

Promoting the blue economy and strengthening fisheries governance of the Gulf of Thailand through the Ecosystem Approach to Fisheries (GoTFish)

Part I: Project Information

GEF ID

10703

Project Type

FSP

Type of Trust Fund

GET

CBIT/NGI

CBIT No

NGI No

Project Title

Promoting the blue economy and strengthening fisheries governance of the Gulf of Thailand through the Ecosystem Approach to Fisheries (GoTFish)

Countries

Regional, Cambodia, Malaysia, Thailand, Viet Nam

Agency(ies)

FAO

Other Executing Partner(s)

SEAFDEC , IUCN , University of Queensland

Executing Partner Type

Others

GEF Focal Area

Multi Focal Area

Taxonomy

Biodiversity, Focal Areas, Productive Seascapes, Protected Areas and Landscapes, Coastal and Marine Protected Areas, Fisheries, Mainstreaming, Coral Reefs, Biomes, Sea Grasses, Mangroves, International Waters, Large Marine Ecosystems, Strategic Action Plan Implementation, Mangrove, Seagrasses, Demonstrate innovative approach, Influencing models, Strengthen institutional capacity and decision-making, Convene multi-stakeholder alliances, Private Sector, Stakeholders, Individuals/Entrepreneurs, SMEs, Community Based Organization, Civil Society, Non-Governmental Organization, Public Campaigns, Communications, Strategic Communications, Awareness Raising, Local Communities, Consultation, Type of Engagement, Partnership, Information Dissemination, Participation, Beneficiaries, Gender results areas, Gender Equality, Capacity Development, Knowledge Generation and Exchange, Access to benefits and services, Women groups, Gender Mainstreaming, Sex-disaggregated indicators, Gender-sensitive indicators, Knowledge Generation, Capacity, Knowledge and Research, Seminar, Workshop, Training, Course, Peer-to-Peer, Knowledge Exchange, Conference, Field Visit, Exhibit, Adaptive management, Learning, Indicators to measure change

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 1

Duration

60 In Months

Agency Fee(\$)

681,502.00

Submission Date

9/28/2020

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
IW-1-2	GET	6,231,109.00	110,163,178.00
BD-1-1	GET	1,089,685.00	8,295,467.00
	Total Project Cost (\$)	7,320,794.00	118,458,645.00

B. Indicative Project description summary

Project Objective

To improve natural resource governance in the Gulf of Thailand through the implementation of the Ecosystem Approach to Fisheries (EAF) contributing to the fisheries objectives of the South China Sea Strategic Action Programme (SCS-SAP)

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 1: Regional transboundary fisheries governance and management strengthened	Technical Assistance	<p>Outcome 1.1: Fisheries resources and marine biodiversity ecosystem services are restored through strengthened regional transboundary governance and cooperation of GoT fisheries, building their resilience through improved habitat and fisheries management (SAP Fisheries Objective 1[1]) (IW funded).</p> <p><i>Indicator 1.1.1 - Number of shared water ecosystems (fresh or marine) under new or improved cooperative management (GEF Core Indicator 7).</i></p> <p><i>Indicator 1.1.2. At least 1 regional stakeholder task-force and a key regional issue identified</i></p> <p><i>Indicator 1.1.3. 1 revised regional/ national fisheries policy/ guidelines/ RPOA/ NPOA for management of</i></p>	<p>Output 1.1.1: Updated and regionally coherent fisheries policies across the GoT countries and strengthened national legal frameworks</p> <p>Output 1.1.2: Established regional stakeholder taskforces for improved trans-boundary fisheries management and addressing key regional issues</p> <p>Output 1.1.3: Development and implementation of regional action plans to address common fisheries issues (e.g. overfishing, overcapacity, IUU (illegal, unreported and unregulated) fishing, by-catch, ALDFG (abandoned, lost and otherwise discarded fishing gear), lack of adequate fisheries information systems, role of coastal protection in a fisheries context, blue sector livelihoods, poverty, gender, labour and other social issues, as well as market inefficiencies including harmful subsidies, post-harvest losses.</p>	GET	800,000.00	26,474,433.00

shared stocks (e.g. possible bilateral arrangement between Implementation State), that takes into account gender considerations and the different needs of women and men in the fisheries sector.

Indicator 1.1.4 *At least 2 Decisions and/or Recommendation related to shared stock management endorsed through the active participation of Inter-Ministry Committees/ National Level Committees*

Indicator 1.1.5 *- 1 regional mechanism for transboundary GoT, based on existing platforms ((e.g. SEAFDEC- GoT Countries Technical Working Group, ASWGF, RPOA-IUU)*

Indicator 1.1.6 *– At least 1 GoT sub-regional fisheries management plans/action plans that is developed/ revised for shared species/fisheries and other shared fisheries issues, with evidence that implementation has been initiated (e.g. national budget committed to implement the plans), following the EAF.*

Output 1.1.4: Prioritization of regional, sub-regional and national transboundary related issues for fisheries management and related biodiversity and environmental issues.

Output 1.1.5: Agreed mechanism for a regional approach to transboundary fisheries management in the Gulf of Thailand and accompanying regional EAFm plan

[1] SAP Fisheries Objective 1:
Build the resilience of
Southeast Asian fisheries to
the effects of high and
increasing levels of fishing
effort

*Indicator 1.1.1 - Number of
shared water ecosystems
(fresh or marine) under new
or improved cooperative
management (GEF Core
Indicator 7).*

[1] SAP Fisheries Objective 1:
Build the resilience of
Southeast Asian fisheries to
the effects of high and
increasing levels of fishing
effort

Component 1: continued	Technical Assistance	<p>Outcome 1.2: Development and implementation of Ecosystem Approach to Fisheries (EAF) management plans in the Gulf of Thailand enhances the resilience against climate change and manages fishing effort of fisheries stakeholders (women and men) (related to SAP Fisheries Objective 1) (IW Funded)</p> <p><i>Indicator 1.2.1 - About half a million tonnes (or 75% of overexploited fisheries)</i></p>	<p>Output 1.2.1 Stakeholder capacity to develop EAFM plans is strengthened, taking into consideration the different needs of women and men</p> <p>Output 1.2.2: Strengthened national fisheries management plans are implemented through the EAF approach</p> <p>Output 1.2.3: EAFm plans developed, addressing priority risks and opportunities to human well- being, ecosystem integrity and governance (including the</p>	GET	2,324,259.00	62,850,531.00
------------------------------	-------------------------	---	---	-----	--------------	---------------

*return to sustainable levels.
(Links to GEF Core Indicator
8)*

components 2 and 3) including the
implications of climate change on
GoT countries' fisheries

*Indicator 1.2.2 – 4 million ha
of marine fisheries habitat
under improved management
practices (links to GEF Core
Indicator 5)*

*Indicator 1.2.3 – 30 % of raw
fish supply that is converted
to fishmeal comes from
fisheries with an EAF plan
and is part of a transparent
catch documentation
scheme*

*Indicator 1.2.4 – About
125.000 fish-workers
(estimated at about 70%
male and 30 % female - to be
confirmed during PPG phase)
benefit from GEF investment*

*Indicator 1.2.5 – 4 national
fisheries management
plans/action that are
developed/ revised for
shared species/fisheries and
other shared fisheries issues,
with relevant participation of
stakeholders.*

*Indicator 1.2.6 – 4 national
plans that initiate
implementation, with
evidence of national
commitment (e.g. national
budget committed to
implement the plans)*

following the EAF and addressing gender considerations

Component 2: Alignment of incentive mechanisms	Technical Assistance	<p>Outcome 2.1: Establishment of a market and behaviour incentive mechanism which reduces ecosystem stress from fishing, enhances the uptake of good practices supporting fisheries management and supports the transition to climate-resilient fisheries (integrating gender considerations and the different needs of women and men along the fishery value chain) (related to SAP Fisheries Objective 3[1]). (IW Funded)</p>	<p>Output 2.1.1: Identification of mechanisms and stakeholder platforms to support incentives for sustainable and well managed GoT fisheries value chains, including those linked to fishmeal for feeds</p> <p>Output 2.1.2: Market and other innovative incentive mechanisms implemented to enhance sustainable fisheries value chains aimed to promote sustainable sourcing of fish and aquatic products, as well as to transition to low impact fishing practices</p>	GET	1,710,000.00	9,375,288.00
		<p><i>Indicator 2.1.1 – 1 fishmeal transparency catch documentation scheme covering estimated 20 % of fishmeal production (or 2 commercial stocks) is in place and is being implemented</i></p>				
		<p><i>Indicator 2.1.2 – 2 market and/or behaviour change incentive mechanisms initiated (with women’s participation of at least 30%)</i></p>				
		<p><i>Indicator 2.1.3 – 10% of fisheries related establishments/operations that meet national or international certification and</i></p>				

*incorporates biodiversity/
sustainable resources/
resource protection
considerations (direct and
indirect)*

*Indicator 2.1.4 – At least 1 of
private/public partnerships
created at the regional level*

*Indicator 2.1.5 – At least 1
fisheries improvement
projects (FIPs) taking place
in the GoT (with clear fisher
livelihood improvements and
gender considerations)*

*Indicator 2.1.6 – 1 regional
plan to enhance the level of
participation of women along
the fisheries value chain
implemented*

[1] SAP Fisheries Objective 3:
Build the capacity of fisheries
departments/ministries to
engage in meaningful
dialogue with the
environment sector regarding
the improvement of fisheries
and management of
interactions between
fisheries and critical marine
habitats

Component 3: Ecological Corridor of Critical and	Investment	Outcome 3.1: Improved integration of habitat and biodiversity conservation considerations in the management of	Output 3.1.1: Mapping of aquatic ecological corridors in the GoT	GET	500,000.00	628,000.00
--	------------	---	--	-----	------------	------------

Important Habitat for Aquatic Resources in the Gulf of Thailand (with a focus on Malaysia) established

fisheries in the Gulf of Thailand through deeper understanding of the ecological transboundary corridors existing in the Gulf of Thailand, leading to enhanced resilience of vulnerable aquatic species and those important for regional food security and sovereignty, (related to SAP-Fisheries Objective 1). **(IW Funded)**

Output 3.1.2: Development of recommendations/ guidelines for the alignment of key biodiversity considerations into national, transboundary and/or regional fisheries management plans and action plans

Output 3.1.3 Creation of an interim GoT sub-regional technical discussion platform to address integration of fisheries and aquatic biodiversity

Indicator 3.1.1 – At least 2 biodiversity targets and outcomes, incorporated into EAFM plans (regional and national levels)

Indicator 3.1.2 – 1 regional GIS dataset on species and habitat distribution and status (with different levels of information being shared) established

Indicator 3.1.3 – 1 national Guidelines for biodiversity integration developed and implementation initiated

Indicator 3.1.4 – 4 countries participate in GoT technical platform on fisheries and aquatic biodiversity

Component 3: Ecological Corridor of

Technical Assistance

Outcome 3.2: Reduced threats to vulnerable species and critical/ important habitats for food security and

Output 3.2.1: Identification of ecological corridors of critical and important habitat for aquatic resources in the East Coast of

GET

600,000.00

2,537,067.00

Critical and Important Habitat for Aquatic Resources in the Gulf of Thailand (with a focus on Malaysia) established

sovereignty with strengthened national and transboundary protection and management of aquatic resources in East Coast Peninsular Malaysia (**BD Malaysia STAR funded**)

peninsular Malaysia with spatial maps and information available for EAF planning .and identification of management and protection measures (the type of measures to be decided during PPG phase in consultation with stakeholders).

Indicator 3.2.1 – 224,865 ha of conservation area under improved conservation management and sustainable use in the East Coast of Peninsular Malaysia based on global Protected Area (PA) performance standards.

Output 3.2.2: Identification and establishment of management measures in four conservation areas to ensure they provide the highest potential return for achieving biodiversity conservation (following the METT) and fisheries management targets

Indicator 3.2.2 – 1 New guideline in evaluating fisheries benefits of conservation areas developed and tested in at least 1 project site.

Indicator 3.2.3 – 1 improved related National or Sub-National Policy on Integrated Coastal and Fisheries Resources Management, and Marine Spatial Planning (MSP) for the east coast of Peninsular Malaysia adopted (subject to the decision by the Cabinet

3: continued	Technical Assistance	<p>Outcome 3.3: Enhanced resilience of ecosystems and associated biodiversity in East Coast of Peninsular Malaysia (<u>BD STAR Malaysia funded</u>)</p> <p><i>Indicator 3.3.1 – Marine managed areas have been assessed and management improvements increased BD biodiversity benefits and improved linkages with fisheries (targets to be defined during PPG phase)</i></p> <p><i>Indicator 3.3.2 – At least 1 participatory ecosystem resilience plan with a monitoring system initiated in marine conservation areas</i></p>	<p>Output 3.3.1: Participatory monitoring system established to reduce fishing and other pressures on marine biodiversity in conservation areas.</p> <p>Output 3.3.2: Map priority areas to improve resilience of ecosystem components including identification of existing threats and vulnerabilities (including climate change and other natural and human hazards)</p> <p>Output 3.3.3: Development of participatory ecosystem resilience plans, following the findings of the priority ecosystem resilience maps (for biodiversity), within and beyond the MPAs, and addressing the needs of the ecological corridors, with evidence of implementation initiated</p>	GET	437,795.00	5,000,000.00
-----------------	-------------------------	---	--	-----	------------	--------------

Component 4: Stakeholder engagement, communication, monitoring and evaluation	Technical Assistance	<p>Outcome 4.1: Efficient knowledge management and targeted communication, improves the understanding amongst stakeholders of ecosystem and fishery linkages in the Gulf of Thailand (related to SAP-Objective 2) (IW funded)</p> <p>Indicators</p> <p><i>M&E systems in place and monitoring performance against gender sensitive indicators</i></p> <p><i>Knowledge sharing events on topics related to transboundary EAFM plans, FIPS, gender issues in fisheries value chains, social and market incentives, etc. carried out and related materials developed, shared and used to affect change</i></p> <p><i>Participation in IW Learn meetings and adoption of GoT relevant IWLearn tools</i></p>	<p>Output 4.1.1: GoT project monitoring system established and implemented. (including mid-term and final evaluations).</p> <p>Output 4.1.2: GoT knowledge management strategy and communication strategy established and implemented</p> <p>Output 4.1.3: Participation in the activities of the IW Learn Project.</p> <p>Indicators</p> <p><i>Access to GOTFISH knowledge platform established.</i></p> <p><i>GoTFish lessons learned collated and accessible., communicated through IW-Learn fora.</i></p>	GET	370,000.00	3,900,000.00
4	Technical Assistance	<p>Outcome 4.2: Enhanced stakeholder involvement and gender equity (IW funded)</p> <p><i>Project gender and stakeholder engagement strategy implemented</i></p>	<p>Outcome 4.2: Enhanced stakeholder involvement and gender equity</p> <p><i>Project gender and stakeholder engagement strategy implemented</i></p>	GET	230,132.00	1,800,000.00

	Sub Total (\$)	6,972,186.00	112,565,319.00
Project Management Cost (PMC)			
	GET	348,608.00	5,893,326.00
	Sub Total(\$)	348,608.00	5,893,326.00
	Total Project Cost(\$)	7,320,794.00	118,458,645.00

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
GEF Agency	FAO	Grant	Investment mobilized	7,778,000.00
GEF Agency	FAO	In-kind	Recurrent expenditures	322,000.00
Donor Agency	IUCN	Grant	Investment mobilized	11,172,000.00
Donor Agency	IUCN	In-kind	Recurrent expenditures	80,000.00
Other	SEAFDEC	In-kind	Recurrent expenditures	5,000,000.00
Other	University of Queensland	In-kind	Recurrent expenditures	2,051,067.00
Other	University of Queensland	Grant	Investment mobilized	306,000.00
Other	SFP	In-kind	Recurrent expenditures	5,000,000.00
Private Sector	Thai Union	In-kind	Recurrent expenditures	500,000.00
Recipient Country Government	Cambodia	Grant	Investment mobilized	3,410,000.00
Recipient Country Government	Malaysia	In-kind	Recurrent expenditures	3,520,000.00
Recipient Country Government	Thailand	In-kind	Recurrent expenditures	3,469,578.00
Recipient Country Government	Vietnam	In-kind	Recurrent expenditures	75,850,000.00
Total Project Cost(\$)				118,458,645.00

Describe how any "Investment Mobilized" was identified

FAO's grant co-finance will be from a combination of regional and national projects and its own internal resources. For example, around 7,150,000 dollars are estimated from a national EU funded CAPFish project, whilst over 600,000 is from its regional projects related to IUU, ghost fishing gear and SSF programmes.

IUCN's grant cofinance is largely from BMU-IKI 2019 Call Accelerating biodiversity conservation and climate adaptation in Asia 2021 - 2024. The University of Queensland investment mobilized is from their work on Commercialisation Tourbillon development and Dynamic Marine ecosystem modelling funded outside GEF funding.

D. Indicative 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	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Regional	International Waters	International Waters	6,231,109	577,982	6,809,091.00
FAO	GET	Malaysia	Biodiversity	BD STAR Allocation	1,089,685	103,520	1,193,205.00
Total GEF Resources(\$)					7,320,794.00	681,502.00	8,002,296.00

E. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount (\$)

196,465

PPG Agency Fee (\$)

2,804

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Regional	International Waters	International Waters	155,556		155,556.00
FAO	GET	Malaysia	Biodiversity	BD STAR Allocation	40,909	2,804	43,713.00
Total Project Costs(\$)					196,465.00	2,804.00	199,269.00

Core Indicators

Indicator 2 Marine protected areas created or under improved management for conservation and sustainable use

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
276,623.30	0.00	0.00	0.00

Indicator 2.1 Marine Protected Areas Newly created

Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
14,900.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
Johor Cluster			14,500.00			

Pulau Berhara	400.00	
---------------	--------	---

Indicator 2.2 Marine Protected Areas Under improved management effectiveness

Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
261,723.30	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)	
Pulau Aur	198395	National Park	9,745.00							
Pulau Babi Besar	555635840	National Park	8,414.00							

Pulau Babi Hujong	555705825	National Park	5,235.00	
Pulau Babi Tengah	555705824	National Park	5,149.00	
Pulau Ceben	555705838	National Park	4,492.00	
Pulau Ekor Tebu	198406	National Park	4,060.00	
Pulau Gual	555705829	National Park	4,570.00	
Pulau Harimau	555705827	National Park	4,900.00	
Pulau Jahat	555705839	National Park	4,520.00	

Pulau Kapas	198,399	National Park	2,133.00	
Pulau Labas	555705837	National Park	4,478.00	
Pulau Lang Tengah	19,648	National Park	6,150.00	
Pulau Lima	198402	National Park	4,390.00	
Pulau Mensirip	555705828	National Park	4,660.00	
Pulau Mentigi	55570583	National Park	4,399.00	
Pulau Nyireh	555705833	National Park	1,440.00	

Pulau Pemanggil	198394	National Park	8,790.00	
Pulau Perhentian Besar	10028	National Park	9,121.00	
Pulau Perhentian Kecil	19647	National Park	8,107.00	
Pulau Pinang	198407	National Park	4,890.00	
Pulau Rawa	555705826	National Park	5,080.00	
Pulau Redang	9786	National Park	12,750.00	
Pulau Sembilang	555635839	National Park	6,060.00	

Pulau Sepoi	555705836	National Park	4,457.00	
Pulau Seri Buat	555705823	National Park	7,720.00	
Pulau Sibul	555705831	National Park	4,260.00	
Pulau Sibul Hujung	555705832	National Park	1,183.00	
Pulau Susu Dara	198401	National Park	1,428.00	
Pulau Tenggol	555635838	National Park	2,400.00	
Pulau Tinggi	555635837	National Park	10,180.00	

Pulau Tioman	18307	National Park	25,115.00	
Pulau Tokong Bahara	198413	National Park	4,513.00	
Pulau Tulai	555705840	National Park	6,306.00	
Pulau Yu Besar	555629251	National Park	4,786.00	
Pulau Yu Kecil	555629252	National Park	4,666.00	
Rantau Abang Fisheries Protected Area /Turtle Sanctuary	19647	Habitat/Species Management Area	51,176.30	

Indicator 5 Area of marine habitat under improved practices to benefit biodiversity (excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
----------------------	----------------------------------	----------------------	---------------------

4,000,000.00			
--------------	--	--	--

Indicator 5.1 Number of fisheries that meet national or international third party certification that incorporates biodiversity considerations

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
--------------------------	--------------------------------------	--------------------------	-------------------------

5			
---	--	--	--

Type/name of the third-party certification

MSC- 2 Regional Certification (to be created by the project)- 2 Global Aquaculture Alliance (related to fish feeds) - 1

Indicator 5.2 Number of Large Marine Ecosystems (LMEs) with reduced pollutions and hypoxia

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (achieved at MTR)	Number (achieved at TE)
--------------------------	--------------------------------------	--------------------------	-------------------------

0	0	0	0
---	---	---	---

LME at PIF

LME at CEO Endorsement

LME at MTR

LME at TE

Indicator 5.3 Amount of Marine Litter Avoided

Metric Tons (expected at PIF)

Metric Tons (expected at CEO Endorsement)

Metric Tons (Achieved at MTR)

Metric Tons (Achieved at TE)

--	--	--	--	--

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	Gulf of Thailand			
Count	1	0	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)

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)
Gulf of Thailand	1			

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)
Gulf of Thailand	4			

Indicator 7.4 Level of engagement in IWLEARN through 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)
Gulf of Thailand	4			

Indicator 8 Globally over-exploited fisheries moved to more sustainable levels

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

547,393.00

Fishery Details

Gulf of Thailand cumulative catch (multispecies)

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	60,000			
Male	60,000			
Total	120000	0	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

The project's work on supporting EAFM is expected to cover 12 million ha. A map has been uploaded in Annex A to illustrate "Indicator 5"'s tentative areas these plans will cover (12+ million ha), and has also been uploaded in document section. This will be further clarified after detailed discussions with the countries. 2. Of the 12 million ha covered under EAFM, the project's work will directly contribute to implementation of the plans over the project's 5 years, which are expected to cover 4 million ha- that is one third of the area covered by EAFM. This too will be discussed further and detailed during project preparation. The project support will include capacity building on detailed site level planning within identified areas for EAFM, as well as capacity building on implementing activities related to conservation and sustainable use, reducing threats, and monitoring. Such capacities will be built at community level, inter-community levels and also for government and other supporting stakeholders. Necessary key equipment may also be provided, but with adequate consideration for equity, sustainability and to ensure that the project does not create a culture of dependency on external support. Detailed actions will be developed during full proposal development, along with contribution from cofinance. 3. The 4 million ha under indicator 5 will cover benthic and coastal habitats that are considered high priority from the perspective of biodiversity and cross border management. 4. The total number of beneficiaries is an estimate based on the 4 million ha area to be covered, and the likely number of people that would directly benefit from project actions.

Part II. Project Justification

1a. Project Description

1.1 The global environmental problems, root causes and barriers that need to be addressed

1. **The Gulf of Thailand (GoT)** Large Marine Ecosystem (LME), located in Southeast Asia, covers an area of 391,665 km² and is bounded by Cambodia, Malaysia, Thailand and Vietnam.^[1] The GoT LME is well recognized for its important habitats and abundance of aquatic resources, being a highly productive marine ecosystem and a global centre of shallow water marine biological diversity, with abundance of coral reefs, seagrass and mangroves areas. However, only about 1% of the area is protected^[2].

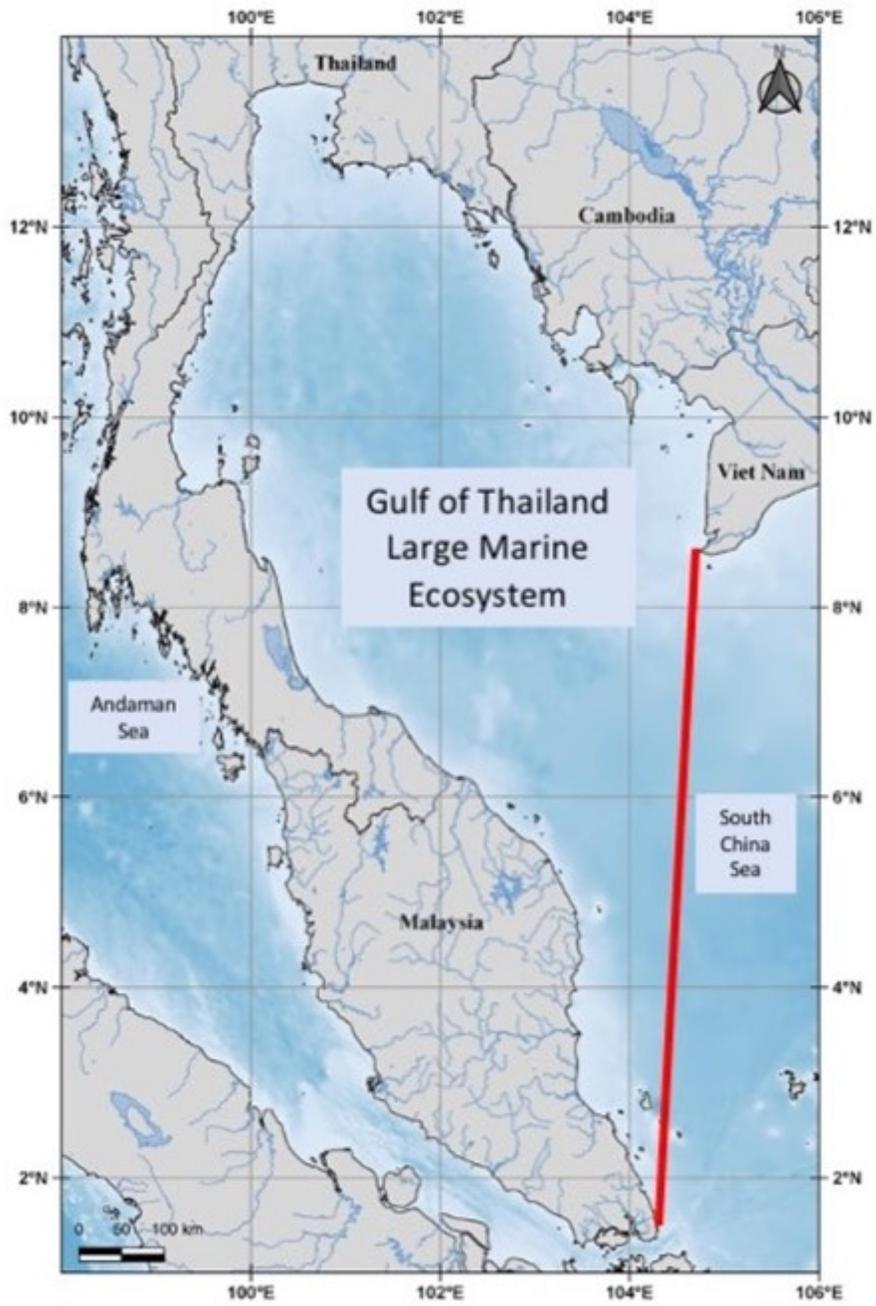


Figure 1 The Gulf of Thailand Large Marine Ecosystem.⁴

Figure 1 The Gulf of Thailand Large Marine Ecosystem.4

2. Geographically, the GoT LME can be separated into inner Gulf (influenced by river outflow, especially from the watersheds of the Chao Praya, Bang Prakong, Tachine, and Mae Klong rivers), and the outer Gulf (influenced by seawater intrusion from the South China Sea). The productivity of the GoT LME is high ($>300 \text{ gCm}^{-2}\text{yr}^{-1}$), due to high nutrient input through the rivers, agricultural fertilizers, household sewage, and shrimp farms. Nutrient content and dissolved oxygen levels change seasonally, with phytoplankton densities peaking during the rainy season. The increase of nutrient inputs during this period can lead to the occurrence of phytoplankton blooms (including Harmful Algal Blooms).

