins, substantial project resources are devoted to toward increasing capacities, experience and knowledge base in each river basin regarding the reduction and mitigation of impacts on environmental flows and the water/food/energy/ecosystem security nexus, and the associated consequences on local communities. The increased capabilities, experience and supporting networks resulting from these efforts will facilitate

improvements in governance and management of the selected river basins as well as better informed strategies for scaling up and replicating good IRBM practices within and across priority river basins.

2. Political risk: Lack of national and local political support and buy-in for implementation of IRBM. To help overcome this risk, the selection of priority river basins and coastal areas for the project involved national and local governments, NGOs and scientific institutions in each country. This established ownership for the project at the two levels of government. During project development and implementation, the project will work from the bottom-up, working closely with local Chief Executives and decision-makers at hotspot locations within river basins/sub-basins, to provide on-the-ground solutions to hotspot issues. One of the criteria used in selecting a hotspot location for a pilot project is evidence of political will and commitment to invest in the project and to allocate the necessary resources to sustain the IRBM program. Lessons learned and good practices will then be shared and transferred to national levels for adaptation and use in national IRBM policy and programming.

3. Political risk: Change in key policy and/or decision makers or other events beyond the control of the project lead to changes in priorities and/or support for the project. A 5-year long project will inevitably operate across national and subnational election cycles. To help address this, the project is designed to facilitate national responses to agreed regional action programs, including the ASEAN, SDS-SEA, SCS LME, BOB LME, CTI-CFF, etc., which are long-term commitments that are mostly unaffected by changes in national or local governments.

4. Regulatory risk: Enabling decisions required for implementation of some of the key project activities may be delayed due to inefficiencies and/or lack of ownership by national and/or local government units. A number of the planned project activities require high level, intergovernmental and multi-sectoral enabling decisions including commitments to resource access and use, approval of river basin governance systems, strategies and action plans, and investment in action plan implementation. Existing and planned River Basin Coordinating Committees are critical to this process, with membership from key national agencies, local governments with jurisdiction in the river basin and coastal areas, as well as community groups, universities/scientific and technical institutions and the business sector. The project will provide hands-on experience in planning, consultation, negotiation, conflict resolution, etc. in developing and investing in pilot projects, and forging longer-term actions to help overcome conflicts and to build multi-sectoral ownership and commitment to concrete solutions.

5. Strategic risks: Complex water and land use policy and practice in river basins will impede adoption of integrated management approaches. Given the nature of the proposed project ? oriented toward joint fact finding, consensus building, establishing processes, creating enabling political environments, it is envisaged that this participatory, multi-sectoral approach will promote greater awareness and recognition of the benefits and impacts of sustainable upstream land use and water resource management practices, integrated with sustainable downstream coastal water resources management on the communities, individuals and economies of the river basins and coastal areas.

A.6. Institutional Arrangement and Coordination

Describe the Institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

The project institutional arrangements entail a 4-tier approach:

? A regional tier, being the Project Board/Steering Committee, namely the ASEAN Working Group for Water Resources Management, will review and assess the performance of the project, appraise annual

work plans and budgets, and facilitate knowledge sharing and opportunities for up-scaling IRBM project results and lessons learned to relevant audiences in ASEAN as well as country-based projects. UNDP will serve as co-Chair of the Project Board, while PEMSEA will serve as secretariat.

? A national tier will facilitate cooperation and involvement of national agencies in planning and coordination, advisory, and knowledge sharing processes, as well as reviewing and assessing outputs in the context of contributions to national policies and programs. The national tier will have representation/participation in the activities at the river basin and pilot project levels (see below). National agency representatives will use the experience to catalyze the development or improvement of national IRBM policies, institutional mechanisms, laws, etc., thereby mainstreaming IRBM environmental sustainability into programs and investments at the national level. The national tier ensures cooperation and involvement of central agencies in the planning and coordination of central agency support and advisory processes to the project. Existing coordinating mechanisms will be employed, with National Implementing Partners taking the lead in coordinating input to the project. It is also at this level that linkages to and synergies with the respective LME SAPs and corresponding national action plans will be facilitated through the existing national LME coordinating/implementing mechanisms.

? A river basin tier will be responsible for the planning, coordination, management and monitoring and evaluation of the project at the river basin level, within existing river basin organizations or interim mechanisms set up during the project. The river basin tier will be comprised of representatives from responsible national agencies, local governments, non-governmental organizations, business community/private sector and other major stakeholders in the river basin. The river basin tier will use the outputs of the project, including the tools, networks and skills generated during the project, to develop, adopt and initiate river basin strategies and 10-year action plans aimed at scaling-up and replicating good practices and lessons learned in water use/conservation, pollution reduction/waste management; sustainable reforestation, etc. The river basin tier serves as the main platform for bottom up and top down engagement, via existing river basin coordinating mechanisms in 4 of the selected river basins (Indonesia, Philippines, Malaysia, Vietnam) or via interim coordinating mechanisms set up by the project in Cambodia, and Lao PDR. The river basin coordinating mechanisms include representation from national and local governments, NGOs, indigenous peoples (where present), business community/private sector, and local communities in the respective basins.

? A pilot project tier will be involved in the development, implementation, monitoring and reporting of solution- and impact-oriented IRBM demonstration projects at a hotspot location in each river basin. The IRBM pilot projects will focus on governance and management priorities such as water quality improvement, pollution reduction, waste management, reforestation, and water use and conservation management at the local level. The local tier Project Teams will be capacitated through formal training and working with technical experts and professionals contracted by the project, to develop, implement and demonstrate IRBM templates that result in real-life changes at the local scale. By the end of the project, the local tier Project Teams will be enabled to use proven tools and their experience to promote and facilitate scaling up and replicating good practices and lessons to the river basin tier. The pilot sites will serve as showcases and learning centers for IRBM governance and management, which will provide real impact in the local areas while also creating knowledge, capacity development and scaling-up/replication opportunities for the river basins.

PEMSEA will serve as Executing Agency for the project and UNDP will provide technical and financial oversight.

Additional Information not well elaborated at PIF Stage:

A.7. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

The global environmental benefits generated by the project will be underpinned by socio-economic benefits including: sustainable, alternative non-ecosystem-based livelihoods; pollution reduction/nutrient management and improved water quality and water security; and solid waste management, improved plastics management and reduction in marine litter, all accruing from improved IRBM reducing stress on downstream shared LMEs. Socio-economic benefits that are measurable within the duration of the project will occur primarily at the river basin level and at "hotspot sites" that serve as pilot project locations. In addition, the awareness raising, knowledge sharing and the skills development aspects of the project will better enable local governments and communities with the tools and know-how to protect, manage and use their rivers and marine waters and the natural resources therein in a sustainable manner.

The ultimate success of implementation of the IRBM project will be measured by how priority actions are carried out and replicated at the local level, and the socio-economic and environmental benefits derived. Providing scale-able frameworks, e.g., through IRBM plans, tools and templates, will provide river basin organizations, local governments and communities with a roadmap for integrating the socio-economic development priorities of their river basin and coastal communities with the conservation and sustainable management of the ecosystem goods and services of the area.

Project components were designed with the full acknowledgment of the human resource capacity at the country levels and within the river basins and coastal communities. Sufficient time and budgets have been allocated to each project component in order to allow for ?socialization? of the project engagement and gender targets. For example, improved IRBM management will result in more equitable access for women and vulnerable groups to planning and decision-making processes, employment, and safer, accessible water supplies. The number of direct project beneficiaries will be identified during the detailed baseline assessment and socio-economic surveys conducted during project start-up. The total population across the selected 7 river basins and coastal areas is 26,589,794, representing direct environmental beneficiaries of the IRBM project.

A.8. Knowledge Management

Elaborate on the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives (e.g. participate in trainings).

conferences, stakeholder exchanges, virtual networks, project twinning) and plans for the project to assess and document in a user- friendly form (e.g. lessons learned briefs, engaging websites, guidebooks based on experience) and share these experiences and expertise (e.g. participate in community of practices, organize seminars, trainings and conferences) with relevant stakeholders.

Governance and management challenges among the river basins in the 6 countries are not dissimilar, covering: water pollution (organic, nutrients, toxic and hazardous waste); plastics and litter; deforestation; biodiversity loss; erosion, siltation, flooding and landslides; water security/water quality (drinking water; recreation; aquaculture); competing uses (dams; irrigation; urbanization, domestic and industrial use); and climate change. It is not possible to address all of these challenges, even for one river basin, in this foundational project. The approach of the project is to demonstrate sustainable IRBM solution templates at pilot scale for improved governance, pollution, waste management, deforestation, and water use conflicts, as a starting point to wider change. The application of the template solutions under disparate conditions (i.e., political, legal, social, economic and environmental), provides greater opportunity for learning, replication and up-scaling, recognizing that such differences are not only present among countries of the region, but also within and across river basins/ sub-basins of the countries themselves.

At the regional level, the project will focus on developing and transferring tools, templates, and enabling capacities to the national and local river basin organizations, managers and project teams, and providing access to a team of IRBM scientific and technical, financial and investment, legal, and socio-economic professionals/specialists to adapt and apply these tools to solve real governance and management issues under local conditions. The regional level activities will also concentrate on monitoring and evaluation of progress, outputs and outcomes, sharing of experiences, lessons and good practices via ASEAN, PEMSEA and other regional organizations and networks, the development and transfer of knowledge products based on the experiences in the river basins, building/ strengthening scientific, technical and financing and investment support networks, and operationalizing an e-knowledge platform to link and promote cooperation among IRBM communities within countries of the region, and with other regions. The regional aspects of the project are included in all three components of the project.

At the country level, the existing and interim river basin organizations and project teams will: prepare a baseline State of River Basin Report for each river basin (Component 1) including priorities, gaps and needs for improved IRBM governance and management; plan, develop and implement pilot projects at hot spot locations in each river basin as learning sites/showcases for sustainable IRBM management, financing and investment, (Component 2) including opportunities for scaling up and replicating improved governance and management in the selected river basin based on the experience of the pilot projects; and packaging and transferring experiences, lessons and good practices to other river basins within their country and among participating countries in the regional project (Component 3).

The experiences, lessons, good practices and recommendations coming from the project will benefit all participating countries. Generic tools, processes, and templates for improved IRBM governance and management will be adapted, tested and demonstrated under a variety of political and legal regimes, environmental conditions, economic systems, demographic and social profiles, as well as capacities. This is the advantage of the project, as adaptive management is a critical feature of all IRBM programs. The project does not propose immediate change for all issues across all river basins/coastal areas, but does target full change and solutions for selected hotspot areas (i.e., pilot sites) and key issues (i.e., nutrient reduction; solid waste/marine litter reduction; water management) to initiate change at larger scales through knowledge and experience sharing.

B. Description of the consistency of the project with:

B.1. Consistency with National Priorities

Describe the consistency of the project with nation strategies and plans or reports and assessments under relevant conventions such as NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

A number of initiatives have already been undertaken at the regional and country levels, particularly related to SDG targets 6.5 and 6.6 (i.e., implement IWRM at all levels; and protect and restore forests, wetlands, rivers, etc.) and targets 14.1 and 14.2 (i.e., prevent and reduce marine pollution; and sustainably management and protect marine and coastal ecosystems). For example, the ASEAN Long Term Strategic Plan of Action for Water Resources Management was endorsed by the ASEAN Member State Environment Ministers in 2002. The vision for water in Southeast Asia by 2025 is: 'the attainment of sustainability of water resources to ensure sufficient water quantity of acceptable quality to meet the needs of the people of Southeast Asia in terms of health, food security, economy and environment.' To ensure that concrete actions were undertaken, the ASEAN Socio-Cultural Community (ASCC) adopted 'Blueprint 2009-2015', which outlined a set of actions to fulfill the Strategic Objectives related to water resources management. Among others, the actions included promoting the implementation of integrated river basin management (IRBM), strengthening public awareness and partnerships to enhance integrated water resources management (IWRM), and improving regional cooperation on water conservation measures and programs as well as scientific and technological innovations in water quality improvement and supply. With respect to the coastal area and in recognition of the region's 173,000 km of coastline, the same Blueprint committed to 'ensure ASEAN's coastal and marine environment are sustainably managed' and 'promote cooperation in addressing pollution of coastal and marine environment from land-based sources.'

