GEF-8 PROJECT IDENTIFICATION FORM (PIF)

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General Project Information

Project Title:	Sulu-Sulawesi Seascape Approach to Coral Reef Sustainable Livelihoods (SEACONNECT)		
Region:		GEF Project ID:	
Country(ies):	Indonesia, Malaysia, Philippines	Type of Project	Full-sized project
GEF Agency(ies):	CI	GEF Agency Project ID:	
Anticipated Executing Entity(s) and Type:	University of Queensland		
GEF Focal Area(s):	International Waters	Submission Date:	08/30/2023
Type of Trust Fund:	GEF Trust fund	Project Duration (Months)	60
GEF Project Grant: *(a)*	6,000,000	GEF Project Non-Grant *(b)*	
Agency Fee(s) Grant: *(c)*		Agency Fee(s) Non-Grant: *(d)*	
Total GEF Financing: *(a+b+c+d)*		Total Co-financing:	137,817,000
PPG Amount *(e):*		PPG Agency Fee(s) *(f)*:	
Total GEF Resources (a+b+c+d+e+f)			
Project Tags:	☐ CBIT ☐ NGI ☐ SGP ☐ Innovation		
Project Sector [1] (CCM only)			

Project Summary***

Small scale fisheries of SE Asia's coral reefs experience intense overharvesting yet climate change and destructive fishing are reducing their productivity because of habitat loss. Moreover, alternative livelihoods in the blue economy, including tourism, are being impacted by sudden shocks including risks from civil unrest and the covid pandemic. Working in the Sulu-Sulawesi Seascape (SSS), this project helps neighbouring Indonesia, Malaysia, and the Philippines rebuild fisheries through taking a coordinated network approach to Marine Protected Area design while also adapting to climate change impacts on biodiversity. Each country is actively extending is marine protection to exceed the Aichi target 11 and approach the 30% target by 2030. Livelihood options in the blue economy will be improved by building entrepreneurship and mentoring capacity within coastal communities and also improving the ability of business models to cope with shocks to the blue economy. Impacts of destructive fishing will be abated through implementation of behaviour change strategies in target communities.

The project closely supports the regional "Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security" (CTI-CFF), which is a multi-decadal, government-level initiative to coordinate marine protection and management among six member states (Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Isls., and Timor Leste). Through its various international working groups (e.g., Seascapes, MPAs, EAFM, Climate Adaptation), the CTI-CFF is perfectly placed to maximise the impact of project learnings. Thus, activities, capacity, and outcomes developed in the SSS will be shared proactively with practitioners from the other members of the CTI-CFF.

[1] For ITS, this is the same pulldown menu that we have for GEF-7

Indicative Project Overview

Project Objective: : Improve sustainability of coral reef resources, fisheries, and the blue economy in support of the "Seascape Approach to Securing Coral Reef Fishery and Biodiversity Resources in the Sulu-Sulawesi" Strategic Action Programme.						
Project Components	**Component Type**	**Project Outcomes**	**Project Outputs**	**Trust Fund**	**(in $)**	
					GEF Project Financing	**Co-financing**
Component 1: Improved management of shared resources under climate change	Technical Assistance	**Outcome 1.1** Greater international cooperation in **managing climate change impacts** on coral reef and related coastal resources *Indicator 1.1.1 Number of planning decisions, such as marine spatial or MPA plans that take account of climate change impacts on the ecosystem or peoples' livelihoods* Target: *At least three.*	**Output 1.1.1** Regional environmental impact assessment of climate change and local disturbances on coral reef resources within the SSS **Output 1.1.2** Regional guidelines on management practices for climate change impacts on reef and related coastal resources **Output 1.1.3** Report on climate change impacts on reef dependent small scale fishers of SSS	GEFTF	900,000 IW	12,778,540
		Outcome 1.2 Greater international collaboration in **managing fishery resources** that considers connectivity across borders *Indicator 1.2.1 Number of planning decisions, such as marine spatial or MPA plans, take account of the shared distribution of coral reef resources* Target*: At least two*	**Output 1.2.1** Regional assessment of fisheries benefits that will accrue from alternative national management decisions based on shared nature of stocks **Output 1.2.2** Regional network of marine planning practitioners (multi-state cooperation framework via CTI-CFF)		1,200,000	11,909,910

		Indicator 1.2.2 Number of participants in the seascape practitioner working group for making coordinated decisions on resource use Target*:At least 3 female, 4 male)* *Indicator 1.2.3 Number of planning or resource management decisions that the seascape practitioner working group contribute to* Target*:At least three* *Indicator 1.2.4 Number and diversity of institutions represented by the seascape practitioner working group Target: At least 8* *Indicator 1.2.5 Number of MPAs subject to new fisheries evaluation* Target: *At least three* *Indicator 1.2.6 Area under improved management* Target: *At least 2 410,000 ha (of which 10,000 ha KBAs)*	**Output 1.2.3** Guidelines to assess MPA fishery benefits (applies to shared and non-shared scales) **Output 1.2.4** Identification of opportunities to target management interventions such that they consider climate change and/or connectivity explicitly			
		Outcome 1.3 Improved planning to prioritise sites	**Output 1.3.1** Regional assessment of opportunities for		300,000	15,678,660

		for potential reef restoration *Indicator 1.3.1 Number of locations identified for restoration that considers climate change and/or resource connectivity* *Target: At least 9.*	habitat restoration (note that this activity also links with Output 2.2.1 on critical fishery habitats)			
Component 2: Enhancing the sustainability and opportunities for Blue Enterprise under climate change		**Outcome 2.1** Fishers empowered to diversify their opportunities *Indicator 2.1.1 Number of people experiencing training in entrepreneurship* *Target: At least 20 female, 30 male* *Indicator 2.1.2 Number of new business opportunities identified and provided with seed funds* Target: *At least one*	**Output 2.1.1** Workshops and mentoring implemented to stimulate entrepreneurship in coral reef fisheries sector **Output 2.1.2** Provide seed funds to promising business opportunities		600,000	15,560,000
		Outcome 2.2 Opportunity for more informed site selection of MPAs and other management interventions that considers nursery habitats *Indicator 2.2.1 Area of critical coastal habitat identified* *Target: At least 20,000 ha*	**Output 2.2.1** Maps of critical coral reef and related coastal habitats for fisheries within the SSS		600,000	17,877,640

		Indicator 2.2.2 Number of management activities that utilise new information on critical fish habitat Target: At least two				
		Outcome 2.3 Reduced potential for undesirable fishing practices (e.g., destructive fishing or IUU) *Indicator 2.3.1 Number of people engaged in behaviour change program* Target: *50 people, though gender balance unpredictable* *Indicator 2.3.2 Likelihood of undertaking undesirable behaviours declined* Target: *At least 20% of fishers express reduced participation or reduced observation of others engaging in undesirable activities (gender balance unpredictable)*	**Output 2.3.1** Provision of piloted behaviour change strategy for undesirable fishing practices		300,000	18,690,250
		Outcome 2.4 Improved responsiveness, coordination, and credibility of tourism industry response to shocks such as coral bleaching events. *Indicator 2.4.1 Number of actions*	**Output 2.4.1** Regionally-developed plan for managing impacts of heatwaves on coastal tourism **Output 2.4.2** Recommendations on building resilience to environmental		600,000	13,400,000

		to manage tourism more effectively during heatwaves *Target: At least one* *Indicator 2.4.2 Number of tourism partners engaged in process of business model review and refinement including the creation of new partnerships with data providers on issues like coral bleaching* Target: At least 30 female, 50 male	shocks into tourism business			
Component 3: Regional capacity building and mutual learning among Large Marine Ecosystems (LMEs) in the Coral Triangle		**Outcome 3.1** Regional uptake of project learning outside the immediate partner countries to help de-risk their resource management (i.e., practitioners in other Coral Triangle LMEs). work with the *Indicator 3.1.1 Number of people engaged in the cross LME network* Target: *At least 15 female 15 male* *Indicator 3.1.2 Number of regional network activities including training carried out by group* Target*: At least three*	**Output 3.1.1** Establishment of a multi-LME working group within the CTI-CFF that links activities in the SSS to up to three other LMEs in the region		420,000	10,451,000

		Indicator 3.1.3 Number of approaches to shared or climate adaptation piloted in the SSS that become identified as appropriate for use in the Lesser Sunda, Biskmarck-Solomons, or Indonesian-Seas LMEs. Target: *At least one*				
Component 4: Knowledge sharing and management		**Outcome 4.1** Effective communication of climate change and shared resource concepts improves understanding of stakeholders and planners *Indicator 4.1.1 Number of people engaged in improved understanding of the shared nature of marine resources within the SSS* *Target: At least 80 female, 80 male.* *Indicator 4.1.2 Participation in IWLearn meetings* Target*: At least 50 female and 50 male participants engage in project outputs within the IWLearn framework* *Indicator 4.1.3 Knowledge management*	**Output 4.1.1** Project monitoring system established and implemented. **Output 4.1.2** Project knowledge management strategy and communication strategy established and implemented **Output 4.1.3** Participation in IWLearn activities **Output 4.1.4** Establishment of collaborations between suppliers of technical information for reef management, particularly among jurisdictions, as part of the CTI-CFF		720,000	10,0000,0000

		platform established and easily accessible for stakeholder Target*: One knowledge platform.* *Indicator 4.1.4 Regional students trained in specialist techniques that can help implement project activities either within or beyond the SSS* Target: *At least eight* *Indicator 4.1.5 Collaborations created between regional data and education providers within or beyond the Coral Triangle region* Target: *At least five*				
		Outcome 4.2 High levels of gender equity achieved in the development and implementation of regionally-created approaches to shared resources management, blue enterprise and training *Indicator 4.2.1 Percentage of project-wide gender minority inclusion* *Target: Reaches or exceeds 30%*	**Output 4.2.1** Report on progress and continued challenges to increase gender equity		60,000	8,111,000

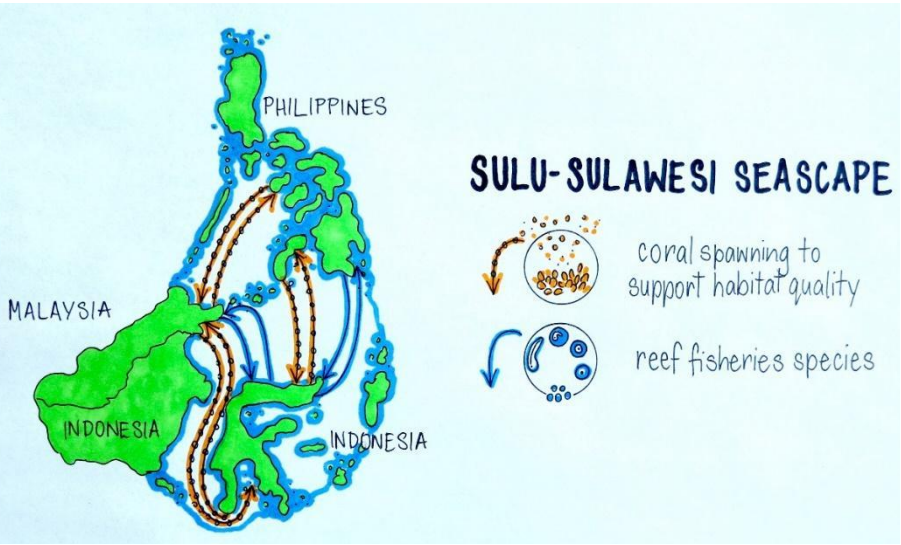
		Indicator 4.2.2 Proportion of gender minority featured in project communications *Target: Reaches or exceeds 30%*				
Component 5: Monitoring & Evaluation					180,000	1,260,000
				Subtotal	GEFTF	300,000	2,100,000
				Project Management Cost (PMC)			
				Total Project Cost		6,000,000	137,817,000

PROJECT OUTLINE

A. Project Rationale

Problems, root causes, and barriers that need to be addressed

The Coral Triangle (CT) is the centre of global marine biodiversity [1], particularly owing to its highly diverse coral reefs [2]. Even within the relatively small coastal area of Timor-Leste, there are more than 800 species of reef fish and 400 species of coral [3].



The core of the Coral Triangle is known as the Sulu-Sulawesi Seascape (SSS), which is one of several Large Marine Ecosystems (LMEs) in the region. The SSS connects the islands of Sulawesi, eastern Borneo, and the southwest of the Philippines, including Palawan and the islands extending to Mindanao. As such, the SSS comprises the jurisdictions of Indonesia, the Malaysian state of Sabah, and the Philippines. A striking aspect of the SSS is the complex oceanography that follows monsoonal reversals of currents and connects marine resources across national boundaries [4]. The monsoonal forcing is important because different marine species spawn at different times of year, during which the prevailing flow can reverse in direction. Therefore, the connectivity of marine resources via larval dispersal is bidirectional across national borders, meaning that coordinated management has the potential to benefit both countries. This differs from the typically unidirectional movement of resources along rivers, where the benefits of coordinated action between neighbouring countries are likely to be more unequal.

Like most of the Coral Triangle, people in the SSS have an extremely high dependence on marine resources for livelihoods, food security, and culture. The combined values of coral reef ecosystem services in SE Asia are estimated to lie between USD23,000-270,000 km^{-2} y^{-1} [5]. Yet, much of this occurs at small scales in local coastal communities. For example, 90% of people employed in fisheries do so at a small scale [6]. Coral reefs, and their associated seagrass and mangrove ecosystems, underpin significant levels of coastal ecosystem services. Unfortunately, the sustainability of these ecosystems and their ecosystem services are threatened by a number of problems.

A) Environmental and associated socio-economic problems

Degradation of ecosystems and their services

Marine ecosystems are heavily threated in the region [7], and all have declined in either health or extent (or both). The health of coral reefs has declined [8] and seagrass beds have been lost, particularly in parts of eastern Borneo [9]. Indonesia has half of the World's mangrove cover [10] but 80% has been lost since 1940, mostly to make way for development including aquaculture [11]. Declines in ecosystem state reduce biodiversity and the value of ecosystem services, which ultimately have deleterious impacts on people. For example, unhealthy coral reefs lose much of their structural complexity and this alters their ability to support productive fish populations. Recent analyses in the region suggest that habitat deterioration will reduce reef fisheries productivity between 50% to 70% even where levels of exploitation are managed well [12].

The degradation of marine ecosystems and their services has multiple causes. Marine ecosystems are being degraded at unprecedented scales through climate change. For example, key drivers threatening small-scale pelagic fisheries and aquaculture in the Philippines include rising temperature, typhoons, and sea-level rise [13]. Of these, rising temperature has the most striking impact in causing mass coral bleaching often over thousands of square kilometres [14]. Bleaching events have reduced coral reef biodiversity dramatically throughout the Coral Triangle [15] and impact upon ecosystem services [16].

Climate change often creates an additive, or even synergistic, impact when overlain upon local sources of degradation [17]. Local problems include poor agricultural practices that allow sediments and nutrients to enter riverine systems and pollute coastal habitats [18]. Moreover, overharvesting of resources, particularly key species such as parrotfish, unbalance ecosystem food-webs and result in blooms of seaweed that can smother reefs and prevent recovery [19]. The root cause of most local problems lie in poverty, inadequate capacity, and inadequate governance [20].

Numerous barriers exist to sustaining ecosystems in the light of climate change. The first is that the direct impacts, such as rising sea temperatures, cannot be mitigated directly. Instead, most management seeks to reduce local stressors with the goal of minimising overall impacts and facilitating recovery. Yet operationalising such practices is difficult, not only because of the ingrained governance and capacity problems, but also because it is often unclear how best to proceed. For example, several countries in SE Asia have implemented tourism bans during coral

bleaching events. While well intentioned, such strong measures might have long-term adverse impacts on the blue economy, driving people out of tourism and into exploitative livelihoods. An alternative is to implement a carrying capacity upon tourism, but a lack of regional comparisons and learnings means that the consequences and outcomes of such interventions are unclear.