3. The GoT LME provides a wide variety of marine-based cultural and provisioning ecosystem services, such as food security, nutrition and livelihoods, critical to the GoT's coastal populations as well as the export economies of its neighbouring countries. The number of people dependent on marine fisheries in the GoT is about 838,000[3], comprising 214,000 people for Cambodia, 78,000 people for Malaysia, 321,000 for Thailand and 225,000 for Vietnam. The total fishery catch of the GoT is over 1,070,000 tonnes, with an estimated value of over 1.3 billion USD/year, contributing to almost 1% of the national GDP in each country.

4. The catch composition is tropical multi-species, including fish, squid and cuttlefish, shrimp, shellfish and crab. Before the 1960s, the fishery was artisanal focused on small pelagics (mainly Indian mackerels, *Rastrelliger* spp. and anchovies, *Stolephorus* spp.) directed to local markets. The introduction of trawl gear in the 1960s led to the development of demersal trawl fisheries, which target threadfin bream (*Nemipterus* spp.), big-eye (*Pempheris adspersa*), lizardfish (*Saurida elongata*), croaker (*Johnius* sp., *Larimichthys* sp., *Pennahia* sp.), shrimps (*Penaeus* spp.), flatfish and squid. There are also pair trawl, seine and gill net fisheries together with a range of artisanal gears.

5. For some of the key species in the GoT fishery, genetic studies indicate that there are shared stocks and ecological corridors. For example the Indo-Pacific Mackerel, *Rastrelliger brachysoma*, has different, but related, genetic populations in the GoT. [4] Other studies on spotted sardinella, *Amblygaster sirm* in Andaman Sea and South China Sea conclude that the stocks are separate genetic units and this species was not be found in the Strait of Malacca.[5] Studies on highly migratory, longtail tuna showed no significant structure, which suggests it forms one stock throughout the South China Sea, Andaman Sea, and Sulu Sea[6].

6. Three of the four GoT countries, Vietnam (place 8), Thailand (place 14), and Malaysia (place 16) rank among the top 25 for global marine capture fisheries production, contributing total of 8 % of the world's marine capture fisheries.[7]

7. **Cambodia's** fisheries and sector provides full-time, part-time and seasonal employment for up to 6 million people, though mostly in the Tonle Sap and other inland fisheries. The livelihoods' contribution from marine capture fisheries is comparatively small, with an estimated 214,000 people dependent on fisheries in the coastal area (about 20% of the coastal population). The fisheries sector provides over 81.5% of the animal protein in the national diet and forms a critical source of essential vitamins and micronutrients. Cambodian marine fish landings from the Gulf of Thailand are approximately 120,000 tonnes per year, contributing about 20% of the total capture fisheries landings in the country. The contribution of the fisheries sector (including processing and trade) to the GDP is around 6-8%. The value of total fisheries exports has been estimated to be as high as US\$100 million per year.

8. **Malaysia's** fisheries sector contributes 0.9% to the national GDP, with marine capture fisheries being the main contributor. The sector provides employment to 154,074 people, and fish production is estimated at 2 million tonnes per year, with a value of US\$ 3.4 billion, particularly due to marine capture fisheries (1,465,113 tonnes, with a value of US\$ 2.6 billion and provision of employment to 130,645 fishers), and inland capture fisheries (5,177 tonnes valued at US\$ 0.02 million). The **East Coast Peninsular Malaysia** is the area facing the South China Sea with a total coastline length of 724 km. Located within the

Coral Triangle Initiative[8], this area is recognized by scientists as having the greatest biodiversity. Coral reefs, together with related ecosystems (seagrass beds and mangroves), provide a vital link in the life cycle of numerous valuable marine species. They provide a food source for millions and they provide jobs for many millions more in tourism. This area has quite a number of marine protected areas (MPAs) but in terms of size, total marine park area in East coast peninsular Malaysia is dwarfed by the large size of large marine protected areas in Sabah and Sarawak. There are currently 13 marine parks in the state of Terengganu, 9 in Pahang and 13 in the state of Johor. These marine parks stretch along the east coast coastline and are currently managed by the Department of Fisheries Malaysia. These areas only make up 0.4% of Malaysia's Exclusive Economic Zone (EEZ) but are estimated to generate a value of 2.09 billion USD a year through a myriad of ecosystem services they provide.

9. **Thailand** has a coastline of about 3,151 km, with 2,040 km located in the Gulf of Thailand. The marine fishing grounds in the Gulf of Thailand area is of 202,676 km². Fisheries production in Thailand in 2016 was of 2.413 million tonnes of which 76.4% (1.843 million tonnes) came from marine fisheries and 23.6% (0.570 million tonnes) came from freshwater fisheries. The marine fisheries production consists of marine capture at 72.89% (1.343 million tonnes). The marine capture fisheries from the GoT represents 70.7% (0.950 million tonnes) of the national catch, with 29.3% from the Andaman Sea (0.499 million tonnes). The total value of marine capture fisheries was US\$ 1,594 million, with the GoT accounting for 75.7% of this (US\$ 1,207 million). This catch supports the livelihoods, incomes and employment for about 172,430 fishers (82% migrants) and about 515,000 people employed in supporting industries, mostly women (e.g. fish processing industry, ship building industry, canned and frozen fisheries product factories, fish meal factories).

10. **Vietnam's** fishery sector plays an important role in the national economy, contributing to food security, job creation, income generation and poverty reduction. There are four main fishing areas: South-western Viet Nam (part of Gulf of Thailand), South-eastern Viet Nam (EEZ boundaries with Cambodia and Thailand); the Gulf of Tonkin (EEZ boundary with China) and Central Viet Nam. The Government of Vietnam regulates the fishing zones including coastal, inshore and offshore areas. In 2017, fishery production contributed 0.17% to the national GDP and 3.88% of the country's total exports, creating jobs for 4.5 million labourers. The value of fishery exports reached USD 8.3 billion, accounting for 22.8% of total export value of the agriculture-forestry-fishery sector. The marine fishery resources have been estimated at 4.36 million tonnes of which 683,000 tonnes of demersal fish; 2,650,000 tonnes of small pelagics; and 1.031 million tonnes of oceanographic pelagic fish. In the South-western Viet Nam (part of GoT), a recent study observed about 270 species of coral reefs, 9 species of seagrass, over 400 species of phytoplankton, over 200 species of zooplankton, 134 species of demersal fish, 73 species of pelagic fish, 246 species of coral reef fish, 43 crustacean species (mainly shrimps and crabs) and 21 species of octopus, squids and cuttlefish.

11. Summary fisheries data for the GoT[9]

Table 1: Summary fisheries data based on GoT Workshop, 1-2 of August 2019 in Bangkok, Thailand

	Cambodia	Malaysia	Thailand	Vietnam
Employment fisheries sector (number of people)	6,000,000	130,645	515,000	4,500,000
GoT (number of people)	214,000	78,000	321,000	225,000
Fish production marine capture fisheries (tonnes)	120,000	1,465,113	1,343,000	4,360,000
GoT (tonnes)	120,000	401,904	950,000	150,000
Total fisheries GDP contributions (%)	6	0.9	0.76	0.17
Marine Fisheries Value (1000 USD)	100,000	2,600,000	1,594,000	8,300,000
GoT (1000 USD)	100,000	630,604	1,207,000	n/a

Global environmental problems and root causes:

Environmental Problems:

Specific issues

12. **Unsustainable fishing pressures:** The sustainability of the GoT fisheries resources and livelihoods is challenged by weak governance leading to overexploitation of GoT fisheries, unregulated fishing vessels, the application of non-selective fishing gears, illegal, unreported and unregulated (IUU) fishing activities and the failure to implement coherent and practical measures ensuring sustainability and the conservation of the GoT ecosystems and biodiversity. Though there are limited national efforts to manage fisheries resources in each of the GoT countries, much remains to be done to strengthen the capacity for regional, transboundary management. SEAFDEC has made regional attempts[10] to assess the stock status and distribution of three economically important species in the Gulf of Thailand, namely: **anchovy, Indo-Pacific mackerel, and blue swimming crab**. This was done through compilation of regional and national research studies, marine research surveys, sea-surface and fishery population structure assessments, otolith microstructure techniques and other techniques.

Based on the above studies, it has been agreed that the stocks of anchovy and Indo-pacific mackerel and blue swimming crab in the GoT showed decreasing trends due to overfishing, and more attention is required to assess the effectiveness of existing management measures, both nationally and at regional levels.

Experts have agreed on the need for a model/approach that can determine the transboundary stocks of the GoT countries previous to developing joint management plans for the conservation of the resources. **Neritic Tuna**, species such as longtail tuna (*Thunnus tonggol*) and Kawakawa (*Euthynnus affinis*), are also common in the Gulf of Thailand, and have important economic value due to export revenues as well as for domestic consumption. Neritic tuna species are increasingly gaining economic importance (due partly to the decline of oceanic tuna) and are also the target of commercial and local fisheries. However uncertainties remain about the distribution and migration patterns of neritic tuna stocks, and this lack of information can also lead to unsustainable management measures.

Countries lack capacity to manage **multispecies fisheries** and are only recently starting to address the data needs required for multispecies fisheries management and develop management approaches that are suitable for application in tropical multispecies fisheries. **Trawl fisheries** supply about 40% of the total production in Asia, capturing large range of species, including shrimps, squids, small pelagic and demersal species. For many years trawl fisheries have operated without controls over number of vessels or gears used, leading to rapid decline on stock abundance[11], but without reaching collapse, perhaps due to the "predator release phenomenon"[12].

Continuing with "business as usual" management measures can have very negative impacts for the Gulf of Thailand. The scenario foreseen for the neighbouring South China Sea over the next 30 years predicts a decline in fish and invertebrate groups of 9 to 59%, with groupers and sharks the worst affected, and a total decline of 60% of the catch if fisheries are not well managed[13], which will have serious food security implications and will lead to significant economic loss.

The current stock situation for the Gulf of Thailand is unknown, but an estimate is provided below (based on the information gathered as part of the GoTFish Workshop that took place in Bangkok, 1st and 2nd of August 2019):

Table 2: Stock values for the GoT (as reported in GoT Workshop 1-2 August 2019, Bangkok)

Total estimated stock for the GoT	1,621,904 tonnes
Considering 45% overexploited[14]	729,857 tonnes
Estimated GEF Core Indicator 8 (modified) - About 75 % of overexploited fisheries return to sustainable levels	547,393 tonnes

Root causes: A fundamental root cause of the issues is the lack of appropriate regional fisheries governance and management, with limited law enforcement, both in coastal and offshore fisheries, due to insufficient budget, unregistered vessels, equipment, and limited cooperation among authorities/institutions to improve enforcement measures.

There are also conflicting objectives among States that share stocks (e.g. resource management goals) and limited scope of cooperation in active management of the shared stock resources, lack of sufficient/adequate scientific data and reliable sharing mechanisms among countries; lack of reliable data and resources via efficient monitoring programs (including self-regulatory mechanisms), and an overall lack of fish stock assessments, especially shared stocks and multi-species fisheries. However, such lack of information/data should not be used as a pretext for inaction.

Another root cause is the rising price of fishmeal and limits on supply. Growing regional demand, driven by livestock sector and the expansion and intensification of aquaculture drive demand for low value and small sized fish not otherwise targeted for human consumption.[15] Most of this raw fish material comes from "reduction" fisheries, which target small pelagic species that are not directly used for human consumption, but in Asia, a notable portion comes from low-value catch, also known as "trash fish", obtained from unselective gears such as trawl. This demand remains high, despite attempts to reduce reliance on fishmeal in the feed-sector with suitable alternatives.

With regards to socioeconomic issues, another root cause is the low socio-economic status of artisanal fishers and communities, the lack of alternative livelihoods available to fishers, and the limited opportunities to develop new skills and techniques in line with "sustainable blue jobs." The persistence of biases and discrimination against women's participation in decision-making—who represent a large proportion of the post-harvest sector—is an important additional social criterion to be addressed.

At the institutional level, countries lack experience in collaboratively managing shared resources, resulting in a lack of trust. There are also difficulties obtaining high-level backing from the line ministries that would be involved in regional fisheries management (such as Department of Fisheries, Foreign Affairs, Trade, etc.). The complexity of tropical multispecies trawl and purse seine fisheries in the region can complicate setting up management regimes that can balance the interests of diverse user groups while satisfying societal expectations for sustainable use and biodiversity protection.[16]

13. **Degradation of marine ecosystems:** In addition to overfishing, other issues impacting fisheries resources include the destruction of habitat that is critical for various life stages of fish and shellfish, such as mangroves, seagrass and coral reef areas. In Cambodia, coral reef habitats are of generally poor health and mangrove forests are estimated to have declined by approximately 50% from their 1970s values, heavily impacted by local charcoal production as well as coastal infrastructure development.[17] In Viet Nam, hard corals declined notably from 34.6% in 1994 to 25.6% in 2006 and 21.1% in 2012. Reefs that are improving between 1994 and 2012 averaged 10.8% whereas reefs that are declining or remained unchanged were 55.4% and 30.0% respectively. In both countries the distribution and density of seagrass has declined rapidly due to coastal development, local over-fishing (including destructive fishing) and natural factors. While increased efforts in recent years to protect critical habitats for biodiversity conservation and management of key fish stocks - primarily through establishment of MPAs and related initiatives such as Fisheries Refugia - have yielded notable enabling policy, legal reform and stakeholder awareness outcomes, these have yet to translate into significant application of such area-based strategies for sustainable fisheries management (e.g. local fisheries replenishment).

Impacts on key habitat are also caused by the decline of marine water quality in some coastal areas, and the increase of plastic waste in the sea. Climate change will pose an even greater threat to marine tropical ecosystems, with ocean acidification, higher water temperature causing migration of fisheries species to cooler waters and the bleaching of coral reefs and an increase in extreme weather events, etc.[18]

In the East Coast of Peninsular Malaysia, although marine parks have been established since 1994, they have not been able to address dwindling fisheries stocks and degrading marine habitats. The data of the Department of Fisheries show demersal fisheries stock on the verge of collapsing, where the biomass of coastal demersal fisheries for East Coast of Peninsula Malaysia has dramatically dropped to approximately 3% from the initial biomass in 1970s.[19] Although 50% exploited level was reached in early 1980's (i.e. much later than the West Coast of Peninsular Malaysia), demersal fish resources in the East Coast of Peninsular Malaysia are presently recorded as the lowest in the country. The lowest prawn density value (0.72 kg.km^{-2}) was in the coastal waters of Terengganu, even though it has among the most extensive coverage of seagrass meadows (>106 ha), mangroves (2,500 ha) and corals (11 Marine Parks), as well as the highest number of concrete artificial reef sites installed in the country. In contrast, the highest prawn density (64.97 kg.km^{-2}) was obtained in the vast extent of shallow coastal waters, < 20m off Pahang, which is supported by substantial mangrove forests (about 3,000 ha) together with nine (9) established Marine Parks (since 1994), providing a good habitat for prawns and other invertebrates.[20] These studies reveal conflicting results, which require further investigation on ***the connectivity between the protected areas and replenishment of different commercial fish stocks***. Fish stock surveys have also identified two areas with high densities of small pelagic fish that form major fishing grounds off Terengganu and Pahang.¹⁶ This is important for transboundary species management in the Gulf of Thailand because species like the Indo-Pacific Mackerel, *Rastrelliger brachysoma* appear to utilize this area as an ecological corridor and this connects across international maritime boundaries.

Besides overexploitation, other anthropogenic threats that affect marine and coastal resources include habitat degradation and destruction due to coastal development and land use change for agriculture and aquaculture; water/ecosystem quality reduction (pollution from land and marine), biodiversity loss (including genetic alterations), and disasters-related (e.g. typhoon, floods, Harmful Algal Blooms (HAB) and disease outbreaks), which will all be exacerbated with the impacts of climate change.

Root Causes: The main root causes for marine habitat degradation are unsustainable fishing practices (including overfishing and/or destructive fishing practices) in coral reef, mangrove and seagrass areas, as well as competition with other uses of the coast and the sea, such as tourism, aquaculture, gas and oil exploitation, etc. The lack of a strong legal system and accountability can lead to encroachment for coastal development (e.g. Cambodia). Some of the above issues can also be caused by pollution from household and factory waste.

Due to the high dependency on natural resources and the high sensitivity to environmental variables, climate change is expected to have disturbing impacts on the fisheries sector in Asia, particularly on those systems that are already stressed by overexploitation and pollution^[21], and this is the case for the Gulf of Thailand. Drivers such as sea surface water temperature can lead to impacts on the abundance and species composition of fish stocks, while rising sea levels will impact the nursery grounds or reduce the recruitment of coastal fisheries. Other drivers include ocean acidification and consequent impacts on marine ecosystem services, changes in precipitation and water availability, and sea temperature warming which among other effects will lead to coral bleaching.^[22] These threats will require strengthening the resilience of coastal communities, the ecosystems that they depend on, and their livelihoods.

A further driver is the lack of an integrated planning and management approach for coastal areas – one that applies tools such as Marine Spatial Planning (MSP) and Integrated Coastal Management (ICM) to allow for a better understanding of trade-offs, enhancing vital ecosystem services and adaptation to climate change. While there has been some recent progress for improved coastal planning, these have not yet been significantly applied at the site level to protect key fish stocks, conserve vital ecosystems, or enhance social resilience. The Ecosystem Approach to Fisheries provides a planning framework that can integrate with ICM planning and incorporate more effectively fishery management considerations.

14. All these anthropogenic and environmental drivers of ecosystem change are degrading the Gulf of Thailand (GoT) LME, diminishing the ecosystem services upon which the GoT communities depend on and leading to environmental and socioeconomic losses. The Transboundary Water Assessment Programme carried out by the Global Environment Facility^[23] identified coastal communities bordering the GoT (and the larger South China Sea) as being among the most at risk from coastal and marine environmental degradation.

Barriers

15. To reverse the environmental degradation of the Gulf of Thailand and its loss of resilience and sustainability, the following key barriers must be addressed:

16. **Institutional, legal and administrative barriers:** A key barrier to effective transboundary fisheries management is the lack of an appropriate “platform” or “forum” for region-wide multi-stakeholder dialogue to serve as decision-making bodies for the development, implementation and monitoring of regional fisheries management plans and/or action plans based on key issues. There are currently several regional organizations that have mandates, which allow them to coordinate activities within the Gulf, covering fisheries (SEAFDEC, APFIC), environment (PEMSEA, COBSEA) and conservation (Dugong MoU, IOSEA on Marine Turtles). However, as noted by the Transboundary Water Assessment Programme^[24], there is a limited integration between these organizations in arrangements addressing particular transboundary issues in the LMEs. This is partly due to differing sectoral focus, but also the broader geographic mandates and country membership of these organizations. None of them have a specific geographic focus or mandate limited to the Gulf of Thailand. The Gulf of Thailand countries have many benefits to gain by addressing transboundary issues through coordinated action at the regional level, establishing the institutional and legal foundations for transboundary coordination and planning across fisheries and environment-related issues. An agreement and the institutional arrangements for a mechanism that will facilitate such collaboration will require consultations and must take into account existing processes that can be built upon, as well as aligning with national governance processes. This would take into account the division of mandates among different governmental bodies in each country and their relationship to the various regional organizations. Agreement on the type of regional mechanism will be addressed within *Project Outcome 1.1*.

17. **Socio-economic and capacity barriers:** Important social drivers are population and economic growth and the increased population density and immigration to coastal areas. This is also driving rapid coastal development with ports, urban areas, tourism, roads, etc. at the same time, coastal fishing communities are seeing increasing pressure on fishery resources and declining incomes for their livelihoods. The high prevalence of poverty and lack of livelihood options for many poor fishing coastal communities, including the persistent gender inequalities, limits opportunities to improve living standards and fishery dependent livelihoods. This high reliance on natural resources makes fisheries communities highly vulnerable due to a limited capacity to adapt to the impacts of climate change and extreme weather events. In commercially significant small-scale fisheries the sheer number of fishers, combined with their economic vulnerability, makes it difficult to monitor and enforce regulatory changes, and fishers need to cooperate for these improvements to take hold. In these situations, successfully addressing the fishery's ecological problems requires confronting these social and economic challenges, through an Ecosystem Approach to Fisheries that takes into consideration the human, ecological and governance dimension of fisheries, focusing on enhancing resilience and the capacity to implement measures and changes by different actors (community, private sector, government, etc.) at different levels (local, national, regional, global). The approach used will also need to account for other pressures on fisheries resources that are derived from the increased use of the coasts and the marine areas, such as tourism and aquaculture expansion, and gas and oil exploitation. This also provides a means for the fishery sector to advocate and integrate their concerns and considerations into broader planning frameworks including ICM. All these barriers will be addressed as part of *Project Outcome 1.2*.

18. **Market and traceability barriers:** There is a lack of collaboration among key players or cross border trade regulation, and an insufficient capacity to enhance marketing and traceability systems. The increase of commercialization of fish products due to higher demand domestically and abroad, has led to unsustainable fishing pressures without suitable incentives to promote sustainable fisheries at different levels – from the fishery, to the consumer. There is also a lack of awareness or demand for sustainably certified fish products for the domestic consumers. The typical approach used to address illegal fishing using sanctions so far has been the “deterrence model”, through intensive monitoring and enforcement programs – this approach has been found often not enough for those fisheries lacking robust and consistent monitoring and enforcement measures, particularly in small-scale fisheries.^[25] Much work remains to be done to understand what drives illegal fishing practices by fishers from a behavioural science perspective, and the role that social and community-based incentives can play to shift that behaviour towards a sustainable use of the fisheries resources. This will be addressed as part of *Project Outcome 2.1*.

19. **Integrated MPA^[26] and ecosystem connectivity barriers:** Despite progress in legal establishment and policy and management underpinnings, MPAs in the GoT region have underachieved in delivering a full range of biological and socio-economic outcomes, including fisheries-related benefits. Sites are managed individually, with little thought to the connectivity among them. In Malaysia for example, areas of coral reef outside existing Marine Parks^[27] have no protection and in many cases the ecosystems that are ecologically linked to coral reefs (seagrass beds, mangroves) are not in Marine Parks, often leaving them open for exploitation and creating the potential for disruption of important life cycle connections between these ecosystems. This has resulted in insufficient protection of important, vulnerable areas and threatened migratory species such as dugongs, sea turtles, whales and whale sharks and other species. Management of fisheries is not well integrated with management of the important ecosystems on which fisheries depend, i.e., reefs, seagrass beds and mangroves. This is a problem because recent evidence suggests that healthy mangroves can help mitigate losses of reef fisheries productivity if the habitat on nearby coral reefs degrades^[28]; thus, ecosystem health needs to be managed across connected corridors. Migratory routes, larval dispersal and foraging areas are not considered in the design of a connected network of MPAs. Moreover, within individual MPAs, fisheries-related benefits (e.g. improving local recruitment of commercially important fish stocks) are not significantly applied in MPA design and zoning plans. There is also a lack of alignment and reciprocity of fisheries-related objectives of MPAs with national, transboundary and/or regional fisheries management plans. Current management also does not consider cross-jurisdictional issues (e.g. marine transport) and emerging environmental issues (e.g. marine debris and development). These barriers will be addressed as part of *Project Component 3*.

1.2 The baseline scenario and any associated baseline projects

20. Countries in the South China Sea and the Gulf of Thailand recognize that urgent action is needed to halt the degradation of the marine environment. To improve understanding of the issues, problems and root causes of marine degradation, the UN Environment and GEF provided support for the preparation of a Transboundary Diagnostic Analysis (TDA). This TDA facilitated discussions that led to agreement by the seven countries on the Strategic Action Programme of the South China Sea, which was approved in 2008. The SAP is built around eight areas identified in consultation with the South China Sea countries:

1. Strategic, priority actions for mangroves in the South China Sea
2. Strategic, priority actions for coral reefs in the South China Sea
3. Strategic, priority actions for seagrass in the South China Sea
4. Strategic priority actions for coastal wetlands bordering the South China Sea
5. Managing fish habitat and fish stocks in the South China Sea
6. Regional actions to support management of land-based pollution loadings in the South China Sea marine basin
7. Regional economic values and cost/benefit analysis of SAP actions
8. Regional co-operation

Regional Cooperation (*SAP Priority 8 on Regional Cooperation*)

21. **The Asia Pacific Fishery Commission (APFIC)** is one of the longest standing regional fishery bodies and has the mandate to support and encourage sustainable fisheries management within the Asia-Pacific region. All GoT countries are also APFIC member countries. The Secretariat of the Commission is provided and supported by the FAO Regional Office in Bangkok, Thailand. APFIC plays a role as a policy forum (organizing regular sessions, meetings and workshops), developing capacity development tools (e.g. Ecosystem Approach to Fishery management; fishery assessment training; port state measures inspection training, regional trawl fisheries management guidelines, etc.), and other regional publications, aimed to enhance the sustainability of the fisheries sector in the Asia-Pacific. Through linkages with FAO, APFIC is facilitating support to countries to combat Illegal, Unregulated, and Unreported (IUU) Fishing and the accession to, or implementation of, the FAO Port State Measures Agreement (PSMA). Capacity to undertake planning using Ecosystem Approach to Fisheries Management has also been developed, with regional organizations (e.g. SEAFDEC), GoT countries (Thailand, Viet Nam, Malaysia) and previous GEF projects (BOBLME, REBYC II). A future focus on stock assessment training will also strengthen regional capacity to develop fishery management plans. These initiatives will serve as platforms to catalyze and share knowledge generated from GoTFish.