At the national level, a number of the ASEAN Member States have adopted water-related/IWRM policy and practices at national and basin levels (Table 2). Whereas some countries, notably Indonesia, Lao PDR, Malaysia, the Philippines, and Vietnam have made progress by putting in place governance mechanisms in priority river basins and developing and adopting multi-year action plans, operationalizing these mechanisms and action plans have faced difficulties. Barriers for effective national implementation are multiple including: a) coordination and cooperation between national and basin level institutional

arrangements and among the different departments and levels of government remains a challenge as a consequence of 'siloed approaches' to developing and managing watershed and coastal areas on a sector-by-sector basis; b) there is a lack of available scientific knowledge and input to water resource management and environmental flows in the river basins and associated coastal areas, which could help solve conflicting uses of water and ecosystem functionality and health (e.g., extreme variations in hydraulic flow conditions as a consequence of upstream dam (hydro-electric and irrigation) operations; c) there is limited technical capacity to address complex, inter-related pollution reduction problems (e.g., untreated and partially treated domestic and industrial wastewaters being discharged into the rivers and coastal waters; municipal, industrial and institutional solid wastes (including plastics) being dumped directly and indirectly into rivers and drainage systems and flushing to coastal waters; nutrient runoff from agricultural lands and livestock rearing areas; erosion and sedimentation from deforested land areas due to uncontrolled urban and agricultural development) and climate hazards (e.g., flooding; droughts; landslides; etc.) in an holistic manner; d) there is limited enforcement of policy and regulatory frameworks to protect water resources and related ecosystems; e) there is insufficient investment to meet the specific needs and conditions across the river basins and coastal areas; and f) there is a lack of monitoring data and information on water quality, water quantity and water use across sectors and sources/loadings of land-based pollution. Figure 1 provides a snapshot of the status of IRBM governance at the national and river basin levels in the 7 countries prior to project start-up.

Table 3: Review of IRBM-related Laws, Policies and Strategies for River Basin Governance in the ASEAN Region

Country	Basic Environmental Law	Law/Act specific to Pollution Control and Ambient Water Quality Standards	Laws and Strategies related to River Basin Governance
Cambodia	Law on Environmental Protection and Natural Resources Management (1996)	• Sub-Decree on Water Pollution Control (No 27, 1999, Water Quality Standards in Public Water Areas)	• Law on River Basin Management and Water resource management (Sub Decree No. 98, 2015)
Indonesia	Law concerning Environmental Protection and Management (No.32/2009)	• Government Regulation Number 82 (2001, Water Quality Criteria) • Decree of the State Minister of the Environment Number 51 (2004, Quality of Seawater)	• Paradigm for Water Resources Management (Law No.7/2004) • Strategic Plan of Ciliwung-Cisadane River Basin (Decree No.26/KPTS/M/2015)
Lao PDR	Environmental Protection Law (1999)	• The Agreement of National Standards of Environment (2009, Surface- and Groundwater Quality Standards)	• Water and Water Resources Law, 2017 • National Water Resources Strategy 2025 (2016) • Mekong IWRM Strategy 2020 and Basin Development Plan (2016)
Malaysia	Environmental Quality Act (1974) Environmental Protection Act (pending)	• Selangor Waters Management Authority Enactment, 1999 • Kedah and Sabah Water Resources Enactment, 2007 • Sabah Conservation of the Environment Enactment, 1998 • National resources Environment Ordinance Sarawak, 1993 • National Water Quality Standards • Marine Water Quality Criteria and Standard	• Consolidation of water management and regulatory functions of water services (National Water Services Commission SPAN, Act 654 and Water Services Industry WSLA, Act 655) (2006)
Philippines	Philippine Environmental Policy (P.D. 1151, 1152, and 1586)	• RA 9275 Clean Water Act, 2004 • DAO 2005-10 PCWA Implementing Rules Regulations • Water Quality Guidelines and General Effluent Standards of 2016	• PD 1067 Water Code of the Philippines, 1976 • PD 424 Creating a National Water Resources Board (NWRB) (1974)
Vietnam	Law on Environmental Protection (2014)	• No. QCVN 08:MT 2015/BTNMT National Technical Regulation on Surface Water Quality • No. QCVN 09:MT 2015/BTNMT National Technical Regulation on Ground Water Quality • No. QCVN 10:MT 2015/BTNMT National Technical Regulation on Coastal Water Quality	• Law on Water Resources, 2012 • National Environmental Protection Strategy until 2020 and vision to 2030 (2012) • National Strategy on Water Resources and ICM, 2014

LME projects undertaken in the region (Table 3) have also highlighted the significance of land-based pollution and its impact on the coastal and marine environment. Ongoing and planned SAP implementation programs, such as the upscaling of PEMSEA's SDS-SEA, clearly complement IRBM

initiatives of countries with their focus on transboundary issues, such as land- and sea-based pollution, habitat degradation, impairment of ecosystem services, and climate change. The investment by GEF in integrated river basin and coastal management is fully aligned with the mission of the SDS-SEA 2015 to foster and sustain healthy and resilient oceans, coasts, communities and economies across the Seas of East Asia through integrated management solutions and partnerships. The strategy specifically notes the importance of “extending the implementation of integrated watershed development and management programmes to all major river basins, lakes, and international water systems in the region”.

Figure 1: IRBM Governance at the National and River Basin Levels in Participating Countries

Figure 1: IRBM Governance at the National and River Basin Levels in Participating Countries

ASEAN Participating Countries	National Committee/ Authority responsible for river basin management	National Strategy/ Action Plan inclusive of river basins	River Basin Committee/ Authority in selected river basin	River Basin Strategy/ Action Plan in selected river basin	Sustainable Financing and Investment Plan	PPP Investments	IRBM information/ knowledge sharing	Water Quantity/Quality Monitoring and Reporting System
Cambodia								
Indonesia								
Lao PDR								
Malaysia								
Philippines								
Vietnam								

Not started
Not fully operational
Fully operational

C. Describe The Budgeted M & E Plan:

Monitoring and Evaluation Budget for project execution:		
GEF M&E requirements to be undertaken by Project Management Unit (PMU)	Indicative costs (US\$)	Time frame
Inception Workshop and Report	\$30,000	Inception Workshop within 2 months of the First Disbursement
M&E required to report on progress made in reaching GEF core indicators and project results included in the project results framework	\$45,000	Annually and at mid-point and closure.
Preparation of the annual GEF Project Implementation Report (PIR)	None	Annually typically between June-August
Monitoring of environmental and social risks, and corresponding management plans , e.g/ stakeholder engagement plan, gender action plan	19,374	On-going

Monitoring and Evaluation Budget for project execution:		
GEF M&E requirements to be undertaken by Project Management Unit (PMU)	Indicative costs (US\$)	Time frame
Supervision missions	None	Annually
Learning missions	None	As needed
Independent Mid-term Review (MTR):	70,000	Tent: March 2025
Independent Terminal Evaluation (TE):	90,000	Tent: May 2027
<i>Total Indicative Cost</i>	\$254,374	

PART III: Certification by GEF partner agency(ies)

A. GEF Agency(ies) certification

GEF Agency Coordinator	Date	Project Contact Person	Telephon e	Email
Adriana Dinu, UNDP- GEF Executive Coordinator	11/13/2018	Jose Erez Padilla	6680604443	jose.padilla@undp.org

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

This project will be linked to the following output of the UNDP Strategic Plan: Output 1.3: Solutions scaled up for sustainable management of natural resources, including sustainable commodities and green and inclusive value chains

This project will contribute to the following country outcome (UNDAF/CPD, RPD, GPD):

UNDAF/Country Programme Outcome:

Cambodia: By 2018, people living in Cambodia, in particular youth, women and vulnerable groups, are enabled to actively participate in and benefit equitably from growth and development that is sustainable and does not compromise the well ? being or natural or cultural resources of future generation.

Indonesia: Strengthened climate change mitigation and adaptation and environmental sustainability measures in targeted vulnerable provinces, sectors and communities.

Lao PDR: Forests and other ecosystems are protected and enhanced, and people are less vulnerable to climate-related events and disasters.

Malaysia: Implementation of a national development agenda that enables green growth through climate - resilient measures, sustainable management of energy and natural resources, and improved risk governance.

Philippines: National and local government and key stakeholders ensure that urbanization, economic growth, and climate change actions are converging for a resilient, sustainable and equitable development path of communities.

Vietnam: By 2021, Viet Nam has accelerated its transition to low-carbon and green development, and enhanced its adaptation and resilience to climate change and natural disasters, with a focus on empowering the poor and vulnerable groups.

This project will be linked to the following output of the UNDP Strategic Plan: Output 1.3: Solutions scaled up for sustainable management of natural resources, including sustainable commodities and green and inclusive value chains.

	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Data Collection Methods and Risks/Assumptions
Project Objective: To improve integrated water resources management, reduce pollution loads from nutrients and other land-based	1. Natural resources that are managed under a sustainable use, conservation, access and benefit-sharing regime.	? 4 Large Marine Ecosystems (Bay of Bengal, South China Sea, Gulf of	? 4 Large Marine Ecosystems (Bay of Bengal, South China Sea, Gulf of	? 4 Large Marine Ecosystems (Bay of Bengal, South China Sea, Gulf of	Assumptions: Note that the project will contribute to reducing pollution loadings transported through national river systems feeding these 4

activities, sustain freshwater environmental flows, and reduce climate vulnerability through demonstrations and replications, planning and strengthening of integrated river basin management in selected countries in the East Asian Seas.	2. Number of shared water ecosystems (fresh or marine) under cooperative management.	Thailand and Indonesia Sea)	Thailand and Indonesia Sea)	Thailand and Indonesia Sea)	LMEs.
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Outcome	Objective and Outcome Indicators	? Baseline	? Mid-term Target	? End of Project Target	? Data Collection Methods and Risks/Assumptions
	3. Number of women and men as direct beneficiaries of project activities	? 0	? ? Direct beneficiaries of project IRBM/ICM and special skills training: women: 500, men: 500	? Direct beneficiaries of the project IRBM investments at hotspot locations in 6 river basins/ coastal areas (e.g., pollution reduction waste management; water supply/ security; reduced vulnerability): Women: 1% of RB population; ? Men: 1% of RB population. ?	? Baseline assessments/gender analysis ? Training workshop reports ? Monitoring reports on field interventions ? Case studies on investment projects ? SORB reports Risks: Resource users could be reluctant to participate in project activities. Assumptions: Women's and men's participation is assumed consistent with findings of stakeholder consultations and general practice at the project sites.

Outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Data Collection Methods and Risks/Assumptions
COMPONENT 1: BASELINE ASSESSMENT OF SOURCE TO SEA MANAGEMENT CONTINUUM					
Outcome 1: Improved understanding of governance, socioeconomic, ecological conditions, gaps and needs of priority river basins/sub-basins and coastal areas.	Outputs: <p><i>1.1.1 Bio-physical profiles prepared/updated covering: a) land uses in the watershed and coastal delta, including significant planned development; b) conjunctive uses of water; c) changes and trends in river water flows and quality over time (including groundwater if available) and d) other biophysical considerations.</i></p> <p><i>1.1.2 Socio-economic and demographic profiles prepared/updated covering existing and forecast growth/development in the respective river basins/sub-basins and coastal areas.</i></p> <p><i>1.1.3 Governance and management systems assessed in each of the selected river basins/sub-basins and corresponding coastal areas, including IRBM and ICM institutional arrangements, policies, legislations/regulations, enforcement, stakeholder participation (including indigenous people, women, and the youth), management, scientific and technical capacities, and current levels of financing for source to sea management.</i></p> <p><i>1.1.4 Rapid assessment of land-based pollutant loadings and sources conducted using total pollutant loading models; the impact of existing and planned developments and growth in the river basins assessed in the context of national and local policies and regulations as well as in the context of the corresponding TDAs and SAPs in the various LMEs, particularly regarding the objectives and/or agreed reductions in nutrient and pollution loads from the rivers into the coastal waters and LMEs where available.</i></p> <p><i>1.1.5 Competing uses, and users of water analyzed to assess existing and future water uses and the implications on the applicable water/food/energy/ ecosystem security nexus at the basin/sub-basin level.</i></p> <p><i>1.1.6 Information and knowledge gained from the profiling and modeling activities consolidated into baseline assessments for the 6 priority river basins and coastal areas, including existing and forecast conditions, gaps and needs in governance and management; baseline assessments disseminated to national and local governments and other concerned stakeholders in the respective countries for validation, awareness, and consensus building.</i></p>				

Outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Data Collection Methods and Risks/Assumptions
	4. Number of SORB Reports with data to increase understanding of governance, socioeconomic, ecological conditions, gaps and needs of priority river basins/sub-basins and coastal areas.	<p>? Absence of comprehensive bio-physical and socioeconomic profiles of 6 selected river basins/sub-basins and coastal regions</p> <p>? Existing IRBM governance mechanisms not functioning effectively (Indonesia, Malaysia, Philippines, Vietnam); or not yet established</p>	<p>? Bio-physical and socioeconomic profiles completed for 6 river basins</p> <p>? Existing river basin governance mechanisms/institutional arrangements reviewed and evaluated; interim governance mechanisms set up in priority river basins in Cambodia, and</p>	<p>? SORB Reports (end of project) completed with gender responsive approaches, results and recommendation for sustaining such actions post project closure and used by river basin organizations as input to</p> <p>? IRBM strategies and action plans in 6 river basins/sub-basins.</p>	<p>? Bio-physical and socioeconomic profiles, including gender disaggregated data</p> <p>? Technical reports on TPL and socioeconomic surveys</p> <p>? SORB (baseline) report</p> <p>? SORB (end-of-project) report</p> <p>? Gender gaps on control over water resource, access to river/water benefits and services and women participation in decision making on river basin management identified with recommendations and actions</p> <p>? Project monitoring reports</p> <p>? Project Board meetings</p>

Outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Data Collection Methods and Risks/Assumptions
		<p>(Cambodia, Lao PDR,).</p> <p>? Lack of scientific data/monitoring information on pollutant sources and pollutants loadings in river basins and coastal regions.</p> <p>? Competing uses of water resources evident across the different sectors, but not evaluated.</p> <p>? Absence of comprehensive</p>	<p>Lao PDR.</p> <p>?</p> <p>? TPLs completed in 6 rivers basins and coastal areas as a rapid assessment of total pollutant loadings and primary sources of pollution in the river basins and coastal regions.</p> <p>?</p> <p>?</p> <p>? Template process/survey conducted to identify and assess competing uses and users of water in priority hotspot demonstration sites in 6 rivers/coastal marine waters.</p> <p>? State of River Basin reporting system (SORB) developed; SORB baseline assessments reports completed in 6 river basins (linked to Outcome 3.1 on IRBM indicators).</p> <p>?</p>		<p>Risk:</p> <p>? Lack of data on environmental flows, including water, sediment, pollutants, litter, etc., socio-economic, and demographic characteristics delays/inhibits baseline profiles and SORB reporting.</p> <p>Assumptions:</p> <p>? National agencies and scientific institutions in each participating country are committed to provide available data to complete the profiles; pollutant loading modeling will facilitate rapid assessment of priority pollutant loadings and hotspot locations in each river basin; water use surveys provide qualitative information on water use conflicts and threats; environmental monitoring programs developed or improved and implemented during the project.</p> <p>?</p> <p>? TPL models are applied in cases where monitoring data are limited; environmental monitoring programs to be developed or improved and implemented during the project will be used to validate the models.</p>

Outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Data Collection Methods and Risks/Assumptions
COMPONENT 2: IRBM PILOT PROJECTS FOR IMPROVED GOVERNANCE AND MANAGEMENT OF RIVER BASINS/SUB-BASINS AND ASSOCIATED COASTAL AREAS					
Outcome 2.1 IRBM pilot projects implemented to demonstrate governance mechanisms and instruments for improved source to sea management in 6 priority river basins/sub-basins and coastal areas.	Outputs: <i>2.1.1 Detailed baseline assessments and feasibility studies conducted at hotspot locations in 6 priority river basins/sub-basins and coastal areas.</i> <i>2.1.2 Agreements signed and implemented with national agencies, local governments, private sector and other interested partners to finance, construct, operate, assess. and report on IRBM pilot projects in 6 priority river basins/sub-basins and coastal areas in accordance with agreed indicators, monitoring programs, and metrics.</i> ?				
	1. Number of local government and private sector partners engaging on source to sea resilience issues ?	? 0	? Detailed baseline assessments completed at 6 hotspot locations; priority issues/sources identified. ? Feasibility studies completed at 6 hotspot locations; public consultation and consensus building processes conducted. ? ? Technical and financing options for IRBM pilot projects agreed upon; agreements signed with responsible national and local governments to proceed with IRBM pilot	? Subject to government approval and investment commitments, 6 IRBM pilot projects commissioned, operational and providing quality information on social, economic and environmental benefits and impacts for local communities (with special attention to women and other vulnerable groups) and river basin hotspots, as well as lessons and good practices for improved S2S management.	? Public consultation proceedings/reports ? River basin coordinating committee meeting reports ? Project Board meeting reports ? Decisions of national and local government planning and development authorities

Outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Data Collection Methods and Risks/Assumptions
			demonstration projects. ?		<p><u>Risks:</u></p> <p>? Insufficient capacity to develop bankable, sustainable investment projects that respond to public demand/priorities for required infrastructure and services</p> <p>? National and local governments and river basin authorities are reluctant to commit to investments</p> <p>? Delays caused by lack of adequate and acceptable financing</p> <p>-</p> <p><u>Assumptions:</u></p> <p>? Baseline commitments of national and local governments and river basin authorities are satisfactory and representative.</p> <p>? There is political and financial commitment at both levels of government</p>

Outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Data Collection Methods and Risks/Assumptions
Outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Data Collection Methods and Risks/Assumptions
Outcome 2.2: Integrated river basin management strategies and action plans in 6 priority river basins/sub-basins formulated, adopted and initiated.	Outputs: <i>2.2.1 Assessments and recommendations for improved interagency and multisectoral governance structures in priority river basins/sub-basins and coastal areas developed and disseminated.</i> <i>2.2.2 Assessments and recommendations for improved IRBM policies, laws, financial and economic instruments, and support programs in priority river basins/sub-basins and coastal areas developed and disseminated.</i> <i>2.2.3 Six even IRBM strategies and action plans developed and endorsed to the appropriate Heads of Government Agencies and Authorities for adoption and implementation of the plans.</i>				
	6. No. of IRBM management strategies and action plans adopted and initiated with adequate	? River basin/sub-basin actions plans completed in the Philippines (Imus Ylang-Ylang	? IRBM Guide to Improved Governance and Management of Rivers and Coastal Areas in the	? 6 IRBM strategies and 10-year action plans endorsed with indicative commitments of adequate human and financial resources to initiate the action plans in 6 priority river basins/sub-basins and coastal areas.	? Technical reports ? IRBM strategies and action plans ? Decisions of national/local authorities for river basins/sub-basins ? Project Board meeting reports

Outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Data Collection Methods and Risks/Assumptions
	human and financial resource commitments from national and local governments.	River Basin) and Indonesia (Ciliwung-Cisadane River Basin). Human and financial resource commitments to action plan implementation are limited; no major environmental infrastructure in place.	<p>ASEAN Region published and disseminated.</p> <p>?</p> <p>?</p> <p>Assessment of IRBM institutional arrangements, policies, laws, economic instruments governance, action plans, capacities and financing mechanisms completed in 6 priority river basins/sub-basins and coastal areas; 6 assessment reports, including recommended improvements, published and</p>	<p>?</p> <p>Priority</p>	<p>Risk: Enabling decisions required for adopting and initiating the strategies and action plans are delayed.</p> <p>Assumption: The time required for building awareness and consensus among decision-makers on the strategies and actions plans is sufficient.</p>

Outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Data Collection Methods and Risks/Assumptions
COMPONENT 3: KNOWLEDGE MANAGEMENT, CAPACITY DEVELOPMENT, AND MONITORING AND EVALUATION					
Outcome 3: Improved IRBM knowledge management and enabling capacities among participating countries, partners and networks.	Outputs: <p><i>3.1.1 Technical report/guide for a harmonized set of IRBM governance and management indicators on inputs, process, socioeconomics, governance, stress reduction, and environmental status, among others, developed, published and disseminated.</i></p> <p><i>3.1.2 Improved IRBM water quality monitoring and reporting programs implemented in connection with IRBM pilot projects in 6 priority river basins/sub-basins and coastal areas.</i></p> <p><i>3.1.3 Core capacities and skills in IRBM development and management transferred to Project Team members, managers and implementers of IRBM projects in 6 priority river basins/sub-basins and coastal areas.</i></p> <p><i>3.1.4: Regional IRBM knowledge and communication management platform operationalized, including project M&E reporting.</i></p> <p><i>3.1.5: One percent of GEF grant allocated for participation in regional and global forums, preparation of experience notes, and organization and conduct of regional twinning activities in collaboration with GEF LME/IW Learn.</i></p>				

Outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Data Collection Methods and Risks/Assumptions
	<p>1. % increase in knowledge of participants through Training workshops and other knowledge sharing/learning activities and events organized and conducted to enable execution and scaling up of IRBM strategies and action plans.</p> <p>2. <i>Number of reports published measuring IRBM governance and management indicators on</i></p>	<p>? Limited capacity/skills and experience among IWRM and ICM programs in the region on S2S continuum, governance and management.</p> <p>? Several national and regional knowledge sharing events are being organized each year by ASEAN, PEMSEA and GEF-supported LMEs, as well as other bilateral and multilateral donor-</p>	<p>? At least 80% participants have increased knowledge in the Two (2) regional and 6 national IRBM/ICM and specials skills workshops/ learning activities organized and conducted, with at least 50% of the trainees being women.</p> <p>? At least 80% participants have increased knowledge in the Six (6) SORB baseline reports prepared</p>	<p>? At least 80% participants have increased knowledge in the Four (4) regional and 12 national IRBM/ICM and specials skills workshops/ learning activities organized and conducted, with at least 50% of the trainees being women.</p> <p>? At least 80% participants have increased knowledge in the Six (6) end-of-project SORB reports</p>	<p>? Regional workshop report on identification and selection of IRBM stress indicators</p> <p>? National and regional training workshop reports</p> <p>? SORB (baseline and end-of-project) reports</p> <p>? Project Board meeting reports</p> <p>? GEF IW conference proceedings</p> <p>? GEF regional workshop/knowledge sharing reports</p> <p>? Quarterly and annual reports prepared by the Regional IRBM Project Manager and submitted to UNDP and the Project Board for review and approval.</p> <p>?</p>