An important component of climate change adaptation is targeting where to intervene and how. The application of vulnerability analysis has grown in the SSS, particularly in the Philippines [13, 21]. Yet there remain important barriers, such as mapping the scale of climate change impacts and how they affect peoples' activities, such as access to fishing grounds [22], as well as which management interventions are most likely to be successful.

A well-known, yet persistently challenging, aspect of resource management is the very regional nature of their distributions. As stated above, marine resources are distributed across multiple jurisdictions of the Coral Triangle. Finding appropriate solutions to managing such resources presents both a governance / institutional challenge as well as a technical challenge in quantifying resource distributions [23].

Unproductive fisheries and greater usage of destructive methods

Not only is climate change reducing the productivity of coral reef ecosystems, but overharvesting has already diminished their productivity and therefore potential food supply. A global analysis of the forgone net benefits of fishing found that Asia comprised the most significant region, comprising 65% of the global figure of $54.8 billion [24]. Indeed, the intersection of excessive resource exploitation and high dependence exacerbates poverty and fosters food insecurity [25].

The root causes of overcapacity in fisheries lie in a lack of alternative enterprise, high population density, poverty, and inadequate governance [26]. Methods to reduce capacity include the facilitation of alternative livelihoods as a means of reducing fishing effort. Another approach to reducing effort has been the adoption of marine protected areas (MPAs) [27]. Indeed, Aichi Target 11 of the UN Convention on Biodiversity, requires countries to set aside 10% of their coast under protection. Yet despite concerted efforts, the Aichi target 11 was not met in most countries and many are now planning a new target of 30% protection by 2030. Thus, investments in MPA design and implementation will continue for the next decade at least.

Until recently, a barrier to MPA design was how to design both their size and locations in order to generate meaningful fisheries benefits. A recent World Bank/GEF project, Capturing Coral Reef Ecosystem Services (CCRES.net) developed practical tools to support this, which were piloted in the Philippines and adopted in Indonesia [28, 29]. Importantly, analyses suggested that even achieving 10% MPA protection was likely to help rebuild the majority of coral reef fisheries, while 30% protection would have markedly greater benefits [30]. While a technical design barrier has been overcome for MPAs, there remains a challenge of implementing such strategies across national borders. Failure to achieve such coordination means that many reef and fishery resources are not being managed at their appropriate scale – which often spans national borders – and the benefits of management in all jurisdictions are lower than could be attained.

More generally, understanding the distribution of marine resources is hampered by inadequate information on the locations of nursery habitats, spawning locations, and key brood stocks. Such data are patchy. Nursery habitats are relatively well understood in the Atlantic but less so in the Indo-Pacific [31]. Some important spawning aggregation sites are known and protected but many are unknown – at least to managers [32].

One consequence of the scarcity of productive marine resources, particularly for people that have newly migrated to coastal areas, is the usage of destructive fishing practices, including blast (bomb) fishing and the use of cyanide to stun fish [33]. This is a long-standing problem, which means that barriers remain to its solution. Yet understanding those barriers can be complex and require more detailed social and psychological science, in the form of behaviour change strategies. Such strategies work with practitioners to identify the root causes of undesirable behaviours and identify and pilot potential solutions.

The continuing challenge of diversifying peoples' livelihoods has evolved from a somewhat 'outside-in' approach where feasible options, such as aquaculture facilities, have been provided together with capacity building. While this approach has doubtless had its successes, it has also experienced limitations in terms of galvanising stakeholder engagement and often lacked a compelling business model when donor support ends. Thus, a barrier to diversifying

opportunities is how to help people help themselves, not only in identifying enterprise opportunities they desire but also in building appropriate business models, ideally with sustained mentorship.

Shocks to blue economy founded on those ecosystem services such as tourism

The COVID-19 pandemic brought the concept of 'shocks' to a social and economic system into sharp relief. Yet climate change has already presented pervasive shocks to the blue economy by causing highly publicised coral bleaching events resulting in mass die-off of corals. This, coupled with the gradual loss of fisheries biomass over many years of overfishing have severely impacted the ability of local economies to thrive. COVID-19 is an additional and unexpected shock that has also placed pressure on communities to seek their income from more traditional sources such as fisheries. Most business models in the small-scale, tropical blue economy are unprepared for such shocks. Adapting to acute and sudden impacts requires a coordinated and appropriate response between resource managers and business owners. This, in turn, requires the development of 'best practice' management measures, rethinking of tourism business models by emphasising eco credentials and directly involving tourists in the recovery process. An area of tourism that has emerged strongly in recent years as Environmental, Social and Governance (ESG) concerns have become mainstream. Solutions also require effective communication across communities and jurisdictions to achieve sufficient scale to have a material positive impact. The creation of appropriate communication strategies to operationalise such measures rapidly is essential to success [34].

Scaling up interventions hampered by 'reinventing of wheel' from one LME to another

Countries often share similar problems, yet solutions are frequently sought on a national, or sometimes regional, level. Inevitably, there can be substantial unnecessary duplication of effort. Activities like the GEF IWLearn play an important role in bringing practitioners together to facilitate mutual learning. Indeed, the sharing of knowledge among LMEs is a core goal of GEF IW. Knowledge sharing is best achieved once partners have developed long-term relationships that generate the trust and allow the reinforcement of lessons. A common challenge in the development sector is that many projects end after 5 years, just when relationships have cemented to the level that progress can accelerate. Thus, a barrier to long-term knowledge sharing is the creation of long-term partnerships.

Base case scenario and projects

Regional context and collaboration

The combinations of climate change, fisheries management, and paucity of regional coordination over resource management were recognised formally in the SE Asian region and led to the formation of the Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF). The CTI-CFF is a multilateral partnership formed in 2009 by the governments of the six Coral Triangle countries to address the growing threats to the Coral Triangle. The goal is to work together to address crucial issues such as food security, climate change, and the maintenance of marine biodiversity. Under the CTI-CFF, the six countries (Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands and Timor-Leste) signed a declaration to protect the Coral Triangle and committed to implement a Regional Plan of Action (RPOA). The six countries then developed their respective CTI-CFF National Plans of Action (NPOA). Using their common concern from their NPOA, the Member Countries proposed five regional goals and other activities which they adopted in 2009.

The Coral Triangle is a geographical term that refers to a roughly triangular shape of marine waters between the Pacific and Indian oceans. It encompasses 647 million hectares of land and sea. The CTI-CFF Regional Secretariat was established in 2015 to coordinate and facilitate the implementation of RPOA activities across CTI-CFF Member Countries. These efforts will implement the goals and objectives of the RPOA. The original RPOA runs from 2009 to the present, until the new draft RPOA 2.0 is completed and endorsed.

The RPOA has five goals: designation of effectively managed seascapes (SEASCAPE); application of an ecosystem approach to fisheries management (EAFM); establishment of a fully functional marine protected area system (MPA); strengthening climate change adaptation and resilience (CCA); and improving the status of threatened marine species (TS). These goals are accompanied by similarly named technical working groups where the working groups are special bodies formed by the CT6 Member Countries under the CTI-CFF Rules and Procedures.

The new draft RPOA 2.0 has two goals. By 2025, coastal communities and coastal and marine ecosystems are enabled to cope with the impacts of climate change, natural, and anthropogenic threats due to measurable increased regional collaboration between the CT6 and our partners, for the implementation of the RPOA 2.0 facilitated through a strong and effective CTI-CFF. By 2030, coastal communities and coastal and marine ecosystems in the CT region are more resilient/able to adapt to impacts of climate change, natural and anthropogenic threats, by improving food security, sustainable fisheries and coastal livelihoods.

The Strategic Action Program (SAP) that underpins SEACONNECT was formally endorsed by all partner countries of the CTI-CFF at its 2018 Senior Officials Meeting. Indeed, SEACONNECT sits within the CTI-CFF and the creation of this PIF was undertaken by a writing team comprising two CTI-CFF representatives from each country (Indonesia, Malaysia, Philippines); one represented the Seascapes Working Group and the other represented the Ecosystem-based Fisheries Working Group. The writing team was chaired by the Chair of the CTI-CFF Seascapes Working Group.

The SAP for the Sulu-Sulawesi Seascape identified four priority objectives, each of which is targeted by SEACONNECT. These are

1. Enhance food security and biodiversity by creating a climate-resilient, management plan for shared coral reefs and associated small-scale fisheries,

2. Create and adopt regional guidelines of best practice for climate adaptation for coral reefs and fisheries in a shared context. Share with other seascape projects that consider connectivity,

3. Strengthen a regional network of practitioners and scientists to improve the provision of evidence-based policy for coastal biodiversity in connected seascapes,

4. Support the fulfilment of both the historical UN Aichi Target 11 of 10% national marine protection and the new 30x30 target of 30% protection by 2030 for each country but taking advantage of shared network.

SEACONNECT includes three technical Project Components, which are designed to support the countries participating in the CTI-CFF. Component 1 tackles both climate change impacts and the shared distribution of resources. Component 2 considers ecosystem-based fisheries and improved sustainability of the blue economy, which is important for community resilience under climate change. Component 3 builds explicitly on the CTI-CFF partnership to enable regional linkages beyond the Sulu-Sulawesi Seascape (Large Marine Ecosystem), to build regional learning with three other LMEs in the CT including the Lesser Sunda, Bismarck-Solomons, and Indonesian Seas (with Timor-Leste).

Current activities on climate adaptation

Across all three partner countries, the CTI-CFF has a number of specific investment objectives for climate adaptation. By 2025, a knowledge management plan for climate adaptation should be created and a vulnerability needs assessment would have been carried out, with a particular focus on coastal and small-islands systems. SEACONNECT will support both objectives by building capacity and regional learning for vulnerability assessments in the context of coral reef fisheries.

Indonesia: Current Marine Spatial Plans (MSP) in Indonesia do not explicitly consider climate change adaptation. The Ministry of Marine Affairs and Fisheries (MMAF) wish to strengthen the incorporation of climate change impacts on the blue economy when designing and revising MSP in the Sulawesi Sea.

Malaysia: Current management of marine resources in the Semporna region – the demonstration site for SEACONNECT in Malaysia – does not explicitly consider climate change despite its impact on the prolific reefs, which are a draw for tourism. Yet there is significant interest from the Department of Fisheries to examine the vulnerability of coral reef fisheries to climate change in the Semporna region. Spatial vulnerability analyses lend themselves to MSP yet MSP is a new concept in Malaysia. However, the launch of the Semporna Marine Spatial Planning (SMSP) in June 2014 marked a beginning of a partnership between the Town and Regional Planning Department Sabah (TRPD) and WWF-Malaysia in committing to the MSP approach and the creation of a final planning document that will be adopted and incorporated into the Sabah State Government's regulatory framework. The proposed SMSP strategy is timely to

deliver a balanced approach for the demands of development in Semporna Priority Conservation Area (PCA), protect marine ecosystems and achieve social and economic objectives in an open and planned manner with all stakeholders. The process to create a final ISMP document for Semporna is ongoing and SEACONNECT Component 1 will contribute to its development.

Philippines: Vulnerability assessment, funded by ProBLUE (World Bank), has identified the drivers of climate change and their major impacts on the value chain of capture fisheries and aquaculture [13]. Major sources of exposure identified and include strong waves, and unpredictable rain. Factors that affect peoples' sensitivity include boat size, coral reef degradation, fish quality, fishery access, and changes in the distribution of fish [22]. Adaptive capacity can be built through alternative livelihoods, cold storage, access to finance, or gear subsidy. SEACONNECT will contribute in two fundamentally different ways. First, assist the implementation of vulnerability assessments to identify the most vulnerable locations and members of society. This will occur by strengthening the scenario planning of climate change impacts in causing coral reef degradation (i.e., prioritisation of sites that are more heavily affected). Second, the project will contribute adaptive capacity by taking an entrepreneurial approach to alternative livelihoods, which will include opportunities to add value to fishery products.

The DENR supports the monitoring and assessment of coral bleaching, in a project implemented by the University of the Philippines (UP). With partners at UP, SEACONNECT will ensure that lessons learnt will be shared with resource managers and survey teams throughout the SSS. Moreover, the project will strengthen how such data can inform the management of bleaching events and their implications for tourism business models.

Marine Spatial Planning is still evolving in the Philippines and there is demand for capacity building on incorporating the impacts of climate change on sustainability. SEACONNECT will review investments and renewed policies in the Palawan or Zamboanga regions and consider how climate adaptation can be incorporated. Currently there is a focus on terrestrial impacts on the marine environment including sediment run-off, flooding, solid waste and marine debris. The project will bring representatives of Ridge-to-Reef planning that has been evolving rapidly in the eastern Coral Triangle (Solomons Islands) to help build capacity in the SSS [35-38]. It will also examine how to incorporate climate change impacts within the Ridge-to-Reefs model of planning.

The Joint Administrative Order on the establishment of MPA Networks is in progress, which resulted from the GEF SMART-SEAS project and sits under the DENR Biodiversity Management Bureau. SEACONNECT will help support the DENR-BMB to consider how climate change impacts can be incorporated into MPA network design.

Current activities on managing marine resources, particularly through MPAs

Each of the three countries are investing in either broader MSP or MPA implementation within their jurisdictions of the Sulu-Sulawesi Seascape. There is as yet no formal management of small scale fisheries that are distributed across borders.

Indonesia: Indonesia is investing heavily in marine spatial planning (MSP) in the SSS, which allows for the designation of MPAs. Two conservation areas have been established under the MMAF in East Kalimantan, at least one of which has close proximity to extensive mangroves, which are an important nursery habitat [31]. There are stock assessments on small pelagic species and reef fishes in part through reef fish monitoring programs. Yet there is a significant value in reviewing current management investments on either side of the Indonesian/Malaysian border to identify ways to refine smaller scale planning at sub-province scales and to inform the 5-yearly review of plans. SEACONNECT will include key decision-makers and planners in assessing the shared distribution of resources and ways in which Indonesia (and Malaysia) may increase their national benefits by reviewing their MSP in light of the state, threats, and protection of resources in the neighbouring jurisdiction.

Malaysia: Malaysia's MPAs are spread over West (Peninsular) Malaysia and East Malaysia (Borneo). Marine parks in West Malaysia are managed by the Department of Fisheries Malaysia, while marine parks in Sabah and Sarawak are managed by Sarawak Forestry Department and Sabah Parks respectively. Sabah is also home to the country's first privately managed marine conservation area, Sugud Islands Marine Conservation Area or SIMCA, which is located on the northeastern coast of Sabah, close to the international boundary between Malaysia & the Philippines. Semporna is the gateway to the protected Sipadan Island Park, managed by Sabah Parks. It is often hailed as one of the world's best diving sites and richest spots for marine diversity.

There are plans to add additional MPAs within the Sabah region, though not in Semporna itself, which already has a marine park. However, a challenge identified by Sabah Parks is how to prioritise areas for protection when so many seem to have similar state, being partly disturbed. SEACONNECT will help identify suitable locations based on their biodiversity and fisheries potential as well as the relative impact of climate change. The project will place particular emphasis on identifying sites that contribute disproportionately to the sharing of resources across borders. Practitioners in each country will continue to priories the national security of resources but engagement in SEACONNECT, provides practitioners with a regional lens through which alternative decisions can be considered.