22. **The Coordinating Body on the Seas of East Asia (COBSEA)** oversees the implementation of the Action Plan for the Protection and Development of the Marine Environment and Coastal Areas of the East Asian Seas Region (the East Asian Seas Action Plan), which was adopted in April 1981 and revised in 1994. UN Environment established the Regional Coordinating Unit for the East Asian Seas Action Plan in 1993, functioning as a Secretariat for COBSEA. COBSEA is one of 18 Regional Seas programmes for the sustainable management and use of the marine and coastal environment. Individual Regional Seas programmes reflect a similar approach, tailored to address regional context and environmental challenges while supporting delivery of global environmental and development goals. The East Asian Seas Action Plan brings together nine countries (Cambodia, People's Republic of China, Indonesia, Republic of Korea, Malaysia, the Philippines, Thailand, Singapore and Vietnam) in the development and protection of the marine environment and coastal areas of the region, for the health and wellbeing of present and future generations. Specifically, efforts are focused on addressing land-based marine pollution; strengthening marine and coastal planning and management; and sharing marine environmental management experiences and policies towards strengthened regional governance. GoTFish will be implemented in coordination with the other two GEF/UN Environment/COBSEA projects (SAP Implementation and Fisheries Refugia, described in '*Coordination*,' Section 6 below), to ensure national lessons learned are captured and applied at the regional level for improved transboundary fisheries management.

23. **Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)** is the regional coordinating mechanism for the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA), a shared marine strategy among 14 countries in the region. PEMSEA works with national and local governments, companies, research and science institutions, communities, international agencies, regional programs, investors and donors towards implementation of the SDS-SEA. Crucial networks such as learning centers also contribute their expertise and coastal management skills to the shared goals of the SDS-SEA. The aim of PEMSEA is to proactively build effective intergovernmental and inter-sectoral partnerships and expand the capacities of countries and other stakeholders with innovative, cross-cutting policies, tools and services for integrated coastal and ocean management. PEMSEA applies integrated coastal management (ICM) as the primary approach for generating and sustaining healthy oceans, people and economies. GoTFish will work with PEMSEA to promote tools and approaches of integrated coastal management, particularly with regards to the use of marine (and coastal) spatial planning and the integration of transboundary fisheries considerations.

Fisheries (*SAP Priority 5 on Managing fish habitat and fish stocks in the South China Sea*)

24. There has been considerable progress in recent years in the Gulf of Thailand countries to address fisheries issues:

- **Cambodia** is currently revising the Law on Fisheries, passed by the Royal Government and signed by HM the King in 2006, and this project will aim to inform and strengthen the key fishery resource management the new Law aims to support. In addition, in the next few years (starting in early 2020 and covering a 5 year period), the Fisheries Administration of Cambodia, with the support of other partners (including FAO and UNIDO) will be implementing the CAPFISH program (EU funding) that has the overall objective to achieve a more sustainable, climate-resilient and inclusive development of Cambodia freshwater and marine fisheries. It will contribute to achieving the objectives of the National Strategic Development Plan (NSDP), the Strategic Planning Framework of Fisheries (SPF 2015-2024), and the fisheries programme of the 5-year Agriculture Sector Development Plan (ASDP), as well as improvement in areas relevant to the fight against IUU fishing. The CAPFISH program will work on improving conservation, management and compliance with fisheries laws and regulations in the inland and marine domain; developing post-harvest fisheries and improving the resilience of the fishing communities of the Tonle Sap and coastal areas. With regards to international commitments, Cambodia has been formulating the NPOA to Prevent, Deter, and Eliminate IUU Fishing, and NPCI-National Plan of Control and Inspection, which are implemented to ensure proper management of fisheries resources. In combating IUU fishing, Cambodia actively cooperates at regional and international levels through information sharing, in particular under the IUU Regional Plan of Action and new mechanism supported by EU through ASEAN are discussing the IUU network and feasibility study on ASEAN General Fisheries Policy in ASEAN. Moreover, Cambodia also develops capacity pertaining to the Port State Measures Agreement (PSMA) and participates in training sessions provided by other international organizations to make sure it is prepared to properly implement PSM after accession to the agreement and also accessing the UNFSA.

Cambodia has recently achieved some qualified progress in advancing marine habitat and species protection. The Strategic Planning Framework for Fisheries 2015-2024 sets a national target of 142,135 hectares of fisheries conservation area under effective management by 2020 (compared to a 2014 baseline of 26,674 hectares). In 2016 the Koh Rong Archipelago Marine Fisheries Management Area (MFMA) was established, covering 40,500 ha off the coast of Sihanoukville. More recently, in 2018, the Cambodian government announced the establishment of the Koh Kong National Marine Park (NMP) – the country's first NMP – with a total area of 52,498 ha under formal protection. Moreover, the Fisheries Administration (FiA) of MAFF plans to establish a MFMA covering 8,150 ha in Kampot Province in 2019-2020. The enhanced political support for MPA establishment provides an ideal foundation for advancing an ecosystem-based approach to sustainable fisheries production. There is also a clear opportunity to enhance cooperation and coordination between the two main state agencies – MoE and MAFF – as well as expand upon previous outcomes for transboundary cooperation^[29] for establishing MPAs that effectively conserve habitats and support replenishment of local fisheries resources.

GoTFish will build upon these project's fisheries and resilience targets, aiming to link with adaptation knowledge for fisheries, promoting fisheries management experiences with other Gulf of Thailand countries, and implementing effective, co-managed MPAs that contribute to the protection of critical marine habitats and key fish stocks.

- **Malaysia** has been implementing various programmes and activities aimed at improving fisheries management as well as reducing ecosystem impacts to ensure sustainability. One of the important initiatives includes implementation of the EAFM in five Malaysian states, namely Sabah, Sarawak, Perak, Selangor and Kedah. Besides establishing pilot sites, Malaysia also continues to provide training and awareness on EAFM to stakeholders. A pilot testing of fisheries refugia has occurred on the East Coast of Peninsular Malaysia and Sarawak under the UNEP/GEF South China Sea Project. Promising early results in terms of strengthening partnerships between environment and the fisheries sector have fostered a desire to scale up such activities. In particular, it is desirable to expand Fisheries Refugia to take account of larval dispersal patterns and maximise the ability of refugia to sustain key fishing grounds. Techniques to accomplish are now available^[30] from the World Bank/GEF Capturing Coral Reef Ecosystem Services project and will be invoked here under **Component 3**. Importantly, **fisheries refugia** are consistent with the Department of Fisheries' move to use species area-specific Fisheries Management Plans (FMPs) that include seven fisheries management areas. Malaysia has introduced a no-take conservation zone of 1 nautical mile from the shore (8640 km²) in support of Target 5 of SDG14 to conserve at least 10 per cent of coastal and marine areas.

Protected and well-managed areas in Malaysia have healthier and viable marine resources. Live coral cover within marine parks are higher than national average and areas without protection. Local communities living in marine parks have also reduced dependency on direct extraction of marine resources (fishing) as their main source of income. Most local communities in marine parks are now directly or indirectly involved in the ecotourism sector as service providers, but there are weaknesses in the approach that need to be addressed. Such areas need to be increased to sustain Malaysia's marine resources, particularly those in the GoT LME.

Malaysia already adopts a number of best-practice fisheries regulations that include the licensing and monitoring of all fishing vessels (Malaysian Fishing Vessel Record) and gears; ban on destructive gears; use of Turtle Excluding Devices (TED); use of closed seasons on certain areas/ species; mandatory Automatic Identification System (AIS) and Mobile Tracking Unit (MTU) to prevent Malaysian vessels fishing illegally outside national waters. Malaysia has formulated several National Plans of Action (NPOAs) including fishing capacity, the conservation and management of sharks, dugong, turtles, sea cucumber, invasive alien species, and the prevention, deterrence and elimination of IUU Fishing. Malaysia actively cooperates at regional and international levels through information sharing especially the Regional Fishing Vessel Record (RFVR). The Department of Fisheries Malaysia has on-going efforts to identify the migratory routes, spawning, breeding and feeding areas especially for the endangered and heavily exploited species including the anadromous, catadromous, amphidromous, potamodromous, and oceanic species as part of vulnerable ecosystems (**Annex G**).

Malaysia's national level fisheries activities will contribute to GoTFish transboundary objectives, strengthening action at the national and regional levels with work on Components 1 and 2. GoTFish Component 3, will be using Malaysia GEF-Biodiversity (BD) funds to enhance the governance and management of marine protected areas and ensure sustainability of aquatic living resources, with benefits overflowing and to be shared with the greater GoT and South China Sea LMEs.

- **Thailand** adopted a new policy for marine fisheries management, the Royal Ordinance on Fisheries B.E. 2558 (2015) and amendment in B.E. 2560 (2017) concerning sustainable marine fisheries, with its key principles and objectives relating to good governance, combating illegal, unreported and unregulated fishing, improving monitoring, control and surveillance (MCS) as well as traceability, and improving labour conditions in fisheries. To achieve these, the Government has implemented the Marine Fisheries Management Plan (FMP) from 2015 to 2019, which outlines the key principles (including Ecosystem

Approach to Fisheries Management) and policy priorities designed to tackle overfishing and overcapacity of the Thai fishing fleet, approved the National Plan of Action to Prevent, Deter and Eliminate IUU Fishing (NPOA-IUU), and National Plan on Control and Inspection (NPCI) and established the Command Center for Combating Illegal Fishing (CCCIF) in May 2015.

GoTFish will build upon these efforts to provide a regional approach to transboundary issues on specific transboundary fisheries and share Thailand's recent achievements and lessons learned (e.g. with the lifting of the yellow card by EU) among the other GoT countries.

- **Vietnam's** commitment to the development of sustainable fisheries is indicated in the Master Plan on Fisheries Development of Vietnam to 2020 and vision to 2030, recognizing the important role fisheries play in the country's economy as it becomes a global leading seafood exporter. The Five-Year socioeconomic Development Plan (2016-2020), ocean's strategy calls for strengthening research and international cooperation for the effective and sustainable exploitation of marine resources. Aquaculture development will continue to be a key area of focus for the country (of the 7 million tonnes of fisheries output expected in the Fisheries Master Plan, 65% is expected to come from aquaculture), which will see an increase in the demand for fish feeds for the sector.

In 2018, new legal and regulatory measures aimed at deterring and reducing Illegal, Unreported and Unregulated (IUU) fishing were enacted. These include revisions to the Fisheries Law and issuance of new legal circulars that strengthen regulations on fishing activities, establish stronger disincentives and trigger new mandatory responsibilities for local fishing authorities.

Further illustrating Viet Nam's commitment to sustainable development, a network of Marine Protected Areas (MPAs) has been established under a national MPA strategy. The 2010 MPA Master Plan targets 0.24% MPA coverage of Viet Nam sea surface area with 30% of each MPA under strict protection. Currently 10 MPAs are functioning under a management plan. To date, the total area of designated MPAs only accounts for 0.15% of the Viet Nam sea surface, with less than 10% of these areas under strict protection. Revisions to the Fisheries Law includes several new Articles related to fisheries co-management. These Articles are important as their associated legal guidance will pave the way for implementation of more effectively governed MPAs (i.e. incorporating community fishing rights and local monitoring). In addition, the Government of Viet Nam has recently demonstrated strong interest and support to enhance the strategic application of multi-zoned MPAs for fisheries-related objectives, including for the recruitment and replenishment of local fish stocks and to support sustainable local fisheries production.

GoTFish will be able to provide guidance among the linkages between fisheries and aquaculture, especially in relation to feeds and the use of low-value fish from capture fisheries. The project will also support on-the-ground outcomes that further mainstream fisheries co-management as well as integrated MPA and fisheries planning and management, enhancing the governance and management of MPAs, with benefits overflowing and to be shared with the greater GoT and South China Sea LMEs.

25. **The Food and Agriculture Organization of the United Nations (FAO)** has a significant portfolio of normative work with these countries through its five Strategic Objectives and regional priority areas of work (Climate Change and sustainable natural resource management, One-Health and Blue Growth in fisheries). FAO's Committee on Fisheries (COFI), of which all GoT participating countries are members, implements a broad range of binding and voluntary instruments such as the Code of Conduct for Responsible Fisheries (CCRF) and International Plans of Action (IPOAs). In addition, FAO has a significant portfolio of ongoing, just completed and pipeline projects which are relevant to fisheries in the GoT, including:

- Support to countries to address Illegal Unreported and Unregulated (IUU) Fishing (TCP/RAS/3621). Currently fourteen countries in the RAP South and South East Asia region, including Cambodia, Thailand and Vietnam, have requested support from FAO for assistance in addressing IUU fishing. Through this project, countries were supported in the identification of priority actions to strengthen regional governance and coordination mechanisms to address IUU

fishing. The project worked with existing regional bodies and countries to review the current status of existing regional plans and governance and identify gaps and priority actions. GoTFish will support the development of the regional partnership programme to mobilize resources at the regional level and address priority issues identified during the consultations.

- The FAO has funded the project “Practical approaches to assessment and scientific management advice for multi-species, multi-gear fisheries” which aims to develop a toolbox for national governments seeking to manage multispecies fisheries. The toolbox is being developed with information and collaboration of the FAO itself and country government participation from Thailand and Viet Nam. It utilizes existing tools such as aggregate yield models, Ecosim with Ecopath (EwE) and a new ecosystem modelling tool (developed by FAO) coupled with management approaches suited for multispecies fisheries such as indicator species.
- A full capacity building training course for Ecosystem Approach to Fisheries management, developed to target national and sub-national fishery planning. This has been piloted through SEAFDEC with GoT countries.
- FAO activities are complemented by several global projects and programmes which will be supporting the GoTFish components, e.g. the FAO capacity development programme to support the implementation of the FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing and complementary instruments, the Global Umbrella Programme for the implementation of the Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication, among other projects to share knowledge with, such as the GEF-funded Coastal Fisheries Initiative, and the EAF Nansen project.

GoTFish will facilitate the integration of these tools into fisheries management measures among the GoT countries. All these projects will provide guidance to GoTFish on how to address IUU fishing and other transboundary fisheries management issues. In return, GoTFish will provide lessons learned based on experience of putting those instruments into practice.

26. The **Southeast Asian Fisheries Development Center (SEAFDEC)** is an inter-governmental organization that has the mandate to develop and manage the potential of fisheries in the Southeast Asia region (also considered the ‘fisheries technical arm of ASEAN’). SEAFDEC has 11 Member Countries, which comprise 10 ASEAN Member States and Japan. The 4 GoT countries are also SEAFDEC Member Countries. SEAFDEC’s work is coordinated by the Secretariat, which channels guidance from Member Countries to address fisheries issues in the region and 4 Technical Departments.

- SEAFDEC regionalized Code of Conduct for Responsible Fisheries, which focuses attention on the cultural needs of the region, the tropical multispecies nature of fisheries and the need for management that reflects regional needs. This reflects regional requirements for full utilization of catches as a mechanism for resolving discards and bycatch whilst supplying marine protein to coastal communities and creating jobs.
- SEAFDEC is implementing regional initiatives on combating Illegal, Unreported and Unregulated (IUU) fishing in Southeast Asia and optimizing energy use in fisheries in the Southeast Asian region through fishing vessels energy audits. The project on the Promotion of Sustainable Fisheries and IUU Fishing-related Countermeasures in Southeast Asia, which is being implemented by SEAFDEC with funding support from the Japanese Trust Fund (JTF), includes the Promotion of Regional Database for Fishing Vessels Records, and Port State Measures implementation in Southeast Asia. An EAFM training program is also being sustained through SEAFDEC in collaboration with other partners. GoTFish will build on the process initiated by relevant SEAFDEC JTF projects to address the issue to combat IUU fishing.
- SEAFDEC’s Gulf of Thailand Sub-regional platform, which has been facilitated by the SEAFDEC-Sweden project, initiated the first attempts to regional fisheries collaboration in key species in the Gulf of Thailand, documenting information related to the fisheries and migratory patterns of key species with the aim of facilitating development of joint management plans in the GoT, and specific plan of actions for the selected species.

GoTFish will build on the process initiated by SEAFDEC-Sweden project.

27. **GoTFish** will also coordinate and support the implementation of the **Regional Plans of Actions** as below:

- **RPOA-Neritic Tuna:** While oceanic tunas management recommendations are covered by Tuna Regional Fisheries Management Organizations (e.g. the Indian Ocean Tuna Commission (IOTC) and the West Central Pacific Fisheries Commission (WCPFC), neritic tunas rely on the Regional Plan of Action on Sustainable Utilization of Neritic Tunas in the ASEAN Region (RPOA-Neritic Tunas), which was endorsed during the 47th SEAFDEC Council Meeting in April 2015, and subsequently endorsed by the 17th Meeting of the ASEAN Sectoral Working Group on Fisheries in June 2015. The RPOA-Neritic Tuna has the aim of strengthening regional cooperation to promote conservation and management for sustainable neritic tuna fisheries in Southeast Asian Waters. One of the main objectives of the RPOA-Neritic Tuna is to develop the action plans for sustainable management of Neritic Tuna in sub-regional waters in Southeast Asian region, including Sulu-Sulawesi Seas, Gulf of Thailand, South China Sea, and Andaman Sea.

- **RPOA-Capacity:** The ASEAN Regional Plan of Action for the Management of Fishing Capacity^[31] was developed through dialogue with ASEAN SEAFDEC Member Countries and it is aimed to serve as a basis in formulating relevant policies and provide an enabling environment for clear direction and understanding of the need to effectively manage fishing capacity at national levels, and it is also intended to respond to the need for ASEAN member countries to strengthen regional cooperation in managing fishing capacity in sub-regional areas such as the Gulf of Thailand. The specific objectives of the RPOA-Capacity are to a) enhance the effective, efficient, equitable and transparent management of fishing capacity for long-term sustainability; b) ensure that fishery managers should endeavour to initially limit fishing capacity at the present level and progressively reduce the fishing effort applied to affected fisheries; c) avoid growth in fishing capacity that undermines the long-term sustainability objectives; and d) enhance sub-regional cooperation in managing fishing capacity, specifically with regards to trans boundary species or shared species.

GoTFish will provide support for sharing information about the transboundary species and capacity reduction needs in the Gulf of Thailand.

- **RPOA-IUU:** The Regional Plan of Action to Promote Responsible Fishing Practices including Combating Illegal, Unreported and Unregulated Fishing in the Region^[32] was endorsed in 2007 and has the objectives of enhancing and strengthening the overall level of fisheries management in the region, in order to sustain fisheries resources and the marine environment, also to optimize the benefit of adopting responsible fishing practices. The actions cover conservation of fisheries resources and their environment, managing fishing capacity, and combating illegal, unreported and unregulated (IUU) fishing in sub-regional areas.

GoTFish will promote lessons learned and guidance of the RPOA among Gulf of Thailand countries.

28. **The Centre for Marine life Conservation and Community Development (MCD)** is a Vietnamese National NGO, established in 2003 with the license granted by the Ministry of Science and Technology of Viet Nam (License A-088). MCD recognizes the interdependency of coastal communities and marine ecosystems. MCD has worked since its establishment in 2003 building partnerships with coastal provinces and communities for effective governance of marine ecosystems and coastal resilience. They have experience managing the first locally managed marine reserve in Vietnam and facilitating the enhancement of Marine Protected Areas Network throughout the country. They work with small-scale fisheries, building capacity, especially of women, enhancing their position along the value chain. They also have experience promoting the FAO Small-Scale Fisheries Guidelines to grassroots organizations, and introducing the EAFM concept to key managers and practitioners.

GoTFish will build on the work done by MCD, particularly focusing in Southwest Vietnam (part of the GoT area).

29. **The Network of Aquaculture Centres in Asia (NACA)** is an intergovernmental organization that promotes rural development through sustainable aquaculture. NACA seeks to improve rural income, increase food production and foreign exchange earnings and to diversify farm production. All the 4 GoT countries are members of NACA that conducts development assistance projects throughout the region in partnership with governments, donor foundations,

development agencies, universities and a range of non-government organizations and farmers. NACA supports institutional strengthening, technical exchange and the development of policies for sustainable aquaculture and aquatic resource management. Major efforts have been devoted to nurturing an enabling institutional environment, information sharing and capacity building, technological extension among member governments, development and dissemination of Best Management Practices (BMPs) and inclusion and empowerment of small-scale farmers. NACA's partners include organizations such as FAO, UNDP, ADB, World Bank, SEAFDEC, ASEAN, a wide range of bilateral cooperation partners, the Asian Institute of Technology (AIT), Worldwide Fund for Nature (WWF), MacArthur Foundation and the Rockefeller Brothers Fund. NACA's current work plan has a focus on livelihoods and food security for rural communities.

NACA will be fundamental at sharing the knowledge generated by GoTFish related to fish feeds).

30. **The Sustainable Development Foundation (SDF)** is a non-governmental organization working to secure sustainable futures for resource-dependent communities and vulnerable natural ecosystems all across Thailand. SDF promotes and supports the participation of resource-dependent communities in natural resource management, disaster risk reduction, and climate change adaptation. Key themes for the organization include community rights, women's empowerment, inclusive development, and good governance. At the grassroots level, SDF works to implement co-management approaches and ecosystem-based approaches, building local capacity, and improving information management. At the national level, the organization promotes constructive policy engagement through a combination of targeted research, knowledge management, coordination, and networking. SDF has a strong track record in defending community rights and promoting environmental justice, winning the National Human Rights Commission's Outstanding Achievement Award: Civil Society Organization Category in 2017. The organization also has a prominent women's empowerment program and has made especially notable contributions towards networking women small-scale fishers and promoting gender-sensitive approaches to disaster risk reduction and climate change adaptation.

GoTFish will work with SDF to continue to promote these approaches in Thailand and the other GoT countries, sharing experiences and lessons learned, particularly with regards to women's empowerment.

31. **USAID Oceans** is an activity of USAID's Regional Development Mission for Asia and is implemented by TetraTech ARD, in partnership with SEAFDEC, and other partners.

The experiences and lessons learned promoting the EAF in the region will be very valuable for GoTFish.

32. The recent years' focus on controlling IUU fishing has resulted in significant investments in national vessel monitoring and enforcement capabilities, with early work suggesting that this is having real progress in terms of restoration of the integrity of ecosystem structure and function. All this progress has been guided by agreements such as Regional and National Plans of Action, guidance documents such as the Asia Pacific Fisheries Commission Guidelines for Tropical Trawl Fisheries, the Regionalized Code of Conduct for Responsible Fisheries, and commitments under the umbrella of ASEAN and SEAFDEC.

33. Nevertheless, much remains to be done, particularly in finding a pragmatic approach to lasting sustainability of these highly diverse multispecies fisheries, something classic fisheries management approaches have not serviced well. Despite the existence of fisheries related data (particularly in Thailand and Malaysia), there are still gaps transforming these data into effective decision-making to tackle the complexity of management of multispecies and transboundary fisheries.

Market actors and incentives for fisheries

34. **Charoen Pokphand Group Co., Ltd. (CP)**^[33] operates across many industries ranging from industrial to service sectors, covering 13 Business Groups including Agro-Food, Retail & Distribution, Telecommunication & Media, E-Commerce & Digital, Property Development, etc. Currently, the Group has investments in 21 countries and economies. Of primary relevance to GoTFish are the feed, processing and fish value chain enterprises. CP considers that a business must be based on social and environmental responsibility in order to operate in a sustainable manner. As a result, CP has set a Sustainability

Framework, and strives to achieve its sustainability goals, following the Group's vision: "to provide food for both body and mind, to create shared values, and to bring health and well-being for all". To accomplish this vision, the Group expresses its commitment to giving back to the country and community, supporting CP's 'Three-Benefit Principle,' under its Sufficiency Economy Philosophy. The Group has set 12 sustainability goals that comply with the UN SDGs. Each component under this Sustainability Strategy falls under one of the following three categories of the 3H Framework: HEART-HEALTH-HOME. This Framework drives the Group towards stability, fostering social responsibility for stakeholders across areas in 21 countries and economic zones.

GoTFish will coordinate with CP in the development of sustainability activities related to fisheries in the GoT, particularly in relation to Component 2.

35. **Thai Union (TU)** is a producer of seafood-based products, operating globally with headquarters in Thailand. Today, TU is regarded as the world's largest producer of shelf-stable tuna products with annual sales exceeding THB 135 billion (US\$ 4.03 billion) and a global workforce of over 49,000 people. The company's global brand portfolio includes market-leading international brands in Asia, Europe and United States. To meet its overarching sustainability objectives, Thai Union developed the Seachange® strategy. It encompasses "safe and legal labour" to support freely chosen employment, "responsible sourcing" to improve transparency and operational practices of the entire seafood supply chain, "responsible operations" to improve environmental and social performance of its own activities and "people and communities" to enhance living conditions and working opportunities in the regions in which it operates.

- The company has been working together with WWF since 2014 and has arrived at an agreement with Greenpeace in 2017 to deliver full sustainability and to drive positive change across the global seafood industry.
- In 2016, TU has welcomed a new project in Thailand launched jointly by the Ministry of Labour, International Labour Organization (ILO) and the Delegation of the European Union to Thailand on "Combatting Unacceptable Forms of Work in the Thai Fishing and Seafood Industry". The project is working to tackle unacceptable forms of work, especially forced labour and child labour in the fishing and seafood processing industry.
- TU has also previously worked, and is working with NGOs such as the Migrant Workers Rights Network, the Labour Rights Promotion Network (LPN) and the Issara Institute to look for ways to effectively tackle the human-rights related issues in the industry.
- In 2018, TU supported new regulation from the Thai government requiring vessel owners operating outside of national waters to provide a satellite communication system and device onboard for workers at sea.
- In 2016, TU launched its tuna commitment for all tuna to be sustainably sourced, with an aim to achieve a minimum of 75% of tuna coming from fisheries that are MSC certified or engaged in a FIP by the end of 2020.
- TU is also a member of the Seafood Taskforce in Thailand to face issues related to forced labour as well as marine conservation problems and Illegal, Unreported and Unregulated fishing (IUU).
- In 2018, TU joined the Global Ghost Gear Initiative (GGGI) to reduce marine plastic pollution throughout its entire supply chain. GGGI has recognized TU progress and as a result TU is the only company ranked in GGGI's top tier for policy and commitment. The partnership includes a project specific on the Gulf of Thailand that was identified as hotspot for Abandoned, Lost or otherwise discarded Fishing Gears (ALDFG).

GoTFish will work with Thai Union to coordinate actions in the Gulf of Thailand that lead to the sustainable use of fisheries resources in the GoT and beyond, by promoting sustainable environmental and socially responsible practices along the value chain.