Outcome	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Data Collection Methods and Risks/Assumptions
	<i>inputs, process, socioeconomics (including gender equality), governance, stress reduction, and environmental status, among others, developed, published and disseminated.</i>	<p>supported projects. S2S management and decision-support tools are not being addressed in an integrated manner thus far.</p> <p>? National and sub-national water quantity and quality monitoring and reporting systems for priority rivers partially in place in 5 countries (Cambodia, Indonesia, Malaysia, Philippines, Vietnam).</p> <p>? IW learn regional workshop conducted in April 2018 in Bangkok; development of regional IW/LME KM sharing platform explored; PEMSEA introduced its SEA Knowledge Bank platform.</p>	<p>across the 6 priority river basins/sub-basins and coastal areas.</p> <p>? Two (2) representatives from the IRBM project participate in biennial GEF IW Conference to facilitate cross-regional collaboration and knowledge sharing on IRBM.</p> <p>? Four (4) IRBM knowledge products developed and disseminated (i.e., IRBM training modules; SORB guideline; RB-IIMS manual; and TPL manual).</p> <p>?</p>	<p>for 6 priority river basins provide policymakers, planners, managers and the general public with information on the impacts and benefits of IRBM pilot projects, as well as gaps, needs and priorities for up-scaling to the river basin/sub-basin and coastal area.</p> <p>? At least 80% participants have increased knowledge in the Six (6) scientifically sound water quantity and quality M&E mechanisms developed and initiated in 6 river basins hotspot locations and providing input to M&E reporting in accordance with common set of IRBM indicators.</p> <p>? At least 80% participants have increased knowledge in the One (1) regional IRBM knowledge-</p>	<p>Risks:</p> <p>? Project implementation is taking place in 6 countries at national and sub-national levels concurrently. Varying capacities, skills, knowledge, access to resources, information and technologies constrain planning and development of IRBM at the national and river basin/sub-basin levels.</p> <p>?</p> <p>? Varying interests, capacities, skills, knowledge, access to resources, information and technologies constrain upscaling of IRBM across the priority river basins/sub-basins and coastal areas.</p> <p>?</p> <p>? Delays in submission of progress reports from 6 project sites could affect the timely delivery of the quarterly and annual reports.</p> <p>Assumptions:</p> <p>? Capacity building initiatives will address existing needs and gaps at national and local levels by: a) supporting cross-learning, region-wide knowledge sharing</p>

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Comments	Agency Response
GEF SECRETARIAT:	
<p>1. During PPG, more information will be collected and analyzed regarding existing initiatives in the selected river basins and how this project will build on these initiatives. A clear explanation of the basis for selecting the river basins also needs to be thought through during PPG and agreed with the countries. The current explanation is limited to "source-to-sea considerations", which is unclear. This is particularly important to ensure the countries are using these agreed criteria as the basis for considering sites</p>	<p>1. During the PPG Inception Workshop (August 2017), the 6 participating countries developed and agreed to criteria for the selection of river basins for the IRBM project. The criteria were stated in the form of 6 questions, namely:</p> <p>a) Is the candidate site identified as a priority river basin by the national government? Why?</p> <p>b) Is the receiving near coastal area and sea area identified as a priority coastal and marine area? Why?</p> <p>c) Is there an adequate foundation of information and knowledge of the candidate site?</p> <p>d) Are there previous or ongoing programs or projects at the candidate site covering governance and management?</p> <p>e) Are scientific data available for decision-making and planning in the source-to-sea system covering land resource and water system? Who has the data? How are the data shared and used?</p> <p>f) Is there investment by governments, donors, the private sector and others in river basin/coastal area planning and development. Who is investing and what are the investments for?</p> <p>The countries agreed that if the answer was "NO" to three or more of the six questions, then the candidate site may not be appropriate site for the IRBM project, given its objectives, budget and limited duration.</p> <p>Upon applying the selection criteria, three of the six participating countries changed the river basins/sub-basins from those identified in the PIF (i.e., Indonesia, Philippines, and Vietnam).</p> <p>Information on the analysis and selection of river basins within each country is summarized in the National IRBM Project Proposals (Annex K), including identification of ongoing and planned initiatives (governance, management, scientific, investment) in each river basin that will serve as a foundation for the IRBM project.</p> <p>The criteria for selection of priority river basins and the final list of selected priority river basins can be found in Section IV, Results and Partnerships, of the Project Document.</p>

Comments	Agency Response
<p>2. Project Outputs 2.1.1 and 2.2.2 seem to be duplicative, which needs to be resolved during PPG. If 2.2.2 is intended to be the implementation of the IRBM plans developed through 2.1.1, then that needs to be clear.</p>	<p>2. Based on inputs from government and non-government stakeholders in the 6 participating countries, as well as the downsizing of the project budget from \$11.5 million to \$8.47 million, the outputs in Component 2 have been modified. As explained in the introduction to Component 2, the project has adopted a four-tiered approach (regional, national, river basin, local) to planning, development and implementation of the IRBM project and its outputs. Output 2.1.1 focuses on the local tier, and involves developing and implementing an IRBM pilot project at an identified hotspot location in each river basin. The pilot projects will serve as learning experiences for improved IRBM governance and management, from which to build and up-scale IRBM to the river basin/sub-basin tier.</p> <p>Outputs 2.2.1 and 2.2.2 relate to the river basin/sub-basin tier and are about reviewing and assessing options for improving: a) governance and institutional mechanisms; and b) IRBM policies, laws, financial and economic instruments, and support programs in the priority river basins. Outputs 2.2.1 and 2.2.2 result in assessment reports, which will include options for improving governance and governance instruments as well as action agenda for change. Output 2.2.3 involves developing, building consensus, adopting and initiating IRBM strategies and action plans in the 6 priority river basins. The IRBM strategies and action plans will incorporate action agenda that were identified in the assessment reports, as modified and agreed to through a public consultation process, in addition to inputs from SORB reports, good practices and lessons from pilot projects, and the development goals and objectives of river basin organizations, local governments, communities and social and economic sectors in the river basin and coastal region. The strategies and action plans will be submitted to the respective government approval processes for adoption.</p> <p>As indicated in Output 2.2.3, initiation of adopted river basin strategies and action plans will specifically target commitments of adequate human and financial resources to scale-up or replicate at least one priority management intervention in each river basin.</p>
<p>3. For the indicators developed as part of output 3.1.1 please be sure to include socioeconomic and governance indicators as well as ecological indicators.</p>	<p>3. Changes have been made to Output 3.1.1 based on comments received from STAP, as follows:</p> <p>Activity 3.1.1.1: Conduct a desk study of indicators and monitoring and evaluation reporting systems that are being applied at the national, regional and global levels to assess the progress, impacts and benefits derived from ICM, IWRM, IRBM projects and programs, such as the Mekong and Red Rivers, as well as ASEAN Strategies and Action Plans, PEMSEA's SDS-SEA and other SAPs for LMEs/regional and sub-regional sea areas, and relevant international instruments, including the UN SDGs and international conventions and instruments such as ICCD, CBD and the Aichi Biodiversity Targets, and the Sendai Framework.</p> <p>Activity 3.1.1.2: Prepare a technical report/guide based on the desk study, recommending a list of SMART indicators (e.g., <u>socio-economic</u>, governance, stress reduction, environmental status, among others) to be used in monitoring, evaluating and improving IRBM planning and implementation. Indicators will be gender specific where appropriate. The listing will also include guidance on how the indicators can be used and by whom in developing, implementing and managing IRBM programs. Disseminate the draft report/guide to relevant organizations and individuals in participating countries and organizations for review and comment.</p>

Comments	Agency Response
<p>4. During PPG it needs to be clarified that the river basin investment will be fully aligned with the mission of the SDS-SEA 2015 strategy's mission to foster and sustain healthy and resilient oceans, coasts, communities and economies across the Seas of East Asia through integrated management solutions and partnerships. The Strategy specifically notes the importance of, "... Extending the implementation of integrated watershed development and management programmes to all major river basins, lakes, and international water systems in the region..."</p>	<p>4. The point has been clarified in the last paragraph in Section II, Development Challenge, of the Project Document. Furthermore, approaches (i.e., pilot demonstration of IRBM), tools (i.e., IIMS, SOC); and networks (i.e., network of local governments; network of learning centers, business network) identified and promoted in the SDS-SEA 2015 have been incorporated into the planned activities of the IRBM project to strengthen linkages and promote cost effective and efficient project implementation.</p>
<p>5. Finally, in the Pro Doc it needs to be clarified that the "8 IRBM plans will be submitted to responsible government authorities for review and signature by ministers to ensure national support at sufficient levels." (Output 2.2.2)</p>	<p>5. Outcome 2.2 is revised to refer to only 6 priority river basins/sub-basins and coastal areas.</p> <p>Output 2.2.3 (changed from 2.2.2 as explained in Comment 2, previously) now states, "Six IRBM strategies and action plans endorsed to the appropriate Heads of Government Agencies and Authorities responsible for adoption and implementation of the plans."</p> <p>The rationale is that the responsible agency, authority and signatory for approval of IRBM management plans differs from country to country and does not necessarily require the signature of a Minister to be adopted.</p> <p>Activities under Output 2.2.3 target the initiation of the adopted action plans, with evidence of at least one priority management intervention initiated during the project.</p>

Comments	Agency Response
<p>6. Please note that the Malaysia OPFP Endorsement Letter which was signed by the previous OFP needs to be updated as soon as possible at latest by CEO Endorsement.</p>	<p>6. The signed LOE by the current Malaysia OFP was provided earlier to the GEF Secretariat, and is included in Annex J.</p>
USA:	

Comments	Agency Response
<p>1. We are unclear whether the differences in legal regimes, economic systems, demographic and social profiles, and other aspects of the project make it efficient to take it on as a region-wide effort. We request that UNDP provide an explanation of the value of undertaking these efforts on a regional basis. We further request UNDP provide a more specific explanation of the aspects of this project they expect can be undertaken on a region-wide basis versus how much of the project content will be done in a country-specific manner, and how much of the lessons or recommendations they expect to be universal to all the countries involved.</p>	<p>1. Governance and management challenges among the river basins in the 6 countries are not dissimilar, covering: water pollution (organic, nutrients, toxic and hazardous waste), plastics and litter; deforestation; biodiversity loss; erosion, siltation, flooding and landslides; water security/water quality (drinking water; recreation; aquaculture); competing uses/water quantity (dams; irrigation; urbanization, domestic and industrial use); and climate change. It is not possible to address all of these challenges, even for one river basin, in this foundational project. The approach of the project is to demonstrate sustainable IRBM solution templates at pilot scale for improved governance, pollution, waste management, deforestation, and water use conflicts, as a starting point to wider change. The application of the template solutions under disparate conditions (i.e., political, legal, social, economic and environmental), provides greater opportunity for replication and up-scaling, recognizing that such differences are not only present among countries of the region, but also within and across river basins/ sub-basins of the countries.</p> <p>The project is being undertaken within the ASEAN governance framework. ASEAN provides a political agenda and process for leveraging high-level commitments to upscaling and replicating IRBM good practices and investments based on the individual and collective experiences of the countries. The ASEAN Working Group on Water Resources Management (AWGWRM) will serve as the Project Board/Steering Committee for the project. The AWGWRM was established to: promote networking and engage in collaborative action towards the practical implementation of IWRM; promote and facilitate the exchange of relevant information, expertise, technology and know-how among water resource agencies and member countries; and promote and plan for relevant training, education and awareness-raising campaigns. This provides GEF with a unique opportunity to tap into an established network of governments and government agencies in Southeast Asia with a mandate to scale up water resources management.</p> <p>At the regional level, the project will focus on developing and transferring tools, templates, and enabling capacities to the national and local river basin organizations, managers and project teams, and providing access to a team of IRBM scientific and technical, financial and investment, legal, and socio-economic professionals/specialists to adapt and apply these tools to solve real governance and management issues under local conditions. The regional level activities will also concentrate on monitoring and evaluation of progress, outputs and outcomes, sharing of experiences, lessons and good practices via ASEAN, PEMSEA and other regional organizations and networks, the development and transfer of knowledge products based on the experiences in the river basins, building/ strengthening scientific, technical and financing and investment support networks, and operationalizing an e-knowledge platform to link and promote cooperation among IRBM communities within countries of the region, and with other regions. The regional aspects of the project are included in all three components of the project, and represent 20% of the budget for Component 1 (baseline assessment); 25% of the budget for Component 2 (improved IRBM governance and management); and 75% of the budget for Component 3 (knowledge management and monitoring and evaluation).</p> <p>At the country level, the existing and interim river basin organizations and project teams will: prepare a baseline State of River Basin Report for each river basin (Component 1) including priorities, gaps and needs for improved IRBM governance and management; plan, develop and implement pilot projects at hot spot locations in each river basin as learning sites/showcases for sustainable IRBM management, financing and investment, (Component 2) including opportunities for scaling up and replicating improved governance and management in the selected river basin based on the experience of the pilot projects; and packaging and transferring experiences, lessons and good practices to other river basins within their country and among participating countries in the regional project (Component 3).</p>

