

GEF-8 PROJECT IDENTIFICATION FORM (PIF)

TABLE OF CONTENTS

GENERAL PROJECT INFORMATION	3
Project Summary	4
Indicative Project Overview	4
PROJECT COMPONENTS	4
PROJECT OUTLINE	8
A. PROJECT RATIONALE.....	8
B. PROJECT DESCRIPTION.....	19
Project description.....	19
Coordination and Cooperation with Ongoing Initiatives and Project.....	33
Core Indicators.....	35
Key Risks	37
C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES	42
D. POLICY REQUIREMENTS.....	43
Gender Equality and Women’s Empowerment:	43
Stakeholder Engagement	44
Private Sector.....	48
Environmental and Social Safeguard (ESS) Risks	48
E. OTHER REQUIREMENTS.....	49
Knowledge management.....	49
ANNEX A: FINANCING TABLES	49
GEF Financing Table	49
Project Preparation Grant (PPG)	49
Sources of Funds for Country Star Allocation	50
Indicative Focal Area Elements	50
Indicative Co-financing	50
ANNEX B: ENDORSEMENTS	50
GEF Agency(ies) Certification	50
Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):.....	51
ANNEX C: PROJECT LOCATION	51
ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING	61
ANNEX E: RIO MARKERS.....	62
ANNEX F: TAXONOMY WORKSHEET	62

General Project Information

Project Title

Leveraging and Integrating Vital Ecosystems for Sustainable Blue Economy in Indonesia (LIVE-SEA)

Region

Asia

GEF Project ID

12264

Country(ies)

Indonesia

Type of Project

MSP

GEF Agency(ies):

IFAD

GEF Agency ID

2000005862

Executing Partner

Ministry of Marine Affairs & Fisheries (MMAF)

Executing Partner Type

Government

GEF Focal Area (s)

Biodiversity

Submission Date

12/29/2025

Project Sector (CCM Only)

Taxonomy

Biodiversity, Transform policy and regulatory environments, Influencing models, Convene multi-stakeholder alliances, Demonstrate innovative approaches, Strengthen institutional capacity and decision-making, Private Sector, Stakeholders, Civil Society, Non-Governmental Organization, Awareness Raising, Communications, Education, Public Campaigns, Indigenous Peoples, Participation, Type of Engagement, Consultation, Capacity Development, Capacity, Knowledge and Research, Targeted Research, Knowledge Generation, Knowledge Exchange, Gender Equality, Gender Mainstreaming, Beneficiaries, Women groups, Sex-disaggregated indicators, Mainstreaming, Tourism, Agriculture and agrobiodiversity, Fisheries, Infrastructure, Mangroves, Biomes, Payment for Ecosystem Services, Financial and Accounting, Forest and Landscape Restoration, Nationally Determined Contribution, United Nations Framework Convention on Climate Change, Focal Areas

Type of Trust Fund

GET

Project Duration (Months)

48

GEF Project Grant: (a)

5,000,000.00

GEF Project Non-Grant: (b)

0.00

Agency Fee(s) Grant: (c)

475,000.00

Agency Fee(s) Non-Grant (d)

0.00

Total GEF Financing: (a+b+c+d)

5,475,000.00

Total Co-financing

65,000,000.00

PPG Amount: (e)

150,000.00

PPG Agency Fee(s): (f)

14,250.00

PPG total amount: (e+f)

Total GEF Resources: (a+b+c+d+e+f)

164,250.00	5,639,250.00
------------	--------------

Project Tags

CBIT: No NGI: No SGP: No Innovation: No Competitive Window: No

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? (iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B “project description”. (max. 250 words, approximately 1/2 page)

Indonesia, the world’s largest archipelagic nation, hosts globally significant biodiversity and extensive marine ecosystems—including coral reefs, seagrass meadows, and mangrove forests—that underpin the Blue Economy. These ecosystems support approximately seven million jobs and provide 52–60% of the country’s animal-based protein. However, increasing pressure from degradation, overfishing, pollution, and climate change pose a serious threat to Indonesia’s marine biodiversity. Although Indonesia has made strong commitments under the Kunming–Montreal Global Biodiversity Framework (KM-GBF), formally designated marine protected areas (MPAs) cover only 8.96% of national waters. To address this gap, the government has committed to protecting 30% of marine areas by 2045 and recognizes Other Effective Area-Based Conservation Measures (OECMs) as a key mechanism to advance biodiversity conservation while strengthening ecosystem integrity, climate resilience, and local livelihoods.

The Leveraging and Integrating Vital Ecosystems for a Sustainable Blue Economy in Indonesia (LIVE-SEA) project aims to enable the effective and equitable scaling of marine OECMs through biodiversity-linked financing that improves ecosystem integrity while supporting sustainable livelihood transitions. The project will generate measurable Global Environmental Benefits and accelerate implementation of KM-GBF Target 3.

Through a collaborative and science-based approach, the project will enable Indigenous Peoples and Local Communities (IPLCs) to operationalize marine OECMs across approximately 174,000 hectares (Core Indicator CI-5.4). Of this total, around 74,000 hectares will be delivered through three Coral Triangle seascapes: Bintan (Riau Islands), Donggala (Central Sulawesi), and Manggarai Barat (East Nusa Tenggara), while the remaining area will be supported through co-financing initiatives. The project will activate new livelihoods and directly benefit at least 20,000 people (CI 11), including women and youth (minimum 20%) from 13 coastal villages, and indirectly benefit a further 200,000 people. Implemented by the Ministry of Marine Affairs and Fisheries (MMAF), the project will complement the IFAD-financed Blue Coast programme (US\$60 million).

Indicative Project Overview

Project Objective

To enable the effective and equitable scaling of marine OECMs for the conservation of biodiversity while improving ecosystem integrity and sustainable livelihoods.

Project Components

Component 1: Governance, Marine Spatial Planning and Effective Management of Marine OECMs

Component Type	Trust Fund
----------------	------------

Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
1,146,905.00	16,500,000.00

Outcome:

Outcome 1:

Marine Spatial Planning processes strengthened and community-led governance systems for marine OECMs support effective biodiversity outcomes and sustainable livelihood transitions.

Output:

- 1.1 Community-defined OECM boundaries and biodiversity-based zoning delineated and validated through FPIC processes.
- 1.2 Co-designed OECM management plans and detailed zoning plans developed to support conservation, restoration, and nature-positive livelihoods.
- 1.3 OECM boundaries and detailed zoning plans integrated into provincial MSP frameworks.
- 1.4 Community-led OECM governance systems established, and institutional coordination strengthened.
- 1.5 Governance, compliance, enforcement, safeguards, and adaptive management capacities strengthened for OECM management to reduce pressures on globally significant marine biodiversity.

Component 2: Community-Led Conservation and Nature-Positive Livelihood

Component Type	Trust Fund
Investment	GET
GEF Project Financing (\$)	Co-financing (\$)
1,850,000.00	25,000,000.00

Outcome:

Outcome 2: Community stewardship, biodiversity monitoring, and nature-positive livelihood transitions strengthened to generate socio-economic benefits and reduce pressures on marine biodiversity within OECMs.

Output:

- 2.1 Community engagement, participatory stewardship, and gender-responsive mechanisms platforms established for OECM management.
- 2.2 Community-based biodiversity monitoring, citizen science, and participatory MRV systems operationalized.
- 2.3 Biodiversity monitoring and reporting platform established.
- 2.4 Nature-positive livelihood transition programmes implemented, including gender responsive participation mechanism.
- 2.5 Capacity building delivered for sustainable enterprises and monitoring.

Component 3: Biodiversity-linked finance and incentive mechanisms.

Component Type	Trust Fund
Investment	GET
GEF Project Financing (\$)	Co-financing (\$)

1,000,000.00	15,000,000.00
--------------	---------------

Outcome:

Outcome 3: Performance-based biodiversity financing mechanisms operationalized with credible MRV, conditionality, equitable benefit-sharing, and safeguards to support sustained conservation outcomes and long-term financing for marine OECMs.

Output:

3.1 Feasibility studies completed for biodiversity finance and benefit sharing mechanisms.

3.2 Biodiversity finance and benefit sharing mechanisms piloted and tested within OECMs.

3.3 Biodiversity performance standards integrated into marine value chains.

3.4 Partnerships established with private sector, public finance institutions, and impact investors to invest in biodiversity financing

3.5 Financial governance capacity strengthened.

Component 4: Scaling for National OECM Replication and Programme Management

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
600,000.00	5,000,000.00

Outcome:

Outcome 4:

National and provincial governments adopt replicable models for marine OECMs, building on knowledge and lessons learned to support long-term sustainability and scaling

Output:

4.1 Policy recommendations, institutional guidance, and coordination mechanisms developed to mainstream marine OECMs and biodiversity-linked finance within national and provincial biodiversity, blue economy, and marine spatial planning framework

4.2 Knowledge management, peer learning, and cross-seascape learning platforms established to support adaptive management and dissemination of lessons learned

4.3 Best-practice documentation, communications products, and technical guidance developed to support replication and institutional uptake of marine OECM models

4.4 Replication toolkits, sustainability and exit strategies, and strategic partnerships developed to support long-term institutional ownership, financing continuity, and scaling of biodiversity-financed marine OECMs nationally.

4.5 Programme management, safeguards oversight

M&E

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
165,000.00	1,000,000.00

Outcome:

Project implementation and results strengthened through participatory and gender sensitive monitoring and evaluation.

Output:

Project monitoring, evaluation and reporting system (including the Gender Action Plan)
Midterm review completed.

Terminal Evaluation conducted

Component Balances

Project Components	GEF Project Financing (\$)	Co-financing (\$)
Component 1: Governance, Marine Spatial Planning and Effective Management of Marine OECMs	1,146,905.00	16,500,000.00
Component 2: Community-Led Conservation and Nature-Positive Livelihood	1,850,000.00	25,000,000.00
Component 3: Biodiversity-linked finance and incentive mechanisms.	1,000,000.00	15,000,000.00
Component 4: Scaling for National OECM Replication and Programme Management	600,000.00	5,000,000.00
M&E	165,000.00	1,000,000.00
Subtotal	4,761,905.00	62,500,000.00
Project Management Cost	238,095.00	2,500,000.00
Total Project Cost (\$)	5,000,000.00	65,000,000.00

Please provide justification

PROJECT OUTLINE

A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

1. Context and Global Environmental Significance

Indonesia's marine biodiversity is an irreplaceable asset of not only national but international significance. As the world's largest archipelagic nation, Indonesia hosts some of the planet's most critical marine ecosystems—including extensive coral reefs, seagrass meadows, and mangrove forests that underpin the country's Blue Economy, sustain the livelihoods of at least seven (7) million people and support nutritious diets at the local, national and global levels[1]. The updated Indonesia Biodiversity Strategy and Action Plan (IBSAP 2025–2045) [2] highlights the extraordinary richness of these marine ecosystems.

Indonesia is the epicentre of marine biodiversity globally. The country hosts 16–18% of the global coral reef area, with the highest coral biodiversity globally, equivalent to 68% of all known coral species[3]¹ [4], as well as 14.6% of marine fish species [5] and thousands of other reef associated organisms. Indonesia is also responsible for 20-23% of global mangrove cover, estimated at around 3.4 million hectares (ha), the greatest extent of mangrove and the most diverse compared to all countries internationally [6]. It is also within the top-ranking countries for seagrass cover [7]. These critically important habitats, serve as foraging, breeding and nursery grounds for wealth of other species including endangered, threatened and protected species[8]². These ecosystems also sustain fisheries, aquaculture, supply resources such as timber and honey, protect coastlines from storms, flooding, and tsunamis, and underpin key sectors like shipping and tourism [9]. They are among the most valuable ecosystems on Earth [10] [11] [12]. In Indonesia, more than 40 million rural Indonesians rely directly on marine biodiversity, while fish—supported by coral reefs, seagrass, and mangroves—provides over 60% of national protein intake [13] [14]. This makes their conservation a global priority but also an essential cross-cutting priority for community well-being, food security, economic resilience, climate adaptation and long-term sustainability.

Indonesia's immense marine biodiversity is facing severe and escalating challenges driven by a combination of direct environmental pressures and complex, systemic governance barriers, unsustainable resource use in combination with the impacts of climate change which are driving biodiversity loss at a pace faster than it can be replenished [15].

Direct environmental and climate induced threats to marine assets can be summarised as follows: (i) Habitat Loss & Degradation: Approximately 35% of Indonesia's reefs are classified as poor to very poor with only 6.5% of surveyed coral reefs in excellent condition[16]³. Indonesia loses ~52,000 ha of mangroves annually due mainly to the conversion for shrimp aquaculture, agriculture, settlements, and coastal infrastructure, equivalent to a 40% reduction in mangrove cover in 30 years [17]. Similarly, seagrass health is declining due to coastal development, dredging, destructive fishing, sedimentation and nutrient pollution [18]. This scale of loss matters globally, as it jeopardizes global climate goals, as well as undermining fisheries, biodiversity, and coastal resilience. (ii) Overfishing and Destructive Fishing Practices: Multiple assessments indicate that a substantial majority of Indonesia's evaluated fish stocks are either fully exploited or overexploited[19]⁴. Blast

fishing (using explosives) physically damage reef structures and cyanide fishing (used to capture live reef fish for the aquarium and restaurant trades) kills non-target species, and although enforcement has improved, such practices continue to impact remote reef systems. (iii) Land-based run-off and pollution: Poorly managed coastal developments, infrastructure, wastewater and agriculture increase sedimentation and nutrient run-off, degrading water quality, impacting marine habitats. Indonesia is the world's second-largest contributor of marine plastic debris, causing an estimated USD 450 million in annual economic damage. (iv) Climate Change: Rising sea levels, ocean warming and acidification, and increasing intensity and frequency of extreme weather events compound existing pressures, accelerating ecosystem degradation, pushing vulnerable habitats past critical tipping points. (v) Other threats: include illegal wildlife trade, invasive alien species, and bycatch of threatened species further reduce the health and resilience of marine ecosystems.

Together, these trends demonstrate how Indonesia's marine ecosystems are being eroded at a pace faster than they can recover. This poses not only a national challenge, jeopardizing the livelihoods of 40 million Indonesians who depend on these ecosystems, but also a global one, as the loss of Indonesia's globally important marine ecosystems undermines international efforts under the Convention on Biological Diversity (CBD), KM-GBF, and the Paris Agreement. In particular Target 3 of the KM-GBF, which encourages parties to protect 30% of the world's oceans by 2030 through networks of formal Marine Protected Areas (MPA) but also areas outside MPAs, through Other Effective Area-Based Conservation Measures (OECM).

2. Key Barriers to Sustainable Marine Management

The environmental threats facing Indonesia's marine biodiversity are symptoms of deeper, systemic barriers that must be resolved to achieve lasting conservation impact. Analysis of Indonesia's marine governance reveals four critical weaknesses that affect the coherence and implementation of sustainable coastal and marine management:

- 1. Institutional & Planning Barriers:** Complexities in governance arrangements, in part due to decentralisation, has led to complexities in policy implementation and regulatory loopholes. There are multiple ministries and subnational offices that operate with separate, often conflicting mandates. Limited coordination and a lack of clarity around regulations, make it nearly impossible to achieve integrated ecosystem-based management and effective MSP. For example, mangrove management is split between the Ministry of Forestry, Ministry of Environment, Ministry of Marine Affairs and Fisheries (MMAF), and provincial governments, leading to conflicting priorities. Each has its own spatial authority and prioritizes specific mandates (e.g., timber production, aquaculture, or conservation), overlooking the interconnected ecological and social aspects of these ecosystems. OECMs can complement and leverage Marine Protected Areas (MPAs) to enhance biodiversity conservation and strengthen community livelihoods through the blue economy. However, OECM implementation has been limited in Indonesia. Further preparation is needed, including institutional arrangements, operational frameworks, monitoring–reporting–verification (MRV) systems, financing and a clear process by which OECMs can be securely recognised within the MSP and co-managed. Any OECM area to be managed in the future must also be supported by adequate institutional and community capacity to ensure effective and sustainable outcomes.
- 2. Insufficient Community Engagement and Exclusion:** Local communities, including women and Indigenous Peoples, are often excluded from formal planning processes like MSP. This ignores vital traditional ecological knowledge (e.g., sasi, panglima laot) and the critical economic roles of women (post-harvest, gleaning). This leads to policies disconnected from local realities, resistance against formal conservation, inter-generational knowledge gaps, and inequitable distribution of costs and benefits, contributing to ecosystem degradation through unsustainable practices.