36. The **Sustainable Fisheries Partnership (SFP)** is an international NGO that engages seafood supply chains to restore depleted fisheries and reduce the environmental impact of fishing and fish farming. They have formal partnerships with 40 leading global retailers, food service, and seafood companies, including Walmart, McDonald's, US Foods, and Nestle. More than 14 years ago, SFP pioneered the Fishery Improvement Project (FIP) concept, a multi-

stakeholder effort that uses the power of the private sector to leverage lasting policy changes that address environmental challenges in a fishery. Today, FIPs are widely recognized by buyers and seafood supply chains as part of their sustainability commitments and procurement policies. Since 2009, SFP has been involved in efforts to improve fisheries management in the Gulf of Thailand (GoT) and other areas of SE Asia:

- The Asian Reduction Fisheries Supply Chain Roundtable includes global companies like Cargill, CP Foods, and Grobest, who are actively supporting improvement efforts, including in the Gulf of Thailand.
- In Thailand, SFP has an MOU with the Thai Sustainable Fisheries Roundtable (TSFR)—a group of eight seafood-related Thai trade associations—to support the development of FIPs in the GoT and Andaman Sea.
- In Viet Nam, SFP has also been working with industry stakeholders to promote similar improvement efforts in multispecies fisheries in Kien Giang, Ben Tre, and Vung Tau provinces. Many of these projects will seek the Global Standard for Responsible Supply (Marin-Trust, formerly known as IFFO RS^[34]) certification and engage in an Marin-Trust pilot program geared toward developing and testing a multispecies component for the standard.
- SFP is working with Fish Matter Pty Ltd., the FAO, and scientists and managers in Thailand and Viet Nam to develop a tool kit for assessment and scientific advice for managing multispecies, multi-gear fisheries.

SFP will work with GoTFish on Component 2, providing support and coordinating supply chain roundtables (SRs) and other platforms that provide information and support for market actors and engage them in fisheries improvements and efforts to achieve certification. GoTFish can help expand market engagement in these and similar projects, and create new opportunities for market actors to engage with governments to support policy change and create fit-for-purpose standards and improvement models.

37. **WorldWide Fund for Nature (WWF)** is a world leading conservation organization with experience working in more than 100 countries. WWF is structured to work across six themes; one being the Ocean Strategy. In partnership with DoF in Thailand, WWF has launched a “Longtail tuna purse-seine Fishery Improvement Project (FIP)” targeting free swimming fish schools of Longtail tuna (*Thunnus tonggol*) in the Gulf of Thailand with the aim of improving fishery performance to better meet international market requirements.

- A recent (2017) pre-assessment against the Marine Stewardship Council (MSC) Standard has been completed for Longtail tuna caught by purse seiners, operating on both the east (Gulf of Thailand) and west (Andaman Sea) coasts of Thailand, however the FIP is focused on the GoT. Neritic tuna purse seiners (TUNA-PS), are the largest purse seine vessels in Thailand, usually over 100 GT and account for ~92% of all longtail tuna catches in the GoT. The results of the pre-assessment have been used to develop an “Action Plan” of activities designed to aid the fishery in meeting accepted sustainability criteria^[35]. This Longtail tuna FIP aims to: increase knowledge about and application of international sustainability standards, improve cross-sector collaboration and enhance fishery traceability. This FIP will also advance the implementation of both national and regional conservation and management of Longtail tuna, acknowledging catches of Tonggol occurs in EEZs of other countries (i.e. Malaysia, Viet Nam and Indonesia), where multi-jurisdictional activities are being proposed to manage Tonggol stocks regionally.
- WWF (Thailand) is an implementing partner in several other fishery (FIP) projects, including Blue Swimming Crab (BSC) in Surat Thani Province and prospectively Sardine in Chumphon Province, both adjacent to the GoT. On BSC, WWF Thailand works alongside WWF Viet Nam who likewise have a BSC FIP in Kien Giang province, which is within the GoT. Funding for the fishery improvement work comes from a mixture of fishing industry, buyers, philanthropic sources and other WWF offices in Europe, Oceania and North America. In relation to its FIP program, WWF Thailand has actively partnered with industry associations including the Thai Frozen Food Association and the Thai Tuna Industry Association.

- WWF (Viet Nam) is implementing a comprehensive FIP for yellowfin tuna, together with the Viet Nam Tuna Association (VinaTuna), international seafood companies and domestic processors. Launched in 2014, the yellowfin tuna FIP action plan was adjusted in 2019 to include only handline vessels, given the recent conversion of almost all longline vessels to handline gear. The FIP is demonstrating steady progress across performance indicators, including management systems, bycatch mitigation, governance and traceability.

GoTFish will share the lessons learned of WWF carrying out FIPs in the region including, particularly good practices, stakeholder engagement and process information for other countries attempting to carry out FIPs.

38. **Certification schemes** such as the Marine Stewardship Council have had difficulty penetrating developing countries and small-scale fisheries. This could be due to poor data available, the large costs associated with carrying out the assessments and fulfilment of environmental and traceability standards, lack of government support, lack of awareness of the MSC, and relative lack of demand for certified products outside of North American and European markets. Throughout the GoT countries, there is only one MSC certified fishery (Viet Nam Ben Tre clam hand-gathered). Fisheries Improvement Projects (FIPs) can support fisheries attain their certification aims, but they are also a valuable tool on their own to show progress of a fishery towards sustainability, without needing to fulfil all the tighter environmental standards. In this sense, FIPs have been defined as "multi-stakeholder effort to address environmental challenges in a fishery. These projects utilize the power of the private sector to incentivize positive changes toward sustainability in the fishery and seek to make these changes endure through policy change". In the GoT there are currently three recognized active FIPs, with several more projects in development[36]: Thailand: blue swimming crab; Viet Nam: swordfish – handline; Viet Nam: yellowfin tuna - handline

39. **Marin-Trust (formerly The International Fishmeal and Fishoil Organisation Responsible Sourcing 'IFFO RS')** standard has an Improver Program that encourages Fishery Improvement Projects (FIP) and has a specific project looking at the management of Multispecies fisheries with a view to encouraging the implementation of management plans for fisheries that produce a wide range of products, with discards being used for fishmeal. The most advanced of the projects covers the trawl fisheries of the Thai waters of the Gulf of Thailand. There are projects in Viet Nam being developed both inside and adjacent to the GoT LME. Those operating outside the LME (e.g. Vung Tau, which is furthest along) are certainly part of the same ecosystem.

40. The **Marine Ingredients Trade Association** (previously known by its acronym "IFFO", which also differs from the standard "IFFO RS" now known as "Marin-Trust"), is an international trade organization that represents and promotes member companies in the fishmeal and fish oil industry worldwide, representing members at relevant international forums, including holding observer status at the UN Food and Agriculture Organization (FAO) and the EU Commission and Parliament and work with leading NGOs in responsible management of fisheries. IFFO has supported research on GoT and related fisheries (as well as other parts of the world) with the goal of spurring improvements and will be working with members to be more proactive about supporting improvements and improving the industry's image.

41. The **Asian Seafood Improvement Collaborative**[37] has developed an entry level FIP process with the participation of stakeholders from Thailand, Vietnam, Cambodia and other countries that incorporates both environmental and social elements. It draws on the Regional Fisheries Livelihoods Program funded Good Fish Code. ASIC does not have FIPs in the Gulf of Thailand but is engaged with fisheries in Vietnam. This is not a certification scheme but is an interface between market-based systems and fisheries based on the co-management approach.

Habitats (*SAP Priority 1, 2, 3 and 4 on Strategic, Priority Actions for Mangroves, Coral Reefs, Seagrass and Coastal Wetlands bordering/in the South China Sea*)

42. **The International Union for the Conservation of Nature (IUCN)** Programme for 2017–2020 consists of three Programme Areas: Valuing and conserving nature; Promoting and supporting effective and equitable governance of natural resources; Deploying nature-based solutions to address societal challenges including climate change, food security and economic and social development. The Mangroves for the Future (MFF) initiative (which run from 2007 to 2019

and was hosted by IUCN) supported and promoted integrated governance for fisheries and coastal resources management from the national policy level to the local level in several countries in Asia including in Viet Nam, Cambodia and Thailand with Malaysia acting as an outreach country for exchange of knowledge. IUCN has been supporting countries through integrated coastal management and MPA management effectiveness in five national MPA sites in Vietnam, the development of national policy and delivery of national fisheries and MPA management in Cambodia, and an EU funded project on Building Coastal Resilience project in Thailand, among other work related to mangrove conservation, address small-scale fisheries management issues, and tackling the most recent priority issue of marine pollution.

GoTFish will build on the work and lessons learned of IUCN and MFF managing marine and coastal resources in the region.

43. **The University of Queensland (UQ)** is one of Australia's leading research and teaching institutions. UQ consistently ranks among the world's top 100 universities, as measured by several key international rankings. UQ has over 52000 students and 7000 staff. The Federal Government's 2018 Excellence in Research for Australia exercise confirmed UQ as one of the nation's most comprehensive, research-intensive universities. UQ's outstanding critical mass offers researchers significant interdisciplinary capability. The assessment rated 100 per cent of UQ's research above or well above world standard, across 22 broad disciplines. UQ has strong, long-term collaborative agreements in place with many universities, multilateral agencies and national governments globally. GoTFish will be supported by researchers with experience assessing marine and coastal resource management in the region and identifying best practices, of particular use under **Component 3** of the project. Specifically, UQ managed the World Bank/GEF Capturing Coral Reef Ecosystem Services (**CCRES**) project that provides a resource of technical tools to help countries design marine protection to improve both fishery and biodiversity benefits. The tool kit also includes approaches to help communities diversify their livelihoods. The CCRES team will support GoTFish implementation.

1.3 The proposed alternative scenario with a brief description of expected outcomes and components of the project

44. Countries in the South China Sea and the Gulf of Thailand recognize that urgent action is needed to halt the degradation of the marine environment. To improve understanding of the issues, problems and root causes of marine degradation, the UN Environment and GEF provided support for the preparation of a Transboundary Diagnostic Analysis (TDA). This TDA facilitated discussions that led to agreement by the seven countries on the Strategic Action Programme of the South China Sea, which was approved in 2008.

45. The SAP is built around eight areas identified in consultation with the South China Sea countries:

1. Strategic, priority actions for mangroves in the South China Sea
2. Strategic, priority actions for coral reefs in the South China Sea
3. Strategic, priority actions for seagrass in the South China Sea
4. Strategic priority actions for coastal wetlands bordering the South China Sea
5. Managing fish habitat and fish stocks in the South China Sea
6. Regional actions to support management of land-based pollution loadings in the South China Sea marine basin
7. Regional economic values and cost/benefit analysis of SAP actions
8. Regional co-operation

46. The longer-term **objectives, targets and outcomes** of the Fisheries component (Section 5) of the SAP are to:

SAP Fisheries Objectives

- Build the resilience of Southeast Asian fisheries to the effects of high and increasing levels of fishing effort,
- Improve the understanding amongst stakeholders, including fisher folk, scientists, policy-makers, and fisheries managers, of ecosystem and fishery linkages, as a basis for integrated fisheries and ecosystem/habitat management,
- Build the capacity of fisheries departments/ministries to engage in meaningful dialogue with the environment sector regarding the improvement of fisheries and management of interactions between fisheries and critical marine habitats.

SAP Fisheries Targets (updated by the Fisheries Refugia project^[38])

- By 2020, to have established a regional system of a minimum of fourteen refugia for the management of priority transboundary, fish stocks and endangered species;
- By 2020, to have prepared and implemented fisheries management systems in the identified priority refugia based on and consistent with, the ASEAN SEAFDEC Regional Guidelines for Responsible Fisheries in Southeast Asia

SAP Fisheries Outcomes

- Improved integration of habitat and biodiversity conservation considerations in the management of fisheries in the South China Sea and Gulf of Thailand;
- Improved national management of the effects of fishing on critical habitats within fisheries refugia; and,
- Enhanced uptake of good practices in integrating fisheries management and biodiversity conservation in the design and implementation of regional and national fisheries management systems, and marine protected areas.

47. The SAP also recognizes, under the section on Regional Cooperation (Section 8), the “necessity of regional cooperation on the exploitation, management and conservation of the marine resources of the South China Sea and Gulf of Thailand” and calls upon the countries “to enter into sub-regional and bi-lateral agreements to address issues relating to the implementation of the SAP”. The objective of the GoTFish project is as follows: *Improved natural resource governance in the Gulf of Thailand through the implementation of the Ecosystem Approach to Fisheries (EAF) contributing to the fisheries objectives of the South China Sea Strategic Action Programme (SCS-SAP).*

48. GoTFish, alongside other SAP implementation projects (more information in Section 6 – Coordination below), will help to address the priority transboundary environmental problems identified by the South China Sea TDA and the resulting SAP. The project is a targeted proposal aimed to work alongside UNEP’s SCS-SAP implementation projects (more information in Section 6 below), by reducing stress in the GoT through improved practices and fisheries management and with a strong focus on transboundary governance and management, releasing the role incentives (both market and changes on fishers’ behavior), and a greater understanding of the existing ecological corridors important for aquatic biodiversity (Component 3 of GoTFish), including fisheries (already being explored locally by the Fisheries Refugia project). GoTFish is designed to remove the key barriers to sustainable transboundary fisheries management of the Gulf of Thailand related to institutional, legal and administrative issues at regional and national levels, including lack of an appropriate forum for a GoT-wide multi-national dialogue, planning, monitoring and reporting, socio-economic constraints, such as lack of, or inadequate incentives, as well as lack of integration of climate resilience and gender considerations into planning and management of the GoT fisheries. It would likewise address current unsustainable practices in fisheries resource use and management and conservation of aquatic biodiversity. The objective is to enhance the Blue Economy potential of the Gulf of Thailand by improving the governance of shared fishery resources, supporting innovative action for the use of incentives

(both markets, and fishers' behaviour change), mobilizing the role of the private sector, and enhancing the capacity to implement ecosystem approach to fisheries management plans, both at the national and regional levels, addressing both fisheries and biodiversity objectives. This will be achieved through four interlinked components supporting the SAP objectives; building on the SAP implementation baseline and is expected to leverage significant amounts of investments from the GoT countries, development partners and the private sector.

49. Working with stakeholders across the region, this project will effectively target strengthening governance and GoT enabling environment to end IUU fishing and overfishing and focus on collaboration and cooperation among the four GoT countries to achieve the sustainable management of fisheries resources. In addition to governance support and policy reform, the project will also harness the Blue Economy approach to implement transformative market mechanisms to support sustainable value chains through private sector engagement and to eliminate incentives that are harmful for the aquatic ecosystem, and promote those that are beneficial for sustainable behaviour changes. To this end, incentive-based mechanisms, such as improved market access through Fisheries Improvement Plans (FIPs) and social rewards/prizes incentives, will also play an important role and will be explored in more detail.

50. Four main Components will be pursued by GoTFish. **Component 1** will focus on facilitating regional decision-making processes among stakeholders for improved fisheries governance as a precondition for improved management of shared resources in the Gulf of Thailand, and the institutionalization of the Ecosystem Approach to Fisheries. This will be complemented with the work under **Component 2**, which will help mobilize the role of the private sector and other partners to work on incentives/disincentives suited for Southeast Asian fisheries, with worldwide reach. **Component 3** will focus on the conservation of marine biodiversity and the use of Marine Spatial Planning tools to enhance the management of marine ecological corridors relevant to transboundary fisheries in the GoT, as well as to improve the effectiveness of MPAs delivering biodiversity and fisheries management benefits. **Component 4** of the project will focus on ensuring effective communication, monitoring and sharing knowledge and lessons learned among all the stakeholders of the project and a wider audience of consumers, policymakers, researchers, etc. The project will develop a gender strategy to **promote gender equality and women's empowerment** throughout all the components of the project.

Component 1: Regional transboundary fisheries governance and management strengthened

51. This component will focus on institutionalizing transboundary fisheries governance and management issues for more effective decision-making in the Gulf of Thailand. This will be achieved by supporting the creation of a regional mechanism that can set the protocols for information sharing related to shared stocks of priority species and/or fisheries, as well as setting up the governance structure and enhanced capacity for developing the Ecosystem Approach to Fisheries regional and national plans.

Outcome 1.1: Fisheries resources and marine biodiversity ecosystem services are restored through strengthened regional transboundary governance and cooperation of GoT fisheries, building their resilience through improved habitat and fisheries management (SAP-Objective 1)

52. The project will work with the four Gulf of Thailand countries to support a transition from national focus on management of fisheries and transboundary fish stocks, towards a Gulf of Thailand regional approach which emphasizes transboundary governance and cooperation on management issues

- The development of a regional fisheries mechanism will require an assessment of GoT fisheries policies and legal frameworks with the aim of enhancing coherence across GoT countries and to enable regional collaboration, building the case that will describe the underlying biological, economic and social justifications for a regional approach as well as clarifying the current opportunities and constraints to a transboundary and cooperative fisheries approach in the GoT.

- The establishment of regional transboundary fisheries management multi-stakeholder taskforces will support the governance of GoT Transboundary Fisheries, by providing the means for stakeholders with common concerns to come together and develop targeted and time-bound activities to address priority fisheries issues in the Gulf of Thailand (including assessment of transboundary stocks, estimates of appropriate level of fishing capacity and effort and practices to improve sustainable use of GoT fishery resources). These taskforces may be private or public sector led to allow for issues champions to lead the taskforce. They may cover issues that overlap with the specific transboundary fisheries management plans or they may cut across the Gulf's fisheries.

- The issues covered by the taskforces may result in the, in the development of regional action plans to address common fisheries issues (e.g. overfishing, overcapacity, IUU (illegal, unreported and unregulated) fishing, by-catch, ALDFG (abandoned, lost and otherwise discarded fishing gear), lack of adequate fisheries information systems, role of coastal protection in a fisheries context, fisheries livelihoods, poverty, gender, labour and other social issues, as well as market inefficiencies including harmful subsidies, post-harvest losses.

- Regional capacity development workshops will enable stakeholders to identify/confirm 3 to 4 priority transboundary fisheries (such as Indo-Pacific mackerel, neritic tunas, or multi-species fisheries) and 3 to 4 priority cross-cutting issues (such as climate change, IUU fishing, by-catch management, marine-based litter and ghost gear, livelihoods, poverty, gender, market inefficiencies including harmful subsidies, post-harvest losses, etc.), for the development and implementation of EAFm plans. This will be linked to the integration of the connectivity and biodiversity considerations revealed under Component 3. The project will also support the design and implementation of gender-sensitive capacity development initiatives for legal officers and other government representatives to support their awareness and implementation of fisheries-related global and regional instruments (e.g. PSMA, UNFSA, ILO C188) and their ability to engage in regional and national dialogues to facilitate the design of joint management measures and collaboration frameworks, as well as to better understand the importance of biodiversity and ecosystem connectivity in the development of legal/policy frameworks (national and regional), linking directly with Outcome 1.1. The project will also provide "hands-on" capacity development opportunities to ensure full participation in the meetings of these platforms and task forces, including the development and implementation of work plans, M&E systems that guarantee "proof of action", and for defining "cost-sharing arrangements" for the sustainability of these platforms, as well as to ensure effective participation in the design and implementation of regional fisheries management plans and action plans.

- Ultimately, a key output will be the development of a regional mechanism for transboundary fisheries management in the Gulf of Thailand. An analysis of options for collaborative mechanisms and a direct sharing of experiences from other regional bodies/entities will support the definition of a formal, cooperative fisheries agreement among the GoT countries. Potential options for a regional fisheries mechanism(s), include, but are not limited to, a: Memorandum of Understanding, a Consortium, an Agreement or Association, a Committee/Council under an existing ASEAN/COBSEA/APFIC mechanism, membership in existing species-based regional fisheries management organizations or a new RFMO covering all marine fisheries of the Gulf of Thailand.^[39] The GoT project will facilitate the process for identifying and establishing this regional fishery mechanism.

53. Activities under this component will, therefore, focus on generating and communicating information about the opportunities available for a regional fisheries mechanism; defining the decision-making scope, information sharing and stakeholder consultation mechanisms; determining the functioning structure of this mechanism; and ensuring approval and oversight by the appropriate high-levels of government in each country.

54. The outcome will be achieved through:

- Updated and regionally coherent fisheries policies across the GoT countries and strengthened national legal frameworks.
- Established regional stakeholder taskforces for improved trans-boundary fisheries management and addressing key regional issues

- Development of regional action plans to address common fisheries issues (e.g. overfishing, overcapacity, IUU (illegal, unreported and unregulated) fishing, by-catch, ALDFG (abandoned, lost and otherwise discarded fishing gear), lack of adequate fisheries information systems, role of coastal protection in a fisheries context, blue sector livelihoods[40], poverty, gender, labour and other social issues, as well as market inefficiencies including harmful subsidies, post-harvest losses)
- Prioritization of regional, sub-regional and national transboundary related issues for fisheries management and related biodiversity and environmental issues.
- An agreed GoT fisheries mechanism for a regional approach to transboundary fisheries management in the Gulf of Thailand

Outcome 1.2: Development and implementation of Ecosystem Approach to Fisheries (EAF) management plans in the Gulf of Thailand enhances the resilience against climate change and manages fishing effort of fisheries stakeholders (women and men) (related SAP-Objective 1)

55. The project will work on enhancing the capacity of stakeholders to participate in national and ultimately regional level EAFM planning processes. This will result in national and sub-regional EAF management plans, that will also integrate priority transboundary fisheries issues. To this end, existing information will be used to provide assessments and status reports of the current ecological, biological, economic, social and governance of GoT fisheries and their value chains.

- Based on agreed transboundary priority risks and opportunities to human wellbeing and ecosystem integrity, **Ecosystem Approach to Fisheries** transboundary management plans will be developed based on the best available knowledge on the biological and ecological dimensions of key transboundary GoT fisheries, as well as the human and governance dimensions for the sectors and communities that depend on them. These will be developed at the regional (Outcome 1.1) and national (Outcome 1.2) levels. Knowledge generated under Component 3, focused on biodiversity connectivity and effectiveness of conservation areas, will be integrated into these EAFM plans.
- The implementation support of the regional and national EAFM plans will include gender-specific capacity development actions, supporting networks, trainings, implementing gear and post-harvest technologies and practices, awareness raising, and adaptive management for effective decision-making, linking with Outcome 1.1.
- As part of a broader EAF approach to facilitate the integration of fisheries considerations within the planning of other maritime sectors (such as tourism, oil and gas, transport, etc.) and vice-versa, the project will improve the readiness of the fisheries sector to take part in broader marine spatial planning. To this end, the project will convene a GoT fisheries spatial planning technical working group (that also includes marine planners from each country) to support the sharing of spatial information relating to fisheries (including fish feeds) This will build capacity for the analysis of GIS maps for fisheries within broader spatial planning frameworks and develop of GIS maps and a GIS-based tools to identify further priority data needs using existing data sharing agreements. It will further support the other activities within the project components. It directly links to Component 1.1 demonstrating the benefits of transboundary approach and FMP activities and Component 3, ensuring mapping of biodiversity hotspots and connectivity related information for fisheries and for key valuable marine species, including threatened and vulnerable species.

56. The outcome will be achieved through:

- Stakeholder capacity to develop EAFM plans is strengthened, taking into consideration the different needs of women and men
- Strengthened national fisheries management plans are implemented through the EAF approach

- EAFm plans developed, addressing priority risks and opportunities to human well-being, ecosystem integrity and governance (including the components 2 and 3) including the implications of climate change on GoT countries' fisheries

Component 2: Alignment of incentives mechanisms

57. This component will start by improving the understanding of the roles of incentives (positive and negative) that can support sustainable and well-managed fisheries resources in the Gulf of Thailand, particularly market incentives such as the Fisheries Improvement Schemes for transboundary species, and behaviour-change incentives. In order to address the barriers explained above, it will be necessary to integrate socioeconomic objectives into Fishery Improvement Projects (FIP) workplans that the supply chain will understand and support. Currently there are a number of improvement efforts to address socio-economic issues through the FIP model, including collecting the data necessary to assess the impact of those improvements on fisher livelihoods; small-scale fisheries are also seeing FIPs as a tool to reach international markets. Much of this work has included a commitment to fisheries co-management – if fishers are actively engaged in the management of the resource on which their livelihood depends, and fully informed about the likely biological and economic consequences of each improvement option, the chances for gaining their support and addressing their economic challenges should greatly increase. Globally, awareness among business is growing on the value of sustainably managed fisheries. Notwithstanding “green” goals, sustainable fisheries are simply good business. Well-managed fisheries provide reliable supplies of fish and mitigate price fluctuations, and help business manage reputational risks associated with illegal fishing and abusive labour practices in seafood supply chains. Fishery improvement projects provide incentives and engage the private sector in promoting sustainability. These projects are directly scalable with the supply chain, from small local fisheries to global fisheries (e.g. tunas) spanning national boundaries and international waters^[41]. FIPs and sustainability can also provide disincentives, in that buyers may decide to refuse products that do not meet certain standards or cannot demonstrate transparently that they are improving.

Outcome 2.1: Establishment of a market and behaviour incentive mechanism which reduces ecosystem stress from fishing, enhances the uptake of good practices supporting fisheries management and supports the transition to climate-resilient fisheries (integrating gender considerations and the different needs of women and men along the fishery value chain) (related to SAP Fisheries Objective 3^[42])

58. The outcome is directly linked to Component 1, but it is presented separately to allow for innovative and participatory approaches to implement incentive mechanisms, including a variety of government, market, and social incentives. Some examples of potential incentives/disincentives related activities could include the promotion of fishery improvement projects. There are opportunities to develop FIPs that are especially suited for multispecies tropical fisheries of the Gulf of Thailand, as well as FIPs focused on developing strategies that will increase small-scale fishers' access to markets, obtain improved harvest of bigger fish, or less effort to catch. GoT fisheries would benefit of enhancing the integration of EAF into management, and working with stakeholders to develop improvement models through Supply Chain Roundtables (SR) provide pre-competitive platforms to engage the private sector in supporting improvements^[43].

59. The project will also assess the promotion of social sanctions and social incentive mechanisms, including mechanisms to strengthen social trust, co-management models for SSF, development of GoTFish awards and competitions to build pride incentives, and raising the public's awareness of sustainable initiatives to support GoT fisheries, also through the use of GoTFish ambassadors and “influencers”, and also fostering citizen's science to better understand what is required for sustainable seafood sourcing from the GoT, and therefore strengthen a consumer driven strategy that is in line with government programs. Work under this component will start by identifying current pressures, motivations, and potential theories of change for priority fisheries value chains, which will form the basis for a gender-sensitive assessment of incentive/disincentives mechanisms (based largely on behavioural change theory^[44]) applied to the

social, economic and legal dimensions of fisheries management in the Gulf of Thailand. Simple bio-economic models will be developed to communicate the distributional benefits and trade-offs of other potential incentive options – this will also include analysis of the trade-offs of different management options that will be developed under Component 1.