Comments	Agency Response
<p>2. It is unclear from the proposal whether there is a demand signal and appropriate institutional homes/partners for Component 1 (Baseline Assessment) other than the GEF supported PEMSEA. Particularly on freshwater modelling, the success or failure of this component will rest on finding appropriate avenues to complement or enhance local models and institutions.</p>	<p>2. During the PPG phase, participating countries concluded the focus of the project would be on enabling improved governance and management of IRBM by addressing key issues to initiate and encourage change. This is an issue that countries are already engaged in, but see the project as an opportunity to boost their capacity and move from a planning focus into on-the-ground implementation.</p> <p>At the regional level, the ASEAN Working Group on Water Resources Management (AWGWRM) and the ASEAN Working Group on Coastal and Marine Environment (AWGCME) have expressed support for the project. While the AWGWRM will serve as the Project Board for the project, it is expected to coordinate with the AWGCME.</p>

Comments	Agency Response
<p>3. Regarding the freshwater model, building a pollutant-loading hydrogeological model of this scale takes an incredible amount of data, both historic and current. Validating and verifying the model will require site testing and ground-truthing, which could take a large amount of resources as well. Unless such models currently exist and only need to be specifically tailored for use in the region's watersheds and LMEs (this is not clear from the proposal), we are concerned that this component is unlikely to be achieved in the given timeframe. We urge UNDP to give greater consideration to how it will assess viable existing databases and models for this component, and re-evaluate whether the proposed timelines and budgets are realistic for this critical component.</p>	<p>3. During the PPG phase, participating countries concluded that total pollutant loading modelling (TPL) would be conducted for "rapid assessment" purposes only, to estimate loadings of priority pollutants (e.g., nutrients; organics; metals) to rivers and coastal areas, and to identify the primary sources. TPL models are being employed in river basins in Indonesia, Malaysia, Philippines and Vietnam where scientifically-sound monitoring data and databases are limited or not available. The TPL models provide a sense of existing and future pollution hotspot issues and locations in the river basin and coastal region, early estimates of total loadings and where and why they are occurring (e.g., point sources: domestic, agriculture, industry; and non-point sources: land run-off; erosion). The results of the rapid assessments will be included in the baseline state of river basin (SORB) reports (Component 1). The SORB reports will also identify gaps and limitations in available data and monitoring programs, highlighting the benefits of connecting environmental monitoring to investments in IRBM management.</p> <p>For Component 2, the project will focus on a hotspot locations/issues in the river basin, and conduct a detailed baseline assessment of identified pilot sites. That information will serve as input to feasibility studies and delineation of management options and their potential social, economic and environmental impacts and benefits to the local hotspot, and to the river basin in general. By the end of the project, the objective is to set up a comprehensive monitoring, evaluation and reporting system in the hotspot location. The focused monitoring program will measure changes that are occurring in the local community and environment, the impacts and benefits derived from the pilot project, and the value of scaling up to other hotspot locations in the river basin/sub-basin.</p>

Comments	Agency Response
<p>4. Further, we urge UNDP to re-evaluate the budget and co-financing more generally to ensure that the funds are adequate to accomplish all of the planned activities and projected outcomes.</p>	<p>4. Based on inputs from government and non-government stakeholders in the 6 participating countries during project preparation, as well as downsizing of the project budget from \$11.5 million to \$8.47 million, project outputs have been modified.</p> <p>The project has adopted a four-tiered approach (regional, national, river basin, local) to planning, development and implementation. Output 2.1.1 focuses on the local tier, and involves developing and implementing an IRBM pilot project in an identified hotspot location in each river basin. The pilot project will serve as a learning site for improved IRBM governance and management, from which to build and up-scale IRBM to the river basin/sub-basin tier in the future.</p> <p>Outputs 2.2.1 and 2.2.2 relate to the river basin tier and are about reviewing, assessing and providing options for improving: a) governance and institutional mechanisms; and b) IRBM policies, laws, financial and economic instruments, and support programs in the priority river basins. Outputs 2.2.1 and 2.2.2 will be in the form of assessment reports, which will include options for improving governance and governance instruments, as well as action agenda for change that will be developed through public consultation. Output 2.2.3 involves developing, building consensus, adopting and initiating IRBM strategies and action plans in the 6 priority river basins. The strategy and action plans will be submitted to the respective government approval processes for adoption. Initiation of adopted river basin strategies and action plans will specifically target commitments of adequate human and financial resources to scale-up or replicate at least one priority management intervention in each river basin.</p> <p>The national tier will entail a national focal agency coordinating with other relevant national agencies and participation of national agency representatives in the river basin organizations. The national agency representatives will be able to use the experience to catalyze the development or improvement of national IRBM policies, institutional mechanisms, laws, etc. It is recognized, however, that the development and improvement of national IRBM governance mechanisms and instruments will not be deliverables under the current project due to limited project duration and budget.</p> <p>It must be emphasized that the capital financing for the planned pilot projects is beyond the available budget of this IRBM project. Thus, one of the major challenges that Component 2 will address is to put in place the partnerships and financing structure for the pilot projects. This, in fact, is the major stumbling block currently faced by local governments and river basin organizations. By walking local governments and river basin organizations through the process of project development, financing and sustainable implementation, a legacy of approaches, experiences and networking will be created. In particular, the project will facilitate the development and assessment of financing options (e.g., public, public-private, private) and partnership arrangements. One innovative financing option to be explored is referred to as a 'PPP Inclusive Growth Fund?'. This option will assess opportunities for an effective and equitable financing structure that facilitates proactive participation of the private sector, the government and the community in the financing, ownership and operation of the pilot project.</p>

Comments	Agency Response
<p>5. The proposal requires additional information on nutrient sources to the sea, such as agricultural operations (chemical fertilizers, aquaculture, and coastal runoff), urban wastewater, and industrial effluents. Without some quantification of nutrient sources, it would not be possible to develop nutrient control measures. Some of the Regional Strategic Action Plans (Page 6) tend to address urban sewage and other sources of nutrient pollution. There is a need to review a record of progress under the SAPs, some of which may have been implemented many years ago.</p>	<p>5. None of the selected river basins has a comprehensive baseline report covering the entire watershed/coastal area. The project will be a first effort at gathering, consolidating and assessing available data from sectoral monitoring programs (environment, health, agriculture) and research projects in the river basins, and using the information as input to a river basin strategy and action plan. The project will also build awareness and consensus on the rationale and benefits of an integrated monitoring program and information sharing system at the river basin level.</p> <p>There have been no major investments in urban sewerage and other sources of nutrient pollution thus far in the 6 selected river basins.</p>

Comments	Agency Response
<p>6. Donor-driven IWRM programs have been quite active in the ASEAN region; a majority of the priority national river basin countries have established IWRM policies and basin-level RBOs etc. Please detail how this program will assess these existing efforts, and what kinds of activities and interventions it will use to strengthen them and address impediments to IWRM success.</p>	<p>6. Annex K of the Project Document, National IRBM Project Proposals, includes a review of existing national policies, legislation and institutional arrangements in each of the 6 participating countries. The project will conduct a comprehensive review of these governance and management instruments to identify their level of application, strengths, limitations and gaps in the planning, implementation, financing and evaluation of national IRBM programs.</p> <p>At a practical level, the project will develop and implement IRBM pilot projects in hotspot locations in the selected river basins/sub-basins. Each pilot project will be planned and developed within the framework of national and local policies, laws and instruments. Where impediments are identified, the pilot project will introduce and adapt innovations in governance, management, financing and investment to local conditions with the objective of providing concrete evidence of how such adaptations/innovations contribute to on-the-ground results by bridging gaps and shortcomings in existing policy, laws and instruments.</p> <p>It is not envisaged that this project will result in the adoption of new or amended policies, laws or instruments at the national level within its lifetime. Rather, the objective of the project is to provide a 'bottom-up' demonstration of innovations and adaptations in policies, laws and instruments for use by the responsible national authorities in national policy, legislation and program development.</p>
<p>7. If large infrastructure projects result from UNDP's capacity building, we strongly suggest the government do so in a way that does not have a negative impact on social or environmental health.</p>	<p>7. Templates will be prepared by the project for the planning and implementation of all pilot projects. Pilot projects are expected to cover small to medium-sized investments in pollution reduction/nutrient management (e.g., domestic sewerage and sanitation), marine litter/plastic reduction (e.g., centralized collection, recycling and reuse), erosion/sedimentation (sustainable reforestation), and improved water use/water management (water supply protection and conservation). The templates will provide direction to identify and assess options for overcoming these hotspot issues at each of the pilot sites, as well as building consensus on solutions that provide positive social, ecological and economic benefits to local communities, river basins and coastal regions. Professional advice and support will be provided to governments throughout planning, procurement, construction and operating phases of pilot projects to ensure that social and environmental principles and safeguards are incorporated into all aspects of the projects, and are maintained as key indicators of successful management and operation.</p>
GERMANY:	

Comments	Agency Response
<p>1. Under A.4 Risks: Germany would like to see a mention and evaluation of alternative approaches, especially for the second risk mentioned ?lack of national and local political support?. Collecting all the river basin linked data of different uses will touch many and even sensible interests. If there is a lack of political backing, how to proceed? Coalitions of those willing to go ahead may be one option.</p>	<p>1. The mitigation of risk for ?lack of national and local political support? has been expanded upon in Table 6 (Project Risks Assessment and Mitigation Measures). The project will not be able to provide comprehensive coverage of the entire river basin in each country, given the budgetary and time limitations of the project. Pilot projects will be set up in hotspot locations within each river basin to provide templates and experience in IRBM governance, management and investment (Output 2.1.1). The products and experience gained from the pilot projects will then be adapted and applied for up-scaling IRBM on a river basin/sub-basin level (Output 2.2.3). One of the criteria for selection of a hotspot location is political will and commitment from both the national and local governments. Proposed hotspot locations were identified by national and local governments for each river basin/sub-basin during the project preparation phase (Annex K). This is the first step in establishing coalitions between willing partners before the project starts.</p>
<p>2. Germany seeks clarification on the role of the ASEAN Centre for Biodiversity (ACB), which is not mentioned in the proposal. The project proposal might benefit from considering potentials of collaboration with the ACB, especially as PEMSEA and ACB closely collaborate on regional marine related topics.</p>	<p>2. ACB was created by the ASEAN Member States and is a Non-Country Partner of PEMSEA. ACB has been included in the project?s stakeholder engagement plan (Components 2 and 3). ACB?s involvement will include facilitating access to data, information and expertise in biodiversity conservation strategies, plans and approaches in the 6 countries/river basins in support of enhanced environmental flows and biodiversity conservation and management and their linkage to targets, initiatives and indicators within the NBSAPs of the respective countries.</p>
<p>STAP:</p>	

Comments	Agency Response
<p>1. Component 1 on baseline assessment of source to sea management continuum: this component will focus on gathering and analysing information on bio-physical and land-based pollution. We assume that some scientific analysis (field- and laboratory-based) will be undertaken in this component. No information on the proposed or planned methodology has been provided at this stage. The STAP suggest that this information should be provided during the full project development stage. This will be useful to gauging the scientific and technical suitability and credibility of chosen methodology.</p>	<p>1. The baseline assessment will focus on gathering, assessing and analyzing available data and information in the river basin and coastal area. There will be very limited primary data gathering at the river basin level on account of costs; mostly secondary data will be used at this point. Data gathering, assessing and analyzing activities in year 1 of the project will be preceded by a regional workshop involving scientists (physical, biological, social) from the region and project teams from each of the river basins, to agree on the scope and coverage, baseline year(s), methodology, sources, data quality, indicators, metrics, data analyses and reporting process (Output 3.1.1). This was not possible during the project preparation phase due to limited budget. STAP participation in the regional workshop would be most welcome.</p>