3. **Financing Gaps and Misaligned Incentives:** Although globally, biodiversity finance has grown to about USD 208 billion annually [20] global targets will require an estimated USD 1.15 trillion per year, nearly a five-fold increase. In Indonesia short-term economic priorities (e.g., clearing mangroves for shrimp ponds) often override long-term sustainability, and conservation efforts are severely underfunded with only ~20% of MPA needs being met. So, there is already a significant conservation financing gap for formally declared MPAs. This perpetuates environmental destruction and hinders the long-term sustainability required for effective marine management. For community-based OECM operations, it will be essential to identify opportunities for alternative or innovative financing mechanisms that can support long-term sustainability.
4. **Insufficient Provincial and Community Capacity:** Insufficient capacity at the provincial level limits the ability to collect, process, and translate data into actionable policy, hindering evidence-based decision-making. Community level engagement is also limited, so the capture and transfer of local traditional knowledge into spatial planning processes is non-existent to minimal at best. In the context of MPAs and OECMs, it is essential that local institutions and community groups are equipped to manage these areas effectively.

The most critical barriers to effective action are the fragmented and complex governance system across multiple sectors, ministries and jurisdictions (national, provincial, and district) and the fundamental disconnect between the conservation and management of marine and coastal areas, and the livelihoods of local people dependent upon these resources, and the goal of sustainable economic development. Without decisive intervention, Indonesia's current path is towards the systemic degradation of marine biodiversity and ecosystem services. The resulting loss is both a global and national challenge. The decline will severely impair Indonesia's ability to meet international commitments under CBD, KM-GBF, and the Paris Agreement, and it will challenge food security and the well-being of millions of Indonesian citizens. Supporting bottom-up approaches to help coastal communities build their capacity to rehabilitate and preserve Indonesia's marine biodiversity while also transitioning towards more sustainable livelihoods will promote stewardship at the community level and support Indonesia in achieving its ambitious Blue Economy goals.

3. Project Objective & Justification

Project Objective

Global experience demonstrates that when local communities receive tangible benefits from biodiversity conservation—such as food and nutrition, employment opportunities, revenue sharing, or support for sustainable livelihoods—they become effective stewards of natural resources and contribute to long-term conservation outcomes. In coastal and marine ecosystems, community engagement in the protection and restoration of habitats such as coral reefs, mangroves, and seagrasses and endangered, threatened and protected species has proven effective in enhancing ecosystem resilience while supporting food security, livelihoods, and human well-being.

In Indonesia, strengthening community participation in marine conservation presents a significant opportunity to align biodiversity protection with sustainable economic development. When combined with innovative financing mechanisms—including results-based payments, biodiversity credits, and Payment for Ecosystem Services (PES)—community-led conservation approaches can mobilize additional resources for biodiversity protection while generating incentives for local stewardship. However, realizing this potential requires enabling conditions, including clear tenure and resource rights, transparent governance frameworks, inclusive decision-making processes, and equitable benefit-sharing mechanisms that ensure Indigenous Peoples and local communities are fully engaged and fairly compensated for their stewardship roles.

Against this backdrop, the objective of the LIVE-SEA project is to enable the effective and equitable scaling of marine OECMs for the conservation of biodiversity while improving ecosystem integrity and sustainable livelihoods. The project will generate measurable Global Environmental Benefits (GEBs) while contributing to implementation of Target 3 of the KM-GBF. To achieve this objective, the project will demonstrate the operationalization of OECMs in three pilot seascapes across three provinces representing Indonesia's diverse marine biogeography's. These sites all support globally significant marine habitats, including coral reefs, mangroves, and seagrasses, and harbour high levels of biodiversity, including endangered, threatened, and protected species, situated outside formal protected areas.

The project will support the generation of scientific baseline data and participatory mapping to integrate local knowledge into MSP. These data will inform the preparation of co-designed zoning plans for each OECM seascape, which will be integrated into the MSP framework led by the MMAF. Co-designed management plans will be prepared together with detailed zoning plans for key areas within the three sites. The project will foster inclusive community participation, strengthen governance, address unsustainable resource use, drive behavioural change by addressing unsustainable practices, and mobilize innovative financing mechanisms to support long-term conservation and to conserve ecosystems, while also supporting livelihoods transitions.

In parallel, the project will pilot sustainable biodiversity financing solutions to support long-term ecosystem stewardship and nature-positive livelihood transitions. Indeed the project positions OECMs as a mechanism to boost blue economic opportunities for the local communities dependent upon these resources, thereby providing a scalable model for protecting and restoring marine ecosystems while strengthening coastal livelihoods. Capacity-building activities will support local governments and communities to effectively manage OECM areas and implement sustainable resource use practices.

The project is closely aligned with national policy frameworks, including the IBSAP 2025–2045 [21], Indonesia's MSP framework and the national Blue Economy Roadmap. It also responds directly to the Government of Indonesia's Conservation Area and OECM Vision 2045, which aims to expand marine conservation coverage while strengthening sustainable management of coastal and marine ecosystems. In accordance with Ministerial Regulation No. 28 of 2021 on Marine Spatial Planning, the project will support the designation and management of Coastal Ecosystem Management Zones within marine spatial plans to safeguard ecosystems such as coral reefs, mangroves, and seagrass beds.

In the preparation of the Marine Spatial Plan/Zoning Plan, pursuant to Ministerial Regulation of the Ministry of Marine Affairs and Fisheries (MMAF) No. 28 of 2021 on the Implementation of Marine Spatial Planning, Article 7 stipulates that one of the zones designated to protect coastal and small island ecosystems, including their biodiversity, within the General Use Area (Kawasan Pemanfaatan Umum) is the Coastal Ecosystem Management Zone. Further, under Article 14 of the same Regulation, the Coastal Ecosystem Management Zone is determined based on the following criteria: (a) the presence of coastal ecosystems such as coral reefs, seagrass beds, mangroves, and/or estuaries; (b) the potential of coastal ecosystems for further development; and/or (c) the existence of coastal ecosystems that are suitable for rehabilitation.

The project will generate substantial Global Environmental Benefits by improving conservation and management across approximately 74,000 hectares of marine ecosystems outside of formal protected areas, directly supporting implementation of the IBSAP 2025–2045 and the 30% target by 2045. In addition, the project will deliver important social co-benefits, engaging approximately 10,000 direct beneficiaries from GEF (and additional 10,000 from co-financiers) and indirectly benefiting around 100,000 people including co-financiers, with at least 50% women, while ensuring the meaningful participation of Indigenous Peoples, local communities, and youth.

The LIVE-SEA project will be implemented in parallel with IFAD's investment project Blue Coast, which focuses on strengthening coastal livelihoods through improved access to markets and finance for sustainable production systems. While Blue Coast addresses socio-economic drivers of coastal vulnerability, the GEF

investment will focus on mainstreaming biodiversity conservation and ecosystem restoration into nature-positive development pathways through the operationalization of OECMs. Although OECMs are a relatively new conservation approach globally, Indonesia has recognized their potential role in achieving national and international conservation targets. The Ministry of Marine Affairs and Fisheries of Indonesia has already begun exploring this approach in collaboration with several partners and recently launched the national Conservation Area and OECM Vision 2045. The strategy has not yet progressed to the stage of designing on-the-ground implementation, and practical models for community-based implementation remain limited. The LIVE-SEA project will address this gap by piloting and scaling operational models for OECMs in three representative seascapes.

4. Baseline Initiatives and Projects

The Government of Indonesia views biodiversity as a strategic asset for sustainable development and a catalyst to transition towards a Green-Blue Economy, driving its Vision 2045 to become a developed nation with sustainable growth and among the world's five largest economies [22]. To advance this ambition, Indonesia has adopted Marine Spatial Planning (MSP) as the approach for sustainably managing marine resources and addressing pressures from multiple sectors of the ocean economy. Indonesia has also renewed the IBSAP 2025–2045, aligning it with the KM-GBF and informing a Blue Economy Roadmap 2023-2045. These key documents provide the baseline for conserving marine biodiversity while fostering an inclusive blue economy. In parallel, Indonesia has begun piloting innovative financial solutions for biodiversity. Together these strategies form an important base for this project.

Indonesia Biodiversity Strategy and Action Plan (IBSAP) 2025-2045 launched in August 2024, provides the national framework for conserving biodiversity while advancing climate resilience. It is aligned with the Long-Term National Development Plan (RPJPN 2025–2045), the Medium-Term Plan (RPJMN 2025–2029), and global commitments under the Kunming–Montreal Global Biodiversity Framework (KM-GBF) and the Sustainable Development Goals (SDGs). The IBSAP (2025–2045) reports a formal MPA coverage of 29.20 million hectares, equivalent to 8.96% of Indonesia's total marine area (KSA, KPA, marine conservation areas, coastal areas, and small islands) [23] [24]. In the IBSAP, the Indonesian government has also committed to expand the conservation area estate on the coast and at sea from <10% to 30% or 97.5 million hectares by 2045 (a national commitment referred to as “Target 30x45”). One of the key mechanisms through which Government intends to meet this target is through OECMs [25].

Conservation Area and OECM Vision 2045 strategy: As established by the CBD, the primary objective of a formal protected area is the in-situ conservation of biodiversity. For OECMs, the intention is that they are governed and managed to achieve a primary objective other than biodiversity conservation (e.g., fisheries management, blue carbon, cultural preservation, or watershed protection) but management incidentally delivers effective and sustained in situ conservation of biodiversity [26] [27]. The recently prepared “Conservation Area and OECM Vision 2045 strategy” [28] [29] outlines how Indonesia can achieve “Target 30x45” through the expansion and increased effectiveness of the formally declared protected areas, and through OECMs, bringing additional benefits to biodiversity, fisheries interests, and climate change adaptation and mitigation. The strategy, identified priority sites derived from spatial analysis of key ecosystems and species habitats, including 199 short-term OECM candidates (2025–2030) and 451 longer-term potential sites (2031–2045).

Marine Spatial Planning (MSP) is a public process of analysing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic and social objectives that have been specified through a political process” [30]. By coordinating different ocean users and integrating scientific and socioeconomic information, MSP supports evidence-based decision-making and helps maximize ocean benefits while ensuring the conservation and sustainable use of marine ecosystems. In Indonesia, MSP is a key tool for integrating biodiversity conservation into marine management, including the

designation of formal MPAs and the recognition of OECMs (OECMs), while supporting fisheries, tourism, coastal resilience, and the broader blue economy.

Indonesia has made significant progress in establishing the legal and policy framework for MSP. Mandated under Law No. 32/2019 on Marine Affairs, the country has developed a National Marine Spatial Plan and multiple zoning instruments covering inter-regional areas, national strategic zones, and coastal and small island areas (RZWP3K) [31] [32] [33] [34]. By 2024, many inter-regional zoning plans had been completed, and new zoning products have increasingly incorporated blue-carbon priorities such as seagrass conservation [35] [36] [37]. Indonesia also identified several different sub-types of OECM including areas for biodiversity, sustainable fisheries and blue carbon among others [38] [39]. The government has also continued expanding marine conservation areas, including a target to add around 200,000 hectares of marine conservation area in 2025.

Despite this progress, implementation remains challenging. Enforcing zoning rules across Indonesia's vast archipelago requires significant technical and institutional capacity at both national and provincial levels. Competing interests between conservation and blue-economy development—such as tourism, aquaculture, and port infrastructure—can also create conflicts. Ensuring high-quality ecological and socioeconomic data and meaningful participation of coastal communities is therefore critical to prevent weak enforcement and the emergence of “paper parks.”

Through the MSP OECMs can be documented in the “Zoning Plan for Coastal Areas and Small Islands” (RZWP3K) but remain under the original governance structure [40]. The RZWP3K recognizes this local rule and maps the area, ensuring that provincial-level activities (like infrastructure development or industry permits) do not undermine the community's effective conservation rules. The land remains an area governed by customary law, not a state-managed MPA. The RZWP3K could thus provide legal backing to OECM rules without requiring formal legal protection. By placing the OECM on the official zoning map, the law would protect the area from being encroached upon by conflicting, higher-level economic interests (like commercial logging, mining, or large-scale aquaculture) that might otherwise be permitted by other sectoral agencies. The law could thus be used to validate, support, and protect the OECM's conservation outcomes without altering its original purpose or forcing a change in its governance structure to that of a conventional protected.

The **Indonesia Blue Economy Roadmap 2023-2045** [41] sets out a pathway towards a diversified and sustainable maritime economy, ensuring the ocean health and resilience of ocean ecosystems. The roadmap provides guidance on how the blue economy can increase productivity and contribute to economic transformation towards Indonesia Vision 2045, while protecting marine biodiversity. It also proposes the importance in marine conservation and area-based management approaches for marine biodiversity.

Blue Carbon, based on the Medium Development Plan 2025 – 2029: Aligned with Vision Point 2 of the 2025–2029 National Medium-Term Development Plan (RPJMN), which emphasizes sustainable resource management and climate action, the MMAF is accelerating its Blue Carbon strategy to boost carbon sequestration in coastal ecosystems such as mangroves, seagrass beds, and tidal marshes. This initiative targets a reduction of 49 million tonnes of CO₂-equivalent (tCO_{2e}) by 2029, with a recorded baseline of 14 million tCO_{2e} in 2025—demonstrating Indonesia's commitment to climate resilience and its contribution to global carbon neutrality.

Innovative Financing: Indonesia is exploring a range of innovative financing mechanisms to support biodiversity conservation and a sustainable ocean economy. These include Payment for Ecosystem Services (PES), results-based climate finance, blended finance models, and emerging biodiversity credit mechanisms. In the marine and coastal sector, pilot initiatives linked to blue carbon, mangrove restoration, and sustainable fisheries are testing approaches that reward ecosystem stewardship while supporting community livelihoods. Although these mechanisms are not yet widely deployed, they present significant opportunities to scale sustainable investment in marine conservation.

Indonesia's experience with REDD+ and forest carbon programs, along with reforms under the UNDP Biodiversity Finance Initiative (BIOFIN), has helped build institutional frameworks for performance-based environmental finance. The government is also mobilizing capital market instruments, such as the 2023 sovereign blue bond, which raised approximately USD 150 million to support marine conservation, sustainable fisheries, and coastal protection. National institutions, supported by the environmental fund managed by Badan Pengelola Dana Lingkungan Hidup (BPDLH), are now working to expand biodiversity financing and create enabling conditions for innovative mechanisms that link verified conservation outcomes with sustainable investment and community incentives.

Existing Investments: Indonesia's current investment landscape includes a range of national and international initiatives supporting marine biodiversity conservation, sustainable fisheries, ecosystem restoration, blue carbon and blue economy development. These investments, implemented by government institutions, development partners, and conservation organizations, provide an important foundation for strengthening marine governance and ecosystem resilience. However, many of these initiatives focus on sectoral interventions, blue carbon and formal MPAs—rather than on the operationalization and financing of community-led marine conservation of OECMs.