A seascape focus on shared ecosystem connectivity also includes the movement of fishes among key nursery, spawning, and adult habitats. Such data are in their infancy for the border region of Semporna so SEACONNECT will seek to identify such habitats and incorporate threats from climate change into a vulnerability assessment.

Philippines: The design of MPA networks benefits greatly from data on the connectivity of fishes and corals across the seascape [29, 39]. The Philippines has drafted new legislation for MPA networks and SEACONNECT will assist its use in priority regions of the SSS that have a shared resource dimension (e.g., Balabac, Palawan). Similarly, the inclusion of key nursery habitats for migratory fishery species – sardines – is a rationale for considering the site of Zamboanga. This region has high biodiversity but has few MPAs and significant impacts on migratory species including turtles.

Data exist on the connectivity of migratory fishery species, including genetic and tagging studies. Dispersal models for reef fishes have also been undertaken by UP in a number of geographies [39] and the connectivity of resources from the West Philippine Sea to the broader SSS is well established [4, 40], making it a priority seascape under the CTI-CFF Regional Plan of Action. Thus the broader context of connectivity is established for the Philippines, which makes it easier to extend this work further into the SSS under SEACONNECT.

Current activities for managing destructive fishing practices on coral reefs & their fisheries

Indonesia: The marine conservation department of the Ministry of Marine Affairs and Fisheries (MMAF) includes destructive activities in their monitoring of Ilegal Unregulated and Unreported (IUU) fishing. Enforcement of blast fishing is carried out by police departments throughout Indonesia.

Malaysia: The illegal and destructive practice of fish bombing (blast fishing) is a matter of grave and continuing concern in Sabah. In order to address this issue, the State Government of Sabah formed an Anti-Fish Bombing Committee in 2012 with representation from concerned government authorities and NGOs. The Department of Fisheries Sabah is a member of the committee. The committee aims to supress fish bombing by 2020, as indicated in UNs SDG 14 and will achieve its objective by implementing the following approaches:

1. Increased engagement and coordination with local communities to implement initiatives to address the socio-economic root causes of fish bombing;

2. Improved enforcement using new technologies and enhanced capacity;

3. Increased research and development to improve our understanding of the situation and develop innovative approaches to rehabilitate damaged habitats;

4. Increased awareness of the issues surrounding fish bombing and the State Government of Sabah's efforts in this regard to a local, national and regional audience in order to facilitate cooperation and accelerate learning;

5. Improved coordination and management of government agencies and their partners; and

6. Formulation of a state-wide action plan taking into account all the above *(Reference: https://oceanconference.un.org/commitments/?id=16712#updates)*

All fishing activities in Malaysia are governed by the Fisheries Act 1985 and its regulations and fisheries management policies. Section 26 of the Fisheries Act 1985 deems fish-bombing as an offence punishable under Section 25, providing a fine of up to RM20,000 or a jail term of up to two years, or both, on conviction.

The Department of Fisheries Malaysia has also launched a National Plan of Action to Prevent, Deter and Eliminate IUU fishing (Malaysia's NPOA-IUU) , in line with the FAO International Plan of Action on IUU Fishing to reflect Malaysia's commitment towards combatting the issue on unsustainable fishing practices. The overarching goal of the plan is to ensure sustainability of fisheries resources.

Philippines: The Philippine government funded 700 permanent fisheries regulatory officers in the Bureau of Fisheries and Aquatic Resources to supplement the enforcement of IUU in addition to law enforcement agencies. While blast fishing remains a significant problem, reef damage also occurs by commercial fishers that exceed their national boundaries and cause regional impact.

SEACONNECT Component 2 will complement these activities by adapting a behaviour change project for piloting in fisher communities. It is likely that the behaviour change strategy will target blast fishing but we will also consult further during the PPG to consider whether a focus on commercial fisher behaviour outside national jurisdictions is a higher priority.

Current activities enhancing enterprise for the blue economy associated with coral reefs

The blue economy is a major source of community resilience, both in terms of sustainable fisheries and alternative enterprise. The CTI-CFF has proposed to strengthen community resilience through appropriate projects as well as develop partnerships with private sector and strategic partners by 2030.

Indonesia & Malaysia: Indonesia is participating in several large blue economy programmes, many of which are organised under the World Bank's Indonesia Sustainable Oceans Program. Yet there remains a need to find diverse approaches to promoting alternative livelihoods. Like the Philippines, Indonesia was a pilot site for the World Bank/GEF Capturing Coral Reef Ecosystem Services (CCRES) project. Approaches to building entrepreneurship and improved business models within fisher communities were developed in the southern Sulawesi district of Selayar. Outcomes included connecting fishers to more profitable supply chains in return for adherence to good fisheries practice. Lessons from these activities will be incorporated in the SSS under SEACONNECT.

While the blue economy sector is experiencing expanded investment under various development projects and national commitments, there remain some significant gaps. One is helping small business enterprise cope with shocks such as climate change or pandemics. SEACONNECT will build the capacity of small business owners to plan for and adapt to shocks on their enterprise by mimicking an early warning system so that identified stress indicators in the biophysical, social and economic spheres are rapidly communicated to other areas and a coordinated solution implemented . These activities will focus on the tourism sector which is important throughout the SSS, and offers the most prominent alternative income sources for fisher communities.

Part of the challenge of helping businesses adapt to environmental shocks is direct intervention in coordinating and regulating tourism activities. Yet countries have taken different approaches. For example, Malaysia and Thailand have closed some tourism sites during coral bleaching. Other areas, including Indonesia and the Philippines, have asked whether a carrying capacity should be placed on tourist density on fragile ecosystems during these events (and even at other times). SEACONNECT will enable groups to share their experiences and collaborate on the production of 'best practice' guidelines for managing coral bleaching events and recovery planning through rapid communications and solutions networks that are grounded at community level. A similar case can be made for the role of restoration. One of the candidate SEACONNECT sites in Indonesia is Maratua Island (Derawan) where local tourism businesses have been developing restoration actions to help adapt to climate change impacts. Sites like this will help ensure a productive regional learning exchange, particularly where restoration is concerned.

Malaysia has existing livelihood projects for fishing communities including assistance with boats and infrastructure and capacity building for adding value to fishery resources downstream. Enhancing peoples' capacity to create business models has not yet been undertaken and therefore SEACONNECT will help fill this gap.

The Department of Fisheries Sabah implements a number of direct aid and incentives programs to help fish farmers, fishermen and fish processors. A number of these are implemented by the Department itself while some are carried out in close cooperation or jointly with other government agencies. The following direct aid is given:

1. Fish cage materials (Netlon/netting, ropes, lumber, floats, etc)

2. Seaweed culture materials (floats, ropes and monofilaments, etc.)
3. Freshwater Fish Broodstock incentives
4. Fish processing/fish feed processing equipment
5. Fish/prawn pond culture materials (pumps, paddle wheels, pipes, lime, etc.)
6. Hatchery materials (plankton stock, fish eggs, aeration equipment, etc.)
7. Small fishing boats
8. Fishing gears
9. Marine equipment (outboard engines, winches, line haulers, cooler boxes, etc.)

These direct aids are given with four major objectives in mind:

1. To help small-scale farmers with some initial capital to start or expand their enterprise. This is targeted to improve their incomes and thereby improve their standard of living.
2. To attract new entrepreneurs and operators to enter the local aquaculture industry.
3. To help poor fishermen in enhancing their fishing capability and thereby improve their incomes.
4. To encourage fishermen to have an additional or alternative source of income or economic activity.

A virtual Workshop on Opportunities and Challenges for a Blue Economy in the Asia-Pacific Region in a COVID-19 World was conducted on 2 – 3 February 2021. This workshop was jointly organised by Maritime Institute of Malaysia (MIMA), the Asian Institute of Technology (AIT) in Bangkok, The Energy and Resources Institute (TERI) of India, and Konrad-Adenauer-Stiftung (KAS), Germany, to examine opportunities and challenges for an Asia-Pacific Blue Economy framework that impinges on regional cooperation, resource security, science and technological cooperation, and sustainable development.

The overall discussion centred on deliberating interlinkages and potential for cooperation in Blue Economy in the geopolitical, economic, and sustainable development landscape of the region. The forum also discussed the possible implementation of Blue Economy strategies to complement stimulus and recovery packages with an emphasis on regional cooperation, besides exploring policy options to enable recovery both within countries and in the Asia Pacific region. The SEACONNECT project will consider the outcomes of these discussions as it plans during the PPG phase.

Philippines: The diversification of enterprise as a means of reducing fishery capacity is a key objective of the Fishery Management Areas. Business incubation and enterprise development programs are being rolled out by BFAR with a particular focus on the aquaculture sector. BFAR has livelihood / enterprise programmes that are focused on governance and regulation at this point. SEACONNECT will add value to these on-going programmes by focusing on business model development and training in entrepreneurship.

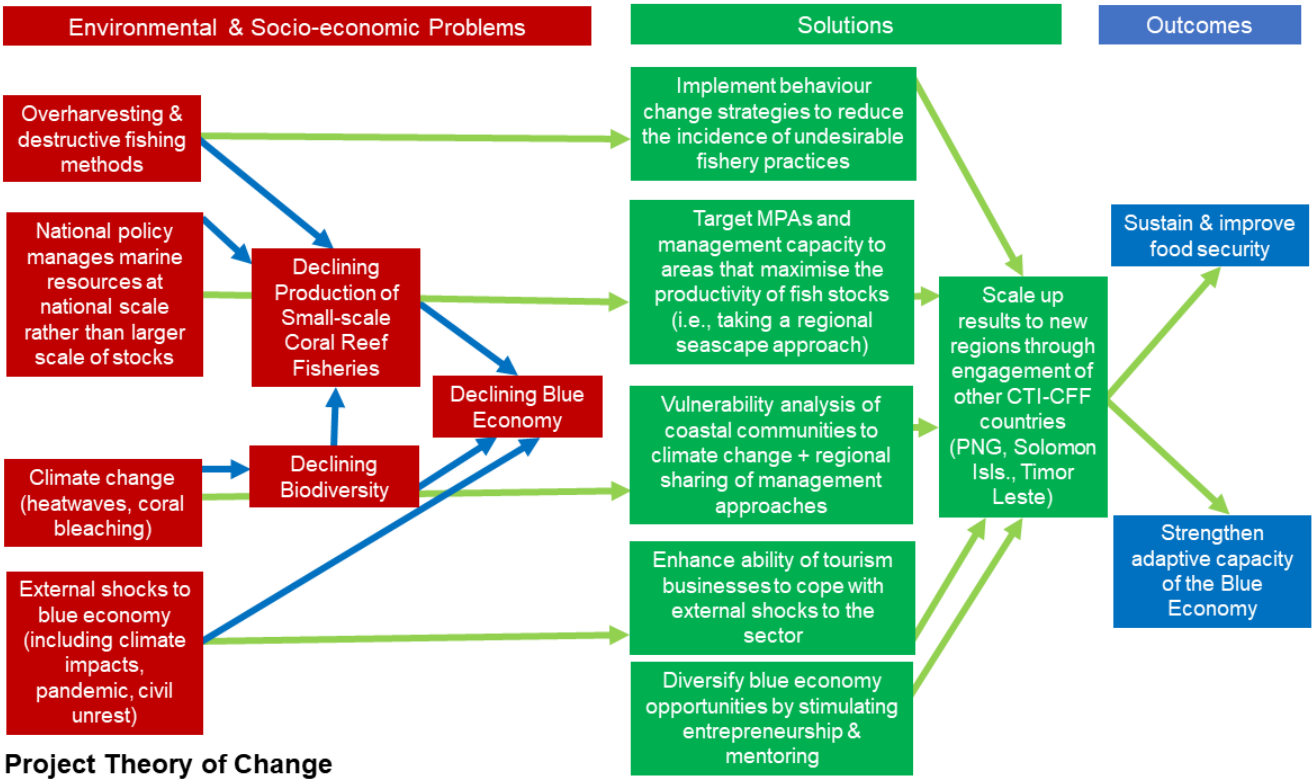
Current activities scaling up interventions among LMEs

The need to build regional exchanges of ideas and approaches to common problems is the primary justification for the CTI-CFF. The primary means of achieving technical cooperation on issues of climate adaptation, MPAs, and ecosystem-based fisheries is through the existence of relevant Technical Working Groups. The CTI-CFF Regional Plan of Action 2.0 is essentially an investment framework to ensure that donor funds can be funnelled to support priority activities within the region. That SEACONNECT falls under the umbrella of the CTI-CFF ensures maximum complementarity with on-going activities. For example, the RPOA identifies that regional exchanges, training and learning are conducted on generating and reporting information on Climate Change Adaptation and risks by 2025. SEACONNECT will help achieve this for the climate change adaptation issues identified in Component 1 and in so going bridge activities from the SSS to the Lesser Sunda, Bismarck-Solomons, and Indonesian Seas LMEs.

B. Project Description

Project Description

The SEACONNECT Project responds to three of the six Transboundary Problems identified by the regional TDA: unsustainable exploitation of fish, habitat loss and community modification, and climate change. It also addresses four of the five RPOA goals of the CTI-CFF: designation of effectively managed seascapes (SEASCAPE); application of an ecosystem approach to fisheries management (EAFM); establishment of a fully functional marine protected area system (MPA); and strengthening climate change adaptation and resilience (CCA).



Project Theory of Change

The overall objective of SEACONNECT is to improve sustainability of coral reef resources, fisheries, and the blue economy in support of the "Seascape Approach to Securing Coral Reef Fishery and Biodiversity Resources in the Sulu-Sulawesi" Strategic Action Programme. The overall project theory of change begins with four fundamental environmental and socio-economic problems, which combine to undermine biodiversity and the blue economy. First, overharvesting of fishery resources and the use of destructive fishing methods (e.g., bomb fishing) reduce fisheries yields by diminishing adult stocks below sustainable levels while also damaging the habitat and reducing its ability to support marine resources. Second, efforts to manage fisheries resources, particularly using MPAs, are hindered by not knowing the dynamics of the stocks, which cross multiple jurisdictional boundaries. Yet placement of MPAs where the resulting larvae can replenish key fishing grounds will help rebuild fisheries, even when the area of protection is modest [41]. The third environmental problem is climate change, which is causing significant losses to coral reef habitat throughout the region.

To mitigate the overharvesting of fish stocks, all three countries of SEACONNECT are extending the coverage of MPAs towards the 30X30 target. The project will facilitate this process by enhancing the governance of climate change adaptation and allowing resource managers in neighbouring jurisdictions to visualise the connectivity of key stocks throughout the seascape and plan accordingly. These activities form Component 1, which is described in more detail later. The project will also work with fishers to reduce the incidence of undesirable activities that might include blast fishing. A pilot behaviour change strategy will be implemented with a view to reducing habitat impacts of fisheries.

The fourth problem tackled by the project is the apparently increasing incidence of external shocks to the blue economy (e.g., pandemic, coral bleaching, civil unrest). These impacts, which often lead to a reduction in tourism, exacerbate the existing problems to fisheries sustainability and biodiversity, potentially forcing more people into the fishery and undermining livelihoods and food security in the sector. The project will take a novel approach to mitigating such issues by helping stakeholders factor shocks into tourism business models. We will also stimulate entrepreneurship by conducting training sessions, reviewing proposed business models, providing some seed funding and connecting emerging businesses with mentors.