Comments	Agency Response
<p>2. Still in component 1, it was stated that some modelling activities for pollutant load and water use will be undertaken. It will also be useful to provide some information on the models that is planned to be used in implementing this activity. The STAP further advise that, if the resources are available, such modelling work should not rely on a single model but should be implemented using multiple modelling tools in order to help improve robustness and scientific credibility and reduce uncertainty of model results.</p>	<p>2. Given the scope of the project and budgetary constraints (due to budget reduction), modeling will be limited to rapid assessment of total pollutant loadings (TPL) and sources in the river basins. A variety of rapid assessment models are already available in Indonesia, Malaysia, Philippines, and Vietnam. For example, the recently completed GEF/UNEP project entitled, "Global foundations for reducing nutrient enrichment and oxygen depletion from land-based pollution, in support of Global Nutrient Cycle (GNC Project)" developed and successfully demonstrated a rapid assessment model for nutrient loads from human and agricultural activities in the Manila Bay watershed. This model will be introduced to countries that currently have limited capacity in TPL modeling.</p>
<p>3. Component 3: No specific output was provided in Table B although the description of the component seems to be littered with potential products that can be termed as outputs. We advise that the expected outputs should be included during the development of the full project. Some possible outputs include:</p>	<p>3. Table B has been updated in the Project Document to incorporate the comments provided by STAP. Component 3 has one outcome and 5 outputs. The outcome is stated as, "Improved IRBM knowledge management/sharing and enabling capacities among participating countries, partners and networks." Outputs have been developed as follows:</p>

Comments	Agency Response
<p>a. For Outcome 3.1 on common IRBM indicator: A documentation of the list of identified and agreed common indicator including guidance on how these indicators should be used as well as description of mechanisms or tasks and responsibilities for river basin management.</p>	<p>Output 3.1.1: Technical report/guide for a harmonized set of IRBM governance and management indicators on inputs, process, socioeconomics, governance, stress reduction, and environmental status, among others, developed, published and disseminated.</p> <p>Activity 3.1.1.1: Conduct a desk study of indicators and monitoring and evaluation reporting systems that are being applied at the national, regional and global levels to assess the progress, impacts and benefits derived from ICM, IWRM, IRBM projects and programs, such as the Mekong and Red Rivers, as well as ASEAN Strategies and Action Plans, PEMSEA's SDS-SEA and other SAPs for LMEs/regional and sub-regional sea areas, and relevant international instruments, including the UN SDGs and international conventions and instruments such as ICCC, CBD and the Aichi Biodiversity Targets, and the Sendai Framework.</p> <p>Activity 3.1.1.2: Prepare a technical report/guide based on the desk study, recommending a list of SMART indicators (e.g., socioeconomic, governance, stress reduction, environmental status, among others) to be used in monitoring, evaluating and improving IRBM planning and implementation. Indicators will be gender specific where appropriate. <u>The listing will also include guidance on how the indicators can be used and by whom in developing, implementing and managing IRBM programs.</u> Disseminate the draft report/guide to relevant organizations and individuals in participating countries and organizations for review and comment.</p> <p>Activity 3.1.1.3: Revise the draft report/guide based on feedback; publish and disseminate it to national and local governments, river basin organizations and Project Teams for inclusion in baseline assessments of river basins and State of River Basin Reporting (Output 1.1).</p>
<p>b. For Outcome 3.2 focused on capacity building, training and capacity building initiatives could be considered as the outputs</p>	<p>Output 3.1.3: Core capacities and skills in IRBM development and management transferred to Project Team members, managers and implementers of IRBM projects in priority river basins/sub-basins and coastal areas.</p>

Comments	Agency Response
c. For Outcome 3.3 on knowledge and good practice transfer, the knowledge transfer initiative or efforts could be valid output. Along this line, does the project envisage developing a knowledge transfer products such as guidance, or reports that can be used to convey the lessons learnt? We think this will be a useful product that can help further in the replicability of the project.	<p>Output 3.1.4: Regional IRBM knowledge and communication management platform operationalized.</p> <p>Activity 3.1.4.1: <u>Gather, package, and disseminate knowledge products from the various project activities, events, and outputs, such as good practices, lessons learned, policy briefs, case studies, guidance documents, technical reports, etc.,</u> using various formats and content that are readily accessible and understandable by target audiences including political leaders, planners, IRBM managers and practitioners, investors, and the general public.</p>

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS.

A. Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: \$288,000			
<i>Project Preparation Activities Implemented</i>	<i>GEF/LDCF/SCCF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
Project preparation grant to finalize the UNDP-GEF Project Document - Reducing Pollution and Preserving Environmental Flows in the East Asian Seas through the Implementation of Integrated River Basin Management in ASEAN Countries	288,000	287,417	583
Total	<u>288,000</u>	<u>287,417</u>	<u>583</u>

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/CBIT Trust Funds or to your Agency (and/or revolving fund that will be set up)

Not Applicable.

ANNEX E: GEF 7 Core Indicator Worksheet

Use this Worksheet to compute those indicator values as required in Part I, Table G to the extent applicable to your proposed project. Progress in programming against these targets for the program will be aggregated and reported at any time during the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF and SCCF.

1. Core Indicator 7: Number of shared water ecosystems (fresh or marine) under new or improved cooperative management

Number (expected at PIF)	Number (expected at CEO Endorsement)	Number (achieved at MTR)	Number (achieved at TE)
3	3		

7.1 Level of Transboundary Diagnostic Analysis and Strategic Action Program formulation and implementation

Shared Water Ecosystem (name)	Rating (entered at PIF)	Rating (entered at CEO Endorsement)	Rating (entered at MTR)	Rating (entered at TE)

Shared Water Ecosystem (name)	Rating (entered at PIF)	Rating (entered at CEO Endorsement)	Rating (entered at MTR)	Rating (entered at TE)
1. Bay of Bengal:	3 = SAP ministerially endorsed	3 = SAP ministerially endorsed		
Keda-Muda Rivers/Andaman Sea (Malaysia)				
2. Indonesian Seas:				
Ciliwung River ? Jakarta Bay (Indonesia)	1 = No TDA/SAP	1 = No TDA/SAP		
3. South China Sea and Gulf of Thailand:				
Kampong Bay River ? Gulf of Thailand (Cambodia)	4 = SAP under implementation	4 = SAP under implementation		
Nam Tha River-Mekong River (Lao PDR)				
Imus Ylang Ylang Rivers and Pasac Guagua Rivers ? Manila Bay (Philippines)				
Vu Gia -Thu Bon Rivers ? Da Nang Bay (Viet Nam)				

7.2 Level of regional legal agreements and regional management institution(s) to support its implementation

Shared Water Ecosystem (name)	Rating (entered at PIF)	Rating (entered at CEO Endorsement)	Rating (entered at MTR)	Rating (entered at TE)

7.3 Level of national/local reforms and active participation of Inter-Ministerial Committees

Shared Water Ecosystem (name)	Rating (entered at PIF)	Rating (entered at CEO Endorsement)	Rating (entered at MTR)	Rating (entered at TE)

1. Bay of Bengal:					
Keda-Muda Rivers/Andaman Sea (Malaysia)	2 = National/local reforms in preparation, IMCs functional	2 = National/local reforms in preparation, IMCs functional			
2. Indonesian Seas:	2 = National/local reforms in preparation, IMCs functional				
Ciliwung River ? Jakarta Bay (Indonesia)		2 = National/local reforms in preparation, IMCs functional			
3. South China Sea and Gulf of Thailand:	2 = National/local reforms in preparation, IMCs functional				
Kampong Bay River ? Gulf of Thailand (Cambodia)	2 = National/local reforms in preparation, IMCs functional	2 = National/local reforms in preparation, IMCs functional			
Nam Tha River-Mekong River (Lao PDR)	2 = National/local reforms in preparation, IMCs functional	2 = National/local reforms in preparation, IMCs functional			
Imus Ylang Ylang Rivers and Pasac Guagua Rivers ? Manila Bay (Philippines)	2 = National/local reforms in preparation, IMCs functional	2 = National/local reforms in preparation, IMCs functional			
Vu Gia -Thu Bon Rivers ? Da Nang Bay (Viet Nam)					

7.4 Level of engagement in IW:LEARN through participation and delivery of key products

Shared Water Ecosystem (name)	Rating (entered at PIF)	Rating (entered at CEO Endorsement)	Rating (entered at MTR)	Rating (entered at TE)
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1. Bay of Bengal	<p>4 = As above, plus active participation of project staff and country representatives at</p> <p>International Waters conferences and the provision of spatial data and other data</p> <p>points via project website</p>	<p>4 = As above, plus active participation of project staff and country representatives at</p> <p>International Waters conferences and the provision of spatial data and other data</p> <p>points via project website</p>		
2. Indonesian Seas	<p>2 = Website in line with IW:LEARN guidance active</p>	<p>2 = Website in line with IW:LEARN guidance active</p>		
3. South China Sea and Gulf of Thailand	<p>4 = As above, plus active participation of project staff and country representatives at</p> <p>International Waters conferences and the provision of spatial data and other data</p> <p>points via project website</p>	<p>4 = As above, plus active participation of project staff and country representatives at</p> <p>International Waters conferences and the provision of spatial data and other data</p> <p>points via project website</p>		

Core Indicator 11: Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Total number (expected at PIF)	Total number (expected at CEO Endorsement)	Total number (achieved at MTR)	Total number (achieved at TE)
Women	132,948	132,948		
Men	132,948	132,948		
Total	265,896	265,896		

ANNEX F: Project Taxonomy Worksheet

Use this Worksheet to list down the taxonomic information required under Part1 by ticking the most relevant keywords/topics//themes that best describes the project

Level 1	Level 2	Level 3	Level 4
Influencing models			
	Transform policy and regulatory environments		
	Strengthen institutional capacity and decision-making		
	Convene multi-stakeholder alliances		
	Demonstrate innovative approaches		
	Deploy innovative financial instruments		
Stakeholders			
	Indigenous Peoples		
	Private Sector		
		Capital providers	
		Financial intermediaries and market facilitators	
		Large corporations	
		SMEs	
		Individuals/Entrepreneurs	
		Non-Grant Pilot	
		Project Reflow	
	Beneficiaries		
	Local Communities		

	Civil Society		
		Community Based Organization	
		Non-Governmental Organization	
		Academia	
		Trade Unions and Workers Unions	
	Type of Engagement		
		Information Dissemination	
		Partnership	
		Consultation	
		Participation	
	Communications		
		Awareness Raising	
		Education	
		Public Campaigns	
		Behavior Change	
Capacity, Knowledge and Research			
	Enabling Activities		
	Capacity Development		
	Knowledge Generation and Exchange		
	Targeted Research		
	Learning		
		Theory of Change	
		Adaptive Management	
		Indicators to Measure Change	
	Innovation		
	Knowledge and Learning		
		Knowledge Management	
		Innovation	
		Capacity Development	
		Learning	
	Stakeholder Engagement Plan		
Gender Equality			
	Gender Mainstreaming		
		Beneficiaries	
		Women groups	
		Sex-disaggregated indicators	
		Gender-sensitive indicators	
	Gender results areas		

		Access and control over natural resources	
		Participation and leadership	
		Access to benefits and services	
		Capacity development	
		Awareness raising	
		Knowledge generation	
Focal Areas/Theme			
	Integrated Programs		
		Commodity Supply Chains ([1] ¹ Good Growth Partnership)	
			Sustainable Commodities Production
			Deforestation-free Sourcing
			Financial Screening Tools
			High Conservation Value Forests
			High Carbon Stocks Forests
			Soybean Supply Chain
			Oil Palm Supply Chain
			Beef Supply Chain
			Smallholder Farmers
			Adaptive Management
		Food Security in Sub-Sahara Africa	
			Resilience (climate and shocks)
			Sustainable Production Systems
			Agroecosystems
			Land and Soil Health
			Diversified Farming
			Integrated Land and Water Management
			Smallholder Farming
			Small and Medium Enterprises
			Crop Genetic Diversity
			Food Value Chains
			Gender Dimensions
			Multi-stakeholder Platforms
		Food Systems, Land Use and Restoration	