Several initiatives supported by the GEF contribute directly to marine biodiversity conservation and sustainable marine resource management in Indonesia and the wider region. These include GEF ID 10575 – Coral Reef Rescue: Resilient Coral Reefs, Resilient Communities, which focuses on strengthening coral reef resilience and supporting community-based reef management; and GEF ID 10431 – Partnerships for Coral Reef Financing and Insurance in Asia and the Pacific, which develops innovative financing mechanisms, including insurance instruments, to support coral reef conservation and restoration. The proposed project also compliments *GEF Project 12073 - Enhancing Policy Coherence for a Sustainable Blue Economy in Indonesia*, implemented by UNEP with the same executing partner, which focusses on ocean accounting and marine protected areas. Other complimentary regional ecosystem management initiatives include *GEF ID 10069 – Bay of Bengal Large Marine Ecosystem*, which supports sustainable management of shared marine resources and promotes regional cooperation on marine governance, and *GEF ID 11582 – Sulu-Sulawesi Seascape*, which aims to strengthen transboundary collaboration to protect one of the world's most biodiverse marine regions.

The proposed project will enhance the effectiveness of these GEF investments by supporting governance frameworks and financing mechanisms that enable community-led conservation outside formal protected areas. In particular, the project will generate standardized ecological and governance data through biodiversity monitoring and participatory spatial planning processes, which can inform adaptive management approaches and strengthen evidence-based decision-making across related initiatives. The project will also build on ongoing national and development partner investments supporting Indonesia's sustainable blue economy transition. Programs implemented by the World Bank, the Government of Norway's Ocean for Development programme, and initiatives supported by the Government of the United Kingdom under the Blue Planet Fund are advancing ocean accounting, integrated coastal management, and sustainable fisheries governance. These initiatives provide important technical foundations, including data systems and policy frameworks, that can support improved marine spatial planning and ecosystem management.

In parallel, collaborative initiatives led by civil society organizations and philanthropic partners are strengthening enabling conditions for marine conservation and OECMs in Indonesia. For example, the five-year initiative *Advancing Equitable, Effective Protection of Marine and Coastal Areas in Indonesia*, implemented by a consortium including WWF-Indonesia, Coral Triangle Center, Rare, Yayasan Pesisir Lestari, Rekam Nusantara, and Konservasi Indonesia, with support from donors including Ocean 5 and the David and Lucile Packard Foundation, focuses on strengthening national coordination mechanisms, capacity building, and the development of guidelines for marine protected areas and OECMs. These efforts are helping establish the policy and institutional foundations needed to advance Indonesia's marine conservation targets. Additional investments supporting ecosystem restoration and climate resilience include blue carbon initiatives led by the Ministry of Marine Affairs and Fisheries of Indonesia, as well as integrated land-seascape initiatives

implemented by partners such as GIZ and Yayasan Keanekaragaman Hayati Indonesia (KEHATI). These initiatives focus on mangrove restoration, ecosystem resilience, and climate adaptation, creating further synergies with efforts to strengthen biodiversity conservation and sustainable marine management.

By building on these existing investments, the proposed project will strengthen coordination across ministries, development partners, and civil society initiatives while piloting practical models for integrating OECMs, biodiversity-linked financing, and community-based governance into marine spatial planning. In doing so, the project will enhance the effectiveness and long-term sustainability of existing marine conservation investments while contributing to Indonesia's national commitments under the KM-GBF and its broader sustainable blue economy agenda.

5. Key Stakeholders

Project implementation will depend upon the effective engagement of stakeholders from government, private sector, civil society, and local communities. The Project will be implemented by the Directorate General of Marine Spatial Management (DG-MSG) under the Ministry of Marine Affairs and Fisheries (MMAF). DG-MSG has the overall mandate to formulate and implement Marine Spatial Planning (MSP), while providing guidance and oversight for its planning, utilization, and control. Within DG-MSG, the Office of Marine Spatial Planning is responsible for planning, coordination, monitoring, and tracking of MSP governance, whereas the Office of Coastal and Small Islands lead the implementation and monitoring of MSP utilization in coastal and small island areas.

To ensure effective implementation, DG-MSG will work in close coordination with other MMAF offices, including the Directorate General of Marine Management, the Directorate General of Aquaculture, the Directorate General of Capture Fisheries, the Directorate General of Competitiveness Strengthening of Marine and Fisheries Products, and the Directorate General of Marine and Fisheries Resource Supervision. Among the government offices, key stakeholders include the Ministry of Environment (MoE), Ministry of Forestry (MoFor), Ministry of Home Affairs (MoHA) and the Ministry of National Development Planning (Bappenas), particularly through its Directorate of Marine and Fisheries.

The Project will establish an operational implementation arrangement that takes into account the involvement of multiple stakeholders. The implementation arrangement will mirror that of the IFAD-loan-funded Blue Coast project to ensure streamlined and efficient operations. Within the Ministry of Marine Affairs, a Technical Committee will be established under the leadership of the Directorate General of Marine Spatial Planning to coordinate with other directorate-general offices within the Ministry. At the inter-ministerial level, a Steering Committee will be established to clarify roles and activities and to avoid overlapping support. The overall implementation arrangement will be clearly defined and agreed upon with the Government of Indonesia.

Indonesia's National Research and Innovation Agency (BRIN) provides scientific rigour, including collection and curation of in situ data, monitoring and baseline assessment. The Ministry of Finance will support budgeting and financing mechanisms. BAPPENAS will provide oversight, economic integration and national development planning. Provincial and district governments manage coastal zones and spatial planning, making their involvement key to successful implementation. Coastal communities, women's groups and fisher associations will be directly engaged in management planning and sharing traditional knowledge. The private sector will also be engaged (e.g. fisheries, aquaculture, tourism) as their involvement is crucial to the project's sustainability.

The Project will also actively engage key stakeholders beyond government institutions, Indigenous Peoples and Local Communities (IPLCs), represented by organizations such as the Aliansi Masyarakat Adat Nasional (AMAN), Wahana Lingkungan Hidup Indonesia (WALHI), Badan Registrasi Wilayah Adat (BRWA) (participatory mapping, FPIC validation, community stewardship). Local coastal communities (fishers, seaweed farmers, women's groups, youth organizations) will be involved in participatory mapping, FPIC validation,

community stewardship, monitoring, and livelihood pilot initiatives. The private sector and financial institutions, including seafood companies, aquaculture cooperatives, tourism operators, banks, and impact investors, will contribute through innovative financing and co-financing, certification and standards compliance, and offtake agreements. In parallel, civil society organizations and academia may serve as key partners for knowledge exchanges, particularly to strengthen the effective utilization of MSP at the community level and to advance Monitoring, Reporting, and Verification (MRV) science.

Live-Sea is also currently exploring potential collaboration with the UK COAST Programme and is actively engaging with the national OECM forum, which includes key NGOs such as WWF-Indonesia, Conservation International, The Nature Conservancy, Rare, Yayasan Rekam, and Yayasan Pesisir Lestari, as well as local organizations in Central Java, including Kesemat.

Table 1: Key stakeholders and their roles.

Stakeholder Group	Key Roles	Benefits / Added Value
Ministry of Marine Affairs	Project implementation and delivery, coordination, Policy leadership, legal instruments, budget linkage,	Strengthened Marine Spatial Planning, improved marine biodiversity, enhanced blue economy and Ministry's leadership.
Ministry of Environment (MoE) Ministry of Forestry (MoF) Ministry of Home Affairs (MoHA) Ministry of National Development Planning (Bappenas) – Directorate of Marine and Fisheries Ministry of Finance	Policy leadership, legal instruments, budget linkage, NDC reporting; MSP, OECMs/MPAs, blue-carbon MRV, safeguards, planning & finance.	Strong national alignment, integration into climate targets, institutional legitimacy.
Provincial / district governments	Adopt overlays, pass decrees, align permits, co-finance enforcement and monitoring.	Localized policy enforcement, budget contributions, coherence with national frameworks.
Local communities, co-operatives etc.	Gender sensitive participatory mapping, FPIC validations, co-management, citizen science, livelihood enterprises.	Sustainable management of seagrass and mangrove, sustainable practice of fisheries and mariculture, income diversification, empowerment; empowerment of women and youths.
Non-Governmental Organization (NGO), Civil societies, Development partners (bilateral or multilateral)	Implementing partners for OECMs and blue carbon	Collective action on planning for OECMs, the protection, rehabilitation of seagrass and mangrove, community empowerment, alternative livelihoods.
Private sector & finance (seafood, aquaculture, tourism, banks and microfinance, impact investors)	Adopt standards/certification, sign offtake agreements, co-finance bonds/PES, provide technology support.	Market incentives for sustainability, access to finance, long-term investment flows.
Academia/university/research center (Diponegoro University, CIFOR-ICRAF, Tadulako University, BRIN)	Knowledge exchange	Improved recognition of and equitable access to marine space in the community level; enhanced MRV science.

- [1] World Bank (2021). Oceans for Prosperity: Reforms for a Blue Economy in Indonesia. The World Bank, Washington, D.C. <https://documents1.worldbank.org/curated/en/735521616773893016/pdf/Oceans-for-Prosperity-Reforms-for-a-Blue-Economy-in-Indonesia.pdf>
- [2] Indonesia Biodiversity Strategy and Action Plan (IBSAP); <https://lcdi-indonesia.id/wp-content/uploads/2025/02/IBSAP-2025-2045.pdf>
- [3] 590 reef building coral species as reported by Veron, J. E. N., Devantier, L. M., Turak, E., Green, A. L., Kininmonth, S., Stafford-Smith, M., & Peterson, N. (2009). Delineating the Coral Triangle. *Galaxea, Journal of Coral Reef Studies*, 11(2), 91–100. <https://doi.org/10.3755/galaxea.11.91>
- [4] Suharsono. (2008). Jenis-jenis karang di Indonesia [Types of Corals in Indonesia]. Jakarta: LIPI Press.
- [5] ~2,200 reef-associated fish species as reported by Mood A, Brooke P. (2024) Estimating global numbers of fishes caught from the wild annually from 2000 to 2019. *Anim Welf*. 2024 Feb 8;33:e6. doi: 10.1017/awf.2024.7. PMID: 38510420; PMCID: PMC10951671.
- [6] 75 true mangrove species and 157 associated species as reported by Jia M, Wang Z, Mao D, Ren C, Song K, Zhao C, Wang C, Xiao X, Wang Y, (2023) Mapping global distribution of mangrove forests at 10-m resolution, *Science Bulletin*, 68 (12): 1306-1316. ISSN 2095-9273, <https://doi.org/10.1016/j.scib.2023.05.004>. (<https://www.sciencedirect.com/science/article/pii/S2095927323003110>)
- [7] 293,000 ha estimated in 2018 but potentially up to 3 million ha <https://www.kompas.id/artikel/en-sains-warga-untuk-pemetaan-lamun>
- [8] The region contains 27% of marine mammal species, six out of the seven (86%) sea turtle species.
- [9] Ministry of National Planning (2023) Indonesia Blue Economy Roadmap
- [10] Obtained from <https://lcdi-indonesia.id/wp-content/uploads/2025/02/IBSAP-2025-2045.pdf>
- [11] Alongi, D.M. et al. (2015). Indonesia's blue carbon: a globally significant and vulnerable sink for seagrass and mangrove carbon. *Wetlands Ecol Manage* 24, 3–13 (2016). <https://doi.org/10.1007/s11273-015-9446-y>
- [12] Indonesia Biodiversity Strategy and Action Plan (IBSAP) 2025-2045, provides the economic value of seagrass (IDR 6.59 billion per annum) mangrove (IDR 3.11 billion per annum) and coral reefs [13] Ibid.
- [14] Ibid.
- [15] OECD (2021) Sustainable Ocean Economy Country Diagnostics of Indonesia.
- [16] Cefas. (2023). Indonesian Coral Trade and Coral Reef Restoration StoryMap. Centre for Environment, Fisheries and Aquaculture Science. Retrieved from <https://giserver.cefas.co.uk/portal/apps/storymaps/stories/905ca80603b642b4862d704bade3d3f3>
- [17] This loss is equivalent to an estimated 190 million metric tons of CO₂ equivalent annually, representing 42% of global emissions MONGABAY (2022) [Indonesia's mangrove restoration bid holds huge promise, but obstacles abound](#)
- [18] Ibid. IBSAP (2025-2045)
- [19] Based on available stock classifications roughly 60–75% of Indonesia's assessed fish stocks are at or above sustainable limits, with many showing signs of overfishing. This widespread overexploitation threatens sustainable harvests, food security and livelihoods for coastal communities, and economic resilience in the marine sector as reported in Blue Food Assessment Indonesia. (2025). Status of Fisheries and Aquatic Food Systems in Indonesia. [Digital report].

Ghofar, A. W. et al. (2020). COVID-19 and Food Systems in the Indo-Pacific: Impacts and Policy Responses. Australian Centre for International Agricultural Research (ACIAR), Canberra. Section 4: Indonesia. <https://www.aciar.gov.au/publication/covid-19-and-food-systems-indo-pacific/4-covid-19-and-food-systems-indonesia>

[20] BloombergNEF (2024) [Biodiversity Finance Factbook](#)

[21] Indonesian Biodiversity Strategy and Action Plan (IBSAP) 2025-2045

[22] Ministry of National Planning (2019) Indonesia 2045: Berdaulat, Maju, Adil, dan Makmur.

[23] IBSAP (2025-2045)

[24] IBSAP (2025-2045) management effectiveness was reported to be 63.35% of approximately 97.01% of the formal protected areas assessed (KSA, KPA, and TB) and approximately 49.50% of conservation areas in waters, coastal areas, and small islands

[25] Jonas, H. D., Wood, P. & Woodley, S., Volume Editors (2024). *Guidance on other effective area-based conservation measures (OECMs)*. IUCN WCPA Good Practice Series, No.36. Gland, Switzerland: IUCN. <https://doi.org/10.2305/LAAW4624>. <https://portals.iucn.org/library/node/51773>

[26] Jonas, H. D., Wood, P. & Woodley, S., Volume Editors (2024). *Guidance on other effective area-based conservation measures (OECMs)*. IUCN WCPA Good Practice Series, No.36. Gland, Switzerland: IUCN. <https://doi.org/10.2305/LAAW4624>. <https://portals.iucn.org/library/node/51773>

[27] CBD 2018

[28] Ministry of Marine Affairs and Fisheries (2025) CONSERVATION AREA & OECM VISION 2045 Integrated Strategy Towards Sustainable Indonesian Seas. 136p.

[29] The CONSERVATION AREA & OECM VISION 2045 strategy was prepared between 2022 and 2025 through a series of workshops and public consultations, led by MMAF through the Directorate of Ecosystem Conservation, other key government agencies including Ministry of Home Affairs, the Ministry of National Development Planning/Bappenas, the Directorate General of Marine Management (DJPK) and conservation experts and specialists from various universities, affiliated institutions, and NGOs.

[30] Ehler, Charles, and Fanny Douvère. 2009a. "Marine Spatial Planning A Step By-Step Approach." UNESCO-IOC. <https://unesdoc.unesco.org/ark:/48223/pf0000186559>.

[31] Republic of Indonesia (2019), Marine Spatial Planning; [PP Nomor 32 Tahun 2019.pdf](#)

[32] mspglobal2030.org

[33] <https://peraturan.bpk.go.id/Details/110263/pp-no-32-tahun-2019>

[34] <https://documents1.worldbank.org/curated/en/735521616773893016/pdf/Oceans-for-Prosperty-Reforms-for-a-Blue-Economy-in-Indonesia.pdf>

[35] <https://en.antaranews.com/news/386485/indonesia-unveils-waterfront-city-plan-to-boost-blue-economy>

[36] <https://www.mspglobal2030.org/msp-roadmap/msp-around-the-world/asia/indonesia/>

[37] <https://rri.co.id/en/national/1906729/ministry-champions-waterfront-city-concept-for-coastal-integration>

[38] "OECM areas identified for biodiversity are those that would significantly contribute to biodiversity protection and the maintenance of ecosystem functions and services, identified through a spatial and thematic approach, taking into account important habitat criteria such as mangroves, seagrasses, and coral reefs, endemic/local species, and relatively low anthropogenic threats.