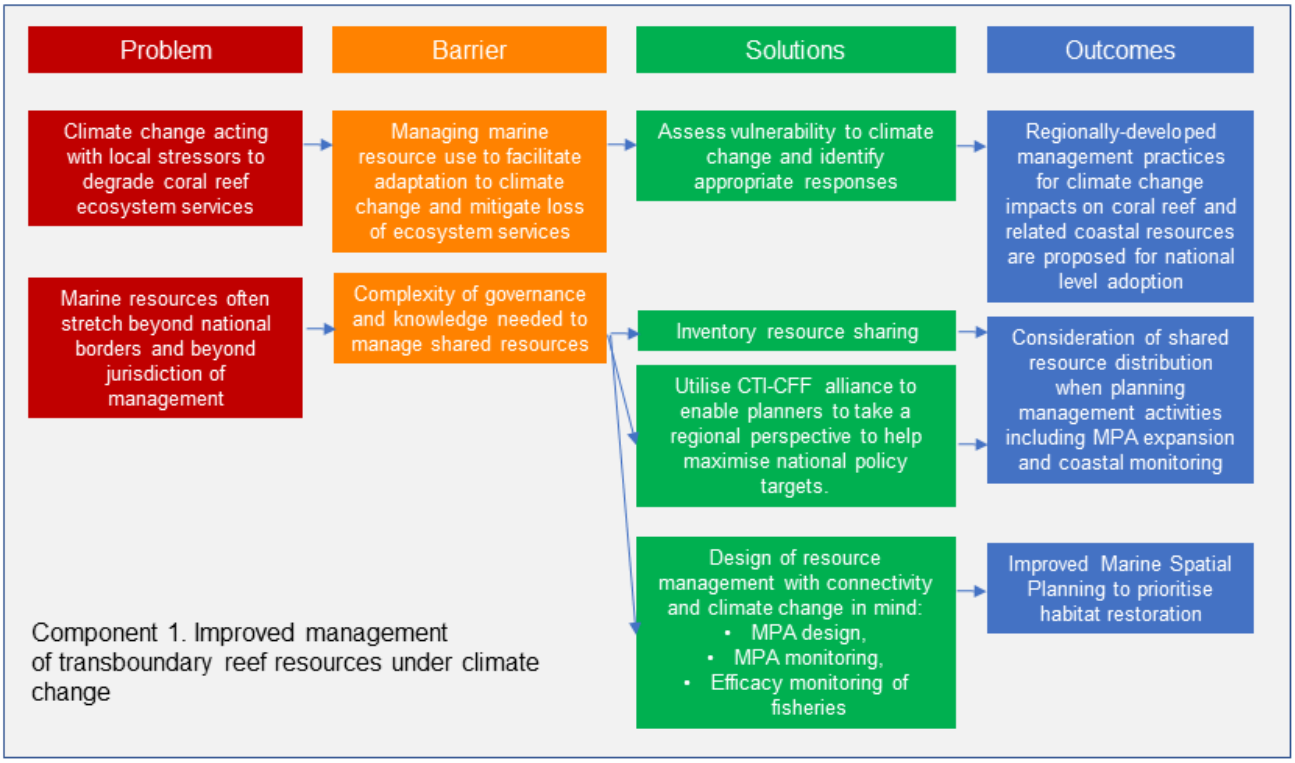
Although the project is based in the SSS, and involves three of the CTI-CFF countries, we will scale up the learning in resource management and governance by interacting with the other three CTI countries (PNG, Solomon Isls., and Timor Leste). Thus, an advantage of this being a CTI-CFF initiative is that an existing partnership and sharing infrastructure exists to maximise project impacts. In practice, this involves sharing lessons within the Seascape, MPA, climate adaptation, and Ecosystem-Approach to Fisheries Managements technical working groups.

Success of the project makes several assumptions. From a biophysical perspective, it is assumed that connectivity can be modelled and therefore visualised by marine resource planners. This seems like a safe assumption given earlier modelling – albeit at lower resolution – in the area [4]. We assume that planners in all three countries are willing to review their management plans in light of the multi-jurisdictional connectivity context. Again this seems to be a safe assumption because the genesis of the project originated with regional planners identifying an opportunity. Moreover, regular interactions across national boundaries occur as members of the CTI-CFF technical working groups so the relationships needed to facilitate cooperation already exist. Methodologies for behaviour change have been piloted successfully in the region for marine plastic (CCRES project). The degree to which they can be adapted for undesirable fishing activities is uncertain, though the process is rooted in decades of theory and practice from health applications. Helping stimulate livelihoods with the Ecobiz framework should be feasible given successful pilots in Palawan (Philippines) and Sulawesi (Indonesia), and both regions are included in SEACONNECT. However, the approaches have not been tested in Malaysia and shifts in economic opportunity since the pilots (~2015) may impact success. It is also assumed that business models, particularly for tourism, can be adapted to consider various forms of economic shock. One of the world's global experts on this topic – Professor Brent Ritchie (UQ) – will be providing technical assistance to mitigate chances of failure.

The CTI-CFF has developed a policy on Gender Equity and Social Inclusion (GESI) and created a Women Leaders' Forum (WLF), which has its own roadmap up to 2025 (documents uploaded). This policy and roadmap provides an ideal vehicle within which to frame activities of SEACONNECT and is a key benefit of embedding the project within the CTI-CFF. For example, the WLF plans to engage with relevant projects (i.e., SEACONNECT) and seek opportunities that can be championed by women. A good example here is the EcoBiz programme. Furthermore, the Regional Secretariat of CTI-CFF is assisting with monitoring GESI and SEACONNECT will coordinate closely in this context.

Component 1: Improved management of shared resources under climate change

Component 1 partners resource management practitioners across neighbouring jurisdictions and provides the knowledge resources to design and implement strategies that are both climate-smart and operate at appropriate scales. There are three principal outcomes.



Outcome 1.1 Regionally-developed management practices for climate change impacts on coral reef and related coastal resources are proposed to national level adoption

Target 1.1.1 At least three planning decisions, such as marine spatial or MPA plans that take account of climate change impacts on the ecosystem or people's livelihoods

Climate change is impacting ecosystems and fishers in various ways. Coral reefs are being impacted severely by coral bleaching events, which impacts coastal people through reductions in ecosystem services including fish production, coastal protection, and tourism attraction. But changes in weather are also affecting fishers' ability to access resources, particularly when winds and storminess increase [22]. In order to plan for these impacts, the project will build on previous assessments [e.g., 42] to map the vulnerability of ecosystems and fishers to climate change.

Coral bleaching events cannot be mitigated directly but practical solutions can help reefs recover during the period between events. The first step is to identify local regions that are predictably cooler, forming refugia from the worst of the warming [43]. This is done by analysing time series of satellite-based sea surface temperature. The next step is to find the most important sources of coral larvae, which are reefs whose upstream position allows them to replenish multiple coral populations as the larvae they release travel on ocean currents [44]. Priority areas for management intervention can be identified that meet several criteria including being local refugia from heatwaves and important sources of coral larvae, particularly to areas vulnerable to damage [45]. Once prioritised, practitioners in each jurisdiction can then review whether it is valuable to protect such reefs from other forms of damage such as from blast fishing or excessive tourism visitation. Ultimately, safeguarding such reefs helps to build resilience and promote the rapid recovery of damaged areas. Moreover, such locations are often priorities for reef restoration efforts.

Where fishers' access to marine resources is expected to be impacted by climate change, such information will be considered in the design of MPAs. For example, if fishing will tend to intensify close to shore then priorities for MPA locations may move further offshore.

Outcome 1.2 Consideration of shared resource distribution when planning management activities including MPA expansion and coastal monitoring

Target 1.2.1 At least two planning decisions, such as marine spatial or MPA plans, take account of the shared distribution of coral reef resources

The monsoonal reversals of winds in the SSS drive complex connections in marine resources across national boundaries [4]. The continued increase in availability of larval dispersal models means that practitioners can now access insightful data to understand how populations are connected [46]. A recent GEF project, CCRES.net, created freely available tools to harness such data in the design of MPAs for both fisheries and biodiversity benefits [28]. In SEACONNECT, practitioners on either side of a border will predict the consequences of making alternative decisions such as the placement of MPAs. The project will help them maximise their national benefits following an ecosystem approach to fisheries that recognises fishery species will differ in their responses to decisions. This form of cooperation does not require a transboundary agreement; rather, each country will continue to pursue its national priorities, such as MPA expansion, but seek planning decisions that improve the sustainability of their portfolio of stocks. **This is a key innovation of SEACONNECT in that it strives towards policy coherence** in the management of shared resources without requiring formal transboundary governance arrangements. The 10 years+ existence of the CTI-CFF has enabled practitioners of marine resource management to develop and maintain a dialog across international borders. SEACONNECT adds transparency to how such resources are shared and the consequences of alternative management arrangements. This way, practitioners can seek maximal benefits within their jurisdiction by coordinating decisions on either side of borders. Decisions are not limited to MPA designation because a 'system-wide' view of resource connections and management can help prioritise monitoring and enforcement activities.

Target 1.2.2 At least 3 female, 4 male participants in the seascape practitioner working group for making coordinated decisions on resource use

Target 1.2.3 At least three planning or resource management decisions that the seascape practitioner working group contribute to

Target 1.2.4 At least eight diverse institutions represented by the seascape practitioner working group

Target 1.2.5 At least three MPAs subject to new fisheries evaluation

Target 1.2.6 At least two 410,00 ha (of which 10,000 ha KBAs) areas under improved management

Outcome 1.3 Improves marine spatial planning to prioritise habitat restoration

Target 1.3.1 At least nine locations identified for restoration that considers climate change and/or resource connectivity

Increasingly, countries are looking to restoration methods to help mitigate the decline in habitat quality on coral reefs [47]. Given the high costs of such approaches [48], it is important that restoration is targeted where it can be most beneficial. Practitioners in the SEACONNECT project will utilise recent tools to identify where restoration methods will be most useful. This includes locating areas of potential sources of coral larvae, areas where rubble – generated by blast fishing – will likely become a persistent problem, and avoiding areas where other stressors, such as poor water quality, will likely prevent long-term success of restoration.

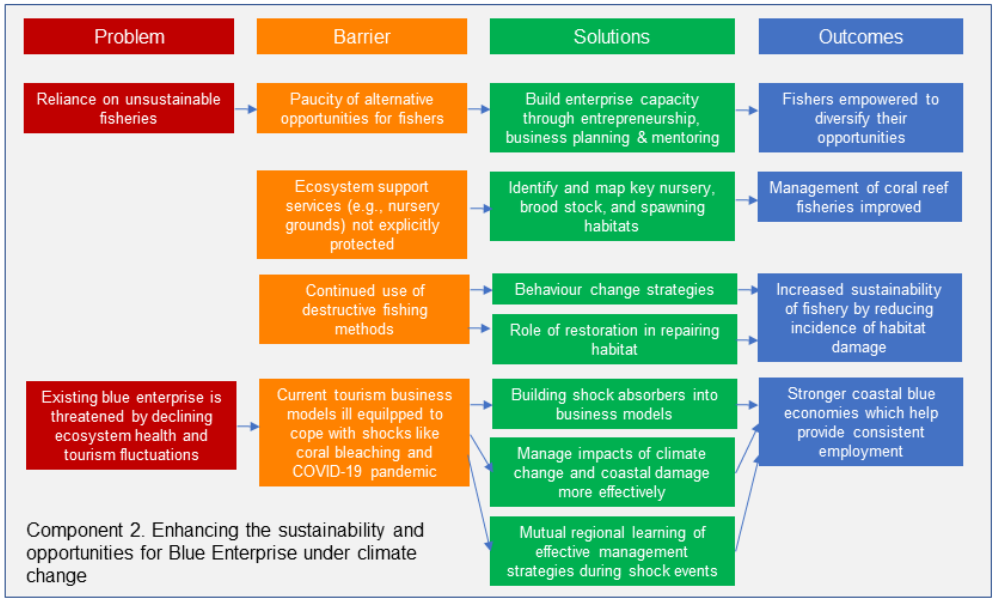
Together, the three outcomes of component C1 will strengthen spatial decision making so that it is more climate resistant, considers the natural scale of marine resource populations, and is as cost-effective as possible.

Component 2: Enhancing the sustainability and opportunities for Blue Enterprise under climate change

Component 2 focuses on the sustainability of blue economy and contributes to the diversification and growth of enterprise which is necessary to reduce overcapacity in the fishery. It has four sub-components.

Outcome 2.1 Fishers empowered to diversify their opportunities

Target 2.1.1 At least 20 female and 30 male fishers experiencing training in entrepreneurship
Target 2.1.2 At least one new business opportunity



Component 2. Enhancing the sustainability and opportunities for Blue Enterprise under climate change

All three countries of the SSS support various 'alternative livelihood' programmes (reviewed in section 1.2). SEACONNECT will enhance capacity in entrepreneurship and the creation of sound business models, which is highly complementary to existing capacity building activities. The project seeks to enhance livelihoods while also improving the ecosystem the fishers communities rely on to sustain them. Economic and financial pressures across a generation have eroded the capacity for many communities to fish sustainably as their ability to capture the value the value they create from their efforts has diminished. Empowering fishers to diversify their activities, funding sources and employment choices through an enterprise led program creates income and opportunities without relying on external funding beyond the short term. The program will utilise the EcoBiz tools (CCRES.net) that were developed in both the Philippines and Indonesia for coral reef fishery contexts. EcoBiz itself is built on a commercial feasibility assessment framework that has been employed on over 500 technologies and business ideas in a wide range of countries and in similar settings. In short, the programme provides training in entrepreneurship and works with fishers to systematically

support them in developing new business ideas and structured plans based on feasible business models. The business models are focused on building alternative sustainable income for their community through a business that also improves the marine ecosystem that provides their core livelihood. The programme will build a tiered support network through local and national mentors who already have experience in creating and growing similar enterprises. The EcoBiz approach is very scalable and will be implemented in all three countries and will encourage the mutual learning and sharing of ideas and practices across the network. EcoBiz encourages local and national social enterprises to engage extensively using a framework that is intuitive and easily integrated with existing community support programmes. Such engagement will further the capacity to share business models and pathways to market for new businesses across the network through community embedded communication networks.

The EcoBiz process provides a practical opportunity to implement the CTI-CFF Gender Equity and Social Inclusion policy. For example, it is important not only to ensure a strong representation of women in the process but also to consider challenges for business that have a gender dimension, such as caring responsibilities or unequal access to intrastructure.

Outcome 2.2 Management of coral reef fisheries improves

> *Target 2.2.1 At least 20,000 ha of critical coastal habitat identified*
> *Target 2.2.2 At least two management activities that utilise new information on critical fish habitat*

This part of the project is strongly aligned with Component 1 in helping to rebuild and sustain fisheries through improved management planning. Here, the focus is on identifying critical habitats for small-scale fisheries as part of an ecosystem approach. Specifically, project teams will collaborate to identify key nursery habitats, such as mangroves and seagrass beds, as well as known spawning sites and the locations of good brood stock. Activities will start with a desk-based exercise to review the current knowledgebase in the region. Field reconnaissance will then confirm the importance of such habitats, such as surveying areas of mangroves that have the smallest tidal fluctuations, which tend to have the most important nursery roles [31].

Knowledge of key support services for reef fisheries, such as nursery and spawning habitats, are highly influential in designing ecosystem approaches to sustaining fisheries. Several approaches exist to incorporate such information into marine planning [49, 50] and a shared perspective is relevant in border regions. The project will combine data on both larval dispersal (Component 1) and adult migrations (this sub-component) to inform and review the locations of management actions including MPA planning, watershed management, and monitoring. Models will be used to evaluate the expected improvements to both the fisheries and biodiversity resulting from inclusion of new locations and habitat protection. These gaps in knowledge were identified by governments in the SSS and provision of data will help them factor realistic connectivity into improved decision-making.