			Sustainable Food Systems
			Landscape Restoration
			Sustainable Commodity Production
			Comprehensive Land Use Planning
			Integrated Landscapes
			Food Value Chains
			Deforestation-free Sourcing
			Smallholder Farmers
		Sustainable Cities	
			Integrated urban planning
			Urban sustainability framework
			Transport and Mobility
			Buildings
			Municipal waste management
			Green space
			Urban Biodiversity
			Urban Food Systems
			Energy efficiency
			Municipal Financing
			Global Platform for Sustainable Cities
			Urban Resilience
	Biodiversity		
		Protected Areas and Landscapes	
			Terrestrial Protected Areas
			Coastal and Marine Protected Areas
			Productive Landscapes
			Productive Seascapes
			Community Based Natural Resource Management
		Mainstreaming	
			Extractive Industries (oil, gas, mining)
			Forestry (Including HCVF and REDD+)
			Tourism
			Agriculture & agrobiodiversity
			Fisheries
			Infrastructure
			Certification (National Standards)
			Certification (International Standards)

		Species	
			Illegal Wildlife Trade
			Threatened Species
			Wildlife for Sustainable Development
			Crop Wild Relatives
			Plant Genetic Resources
			Animal Genetic Resources
			Livestock Wild Relatives
			Invasive Alien Species (IAS)
		Biomes	
			Mangroves
			Coral Reefs
			Sea Grasses
			Wetlands
			Rivers
			Lakes
			Tropical Rain Forests
			Tropical Dry Forests
			Temperate Forests
			Grasslands
			Paramo
			Desert
		Financial and Accounting	
			Payment for Ecosystem Services
			Natural Capital Assessment and Accounting
			Conservation Trust Funds
			Conservation Finance
		Supplementary Protocol to the CBD	
			Biosafety
			Access to Genetic Resources Benefit Sharing
	Forests		
		Forest and Landscape Restoration	
			REDD/REDD+
		Forest	
			Amazon
			Congo
			Drylands
	Land Degradation		
		Sustainable Land Management	
			Restoration and Rehabilitation of Degraded Lands

			Ecosystem Approach
			Integrated and Cross-sectoral approach
			Community-Based NRM
			Sustainable Livelihoods
			Income Generating Activities
			Sustainable Agriculture
			Sustainable Pasture Management
			Sustainable Forest/Woodland Management
			Improved Soil and Water Management Techniques
			Sustainable Fire Management
			Drought Mitigation/Early Warning
		Land Degradation Neutrality	
			Land Productivity
			Land Cover and Land cover change
			Carbon stocks above or below ground
		Food Security	
	International Waters		
		Ship	
		Coastal	
		Freshwater	
			Aquifer
			River Basin
			Lake Basin
		Learning	
		Fisheries	
		Persistent toxic substances	
		SIDS : Small Island Dev States	
		Targeted Research	
		Pollution	
			Persistent toxic substances
			Plastics
			Nutrient pollution from all sectors except wastewater
			Nutrient pollution from Wastewater
		Transboundary Diagnostic Analysis and Strategic Action Plan preparation	
		Strategic Action Plan Implementation	

		Areas Beyond National Jurisdiction	
		Large Marine Ecosystems	
		Private Sector	
		Aquaculture	
		Marine Protected Area	
		Biomes	
			Mangrove
			Coral Reefs
			Seagrasses
			Polar Ecosystems
			Constructed Wetlands
	Chemicals and Waste		
		Mercury	
		Artisanal and Scale Gold Mining	
		Coal Fired Power Plants	
		Coal Fired Industrial Boilers	
		Cement	
		Non-Ferrous Metals Production	
		Ozone	
		Persistent Organic Pollutants	
		Unintentional Persistent Organic Pollutants	
		Sound Management of chemicals and Waste	
		Waste Management	
			Hazardous Waste Management
			Industrial Waste
			e-Waste
		Emissions	
		Disposal	
		New Persistent Organic Pollutants	
		Polychlorinated Biphenyls	
		Plastics	
		Eco-Efficiency	
		Pesticides	
		DDT - Vector Management	
		DDT - Other	
		Industrial Emissions	
		Open Burning	
		Best Available Technology / Best Environmental Practices	
		Green Chemistry	
	Climate Change		

		Climate Change Adaptation	
			Climate Finance
			Least Developed Countries
			Small Island Developing States
			Disaster Risk Management
			Sea-level rise
			Climate Resilience
			Climate information
			Ecosystem-based Adaptation
			Adaptation Tech Transfer
			National Adaptation Programme of Action
			National Adaptation Plan
			Mainstreaming Adaptation
			Private Sector
			Innovation
			Complementarity
			Community-based Adaptation
			Livelihoods
		Climate Change Mitigation	
			Agriculture, Forestry, and other Land Use
			Energy Efficiency
			Sustainable Urban Systems and Transport
			Technology Transfer
			Renewable Energy
			Financing
			Enabling Activities
		Technology Transfer	
			Poznan Strategic Programme on Technology Transfer
			Climate Technology Centre & Network (CTCN)
			Endogenous technology
			Technology Needs Assessment
			Adaptation Tech Transfer
		United Nations Framework on Climate Change	
			Nationally Determined Contribution
		Climate Finance (Rio Markers)	Paris Agreement Sustainable Development Goals

			Climate Change Mitigation 1
			Climate Change Mitigation 2
			Climate Change Adaptation 1
			Climate Change Adaptation 2

[1]

ANNEX G: Project Budget Table

Please attach a project budget table.

Expenditure Category	Detailed Description	Component (USD\$eq.)						Total (USD\$eq.)	Responsible Entity (Executing Entity receiving Funds from the GEF Accession)
		Component 1	Component 2	Component 3	Sub-Total	M&E	PMC		
		Sub-component 1.1	Sub-component 2.1	Sub-component 3.1					
Equipment	Information Tech Equipment – purchase of IT hardware/software for IIMS \$35,000		35,000.00		35,000.00			35,000.00	PEMSEA
Equipment	Information Technology Equipment – purchase of IT hardware/software for Knowledge Management Interactive Platform \$35,000			35,000.00	35,000.00			35,000.00	PEMSEA
Equipment	Rental and maintenance of IT equipment including subscription for zoom; google suite chimp & drop box; \$9,700				-		9,700.00	9,700.00	PEMSEA
Equipment	Rental and maintenance of office equipment: USD18,002 for: - rental of photocopier, server, USB telephone line, and maintenance of office furniture and equipment for 5 years.				-		18,002.00	18,002.00	PEMSEA
Contractual services-Individual	Contractual Services -Implementing partner: USD 157,500 for: - copyediting and laying out a Guide to Environmental Monitoring in support of IRBM Program Development and Implementation (7,500), year 4. - developing, constructing, testing a guide for a harmonized set of IRBM governance and management indicators for inclusion in baseline assessment SORB reports, constructing and commissioning a regional e-portal/IRBM knowledge platform (30,000), completed by an IT firm in year 1. - maintaining the security, integrity and facile operation of the e-portal/IRBM knowledge platform on an annual basis, including the incorporation of new functionalities and software applications, as may be requested by PEMSEA and the participating countries (30,000)/year for 4 years, year 2 to year 5.			157,500.00	157,500.00			157,500.00	PEMSEA
Contractual services-Individual	Contractual Services -Implementing partner: USD21,000 for copy editing and laying out the RB strategy and action plan in each country in local languages, as required, (\$3,500*6 countries) year 5.		21,000.00		21,000.00			21,000.00	PEMSEA
Contractual services-Individual	Project Management Analyst to support project implementation of the financial aspects, shared with other regional projects implemented by UNDP; amount is computed at 25% share which will be reviewed every year : \$75,000				-		75,000.00	75,000.00	UNDP
Contractual services-Individual	Service contracts: USD155,250 for: - copyediting and laying out the RB IIMS manual, SORB Guide and Governance toolkit (26,250), year 1 - developing, starting up and operating RB IIMS in each RB (25,000*6 countries), year 1. - editing and copyediting SORB reports in each river basin (1500*6 countries), year 2.		155,250.00		155,250.00			155,250.00	PEMSEA
Contractual services-Company	Contractual Services Company: USD 1,169,116 for: - preparing a guide for a harmonized set of IRBM indicators for inclusion in baseline SORB reports year 1: \$34,000 - preparing a guide for environmental monitoring in the context of IRBM programs year 3: \$34,000 - organizing conducting an ASEAN regional workshop on environmental monitoring in the context of IRBM programs year 4: \$33,116 - organizing and conducting regional IRBM/ICM program development and implementation training and IRBM/ICM special skills training workshops for national program managers, RB Project Teams, IRBM managers, planners and practitioners, IRBM trainers/learning centers, and IRBM stakeholders, including 200g women's group (10workshops@5,000 ea.) years 1 to 5: \$ 250,000 - organizing and conducting study tours/learning exchanges for national IRBM program officers, local chief executives, planners and IRBM managers to provide opportunities for SSTRC and accelerating the up-scaling of IRBM programs (5,000/year for 3 years) years 3 to 5: \$15,000 - organizing and conducting regional workshops in collaboration with GEF LME/IW Learn; co-organizing/participating in international workshops co-sponsored/hosted by IW LEARN to share outputs and outcomes from the IRBM project at the regional, national and local levels; preparing and packaging knowledge products for uploading to the LME/IW Learn knowledge platform; cross-regional exchanges with other LME programs/projects: \$50,000 - developing and implementing IRBM environmental monitoring program in 6 selected river basins (3,500*6 countries), years 4 and 5: \$42,000 - organizing and conducting national IRBM orientation workshops for national agencies and local governments (3,000*6 countries), year 1: \$18,000 - organizing and conducting IIMS and SORB workshops for Project Teams in each river basin (3,000*6 river basins), year 1: \$18,000 - organizing and conducting IRBM/ICM and special skills training workshops for Project Teams in each river basin (3,000 per workshop*5 workshops*6 river basins), years 1 to 5: \$450,000 - implementing stakeholder engagement plans and communication plans in each river basin (5000*6 river basins*5years): \$150,000 - annual PSC/Project Board meetings (15,000*4 years): \$60,000 - EAS Congress workshop/learning event: \$15,000			1,169,116.00	1,169,116.00			1,169,116.00	PEMSEA