These areas serve as ecological areas for marine species or areas with socio-cultural values maintained through local wisdom” (MMAF 2025)

[39] “OECM areas identified for sustainable fisheries are categorized based on the condition of fishery resources and other features expected to be drivers of sustainable fisheries management, especially small-scale fisheries in coastal areas of 0-4 nautical miles. Other supporting features include spawning and nursery areas, and areas that have an economic impact on the livelihoods of coastal communities. OECM locations that contribute to sustainable fisheries, particularly coastal fisheries resources, including fisheries in mangrove, seagrass, and coral reef ecosystems tend to all be accessed by small-scale fishers” (MMAF 2025)

[40] For example, a traditional fishing closure area (sasi or awig-awig) is managed by a local community or customary council for the primary purpose of ensuring sustainable fish yields.

[41] Ministry of National Planning (2023) Indonesia Blue Economy Roadmap

https://assets.bbhub.io/professional/sites/24/Biodiversity-Finance-Factbook_COP16.pdf?utm_source=chatgpt.com

B. PROJECT DESCRIPTION

Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF’s policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

The Theory of Change (ToC) for this project is built upon four synergistic pathways, each designed to address a critical barrier to the effective and sustainable management of Indonesia's marine resources, specifically through Other Effective Area-Based Conservation Measures (OECMs).

Theory of Change Pathways

Pathway 1: Marine Spatial Planning and Participatory Governance → Effective and Equitable Marine OECMs

Addressing barrier: Fragmented coastal management with limited stakeholder coordination.: If biodiversity surveys, socio-economic assessments, and participatory mapping, are conducted across the pilot sites using both scientific and community-based approaches, this will generate a credible baseline to support biodiversity-based zoning, conservation planning and adaptive management. If MSP processes are strengthened through active community and cross-sectoral engagement, including IPLCs, women, civil society, private sector actors, and government agencies, from local to national levels, this will establish a strong social and institutional foundation for marine OECM governance and management. If FPIC processes are completed and OECM boundaries and detailed zoning plans are mapped and validated this will create local ownership and provide a strong foundation for community stewardship. And if critical marine and coastal ecosystems including coral reefs, seagrass meadows, mangroves, and associated habitats of globally significant marine species are managed, using credible baselines, with transparent inclusive governance arrangements, then Indonesia will have a robust, community-supported MSP system, safeguarding biodiversity, strengthening ecological resilience, and supporting local livelihoods and stewardship. If co-designed OECM detailed zoning plans and management plans are integrated into provincial MSP frameworks (RZWP3K/MSP), and inclusive governance bodies are operationalized to oversee implementation and

adaptive management, then effectively governed and socially legitimate marine OECMs can be operationalised.

This pathway will enable a transition from fragmented and sectorally disconnected marine governance toward a more integrated and organised biodiversity-focused coastal and marine management, strengthened by community stewardship of marine OECMs, sustainable livelihoods linked to biodiversity conservation, providing the foundation for biodiversity-linked financing mechanisms, and strengthened adaptive capacity of coastal communities.

Key Assumptions: Local communities understand the benefits of participating in OECM planning and governance processes and remain actively engaged; capacity to support community-led marine OECMs and their integration into MSP frameworks is supported; intersectoral coordination is strengthened across relevant institutions and jurisdictions.

Pathway 2: Community-Led Conservation and Nature-Positive Livelihood → Sustained Biodiversity Conservation

Addressing barrier: Insufficient Community Engagement and Exclusion: If MSP processes and zoning plans are developed with the participation of the local community and governance arrangements become operational, and if communities are empowered to participate in biodiversity monitoring, adaptive management, and stewardship activities through citizen science and locally led monitoring systems, then local ownership of conservation outcomes will increase. If robust biodiversity monitoring, reporting, and verification (MRV) systems are established at pilot sites, combining scientific and community-based approaches, then measurable biodiversity outcomes and management effectiveness can be tracked and used to inform adaptive management. If nature-positive livelihood programmes are developed based upon the new zoning plans and Village Economy Enterprises (VEEs) and other local enterprises are formed and strengthened to aggregate production, add value, process, access to services, and market engagement, then behavioural change will help communities adopt sustainable fisheries and aquaculture practices, conserve aquatic ecosystems, diversify into processing, eco-tourism, and other blue economy activities, develop sustainable enterprises, and increase the intake of nutritious blue foods and diversify their diets, which leads to enhanced welfare through higher production, more jobs, better incomes, improved nutrition and food security, and stronger resilience to disasters and climate change at local level. Then local economic incentives can become more closely aligned with biodiversity conservation objectives, reducing pressure on marine ecosystems while improving socio-economic resilience, food security, and local stewardship of marine biodiversity within OECMs.

Key Assumptions: Local communities remain willing and able to engage in biodiversity stewardship and monitoring activities; nature-positive livelihood models compliment the new zoning plans generate tangible socio-economic benefits; communities understand the value of marine biodiversity and the importance of conservation outcomes for long-term livelihood security.

Pathway 3: Biodiversity-linked finance → Financing Realignment

Addressing barrier: Financing Gaps and Misaligned Incentives: If feasibility studies are conducted to identify and design appropriate biodiversity-linked financing mechanisms, including biodiversity credits, payments for ecosystem services (PES), and results-based financing approaches, and if safeguards are applied to minimize leakage risks and ensure conservation outcomes are additional, measurable, and sustained over time, and if these mechanisms are piloted and operationalized within marine OECMs, then sustainable financing flows for marine biodiversity conservation can be established. If credible MRV systems are developed to support biodiversity performance mechanisms, and if biodiversity performance standards are integrated into marine value chains such as fisheries, aquaculture, and tourism, then conservation outcomes can be linked directly to financial incentives and market-based opportunities. If equitable benefit-sharing and

financial governance systems are established to ensure revenues support IPLCs and local stakeholders, then biodiversity-linked finance can reinforce community stewardship, support long-term OECM management, and reduce dependence on short-term external funding. This will help realign economic incentives toward biodiversity conservation and nature-positive development pathways.

Key Assumptions: Biodiversity-linked financing mechanisms are sufficiently attractive to investors and buyers; biodiversity outcomes can be credibly measured and verified; OECM sites may be aggregated or clustered to achieve financial viability and scale; sustainable marine enterprises can generate sufficient returns to support conservation objectives

Pathway 4: Scaling for National OECM Replication and Programme Management → Long-Term Replication and Transformational Change

Addressing barrier: Limited institutional and technical capacity to replicate and scale marine OECM mode: If institutional and community capacities are strengthened across technical areas related to OECM governance, biodiversity monitoring, financial management, safeguards, benefit-sharing, and adaptive management, and if knowledge products, replication tools, and learning systems are developed and disseminated, then the enabling conditions for long-term sustainability and scaling of marine OECMs will be strengthened. If lessons learned from the pilot sites are captured through knowledge exchange platforms, peer learning networks, and best-practice documentation, and if these lessons are integrated into marine spatial planning, blue economy, and biodiversity policy frameworks, then successful models can be replicated and scaled across Indonesia. The development of sustainability and exit strategies, future investment pipelines, and institutional partnerships will further support long-term continuation beyond the project lifecycle. This pathway will help institutionalize biodiversity-positive marine governance approaches, strengthen national coordination for OECM implementation, and support transformational change toward integrated and scalable marine biodiversity conservation systems.

Key Assumptions: Knowledge products and lessons learned with practical institutional and community application are captured; knowledge products reach relevant stakeholders and inform policy and practice; institutional commitment and coordination are maintained despite changes in political or administrative leadership.

Transformative Change Process

These four pathways operate synergistically to create a reinforcing system for marine biodiversity conservation and sustainable development. MSP and participatory governance arrangements establish the institutional and regulatory foundation for effective marine OECMs. Community stewardship, biodiversity monitoring, and nature-positive livelihoods strengthen local ownership of conservation outcomes and reduce direct pressures on marine ecosystems and incentivise stewardship. Biodiversity-linked finance mechanisms then generate sustainable financing flows that reward conservation performance and support long-term management. Finally, strengthened enabling conditions, institutional learning, and replication systems ensure that successful models can be sustained, institutionalized, and scaled nationally.

By addressing underlying governance, financial, institutional, and socio-economic barriers simultaneously, the project seeks to catalyze a transformational shift in Indonesia's marine governance systems — from fragmented and extractive management approaches toward integrated, equitable, and biodiversity-positive seascape management that contributes to GBF Target 3 and delivers lasting Global Environmental Benefits.

Incremental/Additional Cost Reasoning

While Indonesia has made important progress in expanding marine conservation and advancing its blue economy agenda, existing programs primarily focus on marine protected areas, sectoral development, or

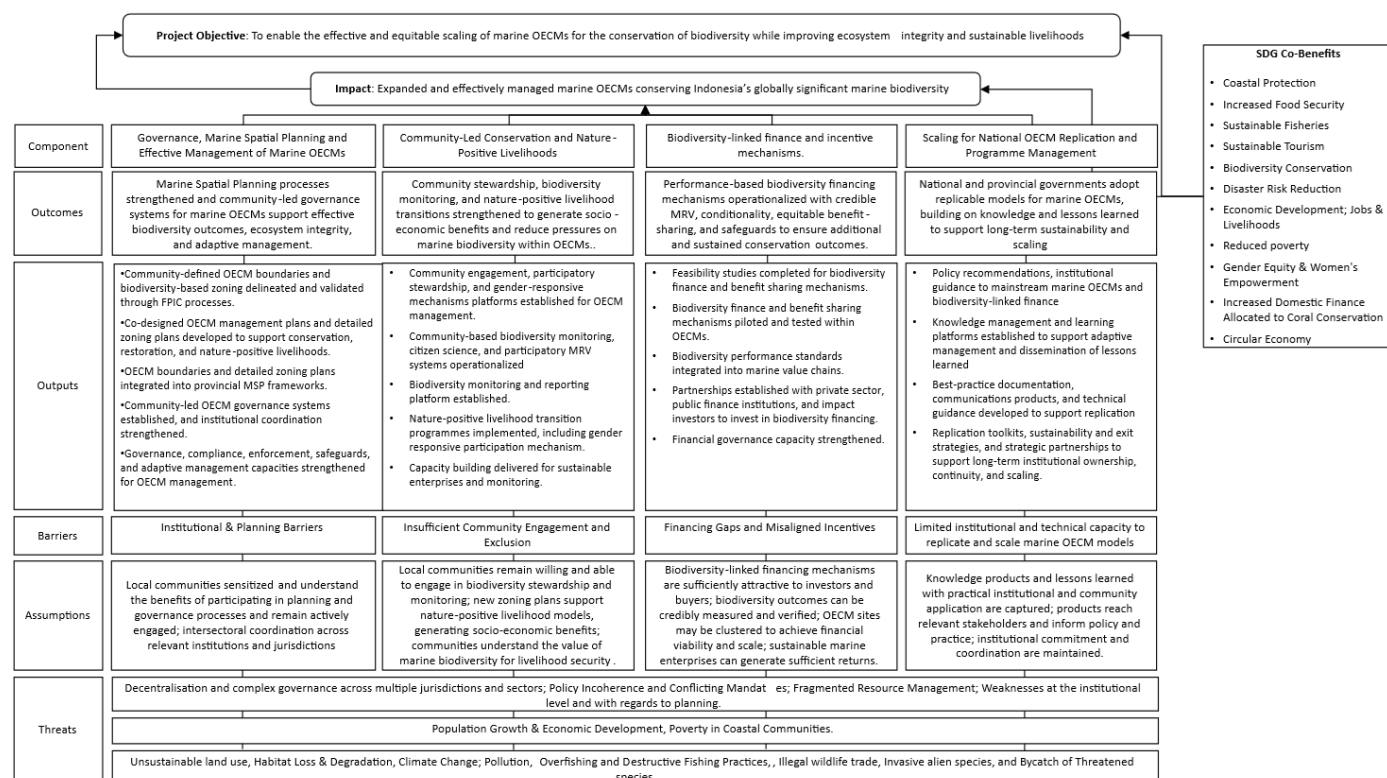
ecosystem restoration initiatives. These efforts do not yet systematically address the recognition, governance, and financing of marine Other Effective Area-based Conservation Measures (OECMs), particularly in community-managed seascapes outside formal protected areas. Without GEF support, opportunities to operationalize OECMs, integrate them into marine spatial planning frameworks, and develop performance-based financing mechanisms linked to biodiversity outcomes would remain limited. GEF financing will provide the incremental resources required to establish enabling policy frameworks, strengthen governance and monitoring systems, pilot biodiversity-linked financing approaches, and demonstrate scalable models of community-led marine conservation. By doing so, the project will help unlock sustainable investment for biodiversity conservation while accelerating Indonesia's progress toward implementation of Target 3 of the KM-GBF and national marine conservation commitments.

Under the baseline scenario, without support from the Global Environment Facility, Indonesia would face significant challenges in achieving its national biodiversity and sustainable development priorities, including the Indonesia Biodiversity Strategy and Action Plan 2025–2045, which is aligned with the Kunming–Montreal Global Biodiversity Framework and Indonesia's Vision 2045. National and subnational authorities, together with international and national NGOs, would continue implementing marine spatial planning (MSP), marine conservation initiatives, and fisheries management programs within existing institutional and budgetary constraints. While these efforts contribute to biodiversity conservation, they are not sufficient to systematically identify, recognize, and operationalize marine Other Effective Area-Based Conservation Measures (OECMs), nor to effectively integrate biodiversity safeguards across fisheries and other productive seascapes. Consequently, the conservation and restoration of critical marine ecosystems would remain underfunded, relying largely on short-term donor-supported projects and limited state budget allocations, both of which are vulnerable to fiscal and political shifts. Community-led stewardship initiatives that support sustainable marine resource management and coastal livelihoods would remain fragmented and limited in scale. Although such initiatives may improve resource management at specific sites, they are unlikely to lead to the formal recognition or scaling of community-managed areas as marine OECMs. In the absence of dedicated support, financial incentives for biodiversity conservation would remain insufficient, and communities managing ecologically significant coastal ecosystems would continue to lack access to sustainable financing mechanisms that reward biodiversity stewardship. As a result, the threats to biodiversity would not be addressed and ecosystem degradation would likely persist, undermining ecosystem resilience in the face of climate change and unsustainable resource use. Furthermore, the integration of OECMs into marine spatial planning frameworks would remain limited due to fragmented governance across national and provincial levels and weak implementation capacity at the subnational level. Participation of local communities and IPLCs in marine governance processes would also remain constrained, limiting opportunities to strengthen inclusive and equitable stewardship of Indonesia's marine ecosystems. Consequently, globally significant marine ecosystems and biodiversity would remain exposed to cumulative pressures from unsustainable resource use, spatial planning gaps, and insufficient cross-sector coordination, constraining progress toward Target 3 of the KM-GBF and related global biodiversity goals.