60. A wide range of stakeholders (including public and private sectors along the value chain, as well as the financial sector, and taking into consideration gender needs) will be mobilized, through meetings and workshops, as well as challenges and awards, to identify innovative behavioural change incentive mechanisms for sustainable fisheries in the Gulf of Thailand. With the strategic engagement of these actors, the project will explore the creation of a “sustainable small-scale fisheries bond” (blended finance) to deliver affordable loans to small-scale fisheries tailored with technical assistance for sustainable harvest and production methods, that could eventually be linked to certification.

61. Following the priority fisheries identified under Component 1 (Outcome 1.2), the project will design and further implement market and other incentive strategies that will support the transition to lower impact fishing practices, and promote the sustainable sourcing of fish and aquatic products. This will be linked to a monitoring mechanism to evaluate performance of the incentives, and lessons learned and the process itself will be documented to upscale to other GoT fisheries, as well as contribute to a wider knowledge sharing in other regions. This will also require improvements in the FIP monitoring process itself to ensure is progressing adequately to achieve its management objectives (both fisheries objectives, but also acknowledging the biodiversity connectivity and ecological corridors information gathered under Component 3).

62. The project will support the implementation of existing standards (adapted into a sustainability score-card or traffic-light system following the Ecosystem Approach) for sustainable fisheries within the context of the GoT countries. New standards will only be developed if countries agree on their necessity, and scope, but initially the focus will be on analysing/evaluating existing standards, and their applicability for both fisheries in the GoT. Targeted capacity building support will also be provided following a capacity needs assessment. Special attention will be given to the involvement of small-scale fisheries (SSF) actors, which are often left out of the FIP and related processes.

63. The outcome will be achieved through:

- Identification of mechanisms and stakeholder platforms to support incentives for sustainable and well managed GoT fisheries value chains (including those linked to fish and livestock feeds)
- Market and other innovative incentive mechanisms implemented to enhance sustainable fisheries value chains aimed to promote sustainable sourcing of fish and aquatic products, as well as to transition to low impact fishing practices

Component 3: Ecological Corridor of Critical and Important Habitat for Aquatic Resources in the Gulf of Thailand (with a focus on Malaysia)

64. This component will contribute to the conservation of globally significant biodiversity, identifying the existing ecological corridors in the Gulf of Thailand that are important both for biodiversity and fisheries. In the **East coast of Peninsular Malaysia**, this will include the identification of Key Biodiversity Areas (KBA). The project will contribute to the conservation of valuable biodiversity resources, as well as food security through improved management of fisheries, and the protection of the livelihoods of thousands of people who rely on marine ecosystem for their day-to-day existence. This component is envisaged to improve transboundary management of coastal and fisheries resources within the GOT LME especially in transboundary stocks replenishments and biodiversity protection. The identification of ecological corridors will focus on two aspects for prioritization: 1) Priority corridors for vulnerable or threatened species present of global biodiversity significance in the GoT (Dugong (*Dugong dugong*), Dolphin and whale species, sea turtles, and whale sharks (*Rhincodon typus*), and 2) species of commercial importance to fisheries, which have transboundary movements during different life stages (e.g. Spotted sardinella (*Amblygaster sirm*), the Indo-Pacific Mackerel (*Rastrelliger brachysoma*), Longtail Tuna (*Thunnus tonggol*)). These species have been tentatively identified in

the PIF, and during PPG phase, the relevant information about these species will be analysed for the determination of the ecological corridors and management or protection needs. **Different approaches will be needed for the identification of the ecological corridor at the GoT scale and the smaller scale for Malaysia.** Starting with the larger GoT scale, the plan is to use existing datasets and potentially supplement that with limited demographic dispersal modelling for fisheries if insufficient data are available. Thus, the primary approach will be to identify corridors of migration and habitat use (including nesting) by key taxa including marine mammals, turtles and whale sharks. Global and regional datasets exist for these. Turtle nesting: UNEP-WCMC[45]; Turtle migrations: Status of the World Sea Turtles (<https://www.seaturtlestatus.org/>); global models of whale shark distribution, that can be applied within the GoT for a more detailed estimate of feasible hotspots given local data on sea temperature, chlorophyll-a, depth, and distance from shore[46]; and country-level data on dugong distribution exists for Thailand[47], Cambodia/Vietnam[48], and Malaysia[49]:[50] and syntheses have been carried out by UNEP[51] (UNEP 2002) and the Global Register of Migratory Species[52]. There are multiple methods available to integrate such data into regional planning and the project will explore the application of each with the broader set of users. These include site selection criteria for key nursery habitats or corridors including the potential to identify Key Biodiversity Areas where residence times are high and population levels critical[53]:[54], network design criteria for essential bottlenecks in population migration[55]:[56], and explicit policy recommendations on connected populations[57]. The project will collate regional datasets, many of which are not available in the primary literature, as well as expert knowledge on the key habitats and corridors of key fisheries species. For example, the Indo-Pacific Mackerel (*Rastrelliger brachysoma*) appear to utilize Terengganu and Pahang in Malaysia as a regionally-significant ecological corridor[58] that connects international jurisdictions. At the finer spatial scale within Malaysia the focus will concentrate on (1) the role of mangroves as nursery habitats for a variety of fish and invertebrate species and (2) the corals and their fisheries. There is strong evidence from Fisheries Department surveys that areas of mangroves are exceptionally important nursery habitats, which aligns with global studies[59]:[60]. Methodologies to map corridors of mangrove nurseries with offshore adult habitat will be adapted to the distribution of coastal resources in Malaysia[61], thereby identifying priority locations for consideration in MPAs or other forms of protection. These analyses will be based on existing maps of major habitats as well as existing algorithms of nursery habitat function that prioritise habitat importance, in part according to their tidal profile; emergent mangroves provide weaker nursery benefits[62]. Connectivity in coral reef fisheries can be modelled using particle tracking and new algorithms have been developed under a recent World Bank/GEF project at the University of Queensland to operationalize such connectivity for rebuilding reef fisheries[63]. These approaches are now routinely applied in eastern Indonesia in the creation of new MPAs. Specifically, they identify the key source locations to resupply larvae to important fishing grounds. The tools to implement such methods are freely available. The approach does require models of larval dispersal, which are created from regional oceanographic models and the project will fund such work in key parts of the GoT including Malaysia. It is important to note that a key justification for adopting The University of Queensland at the Executing Agency of the Malaysian component is their scientific experience in modelling and applying connectivity for planning at both local and regional levels. Key participants include Professor Peter Mumby, who headed the GEF Capturing Coral Reef Ecosystem Services project which developed and applied new methods, as well as Dr Daniel Dunn who works on conserving large scale migratory species and is a lead on the Migratory Connectivity in the Ocean (mico.eco) project. Involvement of UQ will help ensure that regional implementing agencies will, in collaboration with local data providers, have access to the latest approaches for modelling and applying connectivity. With regards to corridor identification, work done under **Outcome 3.1.1.** will synthesize available data on regional nursery, nesting and migratory sites / corridors throughout the GoT. This will have a focus on biodiversity and key regional fisheries species, mostly of a pelagic nature like the Indo-Pacific mackerel. These data will inform regional fisheries management plans with a view to ensuring transboundary sustainability of biodiversity and key fisheries species. Work done under **Outcome 3.2.1** will utilise the data from 3.1.1. but include more detailed biodiversity information for Malaysia if available. It will also create new data layers on corridors and nursery habitats for mangrove nurseries and the connectivity of reef fisheries. These data will be used to map out the potential fisheries benefits accruing from existing and potentially new protected areas (i.e., the degree to which these areas provide important sources of fish larvae to major fishing grounds). There are two ways that the project will **enhance management effectiveness.** The first is by highlighting which areas of the existing conservation area provide the most important fisheries and conservation benefits (the latter being interpreted by the ability to replenish larvae within the MPA). This increased level of transparency of MPA function will help target enforcement resources where they can be

more effective as well contribute to communication products. Secondly, the project will create a tool to predict the expected fisheries benefits of different management areas. Such information is currently absent yet is frequently desired as part of an assessment of expected MPA functionality. An MPA's function will improve as the brood stock of fisheries species improves within its borders and where the MPA has the potential to contribute important spillover to fished areas. By developing a monitoring tool for MPA fisheries benefits, the project will improve the governance of fisheries management areas by adding greater transparency and helping stakeholders set realistic expectations from protection.

65. The proposed project will integrate the management of inter-related ecosystems and incorporate marine spatial planning. Taking into consideration the local context and other effective conservation measures described by the Convention on Biological Diversity (CBD), the project will ensure the establishment of effective and dynamic management mechanisms by incorporating the latest science-based approaches to marine resource management, including Ecosystem-based Management and the Ecosystem Approach to Fisheries. The component will be implemented following a participatory approach, focused on the inclusivity of multidisciplinary stakeholders in the management and decision making of aquatic resources, and by ensuring that the project provides fair and equitable benefits for all stakeholders, particularly local communities. Through the use of up-to-date data on marine resource management and connectivity modelling, the project will address ecosystem and community resilience through the improvement of decision-making mechanisms, while also strengthening the enabling policy environment for marine spatial planning. The focus of this proposal is in Malaysia since the country has mobilized biodiversity funds – however, IW funds will be used to increase the GoT understanding of the existing transboundary ecological corridors (important both for fisheries and biodiversity) and connectivity with the other three countries. This gained knowledge will be integrated into the four countries' EAFM plans as part of the IW funding and therefore directly contribute to reduce fisheries stress on marine biodiversity, contributing not only to Malaysia's marine biodiversity (as case study country), but also to the other 3 countries.

Outcome 3.1: Improved integration of habitat and biodiversity conservation considerations in the management of fisheries in the Gulf of Thailand through deeper understanding of the ecological transboundary corridors existing in the Gulf of Thailand, leading to enhanced resilience of vulnerable aquatic species and those important for regional food security and sovereignty, (related to SAP-Fisheries Objective 1)

66. This outcome will make use of International Waters funding to obtain greater understanding on the existing ecological corridors existing in the Gulf of Thailand that are relevant both for fisheries as well as for aquatic biodiversity conservation, especially with regards to transboundary species. The component will also serve to link with the work done in Malaysia related to marine spatial planning and mapping of key habitats and species, and integrating this information as part of Component 1.

67. The outcome will be achieved through:

- Mapping of aquatic ecological corridors in the GoT
- Development of recommendations/ guidelines for the alignment of key biodiversity considerations into national, transboundary and/or regional fisheries management plans and action plans
- Creation of an interim GoT sub-regional technical discussion platform to address integration of fisheries and aquatic biodiversity

Outcome 3.2: Reduced threats to vulnerable species and critical/ important habitats for food security and sovereignty with strengthened national and transboundary protection and management of aquatic resources in East Coast Peninsular Malaysia

68. This outcome will examine the existing ecological corridors of critical and important habitats for aquatic resources in East Coast Peninsular Malaysia, especially the biodiversity significant species, and EBSA covering migratory routes, spawning, feeding, aggregation and nursery grounds, and other related habitats. These species and areas will be identified, mapped and their status assessed. Work under this outcome will also address the linkages between biodiversity and fisheries, through for example, the evaluation of benefits accrued by MPAs into fisheries areas as well as the level of biodiversity protected. The marine ecological corridor of East Coast of Peninsular Malaysia will have the following elements: i) a focus on conserving biodiversity at the landscape, ecosystem or regional scale, ii) an emphasis on maintaining or strengthening ecological coherence, primarily through providing for connectivity, iii) ensuring that critical areas are buffered from the effects of potentially damaging external activities, iv) restoring degraded ecosystems where appropriate, and v) promoting the sustainable use of natural resources in areas of importance to biodiversity conservation. The East coast of Peninsular Malaysia has been identified as an important ecological corridor. Research suggests that there is biological connectivity from the Southern islands of Johor and the Northern islands of Terengganu, indicating that these widely separated islands are dependent upon each other for re-supply with larvae. It is highly important to understand the spatial connectivity of trans-boundary species through genetic studies to ensure proper management of the existing resources and to protect important marine ecological corridors. Genetic studies have been carried out on fisheries species, such as the spotted sardinella (*Amblygaster sirm*), and the Indo-Pacific Mackerel (*Rastrelliger brachysoma*), as well as on other species such as Longtail Tuna (*Thunnus tonggol*), as well as other important biodiversity species such as the green turtles (*Chelonia mydas*). Other endangered species found in the GoT include the Dugong (*Dugong dugong*), Dolphin and whale species, sea turtles, and whale sharks (*Rhincodon typus*). During PPG phase, the relevant information about these species will be analysed for the determination of the ecological corridors relevant for GoT Fisheries and Biodiversity (more information in Annex G).

69. In identifying the linkages, the status and connectivity of resources within ecosystems as well as the distribution of threats ranging from climate change to local anthropogenic causes will be assessed. These results, in addition to assessments of community resilience under outcome 3.3. will be integrated into the broader Marine Spatial Planning initiatives (linkages with Component 1).

70. To achieve this, the project will also work on strengthening the institutional and legal framework for integrated coastal resources management and marine spatial planning (MSP), establishing a system for more rational use of marine space, its resources and the interactions between its uses, to balance demands for development with the need to protect the environment, and to achieve social and economic objectives.

71. The outcome will be achieved through:

- Identification of ecological corridors of critical and important habitat for aquatic resources in the East Coast of peninsular Malaysia, with spatial maps and information available for EAF planning and identification of management and protection measures (the type of measures to be decided during PPG phase in consultation with stakeholders)
- Identification and establishment of management measures in conservation areas to ensure they provide the highest potential return for achieving biodiversity conservation (following the METT) and fisheries

Outcome 3.3: Enhanced resilience of ecosystems and associated biodiversity in East Coast of Peninsular Malaysia

72. This outcome will work on the establishment of effective and dynamic management mechanism by incorporating the latest science-based approaches to marine resource management, including ecosystems-based management and the Ecosystem Approach to Fisheries. The project will establish participatory research and monitoring plans for fisheries replenishment zones (including MPAs, EBSA, refugia and other OECM areas), providing up-to-date data in improving decision-making mechanisms, with the aim of ensuring fair and equitable benefits for all stakeholders, especially local communities in the fisheries replenishment zones and other conservation areas. The project will also investigate the resilience and vulnerability levels of coastal/island communities to changes in their environment, especially socio-economic aspects, and formulate strategies to improve their resilience and adaptive capacity, through direct

support to blue sector livelihoods that promote the conservation of biodiversity (the livelihood support will be dependent on the mobilization of national budget, instead of the BD funds). The project will incorporate mechanisms to increase inclusivity of multidisciplinary stakeholders in the management and decision making of the fisheries management especially the fisheries replenishment zones (MPA, EBSA, refugia and OECM areas). The development of **priority ecosystem resilience maps** will focus primarily on the coral reefs of Malaysia seeing as they are a key biodiversity asset. The major threats to these ecosystems are global warming (coral bleaching events), sedimentation reaching the coast from rivers, and overfishing. Reef habitats provide high quality habitat for small scale fisheries, and habitat quality is a key determinant of productivity, as is the proximity of mangrove nurseries which can mitigate some loss of reef habitat quality. Threats to reefs will be adapted from the existing 'Reefs at Risk' for water quality and fishing whereas climate change will be mapped using patterns of relative thermal stress during heatwaves as measured by NOAA satellites. Together these data layers provide information on the exposure of reefs to damage. A full vulnerability analysis can then be undertaken in a participatory manner where community groups identify factors that confer sensitivity and adaptive capacity of the system. High sensitivity would include dominance by highly sensitive species to stress such as corals of the genus *Acropora*. Adaptive capacity includes factors that help the reef recover such as areas of lower fishing pressure, good mangrove cover (as this helps mitigate coral habitat loss for reef fisheries), and areas that are thought to be more acceptable for local management (good governance, high community cohesion, existing protection, etc.). Maps of reef vulnerability to damage will then be combined with community information on local value for fisheries, tourism and amenity. Areas of high vulnerability and community importance can then be considered as priority for further protection. This process constitutes a 'participatory ecosystem resilience mapping' and is used to aid transparency and inclusion in the conservation prioritization process. This will be applied at a priority location (to be determined) where new levels of protection are being considered.

73. The outcome will be achieved through:

- Output 3.3.1: Participatory monitoring system established to reduce fishing and other pressures on marine biodiversity in conservation areas.
- Output 3.3.2: Map priority areas to improve resilience of ecosystem components including identification of existing threats and vulnerabilities (including climate change and other natural and human hazards)
- Output 3.3.3: Development of participatory ecosystem resilience plans, following the findings of the priority ecosystem resilience maps (for biodiversity), within and beyond the MPAs, and addressing the needs of the ecological corridors, with evidence of implementation initiated

Component 4: Project monitoring, knowledge management and stakeholder engagement

74. This component will contribute to IW focal area by facilitating project coordination and monitoring of project performance to achieve the expected outputs, enhancing the participation of stakeholders (with a strong focus on women's involvement), and on creating, documenting, sharing and using of knowledge related to transboundary sustainable fisheries practices and aquatic ecological corridors. The project will promote replicability and scaling up of interventions within the GoT countries (particularly those areas not covered by the project, such as the South China Sea, and the Andaman Sea), and other regions, through regular contributions to IW Learn and LME Learn, among other regional and international forums.

Outcome 4.1: Efficient knowledge management and targeted communication, improves the understanding amongst stakeholders of ecosystem and fishery linkages in the Gulf of Thailand (related to SAP Fisheries Objective 2[64])

75. Activities under this Outcome will lead to a better understanding on how to improve sustainable practices for fisheries in the Gulf of Thailand. The project M&E system will be developed, based on the baseline information and indicators set up during the PPG phase, or at very early stages of project implementation.

76. A knowledge management and communication strategy for the project will also be developed and implemented, and it will include the identification of good practices and lessons learned, and supporting participation in cross-site visits, project coordination events, and other relevant national, regional and international events to share knowledge. The knowledge management strategy will focus on identifying gaps and generating knowledge on the following topics (see Section 8 for more details): opportunities and constraints for a GoT fisheries regional mechanism, lessons learned in the design and implementation of transboundary EAFM plans, integrating fisheries into Marine Spatial Planning (MSP) and vice-versa, enhancing the development of FIPs for the GoT, the role of market and other incentives for improving fisheries management, the linkages between aquatic ecological corridors and fisheries, and gender and fisheries related studies, among other topics. The project will develop policy and outreach materials that will be widely shared through communication mechanisms for multi-directional stakeholder communication (also making use of social media). Lessons learned generated by the project will be analyzed and disseminated. Partnerships will be created and strengthened, with the departments of fisheries of each country, and other organizations working in topics relevant to fisheries in the region. Channels will be created to communicate with the general public (e.g. the consumers) and for the public to communicate with the project.

77. The project work on generating knowledge and good/best practices on aspects related to the establishment of GoT sustainability efforts and achievements, which will be widely shared through the development of a **GoT fisheries communication strategy** at the national and regional levels, targeting different stakeholder groups (policy makers, general consumers, fishing industries, fisherfolk, etc.).

78. The lessons learned generated by the project (including those related to gender and stakeholder engagement) will be appropriately captured, documented and communicated with a wider audience. Lesson learning will also capture how different stakeholders are using the best practices shared. Some key areas for knowledge management and sharing of lessons learned are included in Section 8 below on Knowledge Management.

79. The project will follow the IW-Learn criteria, including the project website, as well as active participation in IW conferences and workshops, webinars, listserv discussions and regional meetings; providing Results Notes and Experience Notes; and contributing to global synthesis (1% of the project funds will be directed for participation and engagement in IW events).

80. The outcome will be achieved through:

- GoT project monitoring system established and implemented. (including mid-term and final evaluations).
- GoT knowledge management strategy and communication strategy established and implemented
- Participation in the activities of the IW Learn Project.

Outcome 4.2: Enhance stakeholder involvement and gender equity

81. Following the gender policies from FAO and the GEF, as well as any other regional and national gender policies and recommendations, the project will develop a gender strategy that will be implemented and monitored as part of the M&E system above. This would include organizing workshops/meeting to ensure the incorporation of the gender strategies into the project's activities and budgets.

82. The project stakeholder engagement strategy will also be developed and implemented, following a free, prior and informed consent plan as necessary.

83. The outcome will be achieved through:

- GoTFish gender and stakeholder engagement strategy implemented

GOTFISH THEORY OF CHANGE

84. The project's Theory of Change (illustrated in Figure 2) defines a holistic approach for addressing the drivers sustaining inefficiencies in fisheries governance (leading to IUU fishing, overcapacity, overfishing, etc.) and fisheries threats to marine biodiversity and the loss of ecosystem services

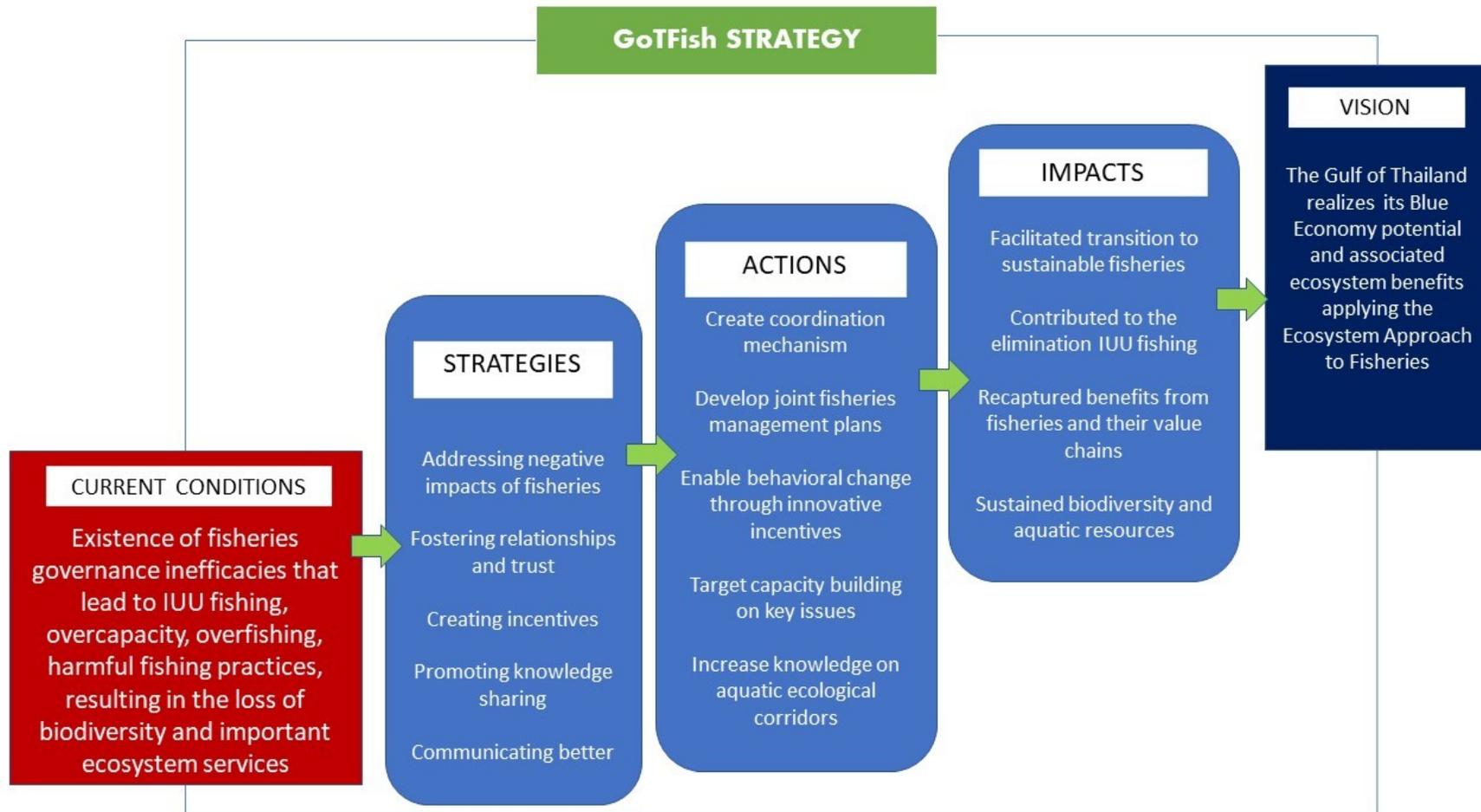


Figure 2 Theory of Change for GoTFish

85. The project's Theory of Change directs that, if the negative impacts of fisheries are addressed through regional fisheries governance and management (including coordination mechanisms and the development of joint fisheries management plans), if trust and relationships are strengthened through partnerships and better communication channels, if incentives (market and others) are used to enable behaviour change that enhance fishery sustainability, if knowledge is enhanced and shared through targeted capacity building on key issues (e.g. fisheries issues and a better understanding of aquatic ecological corridors), and strong and reliable communication channels, this will facilitate the transition to sustainable fisheries in the Gulf of Thailand and beyond, contributing to efforts for the elimination IUU fishing, recapturing benefits from fisheries and their value chains, and sustain biodiversity and aquatic resources through the use of an Ecosystem Approach. These strategies, actions and impacts will challenge the current conditions and will help in realizing the Blue Economy potential of the Gulf of Thailand and associated ecosystem benefits. The theory of change will be further elaborated and detailed during the PPG, including linkages between the strategies, actions, impacts and vision.

1.4 Alignment with GEF focal area and/or Impact Program strategies

86. The proposed project is aligned with the GEF7 International Waters Focal Area, through its objective of strengthening Blue Economy opportunities. This will be done by working specifically on the two key areas of strategic action: 1) sustaining healthy coastal and marine ecosystems, and 2) catalysing sustainable fisheries management. As described above, the proposed project is in line with the South China Sea and Gulf of Thailand Strategic Action Programme (SAP), and it will strengthen the implementation of the SAP Fisheries Outcomes, and the SAP Regional Cooperation, and its call for sub-regional and bi-lateral agreements to address SAP issues such as fisheries.

87. The project is designed to address the governance and management issues of transboundary fisheries resources in **Component 1**, promoting the implementation of good practices that integrate fisheries management and biodiversity conservation at the regional level, as well as other socioeconomic and governance considerations, following the EAF. This is directly in line with the IW focal area aim to support the management of transboundary marine resource and addressing the complexity of transboundary marine ecosystems such as the Gulf of Thailand, through multinational cooperation. The project will also mobilize several tools (e.g. marine spatial planning) to integrate fisheries considerations within the broader coastal and marine development objectives, facilitating the understanding of the opportunities and constraints of different options and their impact on fisheries (and vice-versa).