Outcome 2.3 Increased sustainability of fishery by reducing incidence of habitat damage

> *Target 2.3.1 Fifty people engaged in behaviour change program (gender balance unpredictable)*
> *Target 2.3.2 At least 20% of fishers express reduced participation or reduced observation of others engaging in undesirable activities (gender balance unpredictable)*

Undesirable behaviours by a minority of fishers threaten the sustainability of the fishery. Two of the most egregious activities are blast fishing and poaching across international borders, both of which are usually classified under IUU fishing. Behaviour change strategies may help reduce the incidence of such problems as has recently been demonstrated for marine plastic pollution (CCRES.net). Behaviour change strategies work with participants to help them identify the core reasons for the problem and develop workable solutions. The CCRES behaviour change strategy, “My Future, My Oceans” [51], was created by psychologists who’d had decades of experience working with parents to promote positive practices. A behaviour change strategy will be piloted in one jurisdiction and project steering committee will decide the specific problem that will be addressed during the PPG phase (i.e., blast fishing, IUU, etc).

Outcome 2.4 Stronger coral reef blue economy

> *Target 2.4.1 At least one action to manage tourism more effectively during heatwaves*

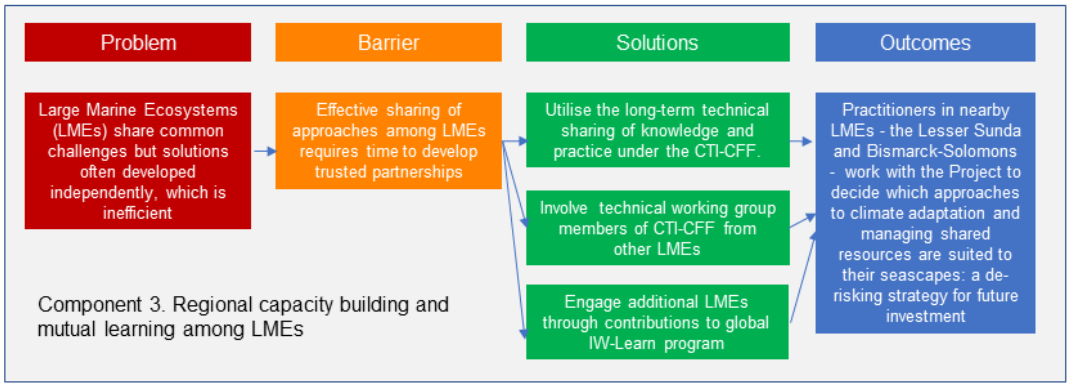
Target 2.4.2 At least 30 female, 50 male tourism partners engaged in process of business model review and refinement including the creation of new partnerships with data providers on issues like coral bleaching

In many communities local enterprises are not capturing the value they create because as producers they are at the opposite end of the supply chain to where the financial returns are concentrated. In fisheries. returns are often found in regional centres and international markets. Long supply chains with many intermediaries mean that returns from sales, value capture, is shared disproportionately along the supply chain to the point of being unsustainable for the fisher communities. This 'value leakage' from the community means that essential infrastructure such as refrigeration, the fishing fleet, electricity, water, sanitation, as well as government supported services such as regulation, policing, education and financial services decline and diminish. To attract new investment into communities requires existing enterprises need to be thriving.

The first step is to build the local business ecosystem that is in tune with the marine ecosystem. This is what EcoBiz – a program developed under the World Bank / GEF CCRES project – is designed to assist. EcoBiz begins with workshops that share examples of businesses that have flourished in comparable regions elsewhere. It then builds to stimulate the process of entrepreneurship and the creation of draft business models. These business plans are reviewed and feasible opportunities receive both seed funding and a connection to mentors elsewhere in the country that have managed successful business. Once some momentum has been achieved, the second step, a coordinated effort to improve infrastructure through local through to national government leadership, investment and regulation is possible. Momentum here will enable the third step, a coordinated effort to attract impact investors with a passion for simultaneously improving marine ecosystems and livelihoods, particularly by shortening the supply chain and ensuring a better return to fisher communities. This three-step process requires time and extensive coordination but the fact that it is enterprise led minimises that pressure on public funding and agencies to deliver the solution and increases the likelihood that marine ecosystem dependent businesses and communities can withstand shocks from coral bleaching to COVID. Moreover, the project will explicitly review current business models in the marine tourism sector and evaluate whether they can be improved to better adapt to shocks.

Component 3: Regional capacity building and mutual learning among LMEs in the Coral Triangle

Outcome 3.1 Practitioners in other Coral Triangle LMEs work with the Project to evaluate which approaches to climate change adaptation and managing shared resources are suited to their own regions (i.e., de-risking their own investments)



Country representatives in marine resource management have been interacting for more than a decade through the CTI-CFF technical working groups, workshops, and annual Senior Officials Meetings. This has built the relationships and trust to allow open evaluations of the suitability of activities piloted in one region of the Coral Triangle (CT) to be adopted in the other. These relationships allow the impact of the project to be extended throughout the CT and indeed all six partner countries of the CTI-CFF endorsed SEACONNECT with that in mind. SEACONNECT will include partners from geographically related Bismarck-Solomons and Indonesia Seas Large Marine Ecosystems (LMEs) and help them de-risk their adoption of climate change adaptation and approaches for managing shared coral reef resources. Through a series of workshops and the existing CTI-CFF technical working group activities, the project will facilitate knowledge exchange across the region and identify which actions could be adopted elsewhere and any changes in approach that might be necessary for successful deployment. In so doing, SEACONNECT helps the wider CT approach the global goal of 30X30 MPA projection.

Target 3.1.1 At least 15 females and 15 males engaged in the cross LME network
Target 3.1.2 At least three regional network activities including training carried out by group

Target 3.1.3 At least one approach to shared or climate adaptation piloted in the SSS that become identified as appropriate for use in the Lesser Sunda, Bismarck-Solomons, or Indonesian-Seas LMEs.

Component 4: Knowledge sharing and management

Outcome 4.1 Effective communication of climate change and shared resource concepts improves understanding of stakeholders and planners

Target 4.1.1 At least 80 female, 80 male persons engaged in improved understanding of the shared nature of marine resources within SSS
Target 4.1.2 At least 50 females, 50 male participants engage in project outputs within the IWLearn framework
Target 4.1.3 One knowledge platform established and easily accessible for stakeholders
Target 4.1.4 At least eight regional students trained in specialist techniques that can help implement project activities either within or beyond the SSS
Target 4.1.5 At least five collaborations created between regional data and education providers within or beyond the Coral Triangle region

Knowledge management is essential for the success of the project, both in order to achieve the longer-term outcomes and to attain sustainability and scalability goals for the project. During the PPG phase an in-depth strategy for knowledge management will be developed, outlining the development and delivery of products and identifying the channels through which they will be best disseminated.

The Executing Agency and CTI-CFF Regional Secretariat will be the primary delivery channels for knowledge products. These will, where possible, be made publicly available through the CT atlas portal[2]. The CT atlas is an online GIS database, providing governments, NGOs and researchers with a view of spatial data at the regional scale. This database enables efficiency of management and conservation planning in the region by giving researchers and managers access to spatial information while encouraging them to share their data to complete the gaps. The data created in this project, particularly on connectivity of coral reef resources within the seascape, will be made publicly available through the CT atlas. The CT atlas and CTI-CFF websites also provide repositories of information for stakeholders and practitioners on CT resources, management guidelines and various status reports. The SEACONNECT knowledge products will be made available on this site, ensuring their long-term accessibility.
The project will share lessons earned with other platforms, particularly through the existing CTI-CFF networks, and via IW learn workshops. The project will actively contribute to IW learn, the GEF IW conference, and the project website will have links to the IW learn site, CT atlas and CTI-CFF portals.

Knowledge products to be delivered in the project include:

Component 1
- Regional guidelines on management practices for CC impacts on reef and related coastal resources
- Report on CC impacts on reef dependent small-scale fishers of SSS
- Guidelines to assess fishery benefits from MPAs (with and without multi-jurisdictional scales)

Component 2
- Maps of critical coral reef and related coastal habitats for fisheries within the SSS
- Regional plan and guidelines for managing impacts of heatwaves on coastal tourism

Component 4
- Minimum of 8 SEACONNECT lessons made available through IW LEARN forum
- Report on progress and challenges to improving gender equity in the region

The project's monitoring & evaluation plan will produce semi-annual, mid-term and final reports and share these with all stakeholders.

[2] CT Atlas: http://ctatlas.coraltriangleinitiative.org/

Outcome 4.2 High levels of gender equity achieved in the development and implementation of regionally-created approaches to shared resources management, blue enterprise and training

Target 4.2.1 Up to or over 30% project-wide gender minority inclusion
Target 4.2.2 Up to over 30% gender minority featured in project communications

Global environmental benefits

Contributions to GEF Core Indicators

See attached GEF-8 Results Measurement Framework Worksheet but in summary, the project contributes to Core Indicators 2 (10,000 ha but the specific choice of MPAs depends on the connectivity which is not yet known); 5 with 400,000 ha of marine habitat under improved practices; 7 (2 shared ecosystems, 7.1, 7.2, 7.3, 7.3); 8 (which will be modelled during the Project Preparation Phase as it requires extensive calculations and further ground validation), and 11 (at least 20 female, 40 male).

Focal Area Benefits

The project will directly benefit resource management, fisheries, and livelihoods within the Large Marine Ecosystem of the Sulu Sulawesi Seas. The SSS covers approximately 900,000 km2 of international waters between Indonesia, Malaysia and The Philippines. About 40 million people live within the SSS and depend on the coastal and marine resources therein. It is the apex of the Coral Triangle holding the highest marine biodiversity globally with extensive coral reefs, seagrass, and mangrove areas. More than 500 species of corals, 1000 reef fish species, 400 species of algae, 16 seagrass species, 5 sea turtles, the coelacanth, and 22 marine mammal species are found in the SSS (Chou 1997; Jacinto et al. 2000; Carpenter and Springer 2005; Veron et al. 2009). Threatened species in the SSS include species of sharks, rays, turtles, whales, dolphins, corals and fish. Coral reefs in the SSS cover approximately 6 million hectares. An average reef fish biomass on reefs in the region is about 500kg / ha (Campbell et al. 2020). Given most of the SSS reefs are substantively overfished and degraded, much of the SSS reef fish productivity falls short of historical levels and the average biomass does not reach threshold estimates (1,150 kg / ha) for viable ecosystems (McClanahan et al. 2014). This project seeks to improve reef fishery productivity and longevity from this estimated low base. The potential finfish yield for the SSS has been estimated at 675,380 metric tonnes (Sulu-Celebes Sea Sustainable Fisheries Management Project 2014).

Beyond the direct focal area, outcomes of the project will rapidly benefit the Coral Triangle region (6.4 million km2) through knowledge, tools, networks to be enabled though the CTI-CFF partnership. In particular, the benefit to management of other priority seascapes in the CT will be rapidly deployed (e.g. Lessa Sunda Seascape and Bismarck-Solomon Seascape).

Global benefits

Project actions will generate significant global environmental benefits by:

a) Addressing three problems identified under the Transboundary Diagnostic Analysis (TDA) for the Sulu-Celebes (Sulawesi) Large Marine Ecosystem: Unsustainable Fisheries, Habitat Loss and Community Modification, and Climate Change.

b) Supporting seascape management of marine resources across borders, which builds explicitly on the ecosystem-approach to fisheries by considering the impacts of climate change and local stressors on fisheries productivity.

c) Strengthening coastal fisheries by providing adaptation measures for the impacts of climate change.

d) Strengthen coastal fisheries capacity by empowering national, regional and local governments to plan in a multi-jurisdictional context as well as improving their ability to adapt to climate change impacts.

e) Complement the Large Marine Ecosystems (LME) approach by developing seascape management approaches to small-scale reef based within existing LMEs.

f) Scaling up behaviour change projects to reduce unsustainable fishing practices in concert with entrepreneurial activities for dependent fisheries that enables sustainable long term economic growth in coastal and small island regions.

g) Building the joint capacity of local, national, and regional institutions of (e.g., research based, education, private sector, and government levels) to enact positive and lasting changes. Joint collaboration will speed up actions particularly through sharing knowledge and practices.

Global targets

The project will contribute to the Aichi Targets No. 4 (sustainable production and consumption), No. 6 (applying ecosystem-based approaches in fish harvest management), No. 11 (10% of coastal and marine areas are conserved) and No. 14 (ecosystems that contributed to the livelihood are restored and safeguarded). The primary purpose of the UN CBD Aichi Target 11 is to improve biodiversity conservation. Yet climate change is the greatest long-term threat to coral reef biodiversity. By implementing MPA strategies that explicitly support recovery from coral bleaching events, the project will increase the biodiversity benefits associated with achieving the Aichi target. A new target of 30% protection by 2030 has been identified by the IUCN and SEACONNECT will help partner countries move towards that goal in a manner that considers climate change and food security expicitly.

The project will contribute directly to the Sustainable Development Goals, particularly SDG 14 (Life Below Water). Using marine spatial planning tools to sustain coral reef resources, reduce overfishing and habitat destruction, guide restoration activities and partnering across the LME, the livelihoods of coastal and small island communities depending on coral reefs will be more secure and sustainable. Therein the project also addresses SDG 1 alleviating poverty compounded from resource loss, SDG 2 alleviating hunger by sustaining food provisions from coral reefs, SDG 5 addressing gender equity challenges in coral reef related sectors, and SDG 8 for decent work and economic growth by training in business skills and incentivizing sustainable entrepreneurial activities by fisher communities. SDG 13 for Climate Action is a core deliverable for the project enabled through spatial planning, and reef ecosystem management tools that help improve the resilience of climate threatened reef systems in the SSS. By helping SSS communities and governments better prepare and respond to climate disasters (like coral bleaching events), livelihoods and ecosystems will be more resilient to climate change.

Innovation, sustainability and potential for scaling-up

Innovations

Extension of regional partnerships

Developing and operationalising regional partnerships are core to the SEACONNECT project. Through the CTI-CFF, tri-national government relationships among Malaysia, Philippines, and Indonesia in the relevant ministries for marine resource management are strong, highly functional, and co-operative. Government representatives for each of the SSS countries have worked closely in the CTI-CFF since 2009, as well as under the Sulu-Celebes Sea LME Tri-national committee (Tri-com) prior to CT-CFF formalisation. SEACONNECT will extend these nation-nation partnerships to the provincial levels wherein practitioners, park managers, provincial government officers and regional data providers will collaborate directly while pursuing national planning priorities.

Developing regional networks of marine planning practitioners, marine park and tourism managers, technical experts, data providers, and education institutions means that knowledge can be shared among practitioners facing similar environmental and social issues. The network will enable improvements in reef management, reef restoration, fisheries sustainability, tourism and business practices within and across jurisdictions. Importantly the establishment of trust among member states, provided for by the CTI-CFF governance framework, will enable quick and ongoing exchange of shared experiences and management approaches for the whole of SSS.

The existence of the CTI-CFF governance framework de-risks the project because key collaborative and communication mechanisms already exist even to the level of ministers. Indeed, the Regional Secretariat of the CTI-CFF will be a key contributor and coordination mechanism within SEACONNECT. Further, the existence of SEASCAPE working groups with representation across neighbouring countries greatly simplifies the task of factoring

regional connectivity into decision making. With appropriate data and planning frameworks, countries can maximise their national benefits while considering connectivity yet not need to implement a new formal policy agreement, which can be burdensome and oft restrictive.

Existing partnerships within the CTI-CFF partnership will be used to build capacity and share knowledge in the SSS, beyond just the three focal countries. For example, leaders from the Solomon Island Ridge to Reef management programs will assist in capacity building SSS practitioners from focal sites via the sharing of knowledge, experience and tools. The established CTI-CFF relational partnerships again make this goal easily achievable has strong, collegial working relationships already operate between the member countries.