The GEF alternative will generate Global Environmental Benefits by supporting: (i) the identification, recognition, governance, and effective management of marine Other Effective Area-Based Conservation Measures (OECMs) (BD1); and (ii) the integration of biodiversity considerations into fisheries management and other blue economy sectors (BD2). Through these incremental investments, the project will expand the area of marine ecosystems under improved conservation and sustainable management, strengthen ecosystem integrity and ecological connectivity, and reduce pressures from unsustainable resource use, habitat degradation, destructive fishing practices, and sector-driven marine development on globally significant biodiversity. The project will address institutional, technical, financial, and social barriers to participatory biodiversity assessment, spatial planning, inclusive governance, and Free, Prior and Informed Consent (FPIC) processes, supporting the recognition and operationalisation of community-led marine OECMs across approximately 74,000 hectares of globally significant marine and coastal ecosystems. This will contribute directly to GEF Core Indicator 5 through the expansion of marine areas under improved management for

biodiversity conservation. To strengthen effectiveness and adaptive management, the project will establish robust biodiversity Monitoring, Reporting, and Verification (MRV) systems integrating scientific and community-based monitoring approaches. These systems will track ecological indicators including coral cover, reef fish biomass, habitat condition, and ecosystem integrity, generating credible ecological baselines and measurable biodiversity outcomes. This will contribute to GEF Core Indicator 1 by improving the conservation status of globally significant marine biodiversity and strengthening long-term ecosystem resilience. The project will also support nature-positive livelihood transitions that reduce dependency on unsustainable marine resource use and align local economic incentives with biodiversity conservation objectives. Through sustainable fisheries, climate-resilient aquaculture, marine ecotourism, circular economy activities, and other biodiversity-compatible enterprises, coastal communities will be supported to strengthen income diversification, food security, and resilience while contributing to the long-term stewardship of marine ecosystems. These livelihood interventions will be integrated into OECM management frameworks and linked to biodiversity performance and stewardship outcomes. Verified biodiversity outcomes will support the development of biodiversity-linked financing mechanisms, including biodiversity credits and Payments for Ecosystem Services (PES), designed in alignment with STAP guidance on conditionality, additionality, safeguards, equitable benefit-sharing, permanence, and leakage risk reduction. These mechanisms will establish performance-based incentives that reward conservation stewardship, strengthen community participation in biodiversity management, and support sustainable long-term financing for marine OECMs and associated nature-positive livelihoods. By strengthening coordination across relevant ministries, provincial governments, IPLCs, and private sector stakeholders, the project will enhance integrated marine governance and support the mainstreaming of biodiversity objectives within marine spatial planning and blue economy development. GEF support will enable Indonesia to advance implementation of the Indonesian Biodiversity Strategy and Action Plan (IBSAP), the Kunming–Montreal Global Biodiversity Framework (KM-GBF), Nationally Determined Contributions (NDCs), and Vision 2045. The intervention will generate lasting global environmental benefits through the conservation and restoration of biodiversity assets of international significance, while simultaneously supporting sustainable livelihoods, strengthening community stewardship, and enhancing the resilience of coastal and small-island communities to environmental and economic change.

Theory of change - LIVE-SEA



Overview of target seascapes:

The LIVE-SEA project will be implemented across three strategically selected seascapes in Indonesia that are part of IFAD's Blue-Coast geographies. These pilot locations were selected based on their high biodiversity value, presence of globally significant marine habitats and associated biodiversity (seagrass meadows, coral reef ecosystems within the Coral Triangle, the world's center of marine biodiversity, mangrove forests), and migratory corridors or aggregation sites for endangered, threatened and protected species, including marine megafauna, and strong dependence of local communities on coastal resources.

The three target seascapes are: (1) Bintan Seascape – Riau Islands Province, (2) Manggarai Barat Seascape – East Nusa Tenggara, (3) Donggala Seascape – Central Sulawesi (see maps and seascape description in Appendix C). Together, these pilot sites encompass approximately 74,000 hectares of coastal and marine ecosystems proposed for recognition as OECMs, adjacent to 13 coastal villages with an estimated total of 54,934 people (2024) whose livelihoods depend directly on marine ecosystems. In addition, co-financiers will support an additional 100,000 hectares of OECMs in the areas such as Central Java, Aceh, Karimun and Southwest Papua. These ecosystems contribute to global environmental benefits, including biodiversity conservation, fisheries productivity, climate mitigation through blue carbon sequestration, and climate resilience for coastal communities.

- Bintan Seascape – Riau Islands Province:** (see Appendix C, Figure 3). The Bintan Seascape, located in the southern South China Sea biogeographic zone, forms an important ecological corridor characterized by interconnected coral reefs, extensive seagrass meadows, and mangrove ecosystems. These habitats provide critical nursery grounds for fish and invertebrates, support high biodiversity—including dugongs (*Dugong dugon*), sea turtles, reef fish, and migratory birds—and deliver essential ecosystem services such as coastal protection, water filtration, and blue carbon storage. The OECM area covers approximately 25,816 hectares and is adjacent to three coastal villages with a combined population of about 10,877 people, including traditional fishing communities such as the Suku Laut and Malay coastal fishers who depend heavily on nearshore ecosystems for livelihoods and food security.

- **Manggarai Barat Seascape – East Nusa Tenggara** (Appendix C, Figure 4). The Manggarai Barat Seascape lies within the globally significant Coral Triangle, the epicentre of all marine biodiversity, adjacent to the biodiversity-rich waters of Komodo National Park. The area is within an internationally recognised Important Marine Mammal Area (IMMA) and supports exceptionally diverse coral reef ecosystems, seagrass meadows, and mangrove forests that provide habitat for threatened marine megafauna including dugongs, manta rays, sharks, and sea turtles. These ecosystems sustain productive fisheries and play a critical role in maintaining ecological connectivity and climate-resilient reef systems. The OECM areas collectively cover approximately 38,939 hectares and are located near six coastal villages with a combined population of about 28,429 people. Local communities rely heavily on capture fisheries, including tuna, skipjack, and reef-associated species that support local livelihoods and regional markets. However, the seascape faces increasing pressures from tourism expansion, overfishing, coastal infrastructure development, and climate-related stressors such as coral bleaching.
- **Donggala Seascape – Central Sulawesi** (Appendix C Figure 5). The Donggala Seascape in Central Sulawesi is strongly influenced by the Indonesian Throughflow system, which brings nutrient-rich waters that support productive coral reefs, seagrass beds, and mangrove ecosystems. These habitats maintain high marine biodiversity and ecological connectivity across Sulawesi's reef systems while supporting fisheries that are essential for local food security and livelihoods. The proposed OECM area covers approximately 9,245 hectares and is adjacent to four coastal villages with a combined population of about 15,628 people, most of whom depend on small-scale fisheries using traditional gear. The seascape supports diverse fish communities as well as important species such as green turtles and dugongs that rely on healthy seagrass ecosystems. However, the area faces growing pressures from habitat degradation, destructive fishing practices, sedimentation, pollution, and climate change impacts on marine ecosystems.

In alignment with the OECM initiative, Donggala District has reinforced its marine spatial governance by operationalizing the Decree of the Minister of Marine Affairs and Fisheries on Coastal and Small Islands Conservation Areas in Central Sulawesi Province within the framework of the Donggala Regional Spatial Plan (RTRW) 2023–2042. Through this integration, conservation areas, tourism zones, and sustainable use zones are clearly delineated, with corresponding regulations that balance ecological protection and local livelihoods. The spatial plan establishes core and buffer zones for conservation, restricts the use of vessels and modern fishing gear in designated tourism and conservation areas, and permits only traditional handline fishing outside protected zones. It also prohibits destructive practices, including the use of toxic substances, thereby embedding ecosystem-based management principles into legally binding district-level spatial planning and implementation.

Despite their ecological importance, the target seascapes face increasing pressures from overfishing, coastal development, habitat degradation, and climate-related impacts. Across the three seascapes, environmental degradation is primarily driven by four interrelated factors: unsustainable fishing practices and overexploitation of marine resources; coastal development and habitat degradation; land-based pollution and sedimentation; and climate change impacts.

- Small-scale fisheries provide the main source of income and food security for many coastal households, but growing fishing pressure and the use of unsustainable fishing gear are contributing to declining fish stocks and habitat damage. Fishing nets and traps in seagrass areas can also threaten dugongs through entanglement risks.
- Coastal development and tourism expansion, particularly in Bintan and Manggarai Barat, are increasing pressure on sensitive habitats through infrastructure development, sedimentation, and increased boat traffic. At the same time, land-based pollution from agricultural runoff, plastic waste, and wastewater discharge is degrading coastal water quality, reducing water clarity and affecting seagrass and coral reef health.

- Climate change further intensifies these pressures. Rising sea temperatures contribute to coral bleaching, while sea-level rise and stronger storms affect mangroves, seagrass beds, and coastal stability. Coral reefs in eastern Indonesia are particularly vulnerable to thermal stress, which can reduce biodiversity and ecosystem resilience.
- In addition to these environmental pressures, systemic challenges such as limited coordination among coastal management authorities, insufficient recognition of community-based conservation systems, and lack of sustainable financing mechanisms constrain effective coastal governance.

The LIVE-SEA project will address these drivers through integrated spatial planning, community-based conservation and restoration, citizen science, and sustainable financing mechanisms for OECMs. The operationalisation of OECMs to strengthen community-based coastal governance and stewardship, promote sustainable fisheries management while safeguarding biodiversity and improving resilience of coastal communities, and enhance the long-term protection of these globally significant marine ecosystems. The LIVE-SEA project will support the establishment of OECMs contributing to Indonesia's commitments under the CBD and the KM-GBF.

Project Components

The project consists of four components:

Component 1. Governance, Marine Spatial Planning and Effective Management of Marine OECMs

This component will support participatory processes, strengthening governance, institutional, and spatial planning conditions required for the effective and equitable management of marine OECMs in Indonesia. Through participatory biodiversity and socio-economic assessments, marine spatial planning integration, and management planning, the component will support the recognition and operationalisation of community-led marine OECMs that conserve globally significant biodiversity while supporting sustainable nature-based livelihoods. The component will also build capacity and strengthen institutional coordination, safeguards, compliance, and adaptive management systems to reduce pressures on marine ecosystems and improve long-term conservation outcomes.

Outcome 1: Marine spatial planning processes strengthened and community-led governance systems for marine OECMs established to support effective biodiversity conservation and sustainable livelihood transitions.

Output 1.1 - Community-defined OECM boundaries and biodiversity-based zoning delineated and validated through FPIC processes: Participatory mapping will engage local communities, fisheries groups, women's associations, and local authorities to document ecological features, resource-use areas, and culturally important marine spaces. The process will generate spatial data that combines traditional ecological knowledge with baseline survey data to inform OECM boundary delineation and management planning. The participatory mapping and ecological assessments will provide the basis for defining OECM boundaries and zoning plans that balance conservation objectives with sustainable resource use. Free, Prior and Informed Consent (FPIC) processes will engage IPLCs, women, local authorities, and other stakeholders in defining and validating marine OECM boundaries, conservation priorities and zoning plans, and proposed management arrangements.

Output 1.2 - Co-designed OECM management plans and detailed zoning plans developed to support conservation, restoration, and nature-positive livelihoods

Co-management plans will define conservation objectives, governance arrangements, zoning rules, enforcement mechanisms, and monitoring systems for each OECM. These plans will be developed collaboratively with local stakeholders and aligned with district and provincial marine management policies.

More detailed biodiversity-compatible master plans will be co-designed with local communities and other stakeholders for specific sites and zones within marine OECMs, to support livelihood activities and management approaches that reduce pressures on marine biodiversity while enabling sustainable fisheries, ecotourism, restoration activities, and other nature-positive economic opportunities within sustainable use zone.

Output 1.3 OECM boundaries, zoning plans, and management frameworks integrated into provincial marine spatial planning frameworks (RZWP3K/MSP) and aligned with biodiversity conservation and sustainable development priorities.

The project will support the formal recognition and integration of marine OECMs and associated zoning frameworks into provincial marine spatial planning processes (RZWP3K/MSP), ensuring that community-defined conservation areas are formally recognized and integrated into provincial coastal zoning plans. This will strengthen policy coherence between biodiversity conservation, fisheries management, coastal development, and blue economy planning, while supporting implementation of national biodiversity and marine policy commitments.

Output 1.4 Community-led OECM governance systems established, and institutional coordination strengthened to support participatory decision-making, biodiversity conservation, and adaptive management.

This output will strengthen institutional coordination and support the establishment of inclusive community led governance structures, co-management arrangements, decision-making processes, and operational management systems to support transparent and participatory management and decision-making for marine OECMs. Governance arrangements will define roles, responsibilities, safeguards, conflict resolution mechanisms, and participatory management procedures involving IPLCs, civil society organizations, private sector actors, other local stakeholders, and government agencies, while promoting gender-responsive participation and equitable representation. The mechanism will strengthen local ownership, transparency, accountability, and long-term stewardship of marine biodiversity within OECMs.

Output 1.5 Governance, compliance, enforcement, safeguards, and adaptive management capacities strengthened for OECM management to reduce pressures on globally significant marine biodiversity.

Capacity building and technical support will be provided to strengthen community and institutional capacities for biodiversity management, safeguards implementation, compliance monitoring, conflict resolution, enforcement, and adaptive management. These efforts will support the reduction of pressures including habitat degradation, destructive fishing practices, unmanaged coastal development, and unsustainable marine resource use.

Component 2. Community-Led Conservation and Nature-Positive Livelihoods

This component will activate the community led governance arrangements, strengthen community stewardship, and nature-positive livelihood transitions within marine OECMs. By supporting participatory conservation management, community-based monitoring systems, and sustainable livelihood opportunities, the component will align local economic incentives with biodiversity conservation outcomes while reducing pressures on marine ecosystems. The component will place strong emphasis on social inclusion, gender responsiveness, and strengthening local ownership of marine conservation efforts. A biodiversity monitoring and verification system will be established to track biodiversity outcomes in the pilot OECMs combining the scientific baseline surveys, community-based data collection, and monitoring platforms for spatial analysis and reporting. This will enable transparent measurement of conservation outcomes and provide the foundation for results-based conservation financing mechanisms including biodiversity credit and payments for ecosystem services (PES) schemes.

Outcome 2: Community stewardship, biodiversity monitoring, and nature-positive livelihood transitions strengthened to generate socio-economic benefits and reduce pressures on marine biodiversity within OECMs.

Output 2.1 Community engagement, participatory stewardship, and gender-responsive mechanisms established for OECM management.

Community engagement and participatory stewardship mechanisms will be established to strengthen local ownership and participation in marine biodiversity conservation and OECM management. Gender-responsive approaches will promote the meaningful participation of women, IPLCs, youth, and vulnerable groups in stewardship and decision-making processes.

Output 2.2 Community-based biodiversity monitoring, citizen science, and participatory MRV systems operationalized to support adaptive management and measurable biodiversity outcomes.

Baseline surveys and assessments will document key ecological indicators such as coral cover, reef fish biomass, seagrass extent, and the presence of indicator species. These data will establish reference conditions against which conservation outcomes can be measured and community-led biodiversity monitoring systems developed to track ecosystem health, species recovery, and habitat conditions within OECMs. The indicators selected will be aligned with international biodiversity monitoring frameworks where possible. Local communities will be trained and equipped to conduct regular ecological monitoring, strengthening local stewardship and enabling continuous data collection to inform adaptive management.

Output 2.3 Biodiversity monitoring, reporting, and learning platforms established integrating scientific and community-generated ecological data.

Integrated biodiversity monitoring and learning platforms will be developed to support data management, reporting, knowledge sharing, and adaptive management across the pilot seascapes. The platform will provide the basis for developing independent verification procedures to ensure that biodiversity outcomes can be credibly measured and validated, supporting transparency and investor confidence in biodiversity-linked financing mechanisms.

Output 2.4 Nature-positive livelihood transition programmes implemented, including gender responsive participation mechanism: The project will support the development and implementation of biodiversity-compatible livelihood activities that reduce dependency on unsustainable marine resource use while improving household incomes and resilience. The nature positive livelihood interventions will be identified through the participatory management planning process and preparation of detailed zoning plans. The livelihood activities developed will be compatible with the zoning plans and will be implemented with co-financing from the IFAD Blue Coast project. Examples of the types of livelihood programmes supported will include sustainable fisheries management, climate-resilient aquaculture, ecotourism, marine restoration, waste reduction and circular economy initiatives, and other locally appropriate opportunities.

Output 2.5 - Capacity building, awareness-raising, and behavioural change programmes delivered to strengthen biodiversity stewardship, sustainable enterprise development, financial literacy, and long-term livelihood resilience.