88. **Component 2** will focus on the coordination of work with the private sector (e.g. seafood suppliers such as Thai Union, CP and others) to stimulate investments that promote positive incentives along the value chain to reduce the impacts on marine ecosystems, as well as the exploration of other types of social/economic incentives that promote behaviour change in fishers to acquire sustainable practices.

89. **Component 3** is focused on strengthening national and transboundary protection and management of critical habitats for biodiversity conservation and effective management of key fish stocks, aligning with GEF-7 Biodiversity Focal Area, through its Objectives 1) Mainstreaming biodiversity across sectors as well as landscapes and seascapes, and 2) Addressing direct drivers to protect habitats and species, and with IW Focal Area, investing in a greater understanding of ecological corridors and their contribution to maintaining transboundary marine ecosystems (both related to fisheries and biodiversity).

1.5 Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF and co-financing

90. In the baseline scenario, it was shown how GoT countries are working at the national level to achieve their fisheries targets. GoTFish will build on the existing experience on fisheries governance and management, and use the GEF investment to coordinate actions at the regional level that will have global significance in improving sustainable fisheries value chains through:

- GEF investment will *accelerate regional momentum towards sustainable fisheries* in the GoT, by bringing together key national and international agencies working on conservation and sustainable fisheries: GoTFish will bring together different partners, including UN Agencies, NGOs, academics and research institutions, the private sector and government stakeholders to work under a common vision for the Gulf of Thailand. The GoT project will leverage a wide range of existing global, regional and investments, capacities and knowledge for the long- term benefit of the global environment and communities dependent on fisheries. GEF support is necessary to coordinate cross-agency partnerships to champion sustainable fisheries under a common platform that is urgently required in the sub-region, through the implementation of the Ecosystem Approach and the Blue Economy principles. These partnerships will enable effective sharing and learning between initiatives based on harmonized approaches and a joint results framework for Gulf of Thailand's transboundary fisheries that would not be possible without the support from GEF.
- *Speed-up policy reform processes* in participating countries so that they are better harmonized and are based on regional and global best practices and guidelines: Through the investment in this project, the GEF will be supporting transboundary fisheries management approach in the Gulf of Thailand working directly with the neighbouring countries, generating and sharing examples of good practice in terms of transboundary fisheries governance and management, and linkages with sustainable fisheries value chains. Through the project, countries will be able to learn from, and share lessons with, their neighbours when planning and monitoring their national fisheries plans and would allow them to have a shared approach for planning, monitoring and implementing activities that consider transboundary issues and solutions, which will support more comprehensive reform processes at the national level. This would not be possible without the GEF investment, which will be used to support a regional approach for fisheries governance and management in the GoT sub-region, and the sharing of knowledge and approaches.
- *Make a difference in the use of market incentives for fisheries*: GoTFish will focus on the use of incentives (positive and negative), particularly market incentives such as the Fisheries Improvement Schemes for transboundary species, looking at their application for small-scale fisheries, especially multispecies tropical fisheries, and the linkage to fishmeal for fish and livestock feeds. The GEF investment will allow exploring social sanctions and incentives focused on social-trust and participatory management systems, connecting local fishers with global consumers in a sustainable and transparent manner, also taking gender equality aspects in fisheries into consideration.
- *Integrate the human dimension in fisheries value chains*: Through the promotion of the Ecosystem Approach to Fisheries, GoTFish will integrate human wellbeing considerations as part of fisheries value chains, particularly with regards to livelihoods, decent working conditions (e.g. in fishing vessels, processing plants, etc.), and ensuring that gender issues are given full attention during the project implementation. In this sense, GoTFish will be addressing one key limitation of the SCS-SAP, that did not make mention of gender or women. The GEF investment will support small-scale fishing communities and their direct involvement in sustaining and promoting ecosystem health, as well as supporting local livelihood development options (including, especially as part of Component 3, local tourism initiatives and waste management/recycling initiatives).

1.6 Global Environmental benefits

91. Through the enhancement of the fisheries potential for the Blue Economy in the Gulf of Thailand, this project is directly linked to the delivery of global environmental benefits that the GEF's international waters focal area is designed to achieve. The project will directly contribute to improved management of 4 M Ha of the GoT and includes several globally important habitats and species. The project will ensure that 547,393 tonnes of globally overexploited marine fisheries is moved to more sustainable levels. Moreover, lessons from this project will also contribute directly to global lessons on international waters and fisheries management.

92. With GEF's incremental support, the project will create joint policy frameworks and knowledge platforms to define strategic actions for the region, formulate transboundary EAFM management plans, promote innovative and effective incentives working with the private sector, ultimately shifting unsustainable fishing practices towards joint sustainable fishing practices along the value chain that will generate significant global environmental benefits.

93. This will be done through strengthened regional management of fisheries resources and addressing jointly IUU fishing, which one single country cannot achieve on its own. Through improved cooperation in the region, GoTFish will reduce this key driver of marine biodiversity loss and its impacts on coastal and marine ecosystems (coral reefs, seagrass, and mangroves) and on global threatened species (e.g. dugongs). This will be achieved through the use of Marine Spatial Planning and similar tools that can take into consideration the marine ecosystem as well as the connectivity and networks of species and interactions, information that will be very useful when developing management plans of fisheries species, but also conservation action plans of key species and habitats.

94. The project will highlight the complementary ways in which protection of biodiversity and fisheries benefits can be gleaned from the use of MPAs and fisheries refugia. The approach will be shared throughout the wider GoT region and refine the fisheries management paradigm, shifting towards integrated ocean management incorporating environmental (physical, biological and chemical) aspects of marine ecosystem functioning into fisheries management. The project will contribute to the Aichi Targets No. 4 (sustainable production and consumption), target 6 (applying ecosystem-based approaches in fish harvest management), target 11 (10% of coastal and marine areas are conserved) and target 14 (ecosystems that contributed to the livelihood are restored and safeguarded).

95. The project will contribute directly to the Sustainable Development Goals, especially SDG14 on Life Below Water, ensuring that people depending on the marine resources provided by the GoT for livelihoods, can continue to do so in a sustainable manner. The project will also contribute to other SDGs, such as SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 5 (Gender Equality), SDG8 (Decent Work and Economic Growth), SDG 10 (Reduced inequalities) and SDG 12 (Responsible Consumption and Production), as well as SDG 17 (Partnerships for the Goals), through a strong commitment to partnership and cooperation. The project will directly contribute to SDG 13 (Climate Action) with a focus on adapting island /coastal production (especially the smallholder) and making the livelihoods of coastal/ island populations more resilient to natural and anthropogenic disasters including climate change.

1.7 Innovation, sustainability and potential for scaling up

Innovation

96. The project is innovative in its design, as it will implement the Ecosystem Approach to Fisheries (EAF) at a regional scale, fostering partnerships and network platforms to develop solutions for shared fisheries, and by ensuring that knowledge related to marine fisheries and biodiversity in the GoT is integrated into the development of EAF management plans.

97. From a governance perspective, the Gulf of Thailand is one of small number of LMEs worldwide that do not include any section of the High Seas, or Areas Beyond National Jurisdiction (ABNJ). This means that all decision-making will be done within the EEZ of the four coastal states – this will be interesting to document from a governance arrangement perspective, since the governance rules in the High Seas are different from the EEZ of coastal states. ^[65]

98. From a management perspective, the project will be innovative by developing regional EAF management plans dealing with different types of fisheries – **single species**, such as AIB species or neritic tunas, and **multispecies**, such as managing trawl and purse seine fisheries (for example, as this will be decided during the PPG phase). The project will also create and strengthen platforms to discuss on issues of regional importance, such as labour and migration, gender issues, certification and eco-labelling, etc.

Sustainability

99. The project will ensure **institutional sustainability** by working through existing mechanism and partnerships and building on past commitments. The focus of the project will be in fact to institutionalize the already existing collaboration in the Gulf of Thailand from the very beginning of implementation, by assessing the financial and political sustainability of the regional entity that will be discussed and decided in Component 1 of the project, also part of the assessment of costs and benefits of the different options that will be provided for countries to decide upon. The **financial sustainability** of the regional mechanism and the follow up to the implementation of the plans beyond the life of the project will be pursued through the commitment of national budgets, also for attending regular regional meetings and implementing the regional and national management plans, using the existing governance structure provided by SEAFDEC (or any coordination mechanism(s) developed/used by the countries as a result of the project).

100. The management plans developed will rely on national implementation based on national priorities and financial possibilities, although some pilots are envisaged as part of the project to show what are the requirements of transforming regional cooperation into national plans. The platforms and task forces will also require financial solvency in order to continue beyond the life of the project.

101. **Environmental sustainability** is core to this project and has been emphasized throughout the PIF. Through the use of an Ecosystem Approach to Fisheries, and a strong focus on partnerships and participatory process, the project will not only ensure that 547,393 tonnes of fisheries resources return to sustainable levels of exploitation – the project will implement the Blue Economy principles in fisheries, promoting changes in behaviour through the use of incentives and involving stakeholders (those with influence and those with interest) for the designing of sustainable solutions for the aquatic ecosystem in the Gulf.

102. **Social sustainability** will be ensured through strong participation of women and men, taking into consideration gender issues and the empowerment of women in particular (as they tend to be marginalized in fisheries development projects). The project will also rely on the use of Free Prior and Informed Consent for indigenous groups and fishing community's participation in the project. Through the exploration and use of social incentives and a focus on behaviour change, the project will aim to prompt an evolution towards sustainable practices, taking into account people's livelihood options and wellbeing and by facilitating local community's participation in decision-making.

103. These requirements will be part of the monitoring and evaluation system of the project, ensuring broad participation of stakeholders in the implementation of project activities.

Potential for scaling up

104. The project will scale-up the Ecosystem Approach to Fisheries management plans to wider dissemination to other LMEs, including the South China Sea, the BOBLME and globally. The project will serve as example to other regions on how to manage shared stocks attending to livelihood and gender considerations and finding effective ways to link with the private sector towards common goals. Many countries involved also have other shared international waters – particularly rivers and aquifers and work through this project can also cement their relationships, trust and aid their management. Engaging the private sector under component 2, especially large companies like CP and Thai Union, through industry roundtables, can expand improvement models to other LMEs.

105. Through the work under Component 4, the project will capture lessons learned to share with the IW Learn and the wider ocean and fisheries community, ensuring effective knowledge dissemination at the national, regional and global levels.

[1] http://onesharedocean.org/LME_35_Gulf_of_Thailand

[2] <https://iwlearn.net/resolveuid/d0b2c9df-f1dd-447b-827a-ec62f763ca7f>

- [3] Estimation based on the GoT Workshop that took place the 1st and 2nd of August 2019 in Bangkok, Thailand
- [4] Chaksuin, S, 2019, Management of Transboundary Fish Stocks of Indo-Pacific Mackerel in the Gulf of Thailand, Regional scientific and Technical Committee Meeting of the SEAFDEC/UNEP/GEF Fisheries Refugia in the South China Sea and Gulf of Thailand, 21-1 23 May 2019, Kampot, Cambodia
- [5] Md. Saleh, M.F., Mohd Arshaad, W., Raja Hassan, R.B., Jamaludin, N.A., Abdul Fatah, N.N., 2017, Managing Purse Seine Fisheries in the Southeast Asian Region: a joint effort among ASEAN Member States, Fish for the People Vol.15 No.3, Southeast Asian Fisheries Development Center (SEAFDEC), Bangkok
- [6] SEAFDEC, 2019, Promotion of the Regional Plan of Action on Sustainable Utilization of Neritic Tunas in the ASEAN Region, Fifty-first Meeting of the Council Southeast Asian Fisheries Development Center, 18-22 March 2019, Surabaya.
- [7] FAO. 2020. The State of World Fisheries and Aquaculture 2020. Sustainability in action. Rome.
<https://doi.org/10.4060/ca9229en>
- [8] http://wwf.panda.org/knowledge_hub/where_we_work/coraltriangle/coraltrianglefacts/
- [9] Information gathered for the GoT Workshop that took place in Bangkok, Thailand, 1st and 2nd of August 2019
- [10] SEAFDEC. 2017. Report of the Experts Group Meeting on Stock Status and Geographical Distribution of Anchovy, Indo-Pacific Mackerel and Blue Swimming Crab (AIB) Species in the Gulf of Thailand, Bangkok, Thailand, 22-23 September 2016, Southeast Asian Fisheries Development Center. 69 pp
- [11] Sadovy De Mitcheson, Y., Leadbitter, D., & Law, C. (2018). History, profiles and implications of feed fish and fishmeal supply from domestic trawlers in the East and South China Seas
- [12] As large species are overfished, the predation mortality on their smaller prey is reduced. This reduction in predation mortality releases these highly productive species and allows fishery to catch the released production. Consequently, the catch from the ecosystem is maximized when most large species are fished out of the system – As explained in: Andersen, H. & Gislason, H. (2017) Unplanned ecological engineering. PNAS 114(4), 634-635
- [13] Sumaila, R. & Cheung, W. W. L. (2015) Boom or Bust: The Future of Fish in the South China Sea. Vancouver, Canada: Fisheries Centre, University of British Columbia
- [14] http://onesharedocean.org/LME_35_Gulf_of_Thailand and adjusting to estimated values for 2020
- [15] Sadovy De Mitcheson, Y., Leadbitter, D., & Law, C. (2018). History, profiles and implications of feed fish and fishmeal supply from domestic trawlers in the East and South China Seas
- [16] Holmyard 2019, Driving change in South East Asian trawl fisheries, fishmeal supply and aquafeed
- [17] Srean, Pao 2018. Factors influencing marine and coastal area situation in Cambodia. Asian Journal of Agricultural and Environmental Safety, 2018 (1): 12 – 16
- [18] Barange et al. 2018. Impacts of climate change on fisheries and aquaculture: synthesis of current knowledge, adaptation and mitigation options. FAO Fisheries and Aquaculture Technical Paper No. 627. Rome, FAO. 628 pp
- [19] FRI, 2017, Fisheries Resources Survey in Malaysian Waters 2013 – 2016 Executive Summary. Fisheries Research Institute (FRI), Department of Fisheries Malaysia (DOF), Ministry of Agriculture & Agro-Based Industry Malaysia (MOA), Putrajaya

[20] *ibid*

[21] Sriskanthan, G. & Funge-Smith, S. J. (2011). The potential impact of climate change on fisheries and aquaculture in the Asian region. FAO Regional Office for Asia and the Pacific, Bangkok, Thailand. RAP Publication 2011/16,

[22] Barange et al. 2018. Impacts of climate change on fisheries and aquaculture: synthesis of current knowledge, adaptation and mitigation options. FAO Fisheries and Aquaculture Technical Paper No. 627. Rome, FAO. 628 pp

[23] Transboundary Waters Assessment Programme (TWAP), LME 35, Gulf of Thailand – Accessed 28th May 2019 – http://onesharedocean.org/public_store/lmes_factsheets/factsheet_35_Gulf_ofThailand.pdf

[24] Transboundary Waters Assessment Programme (TWAP), LME 35, Gulf of Thailand – Accessed 28th May 2019 – http://onesharedocean.org/public_store/lmes_factsheets/factsheet_35_Gulf_ofThailand.pdf

[25] Battista et al (2018). Behavior Change Interventions to Reduce Illegal Fishing. *Frontiers in Marine Science*, Volume 5, 2018

[26] The term “MPA” is used generically to include a range of relevant marine protected area designations, including in Cambodia: Marine Fisheries Management Areas (MFMA) and National Marine Park (NMP); in Vietnam: Marine Protected Areas under the national MPA system.

[27] e.g. Sembilan islands, Pulau Bidong, submerged reefs around Kuantan

[28] Rogers A, Mumby PJ (2019) Mangroves reduce the vulnerability of coral reef fisheries to habitat degradation. *PLoS Biol* 17(11): e3000510.

[29] For example the transboundary Memorandum of Understanding outcome under the South China Sea – SAP project.

[30] Krueck NC, Ahmadi GN, Green A, Jones GP, Possingham HP, Riginos C, Trembl EA, Mumby PJ (2017) Incorporating larval dispersal into MPA design for both conservation and fisheries. **Ecological Applications** 27: 925-941

[31] SEAFDEC. 2017. ASEAN Regional Plan of Action for the Management of Fishing Capacity (RPOA-Capacity), Southeast Asian Fisheries Development Center. Bangkok, Thailand, 34 pp

[32] <http://www.rpoaiuu.org/>

[33] <http://www.cpgroupglobal.com/>

[34] <https://www.iffors.com/about>

[35] <https://fisheryprogress.org/fip-profile/thailand-longtail-tuna-purse-seine-0>

[36] Reported publicly on <https://fisheryprogress.org/>

[37] <http://www.asicollaborative.org/>

[38] Section 6 has more information about the Fisheries Refugia project

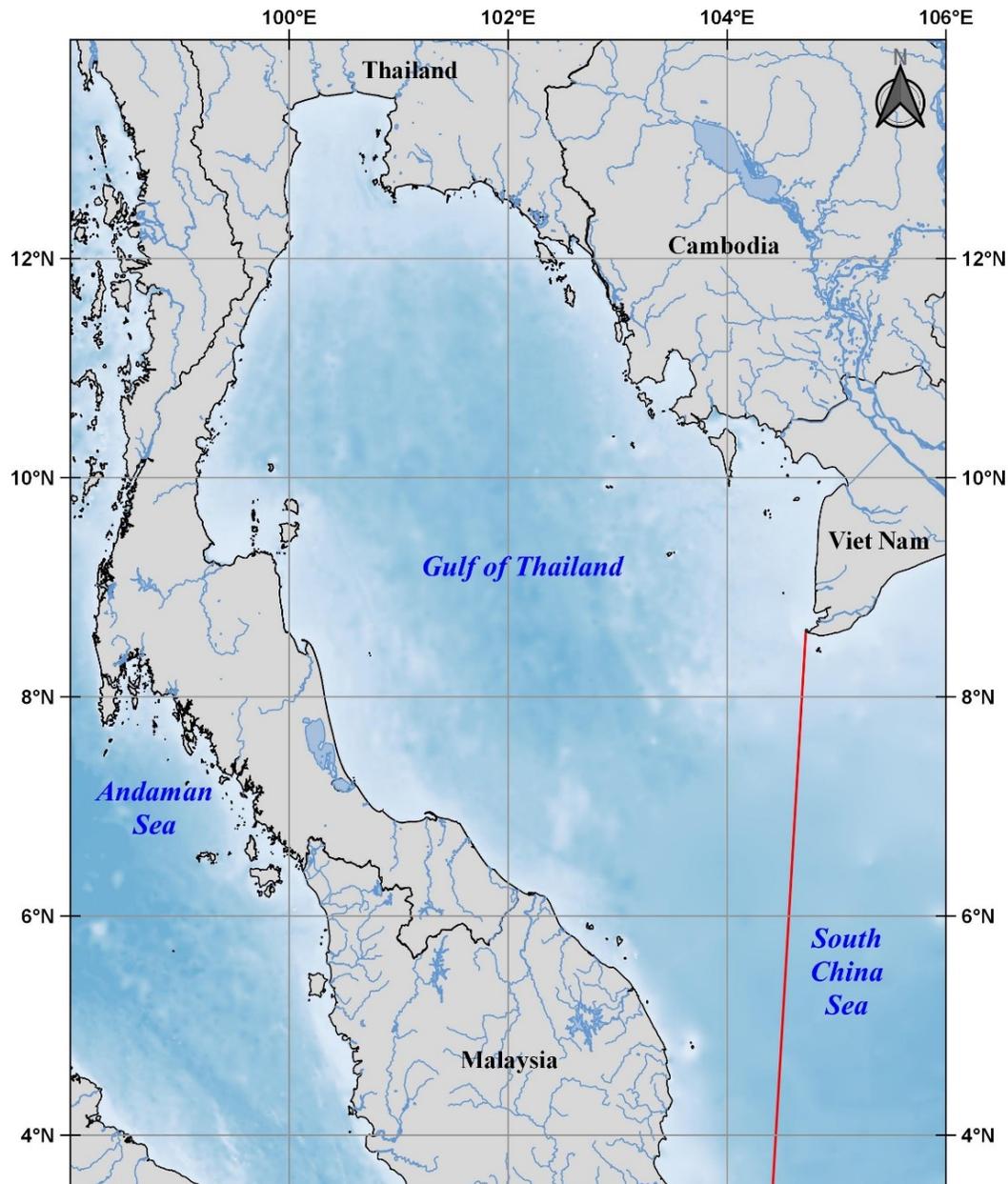
[39] Similar to the General Fisheries Commission for the Mediterranean - <http://www.fao.org/gfcm/en/>

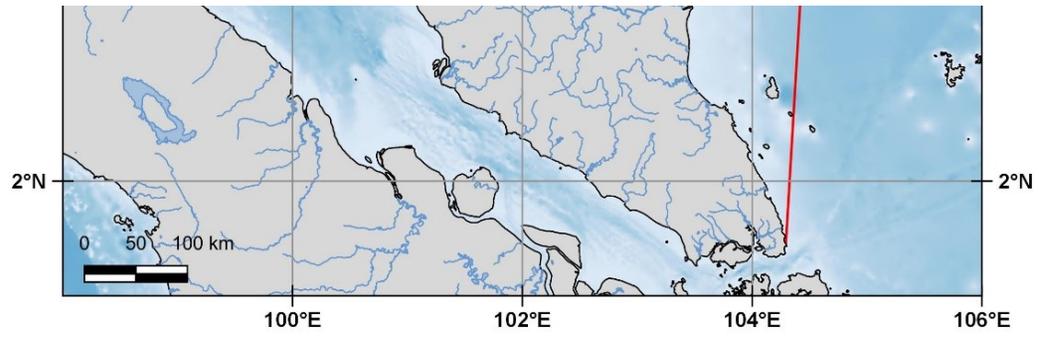
- [40] Blue sector livelihoods comprises the engagement of communities in feasible entrepreneurial options for alternative livelihoods. The approach will follow the work done by the World Bank / GEF CCRES project (ccres.net) in Indonesia and the Philippines and the tools developed to help support communities in their identification of feasible livelihood options as well as support in business planning (<https://ccres.net/resources/ccres-tool/ebbd>).
- [41] Cannon et al., 2018. Fishery Improvement Projects: performance over the past decade. Marine Policy, DOI information: 10.1016/j.marpol.2018.06.007.
- [42] SAP Fisheries Objective 3: Build the capacity of fisheries departments/ministries to engage in meaningful dialogue with the environment sector regarding the improvement of fisheries and management of interactions between fisheries and critical marine habitats
- [43] A number of SRs exist relevant to GoT fisheries (also relevant to feeds). See <https://www.sustainablefish.org/Programs/Improving-Wild-Fisheries/Seafood-Sectors-Supply-Chain-Roundtables>
- [44] Work under this section will follow the guidelines for behavior change intervention
- [45] UNEP-WCMC (1999) Global distribution of sea turtle nesting sites (ver 1.1). UNEP World Conservation Monitoring Centre, Cambridge <http://data.unep-wcmc.org/datasets/22>
- [46] Sequeira AMM, Mellin C, Fordham DA, Meekan MG, Bradshaw CJA (2014) Predicting current and future global distributions of whale sharks. Global Change Biol 20:778-789
- [47] Hines EM, Adulyanukosol K, Duffus DA (2005) Dugong (Dugong Dugon) abundance along the Andaman Coast of Thailand. Mar Mamm Sci 21:536-549
- [48] Hines E, Adulyanukosol K, Somany P, Ath LS, Cox N, Boonyanate P, Hoa NX (2008) Conservation needs of the dugong Dugong dugon in Cambodia and Phu Quoc Island, Vietnam. Oryx 42:113-121
- [49] Jaaman SA, Lah-Anyi YU, Pierce GJ (2009) The magnitude and sustainability of marine mammal by-catch in fisheries in East Malaysia. J Mar Biol Assoc UK 89:907-920
- [50] Ponnampalam LS, Izmal JHF, Adulyanukosol K, Ooi JLS, Reynolds JE (2015) Aligning conservation and research priorities for proactive species and habitat management: the case of dugongs Dugong dugon in Johor, Malaysia. Oryx 49:743-749
- [51] UNEP (2002) Dugong Status Report and Action Plans for Countries and Territories. UNEP/DEWA/RS02-1
- [52] Riede K. 2001 The global register of migratory species (GROMS): present status and perspectives. In New perspectives for monitoring migratory animals – improving knowledge for conservation (ed. K. Riede), pp. 33–42. Münster, Germany: Landwirtschafts-Verlag.
- [53] Hoyt E, Notarbartolo di Sciara G. 2014 Report of the workshop for the development of Important Marine Mammal Area (IMMA) Criteria, Marseille, France, 22 October 2013.
- [54] Dunn DC, Harrison AL, [...] Halpin PN (2019) The importance of migratory connectivity for global ocean policy. Proceedings of the Royal Society B-Biological Sciences 286
- [55] Treml EA, Halpin PN (2012) Marine population connectivity identifies ecological neighbors for conservation planning in the Coral Triangle. Conservation Letters 5:441-449

- [56] Hock K, Wolff NH, Beeden R, Hoey J, Condie SA, Anthony KR, Possingham HP, Mumby PJ (2016) Controlling range expansion in habitat networks by adaptively targeting source populations. *Conserv Biol* 30:856-866
- [57] Dunn DC, Harrison AL, [...] Halpin PN (2019) The importance of migratory connectivity for global ocean policy. *Proceedings of the Royal Society B-Biological Sciences* 286
- [58] SEAFDEC. 2017. Report of the Experts Group Meeting on Stock Status and Geographical Distribution of Anchovy, Indo-Pacific Mackerel and Blue Swimming Crab (AIB) Species in the Gulf of Thailand, Bangkok, Thailand, 22-23 September 2016, Southeast Asian Fisheries Development Center. 69 pp
- [59] Mumby PJ, [...], Llewellyn G (2004) Mangroves enhance the biomass of coral reef fish communities in the Caribbean. *Nature* 427:533-536
- [60] Igulu MM,[...], Mgaya YD (2014) Mangrove habitat use by juvenile reef fish: Meta-analysis reveals that tidal regime matters more than biogeographic region. *Plos One* e0114715
- [61] Mumby PJ (2006) Connectivity of reef fish between mangroves and coral reefs: Algorithms for the design of marine reserves at seascape scales. *Biol Conserv* 128:215-222
- [62] Igulu MM,[...], Mgaya YD (2014) Mangrove habitat use by juvenile reef fish: Meta-analysis reveals that tidal regime matters more than biogeographic region. *Plos One* e0114715
- [63] Krueck N, Ahmadi GN, Green A, Jones GP, Possingham HP, Riginos C, Trembl EA, Mumby PJ (2017) Incorporating larval dispersal into MPA design for both conservation and fisheries. *Ecol Appl* 27:925-941
- [64] SAP Fisheries Objective 2 - Improve the understanding amongst stakeholders, including fisher folk, scientists, policymakers, and fisheries managers, of ecosystem and fishery linkages, as a basis for integrated fisheries and ecosystem/habitat management
- [65] Fanning et al, 2015, Transboundary Waters Assessment Programme (TWAP) Assessment of Governance Arrangements for the Ocean, Volume 1: Transboundary Large Marine Ecosystems. IOC-UNESCO, Paris. IOC Technical Series, 119

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.