Shared nature of national investments and targeted prioritisation of resource distribution

By taking a shared seascape connectivity perspective, the project seeks to achieve optimal biodiversity and blue economy outcomes for all jurisdictions. The SEACONNECT project will help countries achieve this aspiration by facilitating transparent decision-making. Decisions are most informed when the expected consequences of alternative decisions can be compared. This is the very essence of the project, in bringing stakeholders, scientists, and decision-makers into the same process and quantifying the benefits (or costs) of alternative management strategies. SEACONNECT will prioritise management activities in locations and communities where the most beneficial local and regional results can occur. This will include identification of locations and subsequent resource deployment with a connectivity lens strategy wherein both the host country / province and the neighbouring country and states can attain the highest environmental and social gain. This will maximise resource use for the benefit of the SSS.

Vulnerability assessments for SSS reef fisheries

Vulnerability assessments under the project will be the first to identify the ecological and socio-economic vulnerability of reef fisheries and fisher communities to climate and other shocks, within the SSS (Output 1.1.1, 1.1.3). This work will subsequently inform prioritisation of resource management actions taking a seascape connectivity approach (Output 1.1.2). Similarly, the project will be the first to develop guidelines on MPA fishery benefits within the context of SSS's coral reefs (Output 1.2.3).

Best practice management guidelines for priority reefs

The new network of SSS regional practitioners, stakeholders, and planners will convene and create a state-of-the-art series of best practice guidelines for managing climate impacts on coral reefs and optimising MPA design for regionally connected resources. Guidance would be included for managing climate shocks, tourism management, fishery tools, and more. These reports would be the first to consider the SSS context directly, and recommendations will have a high likelihood of uptake because they are developed by the practitioners themselves and not by external parties in different geographical contexts.

Innovations in the blue economy: tourism and fisheries

SEACONNECT will build the capacity of small business owners to plan for and adapt to shocks in their enterprise. By applying lessons and tools from the South Sulawesi and Palawan-based CCRES program (CCRES.net), SEACONNECT will enable business diversification activities and innovations by local business operators and fisher communities. These will focus on tourism operations and reef fisheries. Innovations in behaviour change programs that reduce destructive fishing practices and increase the sustainability of reef tourism and fishery businesses will result. In addition, lessons learnt and adaptive tools gained during the COVID-19 pandemic, by SSS business, will be shared and skills further developed upon. Critically, SEACONNECT will enhance peoples' capacity to create business models and provide training in entrepreneurship.

Sustainability

The SEACONNECT project is formally 'owned' and adopted by the CTI-CFF, which is a major asset for ensuring long-term sustainability. The CTI-CFF is a long-term, ministerial-level commitment of six neighbouring countries whose collaboration will extend far beyond the end of SEACONNECT.

Several of the project outputs describe lessons learnt and best practice for planning and management. These will be archived online and made available through IWLearn.

Project outcomes including behaviour change strategies for undesirable fishing activities, will be carried out at demonstration sites across the three countries. By representing a range of environments and social contexts, the outcomes will be readily scalable to many other parts of the Coral Triangle, particularly throughout SE Asia. Upskilling the reef-based fishery and tourism industry with critical business planning skills and tools will enable their longer-term sustainability in the face of increasing climate change events that currently threaten their viability.

Environmental sustainability of coral reef biodiversity and fishery resources is a central goal of the project. The project seeks to improve the capacity of the marine environment within the SSS to withstand further climate change shocks and continue to sustain the livelihoods of its dependent communities. This can be achieved via the outcomes and targets of the SEACONNECT project detailed herein.

Social sustainability will be ensured via the implantation of the CTI-CFF Gender and Social Inclusion policy. Work will be built on the vision and strategies derived from the CTI-CFF Women Leaders Forum, whose successes are already at the forefront of gender equity breakthroughs in south-east Asia. The project will ensure through strong participation of women and men throughout each phase, and utilise existing partnerships with minority groups and agencies that work with them. By collecting disaggregated data on women and minority group's activities in reef-based enterprises and their livelihood drivers, the project can help identify and implement resource avenues for sustainable long-term behavioural changes. Successful adaptive practices will be scaled out to other locations within the coral triangle by the established CTI-CFF partnerships in the region. Sustainability of practices in the SSS will be enabled through the focus on building stronger local, provincial and national partnerships within and between countries. While the project work may cease at these pilot sites at the end of the funding cycle, the goal is to operationalise practitioners in other LMEs to use the lessons and tools to similar benefit. Upskilling the reef-based fishery and tourism industry with critical business planning skills and tools will enable their longer-term sustainability in the face of increasing climate disturbances that threaten their viability.

In order for the work to be sustained after the project, it is imperative that training materials and training capacity are maintained in the region. This will be achieved by engaging the **CTI-CFF University Partnerships** and strengthen their links with management planners in government and NGOs where necessary.

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Scalability

Perhaps the most important means of achieving scalability is the project's tight integration within the CTI-CFF, which includes collaborating practitioners across at least three other Large Marine Ecosystems. The CTI-CFF's activities operate through multi-jurisdictional teams that consider MPA design, climate adaptation, the ecosystem-approach to fisheries, and seascape planning. As SEACONNECT progresses, practitioners in other LMEs will share in the developments both through routine updates in each technical working group and the annual CTI-CFF conference.

Another means of achieving scalability is by extending the use-case studies of earlier GEF IW investments. For example, the World Bank/GEF Capturing Coral Reef Ecosystem Services project (ccres.net), also executed by the University of Queensland, developed and demonstrated the use of practical tools for MPA design, governance improvement, behaviour change, and building enterprise. The tools were implemented in rural Indonesia and the Philippines and will be adopted in SEACONNECT where appropriate. For example, while the original behaviour change strategy focused on marine plastic pollution, SEACONNECT will adapt the strategy to assist in reducing undesirable fishing behaviours. The growing number of cases will be archived and communicated at fora such as IWLearn.

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project?

☐ Yes ☒ No

Project Coordination

Implementation of the project requires four principal activities, which are divided into three technical working groups and project coordination. This project structure is modelled, in part, on the current CTI-CFF organisation and will link with the CTI-CFF's technical working groups.

Project Management

A project management unit (PMU) will be established at the Executing Agency (EA) headquarters. The PMU's responsibilities include coordination among technical WGs, budgetary oversight, reporting to the Implementing Agency (IA), monitoring and evaluation, sub-contracting and procurement, and communications. The PMU will also sub-contract a national coordinating body to support on-the-ground activities in each jurisdiction.

Oversight of the project's progress and direction will be carried out by a Board with an independent chair and high-level representation of CTI-CFF Regional Secretariat, National Country Coordinators of the CTI-CFF, IA and EAs, the Chief Scientist, and, if relevant, each country's national government body with responsibility for implementing the UN Aichi Targets. The three technical working groups are:

Multi-jurisdictional Working Group (MJWG)

The Multi-jurisdictional Planning Working Group (MJWG) will have two principal activities. The first is to quantify the levels of connectivity using models of oceanography and particle tracking to map connections of key coral and fisheries species throughout the seascape. This will result in datasets that support the identification of keystone reefs and planning for seascape benefits of MPAs.

The second activity of the MJWG is to integrate inputs from other technical WGs and provide a multi-national – yet informal – environment to coordinate national action plans so that they maximise national benefits through a 'whole of seascape' approach. Outputs from the FRWG will quantify the benefits to be expected to each party by taking a coordinated approach to siting Fisheries Replenishment Zones as well as keystone reef protection to promote habitat quality. With participation of multiple levels of government and stakeholder involvement – local, regional and national – the TPWG will facilitate the communication and planning processes to seek approval of plans that maximise net domestic benefits. Progress will be monitored at the international ministerial level through the annual CTI Senior Official's Meetings.

Climate Adaptation Working Group (CAWG)

The Climate Adaptation Working Group will develop MPA and restoration strategies that help reefs recover from coral bleaching. They will do this by combining connectivity data from the MJWG, analysing historical records of thermal stress, and evaluating the range of ancillary stressors across the seascape. The CAWG will also conduct exchange programmes and engage heavily with the tourism industry to identify appropriate action plans for managing bleaching events.

Fisheries Replenishment Working Group (FWG)

The FWG will contain a mix of practitioners and scientists and its mandate is to develop guidelines on how to maximise and evaluate the fisheries benefits of MPAs designated as Fisheries Replenishment Zones. This is strategically important in identifying MPA locations that offer the greatest national and benefits to fishers by considering the whole of seascape. Moreover, a sound means of evaluation the fisheries benefits of MPAs will strengthen their legitimacy and help governments monitor MPA function and take corrective action where functions are lacking. Working with the MJWG, the FWG will identify reefs with the greatest ability to support the replenishment of critical fishing grounds.

Coordination with other GEF-projects and other initiatives:
The PMU and in-country nodes, will coordinate with other GEF-projects in the three member countries that involve management of coral reef resources and seek to improve livelihoods of their dependent local communities. It will be particularly useful to coordinate with PEMSEA (Partnerships in Environmental Management in South-East Asia), and coordinate activities at their workshops. The SEACONNECT project will benefit greatly from the acquired knowledge and understanding, technical capacity and collaborative cross-sector partnerships of more than a decade of GEF-project investments in the Coral Triangle region.

Current projects

COREMAP CTI III (5171) project by Indonesia's MMAF, BAPPENAS and LIPI agencies coordinates the national infrastructure and training MPA management and continues on COREMAP CTI I and II. SEACONNECT will coordinate closely with COREMAP partners to further implement MPA planning and management plans in the Indonesian jurisdiction of SSS, with a multi-jurisdictional lens to coral reef management that is mutually beneficial to both Indonesia and its SSS neighbours. A primary focus of COREMAP III is to decentralise resource management responsibilities. SEACONNECT's focus on provincial level training, knowledge sharing and networking (across provinces and nations) will complement the COREMAP model in a different focal area. Lessons learnt in COREMAP, particularly around project

management and sustainability will be reviewed and applied in the project plan during the PPG phase. SEACONNECT seeks to deepen the MPA management actions and planning initiated from MMAF COREMAP programs, with zoning prioritization, identifying future priority MPAs, building on initiatives to reduce destructive fishing via behaviour change practices, enhancing effective tourism management MPAs and creating active intervention guidelines for local managers. All such tools build on the existing MPA management and monitoring platforms and practitioner networks that COREMAP I – III have operationalized. Coordination with COREMAP will be operationalized through the MMAF implementing partner who are also the primary Indonesian body in the CTI-CFF SEACONNECT project.

Coral Reef Rescue: Resilient Coral Reefs, Resilient Communities (CRR, 10575). This project seeks to identify and improve the resilience of priority reefs around the world, identified as such because of their greater contribution to the ecological and social systems in the region. Additionally, it seeks to establish a global learning network of marine practitioners involved in the conservation and management of these high priority coral reef sites and LMEs. The SSS is one of the CRR's focal ecosystems. SEACONNECT will communicate with CRR to leverage training and networking opportunities, particularly for provincial level government employees. Doing this will enable stronger partnerships between government, industry, NGO, scientific and academic parties in the SSS, allowing greater sharing of tools, knowledge and prioritisation of limited resources. Additionally, there are shared goals in deploying marine spatial planning, economic valuation and financial tools for small scale fishers (using CCRES models).

Partnerships for Coral Reef Finance and Insurance in Asia & the Pacific (10431). This project seeks to develop a globally sustainable financial instrument to invest in coral reef conservation. Focal areas include Indonesia and the Philippines. SEACONNECT will call upon the expertise of this project to deliver guidance when designing the project in more detail during the PPG.

Ecosystem approach to Fisheries Management (EAFM) in Eastern Indonesia Fisheries Management Areas 715,717 & 718 (9129). This project seeks to deliver sustainable coastal fisheries management in several FMAs of North Eastern Indonesia. The EAFM project is already integrated with the CTI-CFF and reports to the EAFM technical working group. As a sister project within the CTI-CFF program, SEACONNECT will seek to collaborate in the delivery of knowledge management and knowledge sharing components, including via the CTI-CFF seminar and training events. The SEACONNECT project will collaborate with the EAFM team to accommodate learnings from the development of reef fishery management plans (FMPs) in neighbouring provinces. EAFM project representatives will be invited to share their practices with the SEACONNECT reef fisheries working group, enabling efficiencies in determining vulnerability assessments and making any policy recommendations for enhancing reef fishery management in the seascape (e.g. changes in fishing gear / seasonal closures / locating nursery grounds etc).

Protecting priority coastal and marine ecosystems to conserve globally significant Endangered, Threatened, and Protected (ETP) marine wildlife in southern Mindanao, Philippines (10536). This project is currently being developed and focuses on establishing well managed and connected MPA networks for migratory marine megafauna in the Mindanao region. Focal areas include overlap with some of the proposed SEACONNECT sites. Utilising similar focal sites and local communities provides opportunities for co-delivery of training modules and collecting information on various indicators of biological, social and economic indicators. This will be facilitated through in-country delivering partner DENR.

Promoting the blue economy and strengthening fisheries governance of the Gulf of Thailand through the Ecosystem Approach to Fisheries (GoTFish, 666461). While this project considers multi-jurisdictional management of mostly pelagic fish stocks, it includes a component on climate adaptation and MPA design along the eastern coast of Peninsular Malaysia. This is not part of the SSS but lessons learnt during GoTFish will be shared with SEACONNECT and vice versa. This will be facilitated by both projects being executed by the University of Queensland and the institutional linkages between the Department of Fisheries Malaysia (both projects) and Sabah Parks (SEACONNECT).

Other initiatives:

SOMACORE “Solutions for Marine and Coastal Resilience” (SOMACORE) program, in the Coral Triangle-Sulu Sulawesi Seascape” aims to strengthen the resilience of the region’s ecosystems and communities in multi-jurisdictional seascapes through protection, good governance and effective management of coastal and marine biodiversity. The project is supported and delivered by the GIZ, a key partner of CTI-CFF whose work is well integrated and adopted within the CTI-CFF network. The SOMACORE program’s support for good governance in the CTI-CFF has been critical to the continued operational effectiveness of the Regional Secretariat and major deliverables of the CTI-CFF partnerships. The program’s support has therefore assisted in the sustainability of the CTICFF network and the development of the SEACONNECT project herein.

The GEF-IW Learn network will be a critical partner for the SEACONNECT project, enabling a knowledge sharing platform for lessons and tools generated, as well as a portfolio for accessing training products for coral reef practitioners.

NGI (only): Justification of Financial Structure [3]
Please describe the financial structure and include a graphic representation. This description will include the financial instrument requested from the GEF and terms and conditions of the financing passed onto the Beneficiaries.

Risks to Project Preparation and Implementation
Summarize risks that might affect the project preparation and implementation phases and what are the mitigation strategies the **project preparation process will undertake to address these** (e.g. what alternatives may be considered during project preparation-such as in terms of consultations, role and choice of counterparts, delivery mechanisms, locations in country, flexible design elements, etc.). Identify any of the risks listed below that would call in question the viability of the project during its implementation. Please describe any possible mitigation measures needed. (The risks associated with project design and Theory of Change should be described in the “Project description” section above).

The risk rating should reflect the overall risk to project outcomes considering the country setting and ambition of the project. The rating scale is: *High, Substantial, Moderate, Low*.