Training and awareness programmes will strengthen technical and organizational capacities for biodiversity stewardship, sustainable enterprise development, conservation compliance, and climate resilience. Behavioural change initiatives will promote understanding of marine biodiversity values, critical habitats, ecosystem services, and the long-term socio-economic benefits of conservation.

Component 3. Biodiversity-Linked Finance and Incentive Mechanisms

This component will develop and establish biodiversity-linked financing and incentive mechanisms that support long-term conservation of marine biodiversity and sustainable management of marine OECMs. Building on robust biodiversity monitoring and safeguards systems, the component will pilot performance-based financing approaches, including and value-chain incentives that encourage sustainable resource management while generating income for local communities, biodiversity credits and Payments for Ecosystem Services (PES). This component will establish and pilot biodiversity-linked financing mechanisms that generate sustainable incentives and long-term financing for marine biodiversity conservation and effective management of marine OECMs. Building on the biodiversity monitoring, safeguards, and governance systems established under Components 1 and 2, the component will support development of biodiversity credits, Payments for Ecosystem Services (PES), and other performance-based financing approaches aligned with STAP guidance on conditionality, additionality, equitable benefit-sharing, permanence, transparency, and leakage risk reduction. The component will strengthen the enabling conditions required for credible biodiversity finance, including robust MRV systems, financial governance, safeguards, and integration of biodiversity performance standards into marine value chains, while supporting investment in nature-positive coastal development and community stewardship.

Outcome 3: Performance-based biodiversity financing mechanisms operationalized with credible MRV, conditionality, equitable benefit-sharing, and safeguards to support sustained conservation outcomes and long-term financing for marine OECMs.

Output 3.1 - Feasibility studies completed for biodiversity finance and benefit sharing mechanisms. Technical, financial, legal, institutional, and market feasibility studies will be conducted to assess opportunities for biodiversity finance, including biodiversity credits, Payments for Ecosystem Services (PES), and other biodiversity-linked financing mechanisms within marine OECMs. Assessments will evaluate ecological additionality, conditionality, permanence, leakage risks, safeguards requirements, investment readiness, and opportunities for aggregation or clustering of OECM sites to improve scale, financial viability, and market attractiveness.

Output 3.2 Biodiversity finance and benefit sharing mechanisms piloted within OECMs. Biodiversity financing mechanisms will be operationalized within pilot marine OECMs to test performance-based financing approaches linked to verified biodiversity outcomes. Financing mechanisms will incorporate robust biodiversity MRV systems, transparent governance arrangements, conditional payments linked to conservation performance, safeguards frameworks, and adaptive management approaches to ensure conservation outcomes are measurable, credible, and sustained over time. This will include developing and testing benefit-sharing mechanisms to ensure transparency, equitable, and gender-responsive to ensure biodiversity finance revenues support IPLCs, local communities, and conservation management activities. Benefit-sharing systems will strengthen stewardship incentives, social inclusion, and long-term community support for conservation, while reducing risks of elite capture, inequitable distribution of benefits, and unintended social impacts.

Output 3.3 Biodiversity performance standards integrated into marine value chains. Biodiversity performance standards, sustainability criteria, safeguards, and conservation compliance requirements will be integrated into fisheries, aquaculture, tourism, and other relevant marine value chains to strengthen incentives for sustainable production and biodiversity stewardship. This will support improved traceability, reduced biodiversity pressures, market differentiation, and alignment between commercial activities and conservation objectives.

Output 3.4 Partnerships established with private sector, public finance institutions, and impact investors to invest in biodiversity financing. The project will engage private sector actors, impact investors, tourism operators, seafood supply chains, financial institutions, and other stakeholders to mobilize investment into biodiversity-positive marine enterprises and biodiversity-linked finance mechanisms. Strategic partnerships and investment dialogues will strengthen investor confidence by demonstrating credible biodiversity outcomes, transparent governance systems, safeguards compliance, and clear conservation performance metrics.

Output 3.5 Financial governance capacity strengthened. Capacity building and technical support will strengthen institutional and community capacities for financial governance, safeguards implementation, compliance monitoring, transparent revenue management, and equitable distribution of biodiversity finance benefits. Support will also strengthen understanding of PES principles, including conditionality, additionality, permanence, adaptive management, and leakage risk reduction, to improve long-term effectiveness and sustainability of biodiversity financing mechanisms.

Component 4. Scaling for National OECM Replication and Programme Management

This component will strengthen enabling conditions for replication, institutionalization, and scaling of marine OECMs and biodiversity-linked financing approaches across Indonesia. Through policy mainstreaming, knowledge management, strategic partnerships, and programme management systems, the component will support long-term sustainability, institutional learning, and national uptake of community-led marine conservation models.

Outcome 4 National and provincial institutions adopt replicable models for marine OECMs, biodiversity-linked finance, and community-led conservation, supporting long-term sustainability, policy mainstreaming, and scaling.

Output 4.1 Policy recommendations, institutional guidance, and coordination mechanisms developed to mainstream marine OECMs and biodiversity-linked finance within national and provincial biodiversity, blue economy, and marine spatial planning frameworks. The project will develop policy recommendations, technical guidance, and institutional coordination mechanisms to support integration of marine OECMs and biodiversity-linked financing approaches into relevant national and provincial policies, planning frameworks, and blue economy strategies.

Output 4.2 Knowledge management, peer learning, and cross-seascape learning platforms established to support adaptive management and dissemination of lessons learned. Knowledge-sharing and learning platforms will facilitate exchange of lessons, experiences, and technical knowledge across pilot sites, provinces, and national stakeholders. These platforms will support adaptive management, replication, and continuous improvement of marine OECM models.

Output 4.3 Best-practice documentation, communications products, and technical guidance developed to support replication and institutional uptake of marine OECM models. The project will prepare case studies, best-practice documentation, communications materials, and technical guidance products to support awareness raising, policy uptake, and replication of successful approaches nationally and regionally.

Output 4.4 Replication toolkits, sustainability and exit strategies, and strategic partnerships developed to support long-term institutional ownership, financing continuity, and scaling of biodiversity-financed marine OECMs nationally. Replication and scaling toolkits will be developed to support future expansion of marine OECMs and biodiversity financing mechanisms. Sustainability and exit strategies will identify pathways for long-term institutional ownership, financing continuity, and post-project implementation.

Output 4.5 Programme management, safeguards oversight, monitoring and evaluation systems operationalized to ensure effective implementation, accountability, learning, and adaptive management. Robust programme management, safeguards oversight, monitoring and evaluation systems will be established to support effective project implementation, accountability, adaptive management, and reporting of biodiversity and socio-economic outcomes. The project will prepare a long-term sustainability strategy will outline governance arrangements, financing mechanisms, and institutional responsibilities required to maintain OECM management and conservation financing beyond the project lifecycle.

Monitoring and Evaluation to Enhance Project Implementation

The Live Sea Project is designed with a comprehensive Monitoring and Evaluation (M&E) system to assess progress and effectiveness in achieving project targets. The M&E framework will provide overall guidance for project monitoring and reporting and will be further elaborated into a detailed M&E Plan developed by the project team.

Gender-Sensitive M&E System in Place

A Gender Action Plan (GAP) will be prepared during the PPA to ensure that a gender-sensitive M&E framework is established, including the operation of a GIS-based platform to systematically record project interventions and results. The system will capture gender-disaggregated data and track the participation, contributions, and impacts of women, youth, and Indigenous Peoples (IPs), enabling inclusive reporting and meaningful impact assessment. A baseline survey will be conducted to collect essential reference data, complemented by a Project Inception Workshop to agree on the M&E approach, indicators, and alignment with the broader Blue Economy framework and national biodiversity targets.

Periodic Supervision, Mid-Term Review, and Terminal Evaluation

Project supervision missions will be conducted annually, except in years when a Mid-Term Review (MTR) or Terminal Evaluation (TE) is undertaken. The MTR and TE will be carried out by independent consultants to assess project achievements, efficiency, and effectiveness of implementation; review the continued relevance of the project design; document key lessons learned and good practices; and provide recommendations for improved performance. Core activities will include annual supervision, mid-term and terminal evaluations, organization of coordination meetings and stakeholder workshops to prepare for and respond to MTR and TE missions, and quarterly internal monitoring supported by a project monitoring information system.

Knowledge management.

Policy coherence

The updated IBSAP (2025-2045) recognises that implementing the 20-year plan will require substantial financial resources, that Indonesia must adopt transformative financing instruments to address the biodiversity financing gap, through attracting private sector and international investment. The IBSAP refers to several emerging tools to strengthen financial capacity, support sustainable biodiversity management, and help deliver national targets under the KM-GBP, including biodiversity credits, blended finance, and benefit-sharing as innovative mechanisms to mobilize new funding for conservation. The LIVE-SEA project will support policy coherence embedding biodiversity priorities into Indonesia's MSP framework at the provincial level through the preparation of zoning plans for OECMs. While MSP is mandated to coordinate policies across sectors, its effectiveness has been constrained by limited legislative guidance in the past. This often led to fragmented stakeholder engagement, delays in plan endorsement, and weak implementation, particularly at the community level. Revisions to MSP legislation in 2017 introduced clearer rules for participation, data collection, zoning, and implementation, laying a stronger foundation for coherence¹⁵. Building on this progress, the project will test and demonstrate the integration of OECMs, thereby strengthening MSP across national and provincial levels, ensuring that biodiversity is fully integrated into spatial planning and policy processes. By promoting inclusive stakeholder participation and aligning national and subnational priorities, the project will help overcome fragmentation to integration planning while delivering practical solutions at the local level that involve government, public, private actors, and the university. Data and information generated from the OECM initiative will be used as inputs to update the biodiversity profile at the district and provincial levels, as mandated in the updated Indonesia NBSAP, and will be integrated into the Regional Medium-Term Development Plan (RPJM-Daerah). Moreover, the LIVE-

SEA project will test sustainable finance solutions to unlock capital for marine biodiversity conservation and restoration, OECM management and livelihoods.

Transformative project

This project is a transformative intervention, integrating biodiversity conservation with sustainable blue economy growth. By applying an integrated ecosystem-based approach, it tackles the root causes of environmental degradation, unsustainable practices and behaviours, while laying the foundations for long-term systemic change. The project is transformative through two pathways. At the policy level, the project will streamline governance, regulation, and policy coherence and ensure that co-designed OECMs are fully embedded into MSP. It will support detailed integrated planning, biodiversity-based zoning, build local capacity and foster inclusive participation so that coastal populations can conserve ecosystems protect biodiversity while securing sustainable livelihoods. Together, these interventions drive behavioural change, shift markets, and position OECMs as a catalyst for both ecological resilience and economic opportunity.

Innovative nature

A key innovation of this project is the integration of biodiversity financing solutions for community led OECMs. While there are several national initiatives working on biodiversity credits or PES enabled schemes, most existing efforts are concentrated on formally protected MPAs and not OECMs, this intersection aligns with sustainable livelihood interventions that will also be supported by the IFAD Blue Coast project. Indonesia has already tested several innovative financing instruments to support a sustainable ocean economy, such as ocean accounting, blue bonds and payments for ecosystem services, though these remain at an early stage. Through Components 3 and 4, the project will assess the feasibility of, pilot and provide technical support for innovative instruments, including PES incentives and biodiversity credits, while strengthening institutional capacity to operationalize them. These innovative solutions are aimed to help unlock capital flow for marine biodiversity and livelihoods.

Institutional Arrangement

The Ministry of Marine Affairs and Fisheries (MMAF) will assume the overall responsibility of project implementation through its structural network including the provincial and district offices in the proposed project area. The Project Steering Committee as well as the Project Implementation Unit will be the same as the Blue Coast project funded by IFAD's loan. MMAF will build partnerships with other relevant agencies, such as the Ministry of Environment, as well as with organizations, especially in areas where cross-sector and crosscutting interventions are required.

Project Steering Committee (PSC): A PSC will be established at national level and chaired by the Secretary General of MMAF, including representatives from BAPPENAS, related ministries of Finance, Environment and Forestry, Tourism and Creative Economy, Villages, Agriculture, and representative from civil societies where relevant. The PSC will ensure the project oversight and guidance, evaluate and approve the project's annual work plans and progress and financial reports, provide directives on the implementation management's strategic aspects, and approve major competitive agreements and contracts if any. **Project Technical Committee (PTC)** may be built consisting of director level of the implementing agencies and the line ministries, including relevant thematic area specialists.

The National Project Implementation Unit (NPIU) housed in the DG-MSG will manage day-to-day operations and coordinate across technical directorates. In addition, NPIU will be in charge of coordinating with other relevant offices in MMAF for the project implementation, including the offices in charge of planning, aquaculture, fisheries, and value chains. Project Management Offices (PMOs) will be established by the MMAF at national, provincial and district levels. The mission proposed that the National PIU will be established within the DG of Aquaculture, and it will be responsible for the operational management of the

project, ensuring coordination with the other technical DGs of the MMAF including their service support agencies and centres at all levels.

[1] UN Environment. 2018. “Marine Spatial Planning and Integrated Coastal Zone Management Approaches to Support the Achievement of Sustainable Development Goal Targets 14.1 and 14.2: Conceptual Guidelines.” 2017. UN ENVIRONMENT REGIONAL SEAS REPORTS AND STUDIES. UN Environment.

Coordination and Cooperation with Ongoing Initiatives and Project.

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

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

Project coordination will be undertaken under the leadership of the Ministry of Marine Affairs and Fisheries of Indonesia (MMAF), ensuring alignment with Indonesia’s marine biodiversity, marine spatial planning, and blue economy priorities, as well as effective coordination with ongoing initiatives supporting marine governance, biodiversity conservation, sustainable fisheries, and coastal livelihoods. The project aligns with Indonesia’s Indonesian Biodiversity Strategy and Action Plan (IBSAP), Blue Economy Roadmap, Nationally Determined Contributions (NDCs), and commitments under the Kunming–Montreal Global Biodiversity Framework (KM-GBF), including Target 3.

The International Fund for Agricultural Development (IFAD), as the GEF Implementing Agency, will provide strategic oversight, technical guidance, fiduciary management, safeguards oversight, and quality assurance throughout project implementation. IFAD brings extensive experience in community-based natural resource management, inclusive governance, sustainable livelihoods, and climate-resilient rural and coastal development. Drawing on its global portfolio, IFAD will support development of participatory governance systems, community stewardship approaches, and biodiversity-linked financing mechanisms that strengthen conservation outcomes while improving livelihood resilience and economic opportunities for coastal communities.

Within the broader GEF-8 and Global Biodiversity Framework Fund (GBFF) portfolio in Indonesia, LIVE-SEA fills a distinct implementation gap by operationalising community-led marine OECMs at the seascape level through integrated governance, participatory biodiversity monitoring and MRV, nature-positive livelihoods, and biodiversity-linked financing mechanisms. While other initiatives focus primarily on national policy frameworks, formally designated marine protected areas (MPAs), species conservation, ocean accounting, or large-scale financing structures, LIVE-SEA focuses specifically on the governance, operationalisation, and financing of biodiversity-focused marine OECMs within locally managed seascapes.

The project will ensure strong complementarity with GEF Project 12073, “Enhancing Policy Coherence for a Sustainable Blue Economy in Indonesia,” implemented by UNEP with MMAF as the executing partner. That project focuses on strengthening policy coherence for Indonesia’s blue economy through integrated ocean accounting, marine data systems, and decision-support frameworks across four provinces, while improving marine spatial planning and cross-sector coordination. LIVE-SEA will complement these efforts by operationalising biodiversity conservation and community-led management within marine OECMs at site level. While the UNEP-led project focuses primarily on enabling policy frameworks and formally designated MPAs, LIVE-SEA will support participatory biodiversity-based zoning, OECM governance systems, biodiversity monitoring and MRV, nature-positive livelihoods, and biodiversity-linked finance mechanisms.