2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Indigenous Peoples and Local Communities Yes

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above, please explain why:

Consultations so far during the development of the PIF have been in accordance with the GEF guidelines for stakeholder engagement and public consultations. During the PPG phase the project will go into more detail to develop the Stakeholder Engagement Plan to: i) Identify people or communities that are or could be affected by the project, as well as other interested parties, ii) Ensure that such stakeholders are appropriately engaged on environmental and social issues that could potentially affect them, through a process of information disclosure and meaningful consultation; and iii) Maintain a constructive relationship with stakeholders on an on-going basis through meaningful engagement during project implementation.

The FAO Free, Prior and Informed consent protocol will be initiated if the project interacts with indigenous people (not identified at the PIF stage, but to be considered during the PPG phase).

A summary of these discussions is provided below:

7th SEAFDEC Meeting of the Gulf of Thailand Sub-Region, 1-2 November 2018

During this meeting countries reviewed the progress on sub-regional cooperation related to trans-boundary stocks and habitats, particularly related to the indo-pacific mackerel and neritic tuna management (RPOA-Neritic Tuna), which is being implemented by the SEAFEC-Sweden Project. SEAFDEC and the GOT countries have been conducting the research activities in order to come up with an agreement on coordinated fisheries management measures for the Gulf of Thailand sub-region. The GEF funded SEAFDEC/UN Environment Fisheries Refugia project also attended the meeting and presented the project background, key activities and main achievements. The FR project started in 2016 and has the main objective to support the enhancement of marine environment and fisheries habitats to achieve a healthy ecosystem supporting sustainable fisheries. Other work presented was that of the Mangroves for the Future, which emphasized the importance of taking into consideration gender issues. The four GoT countries (Cambodia, Malaysia, Thailand and Vietnam) provided an overview of their efforts managing fishing capacity and combating IUU fishing (NPOA-Capacity and NPOA-IUU), law and legislation, as well as actions related to the strengthening of Monitoring, Control and Surveillance systems in the Gulf of Thailand Sub-Region. The meeting agreed that key areas requiring support included: i) Strengthen the sub-regional coordination with support from potential fund and regional projects, in particular on the continuation of the sub-regional of management neritic tuna, and the Regional Plan of Action (RPOA) to promote responsible fishing practices (RPOA-IUU), and the Regional Plan of Action of Management of Fishing Capacity; ii) Prevent IUU fishing on transboundary species, and, iii) Continue the cooperation between neighboring countries through effective communication set among MCS network members.

Malaysia national consultation, 26th to 27th of November 2018

An FAO consultant travelled in November 2018 to Putrajaya to meet with key staff of the Department of Fisheries in Malaysia to discuss potential fisheries proposals, following country priorities. The meeting was attended by staff of the Department of Fisheries, one representative from the Ministry of Agriculture, and one representative from SEAFDEC-Malaysia. A draft concept note with key components was presented and discussed in detail with meeting participants,

who emphasized the need to include the East Coast of Peninsular Malaysia (the LME of the GoT does cover this area, which is wider than the geographical delineation of the GoT).

Cambodia national consultation, 12th and 13th of December 2018

The FAO consultant travelled in December 2018 to meet with the Fisheries Administration in Phnom Penh, and discuss country priorities. The meeting was attended by 25 staff from FiA, from different departments. The meeting participants agreed to the need of developing a project that can look into the transboundary fisheries issues in the Gulf of Thailand, and overall agreed to the project concept note, providing suggestions to improve it, taking into consideration the specific needs of Cambodia.

Thailand national consultation, 8th of January 2019

The FAO consultant and FAO fisheries officer visited the Department of Fisheries (DoF) in Thailand the 8th of January. The meeting was attended by 17 participants, including different departments of DoF. DoF emphasized the need for a GoT project and provided comments to improve the concept note for the project proposal. It was recognized during the meeting that Thailand's recent efforts and lessons learned in combating IUU fishing could be relevant for the other GoT countries, and that GoTFish could facilitate this process.

Vietnam national consultation, 29th of January 2019

The FAO consultant travelled to Hanoi in January 2019 to meet with staff from the Directorate of Fisheries. The meeting was attended by 28 participants from D-Fish and other representatives from IUCN, MCD and GIZ. The D-Fish staff and partners were supportive of the project proposal for the Gulf of Thailand and provided comments to strengthened it and ensuring that was aligned with the fisheries and national priorities of Vietnam.

GoTFish Regional Workshops

The in-country consultations mentioned above provided the basis for two regional workshops to discuss in more detail with countries and partners the scope of the project and expected outcomes and outputs.

- GoT March 2019 Workshop: The First Regional Workshop "GoTFish: Promoting the Blue Economy of the Gulf of Thailand through the Ecosystem Approach to Fisheries" took place at the Ibis Styles Bangkok Khaosan Viengtai Hotel, Bangkok, Thailand from the 14th to the 15th March 2019. Thirty-four participants representing national ministries, NGOs, the private sector and other organizations participated in the two-day workshop. The workshop presented a platform to share fisheries management visions for the Gulf of Thailand (GoT) and aimed to enhance collaborative efforts to sustainably manage fisheries resources across the GoT countries, Cambodia, Malaysia, Thailand and Vietnam. During Session 1, participants learned about the strategic directions of the 7th Replenishment Period of the Global Environment Facility (GEF), particularly the International Waters (IW) Focal Area, Objective 1, and an overview of the Biodiversity (BD) Focal Area. Participants also had a chance to develop graphic representations of their shared visions for the Gulf of Thailand. During Session 2, the key fisheries issues in the GoT were presented and discussed and the four GoT countries presented their existing policies and ongoing actions to address those issues. During Session 3 and 4, participants worked on the development of GoTFish framework, including components, outcomes and activities, in line with the strategic directions of the GEF7-IW, and the Strategic Action Programme for the South China Sea (SCS-SAP). During Session 5, participants discussed potential issues and risks of the project through a "pre-mortem" role-play exercise. Partners had the opportunity to share their ongoing work relevant to the GoT during Session 6. In Session 7, the last session of the workshop, participants discussed ways forward, and agreed on next steps to improve the governance of fishery resources across the Gulf of Thailand following the Ecosystem Approach to Fisheries (EAF) and strengthening the sub-region's Blue Economy potential.

- GoT August 2019 Workshop: The second workshop was the Regional PIF Validation Workshop “GoTFish: Promoting the Blue Economy of the Gulf of Thailand through the Ecosystem Approach to Fisheries” also took place at the Ibis Styles Bangkok Khaosan Viengtai Hotel, Bangkok, Thailand, from the 1st to 2nd of August 2019. Forty-six participants attended the meeting, representing national ministries from the four GoT Countries, academia and research institutions (AIT, Mahidol University, University of Queensland), private sector (CP, Thai Union), NGOs (WWF, Sustainable Fisheries Partnership, OceanMind), CSOs (MCD-Vietnam and SDF-Thailand), and other development partners (including representatives from FAO, SEAFDEC, IUCN, Embassies of Australia and Malaysia, NOAA, and USAID Oceans). In Session 1, participants revised the GoTFish draft Project Identification Form (PIF) and had an opportunity to discuss and validate GoTFish Framework. During Session 2, participants shared information of ongoing activities, project, plans and policies taking place or relevant to the fisheries and aquatic ecosystem in the Gulf of Thailand. During Session 3, workshop participants identified the key stakeholders that need to be included in the formulation and implementation of the project, including Government, Research and Academia, Development Partners, CSOs and NGOs, and the private sector. The Theory of Change for the Gulf of Thailand was presented and validated during the Session 4 of the workshop. After this, participants agreed to continue with the finalization of the project framework and to pursue the submission of the PIF to the GEF, to enable the activities required for regional collaboration for enhanced transboundary fisheries management.

8th SEAFDEC Meeting of the Gulf of Thailand Sub-Region, 1-2 November 2018

The Meeting was attended by representatives from the Gulf of Thailand countries namely: Cambodia, Malaysia, Thailand, and Vietnam; international organizations/initiatives from the Food and Agriculture Organization of the United Nations Regional Office for Asia and the Pacific (FAO/RAP), UN Environment/GEF/Fisheries Refugia Project, and senior officials from SEAFDEC Secretariat, and Training Department. One of the key objectives of the meeting was to review steps taken to strengthen cooperation on transboundary fisheries and habitat management options for Indo-pacific mackerel and important economic species as well as neritic tuna including potential actions for continued work at the sub-regional level and discuss a solution for the sustainability of Gulf of Thailand Sub-region Meeting platform. An FAO consultant attended the meeting and delivered a presentation on “GoTFish: Promoting the Blue Economy of the Gulf of Thailand through the Ecosystem Approach to Fisheries”, providing background information about how GoTFish idea was originated, the matching of the fisheries priorities in the Gulf of Thailand along the Strategic Directions of the GEF7-IW, the consultations that had taken place previous to the development of the PIF, and the Components of the current PIF. Meeting participants, including SEAFDEC and country representatives, showed support to the PIF proposal and acknowledged that the formulation of the GoTFish could help ensure the continuation of the work done by the SEAFDEC-Sweden project that will come to an end in 2019.

Private sector discussions

Private sector representatives from Thai Union and CP attended both regional workshops, and discussions were held to align initiatives and collaborate to achieve sustainability in the fisheries in the Gulf of Thailand. As indicated in the letter provided by Thai Union, the GoTFish will provide “a great opportunity to improve the management of transboundary fisheries in the Gulf of Thailand”, and “it’s aligned with the requirements of the seafood sector”. The project has also been in discussion with the Sustainable Fisheries Partnership (SFP), and will benefit of working with the SFP particularly under Component 2, through the use of FishSource database, the development of tools, participation in the supply chain roundtables for seafood products (both fisheries and aquaculture), and contribute to the work done with IFFO RS and the ASC to develop industry-recognized improvement models and certification standards, that can lead to the creation of fit-for purpose standards and improvement models specific for the Gulf of Thailand fishery context.

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement

During the PPG phase the project will go into more detail to develop the Stakeholder Engagement Plan to: i) Identify people or communities that are or could be affected by the project, as well as other interested parties, ii) Ensure that such stakeholders are appropriately engaged on environmental and social issues that could potentially affect them, through a process of information disclosure and meaningful consultation; and iii) Maintain a constructive relationship with stakeholders on an on-going basis through meaningful engagement during project implementation.

The FAO Free, Prior and Informed consent protocol will be initiated if the project interacts with indigenous people (not identified at the PIF stage, but to be considered during the PPG phase).

Stakeholder group	Methods for consultation and engagement
1. Country Government Agencies (DoF, Ministry of Environment, Department of Coastal Management, etc.)	Government stakeholders are aware of the project from the project design phase and will be convened again during PPG phase to discuss project activities for the achievement of the outputs. Government stakeholders will be closely involved in all the outputs of the project, to ensure ownership and sustainability beyond the project duration. This engagement will be done through face-to-face and virtual meetings, emails, phone calls, and workshops, as well as using other appropriate communication channels (including the use of publications, project flyers, brochures) to support policy-making at the national and regional levels.
2. Fisherfolks and fishing communities, including women involved in fisheries related activities along the value chain, and fisherfolk families in the 4 countries.	As the key beneficiaries of the project, fishers and fishing communities will be consulted throughout the PPG phase on decision-making regarding EAFM plans and incentives to promote sustainable fishing in the GoT. The stakeholder consultations will ensure that their needs and local contexts are well taken into account. The project will devote specific efforts to ensure that women in the seafood sector receive the attention that they need along the value chain. Targeted communities will be involved through key informant consultations and focus group discussions.
3. Regional and international organizations, development partners	<p>FAO (the UN Agency that has the mandate for fisheries) is the Implementing Agency of this project, while UN Environment is the Implementing Agency of the SAP implementation project and the Fishery Refugia project. Both agencies will work closely to coordinate implementation of the three projects.</p> <p>SEAFDEC and IUCN (in addition to UQ, explained below) will be the Executing Agencies of the project, with close linkages to other regional and international organizations that have been consulted in the design of the PIF (more information of these consultations in Annex E). These organizations and development partners will continue to be mobilized during project formulation and further implementation, ensuring close co</p>

	<p>coordination with other relevant initiatives as outlined in section 1.2 of the PIF (baseline scenario and associated baseline projects). The main channels for communication with regional and international stakeholders will be through E-mail, phone, workshops and regular exchange meetings.</p>
4. Civil society	<p>CSOs and NGOs (at the local, national and regional levels), such as the Centre for Marine life Conservation and Community Development (MCD) in Viet Nam and the Sustainable Development Foundation (SDF) in Thailand, have been directly involved in early project design, and their inputs will continue to be pursued during project formulation and implementation. The main channels for communication with stakeholders from civil society will be through email, phone, attendance to workshops and other face-to-face meetings, as well as using publications, project flyers, and brochures.</p>
5. Academic and research institutions	<p>The University of Queensland (UQ) is one of the Executing Agencies of the project, is also a world leading research and teaching institutions, facilitating the sharing of knowledge generated by the project with the academia more broadly (more information about UQ can be found in section 1.2 of the PIF). Other key partners of the project will be WorldFish, as well as other academic and research institutions in the four participating countries. The main channels for communication with academic and research institutions will be through email, phone and face-to-face meetings, as well as their attendance to project workshops</p>
6. Private sector	<p>Private sector representatives (Thai Union and CP, and also SFP that works very closely with private sector stakeholders), have attended the GoT PIF design workshops and will continue to be involved during the PPG phase (particularly under Component 2). Thai Union has already confirmed co-finance and other private sector actors are likely to follow. The main channels for communication with private sector stakeholders will include email, phone and face-to-face meetings, as well as their attendance to project workshops.</p>

3. Gender Equality and Women's Empowerment

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

1. The project will be aligned with the GEF's and FAO's Policies on Gender Equality, the FAO Regional Gender Strategy and Action Plan 2017-2019 for Asia and the Pacific, the GEF Gender Implementation Strategy, as well as the SEAFDEC Gender Strategy. The project is also in line with SDG 5 on Gender Equality, and the empowerment of women and girls, and it will therefore put efforts to improve the participation of women in decision-making particularly in post-harvest, where they are more largely represented, but also in other levels along the fisheries value chain (e.g. in small-scale fisheries, many women also fish). In addition to this, the project will provide examples on how to integrate gender considerations into projects and interventions dealing with marine resource management, creating lessons and guidance for the SDG 14 on Life Below Water, which lacks any gender-related indicators.
2. The project will develop a Gender Action Plan during the PPG phase to ensure that gender considerations are being taken into account during project formulation through a gender-responsive approach, and through specific activities directed to strengthen women's participation in decision-making.
3. During early project implementation, gender actions will be consolidated into a GoTFish project Gender Strategy, that will include, among others, the following interventions:
 - Capacity development to national stakeholders on gender issues in fisheries and aquaculture
 - Creation of a system with Gender Focal points at national and regional levels to share information related to gender issues in fisheries, and liaison with other gender focal points of partner organizations
 - Conduct gender analysis along the value chain in the project counties to have an overall assessment of women's roles in fisheries in the GoT.
 - Design specific activities targeted to women to ensure they benefit from the project and to improve their participation in decision-making
 - Setting up a gender responsive M&E system, with gender sensitive indicators

An IUCN^[1] report on the role of women in fisheries in Asia has noted that women are crucial to the fisheries sector and, while studies have shown they comprise almost half of the sector's labour force in developing countries, including GOT countries, their contributions have often gone undocumented and therefore rendered invisible to most researchers and policy makers. This is because national policies, frequently driven by production targets and concerns with overfishing, prioritize primary production of fish over other parts of the supply chain in which women are represented in much larger numbers. This lack of recognition of women's contributions to the sector's economy at different stages of the supply chain and to food security undervalues the economic and social benefits they provide. It also marginalizes women in implementing sectoral policies and increases their vulnerability, especially in small-scale capture fisheries which are already sidelined within the fishing industry. Including women's roles and contributions in research and practice is therefore essential to addressing inequality. Many studies have shown that women participate in almost all activities in the fisheries sector including the construction of fishing gears, fish sorting, fish handling, and fish processing^[2]. Some women participate directly in fishing activities with their family members in lakes, rivers and streams. Fish selling is almost exclusively the domain of women in some cases, especially for inland fisheries. However, despite their pervasive involvement, women's invaluable contribution is often overlooked and undocumented, such that women do not benefit from adequate working conditions, facilities, training and access to information. Many of the landless women in the Mekong Region are the "poorest of the poor" in fisheries.

The IUCN and WorldFish reports highlight the following issues on women's role in fisheries in the GOT countries:

1. Cambodia: Women constitute an important workforce in fisheries and contribute to the sustainable use and management of fishery resources. They play a larger role than men in aquaculture, although a lesser role in capture fisheries. They play a primary role in fish processing and marketing, which generate income for family maintenance. The coastal provinces have also undergone rapid development over the past decade, fuelled by foreign investments in industry, infrastructure, real estate and tourism. Women constitute an important workforce in fisheries and play a greater role than men in aquaculture and a primary role in fish processing and marketing, which generates income for family maintenance. Gender has been mainstreamed in some fishery policies with the Code of Conduct for Responsible Fisheries (Camcode), for example, emphasizing the importance women's contributions and mainstreaming gender across activities. There are gender mainstreaming focal points and working bodies in all departments of ministries involved in coastal and fisheries resource management, although no concrete work on coastal management by gender institutions could be identified

Thailand: Fisheries is important for food security and represents a major development sector in Thailand. The sector is significant as a source of animal protein for most rural people, generating income and employment, and providing a major source of livelihood especially in rural communities. There is little knowledge and information about the fisher population of which about half are women. Up to now, there is no clear policy direction on promoting women in the fisheries sector in Thailand. Owing to the paucity of research in this area, awareness of women's activities in fisheries is lacking. There is only some recent recognition that women as well as men are key players in the success of fisheries management and production. In October 2001, the Department of Fisheries agreed to serve as the focal point of the Thai National Women in Fisheries (TWIF) Network in Thailand. It paved the way for the Department of Fisheries to empower women at both organisational and operational levels with support from other concerned agencies in Thailand. Women are also becoming increasingly involved through their work on fish farms and through migration, with many women migrating from Cambodia to Thailand for seafood processing jobs. The government's main policy is the 2017–2021 Women's Development Strategy and a cabinet resolution in 2011 further required all ministries and departments to have a Chief Gender Equality Officer (CGEO). In the Department of Fisheries specifically, there is a CGEO, a Gender Equality Coordination Centre, a Gender Mainstreaming Working Group, and a Master Plan for Gender Equality (DOF, 2007). A Gender Equality Promotion Committee establishes policies and plans to promote gender equality in all private and public entities. Despite these efforts by the Thai government, the local realities of gender mainstreaming in policies regarding coastal resources management and fisheries have been fragmented.

Vietnam: Fisheries constitutes one of the most important economic sectors in Vietnam, contributing significantly to the export turnover of the country and supplying the main protein nutrition for the population. Over 3.4 million people are involved in capture fisheries, fish farming, transporting, processing, distributing and marketing of fish and fishery products. More than half are females living in rural areas and coastal fishing villages. The Vietnamese Women in Fisheries (VWIF) Network established in March 1999, is operating under the guidance of the Committee for the Advancement of Women in Fisheries. It is an integral component of the Network for Women and Gender in Fisheries Development in the Mekong Region. In its first meeting in Hanoi, the VWIF agreed to gather baseline data pertinent to female labor in fisheries and socioeconomic conditions of these women, work conditions, and to develop special projects to improve post-harvest technology to add value to fishery products and improve the natural resources. Recently, the national network members participated in the study on gender and seafood processing industry. Research teams interviewed some of the managers and workers (male and female) of 19 fish processing factories and four landing sites according to a set questionnaire prepared by the research team. The network likewise carried out a study on the hygiene and safety conditions of laborers in the seafood industry, where the majority of the workers (84 %) are female.

Malaysia: In Malaysia, women who are involved in small-scale fisheries activities are usually wives or daughters of fishers. In many cases, they work to supplement the family income and in some cases may not receive a wage if it is a home-based family business. Some may help their husbands to market the catch, accompany their husbands out to sea and help to mend nets. Women are often involved in aquaculture, especially if the activity is a small-scale

business involving low technical input, with the harvests meant mainly for home consumption or sale to neighbors. In Malaysia, they often prepare the feed and tend to fish cages or fish/prawn ponds. In these two South East Asian Islamic countries, as aquaculture becomes more intensified and more commercialized, there is a corresponding decrease in the involvement of women (Felsing et al. 2000). Women generally carry out routine, non-technical activities passed on to them by family members. Many lack the highly technical skills and basic understanding on ecological and biological requirements of the intensive commercial systems; these skills and knowledge are crucial in many cases to the success of commercial farms. Upgrading of skills is frequently made available by extension courses organized by the Government. Training courses, however, are attended mainly by men because most women may have domestic duties, which prevent them from staying away from home for a period of time. There were only 18 women of a total of 952 persons trained at the aquaculture courses on the culture of penaeid prawn, giant freshwater lobster, mussel and fish conducted at the National Prawn Fry Production and Research Centre in Kedah, Malaysia from 1996-2001. Marketing of fish is also a traditional role of many women from the lower socio-economic group. In Peninsular Malaysia, women in the east coast states especially Kelantan, are more actively involved in the marketing of the catch than women in the west coast. Similarly, in Indonesia, women in some areas are more active than in other areas. In Bali, women are actively involved in fish marketing but this activity is carried out by men in South Sulawesi (Felsing et al. 2000). Women are also involved in activities such as the traditional processing of dried, salted or smoked fish or in factories involved in fish canning or prawn processing. In Malaysia, more than 80% of the workforce in the canning and prawn processing factories are women working mainly as operators in the processing lines. The seafood processing industries in Indonesia can be divided into four categories, mainly the traditional, small, medium and commercial scale. The industry is dominated by small and medium scale operations, which are mainly located close to fish landing sites where women are employed as manual workers. These factories produce products such as salted-dried, salted-boiled, smoked, fermented products, fish/shrimp crackers, frozen fish, canned fish and fish meal. While the more traditional fisheries products

The project will build on national policy directives and institutional focal persons on gender issues within government; and also work with women's networks – such as the Vietnamese Women in Fisheries (VWIF) Network to ensure that strong gender concerns are built into project design and also in implementation. Ministries related to women's empowerment and youth will also be invited to meetings and consultations during PPG to ensure gender-related messages are even more strongly included in full project design, including results indicators, budget and in communication/ knowledge management sections. Other non-government actors, including CBOs, NGOs, and international organizations working on gender issues in the fisheries sector in these countries will be also consulted.

During PPG the insight from these groups will be sought to ensure the Pro Doc addresses key gender issues identified”.

[1] <http://www.mangrovesforthefuture.org/assets/Repository/Documents/Regional-Synthesis-Report-Gender-in-coastal-and-fisheries-resource-management.pdf>

[2] http://pubs.iclarm.net/Pubs/Wif/wifglobal/wifg_asia.pdf

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

closing gender gaps in access to and control over natural resources; Yes

improving women's participation and decision-making; and/or Yes

generating socio-economic benefits or services for women. Yes

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

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

1. The project seeks to enhance the role of market incentives, and will do this by working with private sector partners, such as Thai Union, CP, and other facilitators of these interactions such as SFP, make use of their global outreach to promote sustainability standards and educate both consumers and producers on sustainably sourced seafood, working with a regional and global “ecosystem of partners to support ocean health”^[1]. There is ongoing discussion with different private sector actors (including the Crab Council), who have supported the project and will be involved in implementation in due course. The GoTFish will work with supply chain roundtables and stakeholder platforms that provide information and support for market actors and engage them in fisheries improvements and efforts to achieve certification. GoTFish can help expand market engagement in these and similar projects, as well as creating new opportunities for market actors to engage with governments to support policy change. This will be done through the whole project, and especially as part of Outcome 2.1. In Annex D, there are letters of support to GoTFish by Thai Union, Walmart, and a combined letter of private sector actors.
2. GoTFish will enhance and expand stakeholder and government engagement in efforts to create fit-for-purpose standards and improvement models. Through engagement with SFP, the project will also work with the Marine Ingredients Organization (IFFO), the IFFO Responsible Supply scheme (now known as Marin-Trust).