Risk Categories	Rating	Comments
Climate	Low	Addressing climate change (CC) is central to the project design, particularly due to the major impacts that CC is already having within the seascape. Program activities and outputs are focused on improving sustainable use & management of coral reef resources in light of increased climate disruption. A specific Climate Adaptation Working Group is to be tasked with the delivery of CC impact evaluation, action plans, knowledge sharing & training for the project
Environment and Social	Low	1. In relation to shared and connected ecological resources across jurisdictional

[3] *Note: Make this into a pop-up which appears only if “NGI” was selected in the “General project Information”*

		boundaries, the monsoonal nature of oceanic flows, together with variations in the time of reef reproduction over the year, ensures that flows are bidirectional and ecological connectivity likely very high. 2. Behavioural approaches already found to be successful with plastic pollution in Indonesia, which is another difficult challenge and illustrates capacity for change. 3. Increased capacity building in entrepreneurship to help reduce overfishing will be using planned approaches piloted in Indonesia and Philippines under CCRES project that already demonstrate some success, with lessons and tools learnt to be applied here. 4. Countries will adapt their management planning to take account of climate change and shared resources and the participating countries already signed up to Aichi Targets and the 30/30 successors, demonstrating national priorities
Political and Governance	Low	1. Risks of neighbouring countries deciding not to collaborate are mitigated by the existence of the CTI-CFF. The CTI-CFF provides sufficient legal mandate to facilitate regional cooperation and CTI-CFF has ministerial level representation in all countries and has already superseded previous bilateral agreements for management. 2. In the unlikely event of two of the three partner countries experiencing conflict, the project will redirect efforts to the shared seascape of the unaffected area (assuming that only one of the two shared areas of seascape are impacted). 3. Some areas of the SSS have an elevated risk of low security (e.g., parts of southern Philippines). Decisions on whether project activities should take place in such areas will follow advice from national security agencies and the primary ministries involved with the project.
Macro-economic	Low	The project will first focus on the connectivity of reefs among and within existing MPAs, particularly at designated pilot sites. Existing monitoring programs by MPA managers at these locales coupled with satellite and modelling data on reef dynamics means that very minimal new in-situ recording will be needed. Where key gaps are identified, including on fishing pressure or reef damage,

		the project will harness regional expertise and logistical support from managers and regional scientists. Much information can be collated from existing regional knowledge depositories.
Strategies and Policies	Low	The three countries have adopted different practices to managing heatwaves and tourism so much scope for shared learning and cooperative revision.
Technical design of project or program	Low	1. A key novelty of this project is that the shared nature of resources can be sufficiently transparent, and the tools exist to operationalise this at a national scale. 2. Spatial planning techniques already developed and piloted at >20 sites in Indonesia by national government and technical partner collaborations, demonstrating feasibility. Technical infrastructure available through implementing partners. 3. The project's learning sites' selection in each country will be informed by very experienced governance & technical practitioners in a collaborative process, such that site selection is well informed & access deemed feasible.
Institutional capacity for implementation and sustainability	Low	To counteract the possibility of insufficient technical expertise in the region to deliver tools needed, the project will operationalise the regional capacity of university partnerships within the CTI-CFF.
Fiduciary: Financial Management and Procurement	Low	Member countries already committed to funding of CTI-CFF cooperative mechanisms and national representatives actively working on current and emerging SSS projects.
Stakeholder Engagement	Medium	1. The project will operationalise regional networks of practitioners, educators, and MPA managers such that these networks are able to share learnings and tools effectively for measuring, responding, and mitigating for increased climate events. 2. The CTI-CFF member countries and technical partners have a good record of female engagement and leadership development, particularly in national governance levels. This project will learn and build on these successes to (1) gather information on women and men's livelihoods and (2) increase women's access and participation in and through project.

		Regional experts in gender and social equity to be deeply involved in the PPG design phases of the project and enable delivery of CTI-CFF GESI framework.
Other		
Financial Risks for NGI projects		
Overall Risk Rating		

Safeguards Rating (PIF level):

C. Alignment with GEF-8 Programming strategies and country/regional priorities

No country policies contradict the intended outcomes of the project.

(max. 500 words, approximately 1 page)

International Waters and Regional Priorities	
SDG 14 Life below water	The project will contribute substantively to SDG 14 to "Conserve and sustainable use the oceans, seas and marine resources" as well as give input to a range of other SDGs that incorporate sustainable environmental management and improving livelihoods of coastal and island based communities. The project will contribute to the following SDG 14 targets: - 14.1 prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution - 14.2 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 - 14.3 minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels - 14.4 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 - 14.5 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 - 14b provide access for small-scale artisanal fishers to marine resources and markets.
CBD – Marine & Coastal Biodiversity goals - NBSAPs	The project will contribute to each country's work on reaching Aichi Biodiversity Targets and the following targets in particular: - Target 1: Raising awareness of the value of biodiversity and targeting behavior changes that result in more sustainable use of biodiversity - Target 6: By incentivizing the improved management of coral reef ecosystems so that overfishing is avoided and community-led fisheries management plans are in place that take into account vulnerable ecosystems - Target 10: By maintaining or improving ecosystem health and biodiversity in coral reef ecosystems - Target 11: By incentivizing the creation of and compliance with community based reserve systems that designate on average 20 percent of the area to fully protected NTZs

	- Target 14: By incentivizing the creation of and compliance with community-managed reserves that allow coastal fisheries to recover and contribute to the restoration of ecosystem services and livelihood benefits to local communities
CTI – CFF RPOA v1 and v2	SEACONNECT is fully consistent with the priorities for the CTI-CFF. The SSS is the first designated priority seascape of the CTI-CFF. SEACONNECT enables CTI-CFF to take this priority seascape to the next level given the project's multi-jurisdictional goals and outcomes laid out herein. The project includes most core elements of the RPOA (v1 & 2) and all cross cutting themes of the CTICFF into the workplans.
Trans Diagnostic Approach for Sustainable Fisheries Management in the Sulu-Celebes Sea (2014)	The Transboundary Diagnostic Analysis (TDA) of the Sulu-Celebes (Sulawesi) Large Marine Ecosystem identified five priority transboundary problems (TPs) as (1) unsustainable exploitation of fish, (2) habitat loss and community modification, (3) marine pollution, (4) freshwater shortage, and (5) climate change. SEACONNECT work aligns with 4 of these priorities and supports work to address their root causes, namely priorities 1,2,3 and 5.
RSAP for sustainable fisheries management in the Sulu-Celebes Sea Large Marine Ecosystem (2013)	SEACONNECT is consistent with key components of this RSAP where it involves coral reef ecosystems. The TRENSREEF model has been developed from the work done in the TDA and RSAP and by many of the same tri-national committee members. Thereby, SEACONNECT adopts much of the RSAP model yet with a lens for coral reefs.
Sustainable Development Strategy for the Seas of East Asia Implementation Plan (2018-2022) UNDP, PEMSEA 2018	SEACONNECT work addresses the priority management programs for (1) Biodiversity, Conservation & management, and (2) Climate Changes and Disaster Risk Reduction. Additionally, SEACONNECT activities and outcomes directly contribute to the cross cutting governance themes of (1) Ocean Governance and Strategic Partnerships, (2) Knowledge Management and Capacity Development and (3) Blue Economy Investment and Sustainable Finance.
Indonesia	
National Mid-Term Development Plan 2020-2024, Agenda No. 6 MMAF 2020	SEACONNECT project addresses national priorities for environmental management, increasing disaster resilience and climate change - specifically for coral reefs. Sustainable economic and livelihood activities for coral reef communities are directly addressed in SEACONNECT activities (Component 2). Increased resilience for environmental management and economic activities on coral reefs, within national waters is addressed in components 1, 2 and 3 – 4 (via capacity building).
National Mid-Term Development Plan 2020-2024, MMAF 2020	National government determination to use designated fishery management zones (WPP) as a spatial basis for maritime and marine management. SEACONNECT will operate in WPP 713 and 716, aiding in the improvement of strategies for: 1 Management quality and institutional arrangements – particularly marine spatial planning and coastal zoning plans. SEACONNECT will work with government planning

	offices in the region to identify suitable zoning levels within existing MPAS, M&E tools for MPA managers & fishery department, and identify future priority MPA sites. Training and knowledge networks will enable on-going strengthening of institutional capacity at state and national offices. 2 Sustainable management of the marine ecosystem and marine services. SEACONNECT will provide evaluations, tools and strategies to improve ecosystem health and ecosystem services, particularly in light of increased climate risks. 3 Increased production, productivity and quality of marine and fishery products PLUS 4 Improve business facilitation, financing, technology and markets, protection of small-scale business and access to resource management. Component 2, Outcome 2.1 and 2.2 of SEACONNECT focus on fishers livelihoods, products via support and development of small business entrepreneurship including sustainable supply chain development. 5 Improve competence, human resource capacity, technological innovation and research in maritime and marine, as well as strengthening the marine and fisheries database. SEACONNECT delivers on all aspects of this priority, particularly through Component 3. Additionally outputs 1.1.1, 1.3.1, and 2.2.1 are marine data products incorporating national reef systems.
Indonesia Biodiversity Management Action Plan IBSAP 2003 – 2020 MMAF Strategic Plan	Seeks to advance sustainable fisheries management and effective MPA management so as to achieve national targets : 10% of national waters in MPAs, conservation of marine threatened species, reduction of anthropogenic and climate related impacts on coral reefs and associated ecosystems. Increase MPA coverage to 20 million hectares of effectively management MPAs in 2020 and meet Aichi Biodiversity targets. Reduce and stop rate of biodiversity degradation and extinction at national, regional and local levels, along with rehabilitation & sustainable use efforts Align market activity with management plans of MPAs and create economic incentives for fishers, reduce enforcement costs and contribute to sustainability The SEACONNECT project will help identify potential areas with high biodiversity for protection & improve management of gazetted parks. In particular it will support and assist meet national priorities of safeguarding key ecosystems, species and genetic diversity.
National Marine Spatial Planning (law 27) MMAF 2020	The Project will help to identify management of critical habitat, areas suited to fisheries, and potential core zones, enabling more detailed spatial planning (beyond MPA boundaries).
CTI-CFF National Plan of Action (NPoA) And National Action Plan on Coral Reef Conservation (NAPCRC) 2017-2021 MMAF 2020	SEACONNECT directly supports the national plan in all components. SEACONNECT will deliver outputs and outcomes that address several of the national targets: (1) increase the availability of data and information on Indonesia's coral reefs, (2) enables movements towards community based management models, and (3) increases the awareness and participation of stakeholders.
RAN-API: National Actional Plan on Climate Change Adaptation.	This national plan identifies priorities for addressing climate change impact on livelihoods, particularly from sea level rise, changes in weather, climate, and rainfall. National government seeks to address these via budget reform, SE policy development, and socio-cultural transformation.

State Ministry of Environment 2007	SEACONNECT supports RAN-API through vulnerability assessments of coastal and island communities to climate related impacts on coral reef related livelihoods (fisheries & tourism), supporting and enabling livelihood diversification so as to increase adaptive responses and increase climate resilience. Capacity building and regional knowledge sharing will also inform local community responses (especially financially), and provincial and national policy developments.
Guideline for Utilization of Sustainable Fisheries Zones in Marine Protected Areas for Fishing by Local and Traditional Communities MMAF 2016	Policy gives local communities responsibility for co-management of coastal resources and MPAs with government partners. Involves small-scale fisher folk in most stages of MPA development and management, and fishery zone management. Enables Community Based Fishery Management for future MPAs. SEACONNECT socio-economic assessments for SSF on reefs, small business training, M&E tools for MPA managers (especially regarding reef fishery benefits) will contribute to empowering SSF in business management, self evaluation of MPA success, adaptive management schemes and sustainability of CBFM. SEACONNECT will help the national government operationalise guidelines in the SSS region. Regional communities of practice / knowledge partnerships will assist local and provincial practitioners glean from CTI neigbour's success (e.g. Philippines & Solomon Islands strengths in CBRM) and share their learnings. This will further strengthen resilience of community and intuitions, making them better prepared for future disturbances with increased ability to operationalise emergency response mechanisms (e.g. response to bleaching events).
Law No. 23 of 2014 Concerning Local Government	Governance of coastal marine resources (0-12NM off shore) is now under jurisdiction of provincial management. SEACONNECT will provide provincial departments critical capacity building, knowledge partnerships to aid and direct their operations. Particularly in M&E frameworks for MPAs, reef fisheries, tourism in MPAs, coral reef restoration and small scale fisher business development.
Malaysia	
National Fisheries Act, 1985 (+ National anti-fish bombing committee, 2012)	The act governs all fisheries activities in Malaysia. Particular current priorities are to improve the sustainability of small scale fisheries, utilise MPAs and Marine Spatial Planning, and supress IUU. Additionally a National committee aims to suppress fishing bombing by 2020 through a number of targeted approaches The goals of the SEACONNECT project align with the National Fisheries Act and curre prioirtues in fisheries management. In particular, the project's vulnerability assessments and guidelines on M&E frameworks for fishery benefits from MPAs will contribute to sustainable development of small scale fisheries in coral reef environments. Additionally the project's behaviour change aspects seek to further suppress destructive fishing practices.
NPoA on IUU, Malaysia Department of Fisheries.	Commitment to combat issues on unsustainable fishing practices and thereby ensure sustainability of fisheries resources. The project will contribute to this NPoA by addressing such issues in coral reef fisheries.
National Park Enactment 1977 Sabah Parks Enactment 1984	National, provincial and local government levels are committed to adopting and implementing marine spatial planning approaches. This project will enable timely assistance for the MPS approaches to be socialised, designed and implemented in the Malaysian areas. The project will help identify potential areas with high biodiversity for protection and improve management of gazetted parks
National Policy on Climate Change 2009	Project will help develop climate change actions that contribute to environmental conservation and sustainable use of natural resources.
National Policy on Biological	Project aligns with NPBDS activities in Goal 3 – to safeguard key ecosystems, species and genetic diversity.

Diversity 2016-2025	
Philippines	
Philippines Biodiversity Strategy and Action Plan (PBSAP) Philippines CBD targets for 2028	National goal is a 20% increase by 2028 in the coverage of marine and aquatic protected areas since 2015 (PH-CBD Target 20). The project will help identify potential areas with high biodiversity for protection and improve management of gazetted parks. In particular the national priorities of safeguarding key ecosystems, species and genetic diversity. Additionally, the project supports target 3, target 8 for sustaining economically important fish stocks to have no net loss in areas of coral cover, mangrove and seagrass, target 9 towards an increase in related jobs and target 12 on strengthening capacity building for biodiversity conservation.
Amendment to the fisheries code about IUU (Republic Act 10654	The project aligns by developing behaviour change strategies to help mitigate destructive fishing practices (part of addressing IUU).
National Plan for Integrated Coastal Management (ICM, 2016) NIPAS – National Integrated Protected Area System Act (1992), 2018. Wildlife Resources Conservation & Protection Act Indigenous People's Rights Act Ecotourism Development in the Philippines & Guidelines for Ecotourism planning and management in PAs 2015 2015 Implementation of coastal and marine ecosystems management program (CMEMP, 2016)	National policies to conserve biodiversity and encourage sustainable use of resources, and for communities to attain economic benefits from this. Including financial mechanisms, and incentives for biodiversity friendly enterprises within MPAs / NIPAS. The project supports these priorities for coral reef related ecosystems including provision of small business enterprise support. These include sustainable fisheries, eco-tourism, manufacturing of agricultural and fisheries products, and other fee generating ecosystem services. National priorities seek to benefit enterprises for sustainable fisheries, which reduce pressure and overexploitation of aquatic resources, address food security.