Biodiversity and governance data generated through LIVE-SEA will contribute to broader marine spatial planning and decision-support systems developed under the UNEP project.

The project will also coordinate closely with the proposed GBFF project “Integrated Conservation of Aquatic Biodiversity and Genetic Resources in Indonesia (IBES),” being developed by MMAF in collaboration with FAO Indonesia. The IBES proposal focuses on conservation and sustainable management of priority marine, coastal, and freshwater biodiversity and genetic resources, including threatened marine species, fisheries resources, mangroves, and coastal ecosystems. Synergies between the projects will include biodiversity monitoring, sustainable fisheries management, habitat restoration, and community-based conservation approaches. LIVE-SEA will provide complementary support focused specifically on marine OECM governance, participatory marine spatial planning, biodiversity-linked financing, and locally led stewardship systems.

Additional complementarity exists with several ongoing and emerging GEF initiatives in Indonesia and the wider region. The proposed project complements the World Bank’s “Indonesia Coral Reef Bond” by extending innovative conservation finance approaches beyond formally declared MPAs into community-led OECMs and biodiversity-linked incentive systems. Synergies also exist with the ADB-supported “Empowering Conservation Action on the East Asian Australasian Flyway” programme through restoration and protection of mangrove and seagrass ecosystems and associated biodiversity corridors. The project complements WWF’s “Coral Reef Rescue: Resilient Coral Reefs, Resilient Communities” initiative through strengthening reef resilience, adaptive management, and community stewardship systems. It also complements the Blue Nature Alliance initiative by supporting establishment and operationalisation of biodiversity-focused OECMs and associated governance, MRV, and financing mechanisms within coastal communities. Lessons from the ADB “Partnerships for Coral Reef Finance and Insurance in Asia and the Pacific” project will inform development of biodiversity-linked finance and PES approaches under LIVE-SEA, while broader regional initiatives such as BOBLME Phase II provide opportunities for regional coordination and knowledge exchange on marine ecosystem governance and fisheries management.

The project will further coordinate with the five-year initiative “Advancing Equitable, Effective Protection of Marine and Coastal Areas in Indonesia,” implemented by a consortium including WWF-Indonesia, Coral Triangle Center, Rare, Yayasan Pesisir Lestari, Rekam Nusantara, and Konservasi Indonesia. That initiative focuses on strengthening enabling conditions, coordination mechanisms, and national guidance for marine protected areas and OECMs in support of Indonesia’s marine conservation targets. LIVE-SEA will complement these efforts by supporting operationalisation of community-led OECMs at the seascape level and strengthening biodiversity governance, participatory monitoring systems, and sustainable conservation finance mechanisms.

Additional synergies will be pursued with ecosystem restoration and climate resilience initiatives including the Blue Carbon Initiative led by MMAF, the SOLUSI project implemented by Yayasan Keanekaragaman Hayati Indonesia, and integrated land–seascape initiatives implemented by GIZ. The project will also engage regional platforms including the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) and the Southeast Asian Fisheries Development Center (SEAFDEC) to support regional learning, replication, and implementation of the KM-GBF.

Activities supported under LIVE-SEA will be designed to ensure complementarity and avoid duplication with existing initiatives by focusing specifically on strengthening community-led governance systems for marine OECMs, participatory biodiversity monitoring and MRV, nature-positive livelihoods, and performance-based biodiversity financing mechanisms that remain insufficiently addressed within ongoing marine conservation and blue economy programmes in Indonesia. Further coordination and portfolio alignment with relevant GEF-8 and GBFF initiatives will be undertaken during the Project Preparation Grant (PPG) phase to identify opportunities for harmonized methodologies, shared indicators, joint learning, and collaborative implementation arrangements.

Core Indicators

Indicator 3 Area of land and ecosystems under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
1800	0	0	0

Indicator 3.1 Area of degraded agricultural lands under restoration

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

Indicator 3.2 Area of forest and forest land under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
1,200.00			

Indicator 3.3 Area of natural grass and woodland under restoration

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

Indicator 3.4 Area of wetlands (including estuaries, mangroves) under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
600.00			

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
174,000.00			

Indicator 5.1 Fisheries under third-party certification incorporating biodiversity considerations

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

Type/name of the third-party certification

Indicator 5.2 Large Marine Ecosystems with reduced pollution and hypoxia

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

Indicator 5.3 Marine OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
Bintan – Riau islands		25,816.00			
Donggala – Central Sulawesi		9,245.00			
Manggarai Barat		38,939.00			

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)	0	0	0	0
Expected metric tons of CO₂e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)				
Expected metric tons of CO₂e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)				
Expected metric tons of CO₂e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
------------	---------------------------------	---	---------------------------------	--------------------------------

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	10,000			
Male	10,000			
Total	20,000	0	0	0

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

1 Core Indicator (CI) 3 reflects the existing areal extent of the mangroves and seagrass from the MMAF, which was synchronized with the status of the mangrove ecosystem by MoEF (2021), particularly the healthy status of these ecosystems in the three proposed project sites. Preliminary estimates include restoring about 395 ha of mangrove ecosystem through agrosilvofishery, replanting and enrichment, and about 265 ha of seagrass ecosystem rehabilitation. It will be measured in hectares through participatory mapping, habitat mapping using remote sensing, and field verification. In addition, co-financiers will support 500ha of Mangroves and 100ha of Seagrass outside the GEF targeted areas such as Aceh, Riau Islands, Central Java, and Central Sulawesi.

2 CI 5 regarding the improved practices in marine habitats within the OECMs, which participatory mapping, spatial planning, including boundary definition and biodiversity-based zoning, management and master planning, formal recognition, monitoring, reporting and verification and livelihood transitions (e.g., sustainable fisheries, aquaculture, eco-tourism). These will be quantified using government-endorsed GIS layers and community co-management agreements. The number of 74,000 ha is calculated based on the OECM boundaries identified by the MMAF in three proposed project locations: (1) Bintan – Riau islands: 25,816 ha, (2) Manggarai Barat: 38,939 ha, (3) Donggala – Central Sulawesi: 9,245 ha. Maps showing the OECMs are provided Annex C: Project Location. In addition, co-financier will support approximately 100,000ha OECMs.

3 CI-11 is targeting 20,000 people as direct beneficiaries in the project supported by GEF, and an additional 10,000 people supported by co-financiers. From the GEF targeted areas, the beneficiary number was estimated to be about 18% of the total population in the 13 villages within the 3 proposed provinces, with 54,934 people. The data were taken from the National Statistics agency (BPS) in 2024. The estimated number of people benefiting from the project includes the local populations engaged in planning activities, biodiversity monitoring, and pilot enterprises. This approach ensures indicator values are transparent, evidence-based, and aligned with national monitoring systems, while embedding gender equality and social inclusion in results measurement. It is proposed that 50% of target beneficiaries will be women/girls. The project will target the indigenous people and local communities (IPLCs) and youth to support the achievement of KM-GBF. A Gender Action Plan will be prepared during the PPG and this indicator/gender target will be monitored regularly through a gender sensitive monitoring-evaluation systems (GESI: gender equality and social inclusion).

4 During full project proposal development, the expected achievements including lands for restoration and OECMs to be supported by GEF across the three districts, as well as by co-financing across 6-10 districts, will be validated and refined.

Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		
Climate	Moderate	Risks: Climate change has been identified as an important driver influencing the project's design and implementation, particularly through increased climate variability and the compounding effects of extreme weather events that threaten biodiversity, ecosystem functionality, and coastal resilience. These risks are especially pronounced in coastal zones,

		where rising sea levels, intensified storm surges, and saline intrusion jeopardize habitat integrity, contribute to shoreline instability and erosion, undermining long-term conservation and active restoration efforts. During implementation, climate-related hazards—such as cyclones, floods, and droughts—may disrupt project activities, delay timelines, or compromise infrastructure, while also diverting governmental priorities and resources toward emergency response, thereby reducing the project's effectiveness and sustainability. To address these concerns, a climate risk screening was conducted at the Project Identification Form (PIF) stage to inform adaptive strategies and enhance the project's resilience to climate and disaster-related disruptions. Mitigation measures: The project will leverage insights and best practices from prior initiatives within the country and region to enhance its design and implementation, particularly in the context of climate change and coastal ecosystem resilience. Building on the preliminary climate risk screening conducted during the Project Identification Form (PIF) stage, a comprehensive assessment of climate and disaster-related risks will be undertaken during the Project Preparation Grant (PPG) phase. This assessment will inform the integration of targeted mitigation and adaptation strategies into the project framework, ensuring robustness against climate-induced stressors such as sea-level rise, increased hydrological variability, and extreme weather events. Specifically, the development of integrated lake ecosystem management plans in demonstration areas will incorporate climate and disaster risk considerations to safeguard biodiversity, maintain ecological functions, and support sustainable coastal management under changing environmental conditions.
Environmental and Social	Moderate	Risks: A preliminary environmental and social safeguards screening conducted during the Project Identification Form (PIF) stage identified several inherent risks associated with natural resource management, particularly in ecologically sensitive coastal zones and areas involving diverse stakeholder groups such as women, Indigenous peoples, and other vulnerable communities. These risks include potential direct or indirect impacts on local communities' rights, access to land and natural resources, traditional livelihoods, cultural heritage (both tangible and intangible), governance structures, and social cohesion. In the context of climate change and coastal management, such risks are amplified by environmental stressors like sea-level rise, habitat degradation, and shifting resource availability, which may exacerbate social vulnerabilities and heighten conflict over resource use. Additionally, certain project activities may pose compliance challenges with national and international labour standards, particularly regarding fair working conditions and equitable participation. These findings will inform the development of targeted mitigation measures during the Project Preparation Grant (PPG) phase to ensure inclusive, climate-resilient, and socially responsible project implementation. Mitigation measures: During the project preparation phase, a comprehensive Social, Environmental, and Climate Assessment Procedure (SECAP) will be undertaken in accordance with IFAD guidelines to systematically evaluate potential risks and impacts across ecological, climatic, and socio-economic dimensions. This assessment will be particularly critical in coastal and climate-sensitive areas, where rising sea levels, increased frequency of extreme weather events, and ecosystem degradation pose significant threats to both

		environmental integrity and community livelihoods. The SECAP will also address social dynamics, including the rights, participation, and resilience of vulnerable groups such as women, Indigenous peoples, and coastal communities. Based on the findings, tailored safeguard management plans and frameworks will be developed to ensure climate-adaptive, socially inclusive, and environmentally sustainable project implementation. The project will prepare the Environment Social Management Plan (ESCMP), Indigenous People Plan (IPP) and Stakeholder Engagement Plan (SEP).
Political and Governance	Moderate	Risks: The successful implementation of the LIVE-SEA management strategy depends on sustained political commitment and coordinated governance across national and subnational institutions—spanning the environment, water resources, fisheries, and local development sectors—yet common political and administrative challenges such as high staff turnover, shifting priorities, limited inter-agency coordination, and resistance to integrated planning can weaken stakeholder engagement and disrupt policy continuity. Mitigation measures: The project will leverage existing governmental programs and governance structures, with stakeholder buy-in supported through targeted advocacy and awareness-raising for key national and subnational decision-makers. To mitigate political and governance risks, the project will reinforce institutional continuity, strengthen inter-agency coordination, and embed climate-responsive and participatory governance approaches. Key mitigation measures include establishing structured coordination mechanisms, policy harmonization processes, and regular technical working groups to maintain coherence despite political transitions. Capacity-building and institutional strengthening will reduce dependency on individual personnel and safeguard institutional memory. Through adaptive management frameworks and transparent reporting that underpin evidence-based decision-making, the project will enhance governance stability, secure sustained political commitment, and ensure effective and resilient implementation of the LIVE-SEA strategy.

INNOVATION

Institutional and Policy	Moderate	Risks: Capacities of national and subnational institutional partners may be insufficient to implement the project and to ensure durable impacts after GEF funding ceases. Mitigation measures: Capacity building is an important part of the project, strengthening institutional and individual capacities for ensuring sufficient sustainability structures are incorporated in the project design
Technological	Moderate	Risks: Identifying environmentally friendly and productivity-enhancing technologies for the blue economy is essential for achieving the project's objectives. These innovations need to be assessed and selected early in the project cycle to avoid delays and ensure adequate time for piloting and scaling. If technology design or development is postponed until implementation, the project may face time constraints and reduced effectiveness. Therefore, early scoping should run in parallel with capacity-building activities to ensure technology transfer, strengthen local technical expertise, and support smooth adoption by target communities and institutions. Mitigation measures:

		Substantive progress has been made during the PIF stage, including developing the preliminary Theory of Change, collaborating closely with MMAF and stakeholders to shape the project's conceptual design, and formulating indicative interventions. IFAD will also draw on lessons from relevant initiatives in Indonesia and globally to strengthen project design. A key implementation risk relates to identifying and deploying environmentally friendly, productivity-enhancing blue economy technologies. To mitigate this, the project will conduct early technology scoping and feasibility assessments during preparation, supported by parallel capacity-building to ensure effective knowledge transfer and strengthen local technical capacities. This integrated approach will enable timely adoption, improve community readiness, and ensure that innovative solutions are efficiently embedded in project implementation.
Financial and Business Model	Moderate	Risks: Global and national macro-economic trends or external events may influence both the effectiveness of the project and stakeholder participation in the integrated approaches promoted in the project strategy. For example, rising external demand for certain agrosilvofishery or coastal commodities may increase pressure on coastal ecosystems, making local producers less willing to adopt sustainable management practices. Additionally, evolving requirements from potential donors—particularly those related to carbon or biodiversity standards—may affect stakeholders' readiness or willingness to participate. Mitigation measures: The project will promote livelihood diversification for local producers, generating co-benefits for food and nutrition security while enhancing resilience to macro-economic disruptions and climate change impacts. Engagement with private-sector partners—such as integrating local producers into green value chains—will further help mitigate risks associated with macro-economic externalities. In parallel, the project will strengthen the capacity of community groups to comply with relevant sustainability, carbon, and biodiversity requirements, thereby improving their readiness to participate in emerging market and financing opportunities.
EXECUTION		
Capacity	Low	Risks: MMAF has strong capacity and experience in implementing similar projects and is supported by representatives at the sub-national level. However, a key gap remains in coordinating implementation with district and village governments, which will require strengthened engagement and clear mechanisms for collaboration. Mitigation measures: Project management will be established within MMAF, through a dedicated directorate whose mandate is directly aligned with the project's strategy on mainstreaming integrated coastal zone management and supporting the OECM approach. At the sub-national level, implementation will be supported by Project Implementing Units (PIUs) and village facilitators to ensure effective coordination and engagement at the local level. In addition, capacity building is a core component of the project, aimed at strengthening both institutional and individual capacities to ensure that adequate sustainability mechanisms are embedded within the project design.