[1] <https://www.thegef.org/blog/needed-ecosystem-partners-support-ocean-health>

5. Risks to Achieving Project Objectives

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

Risks	Assessment without mitigation	Management plan or measures	Assessment with mitigation
Risks to project implementation			
Ensuring effective multi-stakeholder involvement from multiple countries can be time and resource consuming – especially to ensure that people and institutions involved effectively represent their sector or stakeholders	High	The project will facilitate roundtables and task forces to ensure that knowledge is being shared among different stakeholders, and that the views of different groups are being taken into consideration.	Medium
National processes – particularly approvals for plans and legal mechanisms – may be complex and lead to uneven progress between countries that may undermine different countries interest/ engagement	High	The project will facilitate knowledge sharing and provide guidance based on lessons learned and other similar experiences – but this will not limit the normal processes in each country, and it is expected that countries will move at different paces. When necessary, informal discussion forums (e.g. regional workshops) at the same time formal processes (e.g. setting up an advisory group) are being set up, to avoid time lags.	Medium
Weak understanding of specific value chain and consumer habits	High	At the moment, there is little knowledge about the consumer habits and other value chain considerations for the domestic markets (including the demand for sustainably sourced seafood in Asia). The project will carry out these type of assessments as part of Outcomes 1.2 and 2.1.	Medium
Weak consideration of existing capacities. E.g. activities should be country specific with the incorporation of evidence-based approaches.	High	The project focus is at the regional level, but will also need to include capacity needs assessments at the national level to facilitate the participation of national staff in the regional discussion and decision-making processes	Medium
Social and gender impacts			
Weak participatory processes, with no meaningful integration of the often under-represented (marginalized) small-scale fishers and processors	High	The project has gone through an extensive consultation process but has been limited to the national and regional levels. The project needs to be brought to the local level to assess that it will have a positive impact on the fishers and responsive to their needs. During the PPG phase or early implementation, once pilot locations have been decided, the project will follow the Free Prior and Informed consent methodology to inform coastal fishers	Medium

Scale fishers and processors		with free prior and informed consent methodology to inform coastal fishing communities about the aims of the project and obtain their approval to participate.	
Gender dimensions are not fully integrated meaningfully.	Medium	A gender action plan will be developed as part of the PPG phase, while a full Gender Strategy will be implemented once the project is fully operational.	Low
Environmental impacts			
Lack of understanding of aquatic bio me. No scientific and ecological approaches integrated and absence of stock assessments to assess the status of the resources based on management measures	High	There is currently little scientific information available related to the status of the stocks and this is not something the project will be able to carry out; however, the project will support initiatives to assess stock status by mobilizing support from partners such as SEAFDEC, the NANSEN project, etc., and will rely on the use of proxy indicators as much as possible and as required.	Medium
Limited integration of climate change considerations into project implementation	Medium	The project will integrate climate change considerations, particularly related to adaptation and disaster risk reduction of the fisheries sector in the Gulf of Thailand, through regional workshops and potentially, a climate change action plan for the GoT (to be decided during the PPG phase)	Low
Climate risk and natural disaster can jeopardize any attempts to improve management measures	Medium - High	The project will take into account climate impacts and will contribute to improving resilience of fishing communities in the GoT, facilitating knowledge sharing at the regional level on what actions to take.	Medium - Low
COVID-19 pandemic impacts			
Continued restrictions on transboundary and within- country movements restricts project activities, especially with on the ground meetings and pilot activities, travel of international consultants	Medium - High	The project will work with countries to ensure that activities are proofed to the extent possible against extended travel between areas. Virtual conferencing will be used wherever possible for transboundary meetings and between country dialogues. International consultants may deliver part of their inputs remotely. National consultants will be used wherever possible operating within their locality to reduce risks of extended movements.	Medium
		Ongoing monitoring by both FAO and SEAFDEC is tracking effects of Covid-19 on fisheries in the GoT countries. Initial assessments indicate that IUU fishing activities during the COVID-19 in Gulf of Thailand is stable or decreasing. This is because the government enforcement and management measures have not been affected significantly so far. Reduced access to fishing labour and lower market demands due to economic downturn may	

<p>Rise of IUU during COVID19, due to unemployed people resorting to fishing to provide for their families, with additional pressure on the fisheries.</p>	<p>Low</p>	<p>fishing labour and lower market demands due to economic downturn means there has also not been significant increase in fishing effort nor IUU.</p> <p>The project current design will help address the impact of IUU fishing (due to COVID-19 secondary impacts, and other causes), so it will be even more important to enhance fisheries management measures in the four GoT countries. During PPG phase, the longer term COVID-19 impacts on fisheries and livelihoods will be considered in terms of how they will be addressed in the context of delivering GEBs and/or climate adaptation and resilience benefits</p>	<p>Low</p>
--	------------	--	------------

6. Coordination

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

The project execution is expected to be led by SEAFDEC, with specific roles for IUCN for Malaysian biodiversity related activities, and also in participation with the University of Queensland. The regional governments relevant to the project will provide policy and other support through a regional steering committee. Detailed institutional structure will be worked out during full proposal development and is expected to follow best practices of GEF IW projects.

How the GoTFish is different to the Fisheries Refugia and SCS-SAP implementation? The GoTFish project has been designed to address the management challenges and disconnections that arise from transboundary fishery governance issues (e.g. overexploitation of fisheries resources, IUU fishing, gender and other socioeconomic issues, etc., as described in the barriers section of the PIF). This is complementary to, but quite distinct from the approach of the Fishery Refugia project, which is the fisheries component of the SCS-SAP project (explained below), and which is focused on management of those habitats that underpin important life stages of species that form important fisheries (e.g. wetlands, mangroves, seagrasses, coral reefs). The Refugia Project's objective is more focussed on enhancement of the science and knowledge and development of policy and plans for implementation of the "fishery refugia" concept. The GoTFish project addresses fishery management at the broader LME scale, through the application of the Ecosystem Approach to Fisheries and Blue Economy reasoning at a regional level. It aims to strengthen fisheries governance, based on a shared vision for the sustainable use of fisheries resources in the Gulf of Thailand LME, this necessarily incorporates the actions and progress achieved by the SCS and Fishery Refugia Projects but the specific issues the GoTFish will address are not covered by these other two projects. This is the aspect of placing transboundary governance and cooperation at the centre to:

- updating policies and strengthen legal frameworks to improve bilateral approaches
 - establishing and enhancing regional stakeholder task-forces to deal with other transboundary fishery issues (beyond fisheries refugia and habitat management, e.g. IUU, sustainable management)
 - developing regional EAFM plans and other related action plans, and a mechanism for a regional approach to transboundary fisheries management (which will be defined by countries during early project implementation).
2. The GoTFish project is also innovating beyond the scope of SCS and Refucia projects, in its exploration of market- and behaviour-related incentive mechanisms, through partnerships and active involvement of the private sector in the search of solutions (e.g. Fishery Improvement Projects, involvement in seafood taskforces, etc).
3. **Component 3** of the GoTFish project makes use of IW (all four countries) and Biodiversity (only Malaysia) funds to provide a deep dive for a greater understanding of the ecological corridors existing in the Gulf of Thailand, with a special focus in Malaysia. Although there are clear linkages to the Refugia concept in terms of managing and protecting ecologically important habitat or corridors, the focus is primarily on vulnerable biodiversity that may be related or unrelated fisheries resources, but still potentially impacted by the activities within fisheries. This Component builds on the knowledge generated by the Fishery Refugia project and will, for example, integrate and build on findings and recommendations of the Tanjung Leman fishery refugia, as well as other

completed GEF projects such as the CCRES). Importantly, the activities in Component 3 do not isolate biodiversity from fisheries, as the component will work on the integration of these issues into the EAFm plans, alongside improving the management of existing, and development of new, MPAs that are important for marine biodiversity.

4. Additional text related to coordination between these projects has been included in the Coordination section of the PIF – Please refer to paragraphs 114 to 119, and Annex H, which provides a description of the Fisheries Refugia project objectives and work plan for 2021 and 2022

5. The GEF project **“Implementing the Strategic Action Programme for the South China Sea”**, is being implemented by UN Environment, and executed by COBSEA^[1] and SEAFDEC, in partnership with the Ministries of Environment in Cambodia, China, Indonesia, Philippines, Thailand and Vietnam.^[2] The overall objective of the SCS-SAP project is to assist participating country governments in meeting the targets of the approved Strategic Action Programme (SAP) to reverse environmental degradation trends in the South China Sea. Project activities aim to reduce environmental stressors through actions establishing sustainable management of coastal ecosystems (mangroves, coral reefs and seagrass, as well as coastal wetlands), reducing land-based pollution and supporting regional cooperation in the management of marine and coastal environment. The proposed GoT project activities will be harmonized within the SCS-SAP implementation through internal linkages within SEAFDEC and in close coordination with COBSEA (especially for actions under component 3).

6. The GEF/UN Environment project **“Establishment and Operation of a Regional System of Fisheries Refugia in the South China Sea and Gulf of Thailand”** was developed to implement the fisheries component of the Strategic Action Programme for the South China Sea, and it is executed regionally by the Southeast Asian Fisheries Development Center (SEAFDEC) in partnership with the government agencies responsible for fisheries in the 6 participating countries (Cambodia, Indonesia, Malaysia, Philippines, Thailand and Viet Nam). The project has the following 4 project components: Component 1, on the establishment of operational management of 14 priority fisheries refugia; Component 2, on strengthening the enabling environment for the formal designation and operation management of refugia; Component 3, on strengthening information management and dissemination aimed at enhancing the national uptake of best practices in integrating fisheries management and biodiversity conservation and in improving community acceptance of area-based approaches to fisheries and coastal environmental management, and; Component 4, on strengthening cross-sectoral coordination for integrated fisheries and environmental management, and foster regional cooperation for the establishment and operation of a regional system of fisheries refugia. The long-term goals of the project are to contribute to improved integration of habitat and biodiversity conservation considerations in the management of fisheries in the South China Sea and Gulf of Thailand, as well as to develop the capacity of fisheries departments to engage in meaningful dialogue with the environment sector regarding the improvement of fisheries and management of the interactions between fisheries and critical marine habitats. The Fishery Refugia workplan for the four GoT countries for 2021 and 2022 is included in Annex H.

7. Contributing to these efforts, the GoT project will address regional and national governance and management practices among the four Gulf of Thailand countries (Component 1), promoting incentives that are related to market mechanisms and fishers’ behaviour (Component 2), and a greater understanding and integration into planning of the existing ecological corridors, important for aquatic biodiversity (Component 3). The knowledge generated by the project (lessons learned, best practices, success stories, issues encountered, etc.) will be shared, and the progress monitored, along with strong stakeholder involvement and supporting the empowerment of women in fishery value-chains (Component 4). The improved practices and local management of fisheries using the EAFM approach, enhancing livelihoods and gender equality in the fisheries sector, and changing behaviour of fishers, will all reduce stress across the GoT fisheries and aquatic ecosystems.

8. With regards to the location of the fisheries refugia project, of the 15 priority fisheries refugia sites identified by the project, 7 are located in the Gulf of Thailand, including Cambodia (Koh Kong, Kampot and Kep), East Peninsular Malaysia (Tanjung Leman), Thailand (Trat and Surat Thani) and South of Viet Nam (Phu Quoc). The implementation of Component 3 of the project that will be implemented in East Peninsular Malaysia will take into consideration the knowledge produced in Tanjung Leman fishery refugia site, as well as during the identification of the EBSA location for the execution of pilot activities for the development of the ecological corridors.

9. A **coordination mechanism** will be created within SEAFDEC and linked to COBSEA to facilitate the coherence in implementation of GoTFish, along with the two projects implementing the SAP (the SAP implementation project, and the fisheries refugia project). The principle coordination and contributions of GoTFish to the Fisheries Refugia Project are outlined in Table 3. The SAP implementation projects are largely focused on the management and conservation of coastal and marine habitats, including those that are highly important for fisheries life cycles, while GoTFish will directly address the existing gaps dealing with fisheries overcapacity and the management of multispecies and transboundary fisheries, among other fisheries issues. The proposed GoT project will contribute to the implementation of the SCS-SAP, by directly addressing fisheries governance inefficiencies leading to IUU fishing, overcapacity, overfishing, harmful fishing practices, etc., that are drivers of habitat and ecosystem loss. The project will do this by promoting the Blue Economy potential and the use of EAF principles and tools; by creating and supporting regional multi-stakeholder task forces and teams to tackle critical issues faced by the GoT fisheries; by updating/developing coherent policy and legal frameworks across the GoT; and by developing the GoT's first regional fisheries management plan as well as transboundary action plans for shared issues (markets and incentive mechanisms, capacity development, gender assessments, etc.), with a stronger focus on biodiversity and the development of ecological corridors particularly in Malaysia, as part of Component 3. The coordination between the three projects will take place during the Project's Steering Committee (PSC) meetings, to ensure the working plans are aligned and do not overlap each other's work. Regular communication will take place through the facilitation of SEAFDEC Secretariat, the executing agency of the three projects.

Table3: GoTFish coordination actions with the activities under the Fisheries Refugia Project components

Fisheries Refugia Activities	Linkages and actions by GoTFish
<p><u>Fisheries Refugia Component 1</u></p> <p>Activities related to the Identification and management of fisheries and critical habitat linkages at priority fisheries refugia in the South China Sea.</p>	<p>GoTFish will integrate the findings of the fisheries refugia profile reports developed in the 8 sites of the Gulf of Thailand, as part of the development of the Ecosystem Approach to Fisheries Management plans (both at national and regional levels), under Component 1 of GoTFish</p>
<p><u>Fisheries Refugia Component 2</u></p> <p>Activities related to Improving the management of critical habitats for fish stocks of transboundary significance via national and regional actions to strengthen the enabling environment and knowledge-base for fisheries refugia management in the South China Sea</p>	<p>GoTFish will facilitate the integration of the recommendations generated by the Fisheries Refugia project and support countries to develop a regional vision for fisheries management of transboundary fisheries species, improving coherence among policy and legal frameworks and management plans</p>
<p><u>Fisheries Refugia Component 3</u></p> <p>Proposed Activity: Information Management and Dissemination in support of national and regional-level implementation of the fisheries refugia concept in the South China Sea</p>	<p>GoTFish will promote the use of the fishery refugia related indicators developed by the Fishery Refugia project, and implement measures for the long-term management of transboundary resources in the Gulf of Thailand.</p>
<p><u>Fisheries Refugia Component 4</u></p> <p>Proposed Activity: National cooperation and coordination for integrated fish stock and critical habitat management in the South China Sea.</p>	<p>GoTFish will set up a regional mechanism for fisheries governance and EAFM management, integrating the habitat management measures developed by the fisheries refugia project, through the use of the regional task forces and action plans.</p>

10. Opportunities for transboundary benefits will be demonstrated, in part, by collaborating with members of the **GEF Capturing Coral Reef and Related Ecosystem Services (CCRES)** project^[3] that specialize in the role of population connectivity in rebuilding fisheries – this time across borders – as well as the development of business models that will better align with private sector expectations and enhance access to global markets.

11. The GoT project will also benefit from cross-fertilization of knowledge and lessons learned with the **BOBLME SAP** implementation programme, which is now under PPG development phase. Thailand and Malaysia both share borders with the BOBLME and the GoT LME, so strong integration and cooperation among these two projects is not only desirable but required.

12. With regards to national projects, of relevance is the LDCF **“Climate Adaptation and Resilience in Cambodia’s Coastal Fishery Dependent Communities”**, or CamAdapt, project that is currently in PPG phase and will become operational in 2021. The objective of the project is to strengthen the resilience of coastal fishery-dependent communities and reduce their vulnerability to climate change, through a focus on policy coordination and capacity development, sustainable ecosystem management (mangroves, seagrass and coral reefs), and enhance the capacity of fishing communities to adapt to climate change. Interventions will build resilience and enhance climate change adaptation within these vulnerable social-ecological systems, with the use of ecosystem approaches for the management of fisheries, mangroves and other coastal resources such as seagrasses and coral reefs. The project will work with national, provincial and local authorities and the coastal communities to identify short- and medium-term climate risks and to co-develop adaptation actions that address their specific vulnerability contexts.

Lessons, knowledge and tools generated by the project will be shared in the IW:Learn Network, a GEF project which was established to strengthen transboundary water management around the globe by collecting and sharing best practices, lessons learned, and innovative solutions to common problems across the GEF International Waters portfolio. IW:Learn promotes learning among project managers, country official, implementing agencies, and other partners, through workshops and meetings, and also the IW:Learn website: https://iwlearn.net/abt_iwlearn.

[1] The Coordinating Body on the Seas of East Asia (COBSEA) is a regional intergovernmental policy forum, providing an intergovernmental mechanism for science-based policy setting at the regional level. The purpose of COBSEA Strategic Directions 2018 – 2022 is to guide COBSEA countries in action “towards development and protection of the marine environment and coastal areas of East Asian Seas”, serving as a policy mechanism towards “planning, implementation and tracking of ocean-related Sustainable Development Goals”. Towards this end, COBSEA Strategic Directions focus on two main topics – 1) Land-based marine pollution and 2) Marine and Coastal Planning and Management. With regards to topic 2 on “Marine and Coastal Planning and Management”, COBSEA will work on the establishment of a network of Marine Protected Areas and related policy work on applying the ecosystem based approach to marine and coastal planning and management.

[2] Malaysia is part of the SCS, but did not participate in the SCS-SAP implementation project

[3] <https://ccres.net/>

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assessments under relevant conventions?

Yes

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

1. **Linkages with SAP priorities:** As indicated above, the project is consistent with the SAP for the South China Sea and Gulf of Thailand, especially for Priority 5 (Managing fish habitat and fish stocks in the South China Sea) and 8 (Regional cooperation).
2. **Linkages with national priorities:** In addition to the SAP, the project is in line with the four GoT countries national fisheries and environmental priorities:
 - **Fisheries policies and plans:** The project is fully consistent with the countries' policies in fisheries, such as **Cambodia's** Strategic Planning Framework for Fisheries 2010- 2019, **Malaysia's** Strategic Plan of Department of Fisheries 2011-2020, **Thailand's** Fisheries Management Plan 2015 - 2019, and **Vietnam's** Master Plan on Fisheries Development of Viet Nam to 2020 with vision to 2030.
 - **Linkages to CBD NBSAPs:** The project is coherent with, and will contribute to, achieving the National Biodiversity Strategies and Action Plans (NBSAPs) in the four countries, and the Aichi Biodiversity Targets, particularly Aichi Biodiversity Target 6 "By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits".
 - **Linkages to UNFCCC NCs/INDCs and NAPAs/NAPs:** The project is in line with the countries' Nationally Determined Contributions (NDCs) and their Adaptation Planning frameworks. **Cambodia** endorsed the National Adaptation Programme of Action (NAPA) in 2006, putting the focus on adaptation measures that have direct impacts on the lives of local people, especially the poorest. GoTFish is in line with the framework provided by the NAPA to guide the coordination and implementation of adaptation initiatives, through a participatory approach, building synergies with other environmental and development programmes, and contributing to the country's achievement of sustainable development under changing conditions due to climate change. The project is also in line with **Malaysia's** National Policy on Climate Change, which has the objective of mainstreaming climate change through responsible management of resources and enhanced environmental conservation. The project will contribute to **Thailand's** National Adaptation Plan's mission of integrating climate change adaptation into national development and enhancing capacity and awareness at all levels including in natural resource management. The project is also in line with **Vietnam's** National Climate Change Strategy (2012) and the National Action Plan on Climate Change (2012-2020) that has the aim to protect natural resources in the context of climate change.
 - **Contributions to the SDGs:** The project will contribute to a range of important socio-economic and environmental SDG targets, especially SDG14: Conserve and sustainably use the oceans, seas and marine resources, and its targets: by 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution (14.1); by 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans (14.2); minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels (14.3); by 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield

as determined by their biological characteristics (14.4); by 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information (14.5); and provide access for small-scale artisanal fishers to marine resources and markets (14.b).

8. Knowledge Management

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

1. The project recognizes the importance of knowledge management, and therefore one Component of the project is on Efficient Knowledge Management and Targeted Communication (Component 4). A strategy for knowledge management will be prepared during the PPG phase, focusing on the type of knowledge that needs to be produced, and how can it be widely disseminated to the general public but also reaching the right audience through targeted communications, with the provision of a plan for drawing out lessons learned and elaboration on the knowledge products, including how the lessons learned will be shared and through what channels (beyond IWLEARN). This will be done as part of the communication strategy. The project will also coordinate with other projects and programs in the region and beyond, to capture and share lessons learned. Among others, the project will generate the following knowledge products:

Component 1

- Opportunities and constraints of transboundary approach to fisheries in the Gulf of Thailand and options for a regional mechanism (Outcome 1.1)
- Evidence-based policy briefs and policy statement(s) (Outcome 1.1)
- Lessons learned designing and implementing Ecosystem Approach to Fisheries Management Plans, as well as coordinating multi-stakeholder platforms and task forces, (Outcome 1.2)
- Marine spatial information and GIS tools for Marine Spatial Planning taking into account fisheries and aquaculture concerns (Outcome 1.2)

Component 2 – Outcome 2.1

- Lessons learned in implementing FIPs
- Studies on the role of behavioural science and incentives and their use in fisheries (both consumption, and in the sustainable production of seafood)
- Gender issues in the fisheries value chain
- Lessons learned in the implementation of standards for the Gulf of Thailand and any related capacity development materials
- National and regional systems to communicate sustainability of GoT Fisheries

Component 3

- Lessons learned on implementing spatial management approaches (multi-zoned MPAs, MSP, refugia) in support of effective co-management of key fish stocks in the GoT
- Studies on ecological corridors of critical and important habitat for aquatic resources in the east coast of peninsular Malaysia (database and spatial mapping) and across the GoT ecosystem

- Studies on the management effectiveness of MPAs and fisheries management area

Component 4 – Outcome 4.2

- Gender Strategy and any gender studies/analysis/assessments generated by the project
- Stakeholder engagement strategy and any studies/analysis/assessments generated by the project

2. The project will coordinate with other national, regional and global organizations working in the region to identify knowledge products, as well as to disseminate relevant products within the scope of the project stakeholders. Through participation in the IW Learning workshops (Output 4.1.4), the project will share lessons learned with other IW projects and benefit from knowledge of similar experience taking place in other parts of the world.

Project monitoring and evaluation

3. The project will develop an M&E plan with gender sensitive indicators, during the PPG phase or early project implementation. The project will focus on ensuring that the project outcomes influence partnerships to promote sustainable fisheries by involving fishers, fishing communities, local and national level fisheries agencies and relevant departments, national and regional stakeholders including private sector, academia, CSOs, NGOs, and development partners. The project will produce semi-annual, mid-term and final reports which will be shared with stakeholders to disseminate lessons learned, especially with regards to regional approach to fisheries management, and the use of incentives to promote sustainable fisheries.

9. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF CEO Endorsement/Approval MTR TE

High or Substantial

Measures to address identified risks and impacts

Provide preliminary information on the types and levels of risk classifications/ratings of any identified environmental and social risks and potential impacts associated with the project (considering the GEF ESS Minimum Standards) and describe measures to address these risks during the project design.

FAO's preliminary environment and social risk screening at PIF stage has triggered risks associated with the project's work in protected areas, presence of indigenous communities in and around project areas. One of the project's components is to ensure sustainable management of seascapes and protected areas within to sustain and enhance existing marine protected areas. Therefore, during the full proposal development stage, actions will be detailed to ensure that this outcomes related to this priority are achieved.

In the case of indigenous peoples, during the project design a full Free Prior Informed Consent will be obtained from indigenous people that live in and around specific sites where project will work. This has been detailed in the PIF.

Supporting Documents

Upload available ESS supporting documents.

Title	Submitted
ESS for GOTFISH	

Part III: Approval/Endorsement By GEF Operational Focal Point(S) And GEF Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Tin Ponlok	Secretary General/ GEF OFP	General Secretariat of National Council for Sustainable Development	5/28/2020
Jatuporn Buruspat	GEF OFP	MONRE	3/23/2021
K Nagulendran	GEF OFP	Ministry of Environment and Water	11/9/2020
Nyugen Duc Thuan	GEF OFP	MONRE	3/25/2020

ANNEX A: Project Map and Geographic Coordinates

Please provide geo-referenced information and map where the project intervention takes place



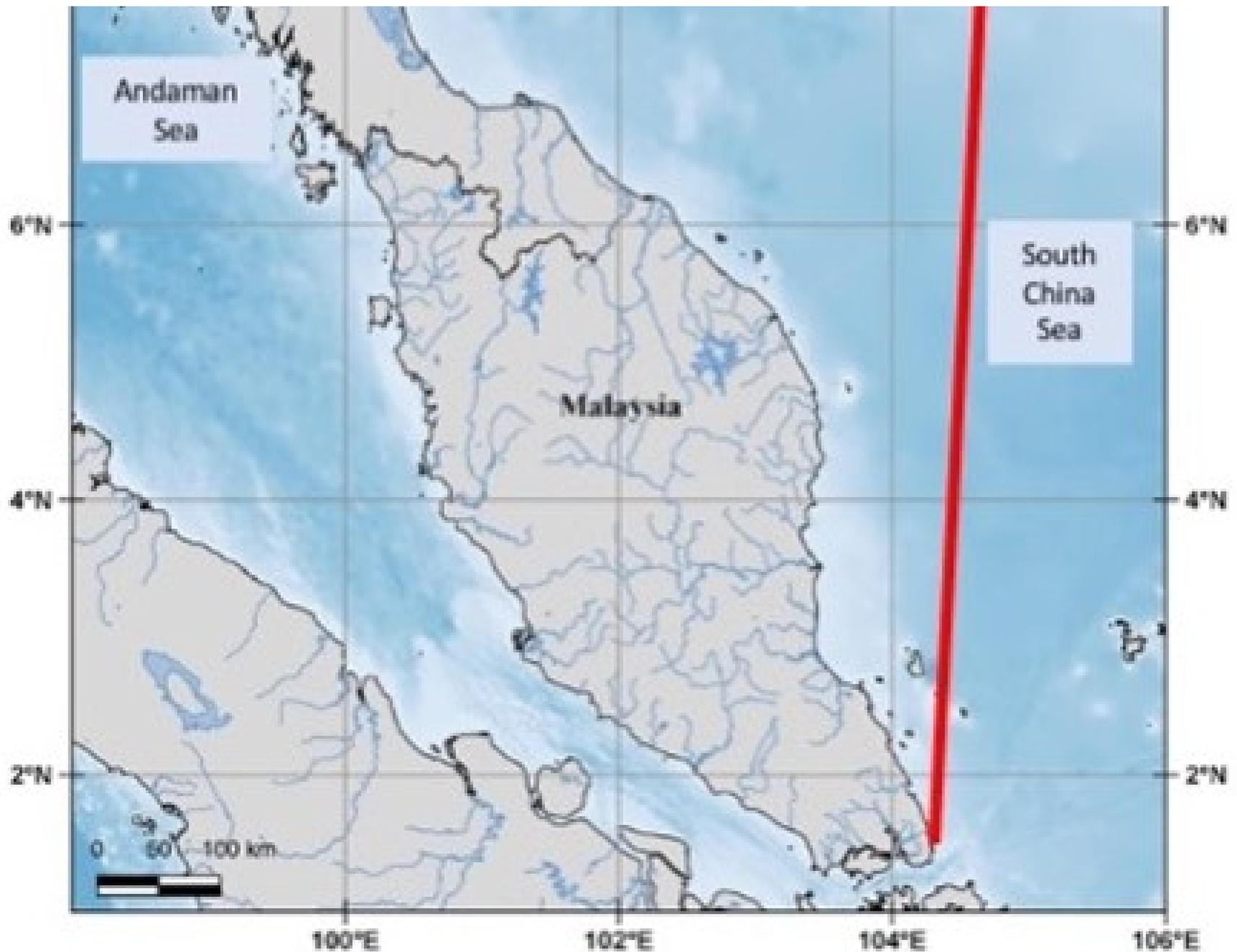


Figure 1 The Gulf of Thailand Large Marine Ecosystem.⁴

Core Indicator 5

Map below shows tentative areas to be covered under EAFM, which is estimated to cover 12 million ha. Of this, at least a third is expected to be under active management during the lifetime of the project. That is why the indicator 5 is estimated to be around 4 million ha. This will be further detailed during PPG.