D. Policy requirements

Gender Equality and Women's Empowerment*:**
We confirm that gender dimensions relevant to the project have been addressed as per GEF Policy and are clearly articulated in the Project Description (Section B).
☒ Yes ☐ No (If –and only if— NO is selected, a pop-up field should open for the Agency to provide an explanation)

WILL UPLOAD THE CTI-CFF GESDI POLICY AND THE WOMEN LEADERS STRATEGIC PLAN

Stakeholder Engagement

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).

☒ Yes ☐ No (If –and only if— NO is selected, a pop-up field should open for the Agency to provide an explanation)

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities? ☐ Yes ☒ No

Civil Society Organizations? ☒ Yes ☐ No

Private Sector? ☒ Yes ☐ No

CTI-CFF Regional Secretariat Current Team engaged with the development of PIF: ● Christovel R.S Rotinsulu (DED-PS) ● Md. Anjum Islam (MEM) ● Corzzierrah Posala (TPM) ● Stephanie Mapaliey (DCDO) ● Michael Tampongangoy (NPPO) Former staffs who also contributed in the development of PIF: ● Dr. Sharifah Nora Ibrahim (until 2021) ● Dr. Gregory Bennett (until 2021) ● Muhammad Ichsan (until 2022) ● Janet Polita (until 2021) ● Ayodya Anggorojati (until 2020)	Ongoing/regular engagement with UQ and the CT3 NCCs, SWG and EAFM WG members (Indonesia, Malaysia, and Philippines) ● Meeting with CT3 NCCs ● Facilitated the writeshop for the PIF drafting together with the drafting committee members from CT3 ● Procured the ministerial level signature
Drafting Committee Members INDONESIA ● Seascape WG rep: Mrs. Antung Raudatul Jannah ● EAFM WG rep: Dr. Reny Puspasari MALAYSIA ● Chair, Seascape: Dr. Norasma Dacho ● Seascape WG rep: Ms. Sylvia Michael ● EAFM WG rep: Ms. Jessie Beliku PHILIPPINES ● Seascape WG rep: Ms. Nilda Baling/BFAR rep ● EAFM WG rep: Dr. Mudjeekewis b. Santos UQ/JCU/CI ● Prof. Peter Mumby (University of Queensland) ● Dr. Naomi Gardiner (James Cook University) ● Dr. Augustus Montebon (Conservation International-PH)	Drafting Committee Members attended 6 writeshops meeting to draft the PIF. The writeshops meeting was scheduled on: 1. 02-Jun-21 2. 30-Jun-21 3. 23-Jul-21 4. 30-Jul- 21 5. 09-Aug-21 6. 26-Aug-21

● Ms. Evangeline P. Miclat (Conservation International-PH) CTI-CFF RS ● Dr Sharifah Nora Ibrahim ● Md Anjum Islam ● Dr Greg Bennett	
CTI-CFF Technical Working Group: Seascapes: ● Ir. Suharyanto, M.Sc (Indonesia) ● Dr. Norasma Dacho (Malaysia) ● Marcial C. Amaro Jr. (Philippines) EAFM: ● Dr. Fery Sutyawan, S.Pi , MPP, M.T (Indonesia) ● Dr. Norasma Dacho (Malaysia) ● Atty. Demosthenes R. Escoto (Philippines) MPA: ● Dr. Firdaus Agung (Indonesia) ● Rimi Repin (Malaysia) ● Marcial C. Amaro Jr. (Philippines)	During the year 2020 until 2023 (present) the Seascapes working group and EAFM working group had conducted a total of 11 working groups meetings which is also discussed the progress and update of UQ GEF Project
National government **Indonesia** Ministry of Marine Affairs and Fisheries ● Dr. Hendra Yusran Siry ● Kelik Sunarko **Malaysia** Ministry of Natural Resources, Environment and Climate Change ● Dato' Haji Rosli Bin Isa ● Eddy Mazuaansyah Bin Mohd Ali Murad ● Dr. Mohd. Redzuan bin Ramli **Philippines** Biodiversity Management Bureau, Department of Environment and Natural Resources ● Marcial C. Amaro Jr. ● Pablo de los Reyes Jr.	Attended several zoom meeting discussions including the meeting on 3 August 2023 with CTI-CFF National Coordinating Committee of CT3 (Indonesia, Malaysia, Philippines) ● Facilitate and coordinate with CTI-CFF Regional Secretariat regarding the ministerial level signature ● Collect the ministerial level signature and submit it to CTI-CFF Regional Secretariat
Regional government planners for marine resources and MPAs including Sulawesi and Kalimantan Provincial governments, Sabah Parks, Palawan Council for Sustainable Development	Collaboration with PCSD under the CCRES project (2013-2018). In person workshops in Manado 2018, visits in 2019 to Sabah where discussions were also held with representatives from universities in Mindanao.
Local government planners influencing marine protection at demonstration sites (e.g., district fisheries sector, Sabah Parks, land and survey Sabah, maritime enforcement agencies, environment protection departments, local government units).	Field visit in 2019 to Sabah Parks and local reef managers.
NGO practitioners Conservation International, Wildlife Conservation Society, World Wildlife Fund, local NGOs	Bi-monthly interactions as part of CTI technical working groups

Local industry representatives from the tourism and fisheries sectors	Partners in the CCRES project up to 2018 in both Palawan (Philippines) and south Sulawesi (Indonesia)
Regional university lecturers and students under CTI University Partnership	Participation in the annual Senior Officials Meetings of the CTI-CFF

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

Private Sector

Will there be private sector engagement in the project?

☒ Yes ☐ No

And if so, has its role been described and justified in the section B project description?

☒ Yes ☐ No

In the project description this is described under section Outcome 2.1 and the reference to the EcoBiz approach. The project will build on existing linkages with the Private Sector that were fostered during the World Bank/GEF CCRES project, which is where EcoBiz was created.

Environmental and Social Safeguards

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

☐ Yes ☐ No (If –and only if— NO is selected, a pop-up field should open for the Agency to provide an explanation)

E. Other Requirements

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

☒ Yes

Annex A: FINANCING TABLES

GEF Financing Table

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

GEF Agency	Trust Fund	Country/ Regional / Global	Focal Area	Programming of Funds		(in $)		
					Grant/Non-Grant (For NGI Projects Only)	GEF Project Grant	Agency Fee	Total GEF Financing
		Regional	IW	GEFTF		6,000,000	540,000	6,540,000
Total GEF Resources								

Project Preparation Grant (PPG)

Is Project Preparation Grant requested? ☒ Yes ☐ No

If yes[4]: fill in PPG table (incl. PPG fee)

GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	(in $)		
					PPG	Agency Fee	Total PPG Funding
CI	GEFTF	Regional	International Waters		150,000	13,500	163,500
Total PPG Amount					150,000	13,500	163,500

Indicative Focal Area Elements

Programming Directions	Trust Fund	(in $)	
		GEF Project Financing	Co-financing
IW 1-2 Strengthen blue economy opportunities through catalysing sustainable fisheries management	GEFTF	6,000,000	137,817,000
Total Project Cost		6,000,000	137,817,000

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount ($)
GEF Agency	Conservation International	Grant	Investment Mobilised	10,000
Other	University of Queensland	Grant	Investment Mobilised	600,000
Other	University of Queensland	In-kind	Recurrent Expenditures	2,000,000
Recipient Country Government	Indonesia: Zoning KSNT	In-kind	Recurrent Expenditures	50,000
Recipient Country Government	Indonesia: National Marine Planning	In-kind	Recurrent Expenditures	100,000
Recipient Country Government	Indonesia: Integration of Provincial MSP land and coastal waters terkait mandat UU CK	In-kind	Recurrent Expenditures	140,000
Recipient Country Government	Malaysia (project management office)	In-kind	Recurrent Expenditures	271,000
Recipient Country Government	Malaysia: Fisheries ecosystem conservation project (Sabah State)	In-kind	Recurrent Expenditures	360,000
Recipient Country Government	Malaysia: CTI Sabah State	In-kind	Recurrent Expenditures	451,000

[4] *Note: Make this into a "pop-up" which appears only if PPG was selected, and if amount requested is above limits, they have to justify it*

Recipient Country Government	Malaysia: Marine Sanctuary & Fisheries Conservation Project (Sabah State)	In-kind	Recurrent Expenditures	192,000
Recipient Country Government	Malaysia: Strengthening fisheries management through EAFM (Federal)	In-kind	Recurrent Expenditures	331,000
Recipient Country Government	Malaysia: CTI Seascape Federal Funding	In-kind	Recurrent Expenditures	444,000
Recipient Country Government	Malaysia: Fisheries resource conservation program community involvement (Federal)	In-kind	Recurrent Expenditure	2,400,000
Recipient Country Government	Malaysia: Development and Management of Fisheries Resource using Artificial Reefs	In-kind	Recurrent Expenditures	4,320,000
Recipient Country Government	Philippines: 10 Fisheries Management Areas Implementation (BFAR)	In-kind	Recurrent Expenditure	4,083,000
Recipient Country Government	Philippines: National stock assessment program in 10 SSS regions	In-kind	Recurrent Expenditure	12,075,000
Donor Agency	USAID Fish Right Program in Calamianes, Southern Negros and Visayan Seas	Grant	Investment Mobilized	10,000,000
Donor Aagency	Fisheries and coastal resiliency (FishCore) project for FMA 9 to be funded by World Bank (to BFAR) (expected project)	In-kind	Recurrent Expenditure	100,000,000
Total Co-financing				137,817,000

Please provide indicative information regarding the expected amounts, sources and types of Co-Financing, and the sub-set of such Co-Financing that meets the definition of Investment Mobilized.

ANNEX B: ENDORSEMENTS

Name of GEF Agency Coordinator	**GEF Agency Coordinator Contact Information**
Name of Agency Project Coordinator	**Agency Project Coordinator Contact Information**

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name of GEF OFP	**Position**	**Ministry**	**Date *(MM/dd/yyyy)***

<<additional fields to be added for regional projects or global projects with on the ground investments>>

NGIs do not require a Letter of Endorsement if beneficiaries are: i) exclusively private sector actors, or ii) public sector entities in more than one country. However, for NGI projects please confirm that the agency has informed the OFP of the project to be submitted for Council Approval ☐ YES

Compilation of Letters of Endorsement

Please attach the Operational Focal Point endorsement letter(s) in this Annex. For SGP, use the SGP OFP endorsement letter format. For regional and global projects (as appropriate): please include a compilation of the signed LOEs in one PDF file in this annex.

ANNEX C: PROJECT LOCATION

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

Project Map and Coordinates.

The Sulu-Sulawesi (Celebes) Sea is connected from East Kalimantan and Sulawesi in the south, to Sabah Malaysia, and both Palawan and Mindanao in the southern Philippines. The project has identified likely study sites in each jurisdiction and final selections will be undertaken during the Project Preparation Grant phase.

Indonesia has identified three areas, two of which are in East Kalimantan (Tarakan and East Derawan) and the third being the outer Sangihe islands, which lie between Northern Sulawesi (Indonesia) and Mindanao (Philippines). Both Kalimantan sites were used for previous fisheries management projects that took an ecosystem approach. These sites also lie in close proximity to the Malaysian site of Semporna. The outer Sangihe Islands fit with the Indonesian government's focus on managing its outermost small islands. This area is also particularly vulnerable to climate change and the project would support the government in its intent to incorporate climate change in its marine spatial plan in the region. Moreover, Indonesia is currently finalizing an inter-regional zoning plan for the Sulawesi Sea and the project would help review the degree to which the plan considers changing environments and their impacts upon people.

Malaysia has selected the town of Semporna and its environs for the project. Semporna is at the crossroads of terrestrial run-off yet is also the gateway to some of the most important tourism sites in Malaysia, such as the island of Sipidan. Yet the marine resources of Semporna lie in close proximity to those of Indonesia. The Philippines has identified four potential study sites. Zamboanga was a previous demonstrate for the

UNDP/GEF small-scale fisheries project that led to an alternative SAP. It has a high biodiversity of coastal reef, seagrass, and mangrove habitats that include nursery grounds for sardines. It is also vulnerable to climate change and marine turtle poaching is prevalent. This is a priority area for capacity building for coastal management.
Sarangani Bay is also located in the east and is a legislated protected area facing Celebes/Sulawesi. Marine mammals and endangered turtles use this area on migratory routes. Security, peace and order are high and data are widely available through the DENR's protected area management office. The adjoining areas (Kalimba-Ledac) are proposed protected area sites under the NIPAS. Mindanao State University provides a local centre of excellence.
Apo Island is a legislated protected area where tourism is popular. Biodiversity is high and there are no security issues. Silliman University provides local research and survey capacity.
Balabac is located in the western, Palawan region of the Philippines and was also adopted by the UNDEP/GEF small-scale fisheries project that contributed to the Regional Strategic Action Program on which this project is partly based. It was also selected for the UNEP SMART-SEAS project so would allow for continuity. Balabac has a high biodiversity and new MPAs and fish sanctuaries have begun to be established under the SMART-SEAS program. It is important to sustain the SMART-SEAS initiative so this would be a useful sight for SEACONNECT.

ANNEX D: Environmental and Social Safeguards Screen and Rating

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

ANNEX E: Rio Markers

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Desertification

<< Rio Markers may be expanded in GEF 8 beyond markers for CCM and CCA>>

ANNEX F: Taxonomy Worksheet

<<Table below for now taken from GEF-7 PIF>>

Level 1	Level 2	Level 3	Level 4
Influencing Models			
Stakeholders			
Capacity, Knowledge and Research			
Gender Equality			
Focal Area/Theme			

ANNEX G: NGI relevant annexes

[5]

1. Annex X (currently existing in NGI projects): Termsheet
2. Annex X (currently existing in NGI projects): Reflow table
3. Annex X (currently existing in NGI projects): Agency capacity to implement NGI

List of key requirements leading to CEO Endorsement submission

During project design/by endorsement: [6]

[5] *Annex H: Only if NGI was selected on top*

[6] *Note: This **a list to remind agencies of key requirements** to address during project **preparation** and include in the endorsement request. No text is, therefore, to be entered here.*

- **Stakeholders:** provide list of stakeholders, roles in the project and means of engagement; specifically address civil society organizations, vulnerable groups and Indigenous Peoples and Local Communities (IPLCs) (as applicable) and their roles in the project
- **Gender Equality and Women's Empowerment:** carry out gender analysis and prepare gender action plan; include relevant gender aspects in Theory of change and gender-sensitive indicators in results framework (i.e. including the process to collect sex-disaggregated data and information on gender); include gender equality considerations/gender-responsive measures and actions in relevant activities in project components.
- **Environmental and Social Safeguards (ESS) related documents:** depending on types of ESS risks to be prepared (such as Environmental and Social Impact Assessment, Environmental and Social Management Framework/Plan, Indigenous Peoples Plan and Grievance Mechanism) and made public in country/location in relevant language/s (provide publication date and locations)
- **Private sector involvement mechanisms** (for non NGI projects: anticipated roles and type of PS; this will already be central to the project document for NGI projects)
- **Knowledge Management Plan** - develop "Knowledge Management Approach" for the project and how it will contribute to the project's overall impact, including plans to learn from relevant previous and ongoing projects; proposed tools and methods for knowledge exchange and learning; knowledge outputs; strategic communication plan; and budget and timeline.
- **Results**. Inclusion of final Core Indicator targets, along with a comprehensive results framework with indicator name, units of measurement, and baseline and target data.
- **Monitoring and Evaluation.** Include a budget, along with an explanation of monitoring arrangements and deliverables.
- **Institutional arrangements** (incl. reporting arrangements and flow of funds) and cross-sector integration approaches, as relevant
- **Sustainability**: Post-project financing sustainability plan
- **Co-finance**: Confirm amount and type of co-financing and the definition of investment mobilized
- **To be complemented by new GEF8 policies and requirements.**

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