Contractual services-Company	Contractual Services Company: USD1,792,000 for: - completing the detailed baseline assessments for identified hotspot area/location in each RB, including institutional and governance, demographic, socio-economic (with special consideration of women, children, indigenous people and the poor), environmental and political conditions and characteristics of the area, priority issues/threats to sustainable development and management of the RB/receiving coastal area, including pollution, waste management, environmental flows and climate change, as well as ongoing and proposed developments that will impact on the S2S continuum; conducted by the RB Project Team in each RB and/or subcontracted to a university/national institution (56,666.67*6 countries); - conducting professional feasibility studies to identify and assess integrated management solutions for up to 3 priority threats in the identified hotspot area/location in each RB, including the delineation and evaluation of technical, management and operating options, capital and operating costs, partnership and financing approaches and sources of financing, including a public-private inclusive growth fund; subcontracted to a professional consultancy organization/firm (135,000*6 countries); - organizing and conducting public consultations/participatory processes in each RB to build awareness and consensus on the priority issues/threats in the hotspot area/location, the risks and impacts, the available options/solutions, the socio-economic and environmental impacts/implications, and support for preferred option(s) (22,000*6 countries); conducted by the RB Project Team and/or subcontracted to a non-government organization with communications/awareness building expertise; - developing and implementing a monitoring and evaluation program in the RB/hot spot location to measure the socio-economic and environmental impacts/benefits being derived from the pilot project facility, including benefits to people (men, women, children) and the economy of the location; subcontracted to a scientific institution/university in the RB area (23,000*6 countries) for inclusion in the SORB impact report, for years 4 and 5; Contractual Services: USD1,020,000 for: - developing templates for good practice in IRBM/ICM policies, strategies, laws, economic and financial instruments (60,000), year 4 - organizing and conducting a regional workshop on the application of the generic templates in the 6 selected river basins (60,000), year 4 - organizing and conducting an ASEAN workshop on improved IRBM governance and management based on the outcome of the project (80,000), year 5 - organizing and conducting two (2) national IRBM forums in each country to build political awareness and support for scaling up and replication IRBM good practices, benefits and lessons learned from the IRBM pilot project, including RB strategy and 10-year action plan, as well as an agenda for action at the national level, involving 100 participants (2@20,000*6countries);	2,812,000.00	2,812,000.00		2,812,000.00	PEMSEA
Contractual services-Company	Contractual services Company: USD901,552 for: - one 5-day regional workshop/training course involving 14 participants from participating countries and 4 trainers/resources (RB-IRMS, baseline SORB, socio-economic survey, and gender action plan) (70,500); one regional workshop on socio-economic assessment (10,552), year 1 - one 5-day sub-regional workshop/hands-on training courses on total pollutant loading (TPL) model involving 30 participants from participating countries and 8 trainers/resource persons (70,500), year 1. - subcontract universities to conduct river basin reviews on existing and future water uses and implications (4*5000), year 3. - annual meetings of RB coordinating committees and regular meetings of Project Teams (5000/year*6 countries for 5 years). - Project Team, national universities and/or institutions in each country prepare the baseline SORB report (25,000*6countries); conduct the socio-economic survey (15,000*6 countries); implement the rapid appraisal/TPL modeling (17,500*6 countries); TPL river basin workshop/data gathering (4*5000); SORB river basin validation workshop (4*5000), years 1 and 2, and organize and prepare the impact SORB report at the completion of the project (15,000*6 countries), year 4.	901,552.00	901,552.00		901,552.00	PEMSEA
International Consultants	International consultant/Regional IRBM Project Manager: USD23,000 for 38.33 days @ USD600 per day including: - managing and administering the regional project unit, officers and project consultants, developing and implementing annual work plans and budgets in accordance with the PRR, ensuring that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost; liaising with the respective National coordinating mechanisms/units, river basin coordinating mechanisms/units, Project Board/Project Steering Committee, UNDP PPRR, / the UNDP Bangkok Regional Hub (38.33 days), years 1 to 5.	-	-	23,000.00	23,000.00	PEMSEA
International Consultants	International consultants (approx. 5) : USD472,200 for 787 days @ USD600 per day, including: - IRBM/S2S specialists preparing generic templates for initiating/strengthening integrated IRBM governance and management in the selected river basins, working with RB organizations and Project Teams to prepare the strategies, work plan, budgets and schedules, delineating hotspot areas and issues in each RB, and identifying/confirming key individuals/institutions in each country for the RB Project Team (30days*6 countries) in year 1; - financial and investment specialists developing generic templates for PPP, PPI/P, blended financing (donor, government, private), public sector financing, etc. (61 days) in year 1; - Technical/technology specialists developing generic templates for pollution reduction/nutrient management, waste management/plastics recycling, sustainable reforestation, renewable energy (60 days) in year 1; - Technology and financial and investment specialists' hands-on training to RB Project Teams in the 6 countries on the planning, development and initiation of pilot projects and the use of the developed templates (10days*6 countries) in year 1; - Technology and financial and investment specialists provide professional guidance, advice and support to RB Project Teams for the application of relevant templates/procedures in pilot project planning and implementation in hotspot areas, negotiating and signing agreements with national and local authorities, investors, business sector in support of pilot facilities/operations, overseeing construction and commissioning of pilot facilities; setting up M&E program to monitor and assess impact and benefits (17.75 days*6 countries) in years 2 to 5.	472,200.00	472,200.00		472,200.00	PEMSEA
International Consultants	International consultants: USD 141,000 for 235 days at USD 600 per day over 5 years, including: - setting up multi-sectoral coordinating mechanisms and Project Teams in each RB, preparing TOR, work plans and schedules in collaboration with Project Teams (20 days); - planning, organizing and participating in IRBM orientation workshops and training workshops in 6 participating countries (20 days); - participating in meetings of RB coordinating mechanisms; analyzing IRBM strategies, governance mechanisms and gaps; developing guidance toolkit (85 days); - overseeing, guiding, reviewing and approving baseline and end-of-project SORB reports in 6 river basins (100 days).	141,000.00	141,000.00		141,000.00	PEMSEA
International Consultants	International consultants: USD36,000 for 60 days @ USD600 per day, including: - preparing the template for river basin monitoring programs, connecting pilot project interventions with the assessment of impacts and benefits to local communities/environment and the river basin	36,000.00	36,000.00		36,000.00	PEMSEA
International Consultants	Project Evaluation for Mid-Term & Final Evaluation, Mid-term review = \$60,000, Terminal evaluation = \$80,000	-	-	140,000.00	140,000.00	UNDP
Local Consultants	Local consultants (approx. 7 consultants): USD188,700 for 629 days at USD 300 per day over 5 years, including: - preparing the SORB reporting template and Guide for SORB development and implementation (35 days); - developing training programs and schedules and organizing regional training workshops for SORB and RB IRMS (50 days); - organizing and conducting RB orientation workshops for the national and local RB coordinating mechanisms in each participating country (5days*6countries days); - identifying and supporting the selection and start-up of the RB Project Teams (5days*6countries); - developing socio-economic survey template and gender action plan (22 days); - organizing and conducting socio-economic survey and regional gender action plan training workshop back-to-back with IRMS and SORB regional workshop (20 days); - developing and organizing a TPL model training course and conducting regional training of Project Teams/universities from each RB (100 days); - organizing and conducting training workshops for the RB Project teams in each country, including RB-IRMS, SORB, TPL, socio-economic assessment/gender action plan (7days*6 countries); - facilitating the preparation, conduct and reporting of annual meetings of the RB coordinating mechanisms (5 days/year*6 countries for 5 years); - drafting and finalizing the baseline SORB report for each river basins (20days*6countries); - conduct review and assessment of governance and management mechanisms for IRBM/ICM at the national and river basin levels in each country (5days*6 countries).	188,700.00	188,700.00		188,700.00	PEMSEA
Local Consultants	IRBM Project Officer/M&E Officer: USD 45,000 - coordinating, drafting and submitting quarterly and annual M&E reports, as required by GEF and UNDP, for review and endorsement by the Regional Project Manager to PEMSEA and UNDP (150 days @ USD300 per day), over 5 years	-	-	45,000.00	45,000.00	PEMSEA
Local Consultants	Local consultants: USD 190,548 for 635.15 days @ USD300 per day including: - IRBM Project Officer providing technical backstopping to the Regional IRBM Project Manager as per TOR (Annex 7), years 1 to 5: \$86,578 - Finance and Administration Officer providing financial management and accounting backstopping, as well as administrative support for procurement of goods and services for the project, as per TOR (Annex 7), years 1 to 5: \$103,968	-	-	190,548.00	190,548.00	PEMSEA
Local Consultants	Local consultants: USD 19,373 - conducting research on gender issues in IRBM in the 6 RBs and identifying SMART gender-focused indicators to be incorporated into the SORB baseline assessment (20 days), year 1 - reviewing and assessing existing capacities in environmental monitoring in each river basin (20 days), year 2.	-	-	19,373.00	19,373.00	PEMSEA

Local Consultants	Local consultants: USD 532,049; @ USD300 per day for: Finance and Administration Officer preparing and certifying quarterly and annual financial reports, as required by GEF and UNDP, for review and endorsement by the Regional Project Manager to PEMSEA and UNDP (150 days), over 5 years USD 45,000 conducting research on RB monitoring and evaluation reporting systems in the region and elsewhere, including indicators and metrics used in the systems, their application in the region and development of a proposed list of SMART indicators for use in monitoring, evaluating and improving IRBM planning and implementation; organizing a regional workshop to review, refine and finalize the proposed list of SMART indicators for application in the SORB baseline assessment (20 days), year 1: USD 6,000 developing IRBM/ICM training modules for orientation, awareness and capacity building (106.67 days); organizing and participating in national/RB training workshops, year 1: USD 32,000 developing gender and environmental and social risk identification; training modules; organizing and participating in national/RB training workshops, year 1; organizing and conducting a regional capacity development workshops for IRBM/ICM and special skills/schools in support of IRBM development and implementation, including RB-IMS, SORB, developing and enabling a regional network of universities as IRBM learning and support centers for IRBM development and implementation in the respective countries/RBs (30 days*4 years), years 2 to 5: USD 36,000 organizing, overseeing and assessing social and environmental screening procedures and plans, stakeholder engagement plans and gender analysis and action plans of projects in the participating countries and at the regional level, and providing input to the GEF and UNDP reporting/tracking procedures (30 days*4 years), years 2 to 5: USD 36,000 designing a regional IRBM knowledge platform with links to national, regional and global e-platforms, to share knowledge and experience, tap expertise and advice, and promote South-South and Triangular Cooperation (STRC) (30 days), year 1: USD 9,000 populating, maintaining and scaling up access to and use of the IRBM knowledge platform, including establishing and operationalizing of RB microsites for each of the RB projects linked to the regional platform (30 days*4 years), years 2 to 5: USD 36,000 preparing knowledge products from RB projects to transfer/present to the AWG/IRM, AWG/CRM, ASOEN, EAS Partnership Council and other regional forums, networks of local governments, LMEs/regional seas programs, LME/IW Learn and other programs, projects and networks (10 days*6 countries for 5 years): USD 90,000 developing and implementing communication and marketing plan for project activities, outcomes, outputs and knowledge products (50 days* 5 years): USD 75,000 developing, implementing, monitoring and assessing gender action plan and environmental and social risk assessment at the river basin/pilot project levels (10 days per year*6 countries*5 years): USD 90,000 IRBM Project Officer providing technical backstopping to the Regional IRBM Project Manager as per TOR (Annex 7): USD 77,049			532,049.00	532,049.00			532,049.00	PEMSEA
Local Consultants	Local consultants: USD567,000 for 1,890 days @ USD300 per day, including: organizing, coordinating, monitoring and reporting on IRBM activities at the river basin/pilot project levels in each country (55 days*6 countries*5 years) preparing legal agreement between PEMSEA and local government on pilot project development and financing (40days*6 countries) year 2		844,500.00		844,500.00			844,500.00	PEMSEA

Training, Workshops, Meetings	regional project inception workshop (\$30,000), year 1.				-	30,000.00		30,000.00	PEMSEA
Travel	Travel - \$10,000 for mid-term evaluation, \$10,000 for final evaluation: \$20,000				-	20,000.00		20,000.00	UNDP
Travel	Travel- participating in the annual meetings of the Project Board (\$2,467*5 years): \$12,335			12,335.00		12,335.00		12,335.00	PEMSEA
Travel	Travel: USD103,000, assuming air travel cost of USD1,000 round trip and daily allowance/incidentals of \$200 per day, for: international consultants for orientation meeting and annual meeting of RB coordinating committee in each country (orientation: 1,700*3 pax*6countries; annual: 1,766.67*1 pax*6 countries*4 years). local consultants/members of the project team from each country for regional training workshop on RB/IMS, SORB, socio-economic survey, and gender action plan (2,300*2 pax/country*6countries), year 1.	103,000.00				103,000.00		103,000.00	PEMSEA
Travel	Travel: USD175,000, assuming air travel cost of USD1,016.65 round trip and daily allowance/incidentals of \$200 per day, for: international consultants/specialists conducting 2 missions per year to each country to oversee and guide the Project Teams for the conduct of detailed baselines in hotspot location, conduct of feasibility studies, financial analyses, public consultations, negotiations/signing agreements with national and local government for pilot project implementation, procurement and contracting processes, overseeing construction, commissioning and start-up of pilot projects (2 missions/year @ 18days/year*6 countries for 5 years).		175,000.00			175,000.00		175,000.00	PEMSEA
Office Supplies	Office supplies: USD12,500 for: purchasing expendable office materials and supplies for project operations, Project Board meetings, regional workshops/events (\$2,500/year).				-		12,500.00	12,500.00	PEMSEA
Other Operating Costs	Miscellaneous: USD29,800 spread across workshops and participatory planning sessions in the 6 countries over 5 years to cover communication costs, signage and sundry items for each event.	29,800.00				29,800.00		29,800.00	PEMSEA
Other Operating Costs	Professional services (audit, spot checks) for UNDP: \$75,000				-		75,000.00	75,000.00	UNDP
	Grand Total	1,519,302.00	4,359,700.00	1,942,000.00	7,821,002.00	254,373.00	403,748.00	8,479,123.00	