Fiduciary	Moderate	Risks: The Executing Agency (MMAF) has extensive experience managing GEF-funded projects in Indonesia across previous GEF cycles. Project implementation will be carried out through the Ministry's technical units, known as Unit Pelaksana Teknis (UPT). The fiduciary procedures will follow the Government of Indonesia (GoI) systems and requirements, and further procedural details will be elaborated by MMAF during project preparation. Mitigation measures: The MMAF has previously executed GEF-financed projects. A fiduciary assessment will be conducted during the project preparation phase, with mitigation measures applied to address any identified gaps. Furthermore, through its quality assurance role, IFAD will help ensure cost efficiency and effectiveness. These arrangements will be formalized and regulated in the Project Implementation Manual, as agreed upon by both parties.
Stakeholder	Moderate	Risks: MMAF has mapped the key stakeholders to implement this project. These stakeholders have been engaging in the OECM forum. The risk in the OECM operation, which is still in development at the national level, and it needs to be streamlined at the sub-national level, particularly in the village level which mostly don't have good capacity in the national level. Mitigation measures: Stakeholder consultations initiated during the PIF stage will be expanded and deepened during the project preparation phase. Based on stakeholder feedback, a comprehensive Stakeholder Engagement Plan will be developed, outlining specific strategies to ensure the inclusive participation of key stakeholder groups. In addition, a Knowledge Management and Communications Plan will be prepared and implemented to facilitate regular, targeted awareness-raising and effective communication throughout project implementation. These plans will be complemented by a needs assessment aimed at strengthening the capacity of local stakeholders to support smooth and effective project execution. Stakeholder-related risks will be further mitigated by explicitly addressing potential elite capture and ensuring that participation focuses on quality and representativeness—not merely participation numbers.
Other		
Overall Risk Rating	Moderate	The overall risk rating for this project is Moderate. Management plans and frameworks will be developed to ensure that risks are mitigated and managed proactively. As part of the project's monitoring and evaluation system, identified risks and the effectiveness of mitigation measures will be regularly tracked and assessed, providing timely feedback to the project team to support adaptive management. In addition, the project will establish a Grievance Redress Mechanism to strengthen overall project management and implementation and to ensure that any concerns from stakeholders are addressed promptly and transparently.

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how. (max. 500 words, approximately 1 page)

This project is strategically aligned with key global frameworks, demonstrating a comprehensive approach to marine and coastal conservation, sustainable management and use of fisheries and marine resources, and climate change adaptation. The alignment spans the Sustainable Development Goals (SDGs), the GEF-8 Biodiversity Focal Area Objectives , and the Kunming-Montreal Global Biodiversity Framework (KM-GBF). The project directly supports SDG 14 Targets 14.2, 14.4, and 14.5, through strengthening spatial planning and decision-making to integrate biodiversity, social, and economic values, ensuring better policy coherence for coastal and marine environments. LIVE-SEA is co-financed by Blue Coast which targets food security (SDG 2) and enhanced climate resilience (SDG 13) and will contribute to poverty reduction (SDG1). The project contributes to the GEF-8 Biodiversity Focal Area, in particular to BD 1 as follows:

GEF-8 BD Objective 1 (Conservation and Restoration): The project advances marine and coastal ecosystem management and conservation through spatial planning, including the operationalisation of OECMs.

GEF-8 BD Objective 3 (Increase mobilization of domestic resources for biodiversity): The proposed LIVE-SEA project directly contributes to GEF-8 Biodiversity Objective 3 by establishing biodiversity-linked financing mechanisms and sustainable financing systems that generate long-term resources for marine biodiversity conservation and community-led OECM management in Indonesia. The project will pilot biodiversity credits, Payments for Ecosystem Services (PES), and biodiversity-positive enterprise models linked to marine OECMs, supported by robust biodiversity MRV systems, safeguards, and equitable benefit-sharing mechanisms aligned with STAP guidance. It will strengthen domestic resource mobilization by integrating biodiversity performance standards into marine value chains, mobilizing private sector investment, and supporting sustainable financing for biodiversity conservation and nature-positive livelihoods.

Through scalable financing models, strengthened governance, and integration into marine spatial planning and blue economy frameworks, the project will support long-term implementation of the KM-GBF, including Targets 3 and 19.

The project directly contributes to the following action-oriented KM-GBF Targets:

- Target 1 (Spatial Planning and Reduced Biodiversity Loss): Supports integrated, participatory marine spatial planning and biodiversity-focused zoning to reduce loss of areas of high biodiversity importance and strengthen ecological integrity through the recognition and operationalisation of marine OECMs.
- Target 2 (Ecosystem Restoration): Contributes to restoration and rehabilitation of degraded marine and coastal ecosystems, including mangroves, seagrass meadows, and coral reef-associated habitats, enhancing biodiversity, ecosystem functionality, and resilience.

- Target 3 (30x30): Directly supports Indonesia's commitment to conserve 30% of marine and coastal areas by 2045 through the planning, governance, zoning, and operationalisation of effectively managed and equitably governed marine OECMs.
- Target 5 (Sustainable Use, Harvest and Trade): Supports sustainable, legal, and safe use of marine biodiversity resources through strengthened community-led management, sustainable fisheries practices, and biodiversity-compatible marine value chains.
- Target 7 (Pollution Reduction): Contributes to reducing pollution pressures on marine ecosystems by promoting sustainable coastal management practices and integrating measures to reduce waste, plastics, and other damaging activities within OECM management systems.
- Target 8 (Climate Change and Biodiversity Resilience): Enhances ecosystem resilience, coastal protection, and climate adaptation through conservation and restoration of mangrove and seagrass ecosystems and strengthened adaptive capacity of coastal communities.
- Target 10 (Sustainable Fisheries and Aquaculture): Promotes sustainable management of fisheries and aquaculture through nature-positive livelihood transitions, biodiversity-compatible value chains, and community-based resource management approaches that support food security and resilient coastal livelihoods.
- Target 11 (Nature's Contributions to People): Strengthens ecosystem services and nature's contributions to people, including coastal protection, fisheries productivity, climate resilience, and livelihood security through improved management and restoration of marine and coastal ecosystems.
- Target 19 (Biodiversity Finance): Supports mobilization of financial resources for biodiversity through development of biodiversity-linked financing mechanisms, including biodiversity credits, Payments for Ecosystem Services (PES), private sector engagement, and sustainable financing systems for community-led marine OECMs.
- Target 20 (Capacity Building and Technology Transfer): Strengthens technical, institutional, and community capacities for biodiversity monitoring, marine spatial planning, governance, adaptive management, and biodiversity-linked finance.
- Target 21 (Knowledge and Data Access): Improves access to biodiversity data, monitoring systems, and knowledge products to support evidence-based marine conservation, adaptive management, and decision-making.
- Target 22 (Inclusive Participation): Promotes full, equitable, inclusive, and effective participation of IPLCs, women, youth, and local stakeholders in marine governance, conservation planning, and OECM management processes.
- Target 23 (Gender Equality): Strengthens gender equality and women's empowerment through gender-responsive governance systems, equitable participation, and improved access to sustainable livelihood and biodiversity finance opportunities.

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

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

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities: Yes

Civil Society Organizations: Yes

Private Sector: Yes

Provide a brief summary and list of names and dates of consultations

During the PIF stage, initial communication and mapping efforts were undertaken at the national level, provincial, district and local level (see Table 2). These efforts included consultations with key partners of MMAF in implementing the LIVE-SEA project, including the National Development Planning Agency (Bappenas) and representatives from civil organizations. Further consultations were carried out across the different provinces. Building on this foundation, the PPG will involve further, more comprehensive stakeholder consultations to present the proposed strategy, solicit feedback, and foster inclusive dialogue. These consultations will serve to refine the project's approach, strengthen institutional and community partnerships, and inform the development of a robust stakeholder engagement plan.

Table 2: Stakeholder Consultation in November 2025 - GEF8 Live SEA

Meeting	Description	Outcomes
GEF Operational Focal Point (OFP) of Indonesia: 24 November 2025		A formal online meeting was convened by the GEF Operational Focal Point (OFP) of Indonesia on 24 November 2025. The meeting was attended by representatives from the Ministry of Marine Affairs and Fisheries (MMAF), the International Fund for Agricultural Development (IFAD), the Ministry of Environment, and the GEF Secretariat Indonesia. - The GEF OFP endorsed the proposed budget submitted by MMAF and IFAD. - The budget should be aligned with the Biodiversity Focal Area requirements, as reviewed by the GEF Secretariat. - MMAF confirms that the proposal does not overlap with the GEF proposal from UNEP - MMAF and IFAD were requested to complete the revision of the Project Identification Form (PIF) by December 2025 to enable the issuance of the endorsement letter by 15 December 2025.
National Level Meetings 18 - 19 November 2025.	Ministry of Marine Affairs & Fisheries & Bappenas	During the Kick-Off Mission for Blue Coast, formal support was secured from key national agencies to proceed with the development of the Project Identification Form (PIF), ensuring alignment with the proposed investment project

Meeting	Description	Outcomes
	(National Planning Agency)	
	Yayasan Pesisir Lestari. (25 November 2025)	- Updated OECM Information: Presented by Pesisir Lestari in collaboration with the Ministry of Marine Affairs and Fisheries and the MPA & OECM Vision Consortium (WWF Indonesia, Rare, Coral Triangle Center, Rekam Nusantara Foundation, Konservasi Indonesia, and Pesisir Lestari). - Stakeholder Engagement: Experts from government, civil society, academia, and the financial sector reviewed opportunities for innovative financing mechanisms. - Innovative Financing Mechanisms Explored: Blue carbon credits, ecological fiscal transfers, and blended finance as tools to mobilize sustainable resources. - Objective: Scale and sustain community-driven conservation models under Indonesia's OECM framework. - Key Message: Achieving the 30x45 target requires not only increased funding but also a robust financing ecosystem that aligns policy, investment, and local stewardship to strengthen marine ecosystems and support coastal communities.
	CIFOR-ICRAF (24 November 2025)	- Ecosystem Role: Highlighted the critical importance of mangrove and seagrass ecosystems in sustaining coastal biodiversity and enhancing blue carbon storage. - Ecosystem Benefits: Recognized contributions to fisheries productivity, shoreline protection, and climate change mitigation. - Community Participation: Emphasized strengthening locally led conservation through the OECM mechanism. - Equity and Stewardship: Focused on equitable benefit-sharing and long-term ecosystem management by coastal communities.
Province, District and Village Level in Riau Island Province: 19 – 22 November 2025	Riau Islands Province and Bintan District	- Participants: Development Planning Agency, Technical Unit of MMAF, Marine and Fisheries Agency, and other local authorities. - Strategic Context: Marine area: ~24 million hectares; coastline: 2,368 km & Significant marine resource potential and archipelagic importance. - Fisheries Production (2022): Total: ~1.7 million tons annually, Capture fisheries: 322,107 tons, Marine aquaculture: 27,436 tons, Fishers involved: ~143,354. - Sustainable Governance Measures: Provincial commitment to enhance marine conservation management, Adoption of Regional Public Service Agency financial model (PPK-BLUD) to support Provincial Marine Conservation Area Management Technical Unit (UPTD). - Bintan District Focus: Strengthening community-based conservation and OECM initiatives, & Integrating biodiversity protection, sustainable fisheries, and local livelihoods in coastal villages.

Meeting	Description	Outcomes
	Coastal Biodiversity Conservation & OECM-Based Management Initiatives	- Seagrass Restoration: Seedling procurement from off-takers or donated seedlings, Technical training for local communities, youth groups, and volunteers on ecosystem restoration practices. - Research & Collaboration: Strengthening partnerships with academic institutions and MMAF to support research, innovation, and evidence-based coastal biodiversity management. - Integration in Marine Spatial Planning: Seagrass ecosystems and sea cucumber habitats incorporated to ensure sustainable resource use and habitat protection under OECM framework. - Monitoring, Reporting & Verification (MRV): Enhanced MRV systems to support blue carbon financing and carbon-credit opportunities. - Community-Based Ecotourism & Education: Initiatives include learning center visits, seagrass cultivation activities, and environmental education programs. Focus on supporting local livelihoods while promoting long-term ecosystem sustainability.
	Local Community (Kampong Teripang, NGO Lamun Warrior)	Sustainable Sea Cucumber Production: Community-based enterprise focused on sea cucumber farming, supported by seagrass ecosystem conservation. Partnerships: Collaboration with NGO Lamun Warrior and the community-owned Berikan Protein Initiative. Promotes seagrass restoration to enhance sea cucumber habitats and biodiversity protection. Seagrass Nursery & Restoration: NGO operates nursery and hatchery, cultivating seedlings to juvenile stage before transplantation. Restoration area: ~1 hectare; ~20,000 seedlings maintained in-house. Value-Added Products & Circular Economy: Damaged or naturally degraded seagrass transformed into premium products (Textiles (~US\$130 per blouse, sold locally, Notebooks and handicrafts. Supports livelihood diversification, waste reduction, and coastal ecosystem sustainability.
Province, District and Village Level in East Nusa Tenggara Timur: 19 – 22 November 2025	Provincial Group Discussion – East Nusa Tenggara	- Participants: Provincial Secretary, Conservation International, The Nature Conservancy, Fauna & Flora, Fisheries Agency, Public Works Agency, Cooperative Agency. - Focus: Strengthening collaboration between national and provincial/district authorities for integrated coastal management, environmental sustainability, and community participation. - Fisheries Sector Significance: Key contributor to livelihoods and regional economic growth. Challenges include climate variability, limited infrastructure, market access constraints, and pressures on marine ecosystems. - Governance & Coordination: Emphasized policy alignment, cross-sector coordination, and inclusive governance mechanisms. Highlighted constructive communication and partnerships among government, local communities, and NGOs.

Meeting	Description	Outcomes
		Strategic Outcome: Provides a strong foundation for advancing blue economy initiatives and sustainable marine resource management in the province.
	Key Stakeholders in West Manggarai District – NTT	- Participants: District Secretary, Development Planning Agency, Fisheries Agency, Parliament, Fisher Groups, Cooperative Agency, MMAF Extension Officers, Yayasan Parapuar, Religious Groups. - Marine Context: Marine area: ~7,052.97 km² with rich resources and notable underwater landscapes. Supports both fisheries and sustainable tourism. - Management Priorities: Coordinated marine management among government, communities, and resource users. Key measures: zoning, regulated fishing practices, visitor management, and appropriate gear control. - Tourism and Fisheries Balance: Rapid tourism growth provides economic opportunities but requires alignment of provincial spatial planning (RTRW) with district realities. Emphasis on small-scale fishers' needs and customary marine practices. - Strategic Outcome: Strengthened policy harmonization and inclusive marine spatial planning to balance tourism, fisheries productivity, biodiversity conservation, and local livelihoods.
	Community Level (Bari, Tanjung Boleng, Seraya Island)	- Livelihoods: Predominantly small-scale capture fisheries, with octopus fishing as the main economic activity and key household income source. - Supplementary Harvest: Fishers collect various reef-associated species for subsistence and local markets. - Aquaculture Status: No current aquaculture operations, resulting in high dependence on wild marine resources. - Sustainability Implication: Emphasizes the need for sustainable fisheries management to safeguard long-term livelihoods.
Province, District and Village Level in Central Sulawesi: 19 – 22 November 2025	Provincial Level – Central Sulawesi	- Participants: Development Planning Agency, Marine and Fisheries Agency, Environment Agency, Cooperative Agency, Yayasan Rubalang, YKL Indonesia, APINDO Central Sulawesi, Tadulako University, Yayasan Bonebula. - Marine Context: Marine area: ~77,295.90 km²; coastline: 7,010.60 km; islands: 1,572; land area: 61,237.50 km². Central geographic location strengthens trade connectivity and economic opportunities. - Fisheries Production (Q3 2024): Aquaculture (shrimp and seaweed): >250,000 tons. Capture fisheries: >130,000 tons. - Sustainable Management Focus: Improved coastal and marine spatial planning within a blue economy framework. Strengthening community-based conservation and sustainable fishing practices in coastal villages. Formalizing locally managed areas under the OEM approach to

Meeting	Description	Outcomes
		integrate fisheries productivity, biodiversity conservation, and community livelihoods.
	Donggala District	- Participants: Marine & Fisheries Agency, Donggala District officials. - Sustainable Development Focus: Commitment to promoting sustainable marine and fisheries sector development in line with regional priorities. Strengthening responsible fishing practices and protecting critical coastal and marine habitats. - Climate-Resilient Livelihoods: Support diversification into agriculture, ecotourism, and conservation-based economic activities. - Integrated Coastal Management: Emphasized collaboration with MMAF to ensure economic development is inclusive, environmentally sustainable, and supportive of community welfare while safeguarding biodiversity and coastal ecosystems.
	Local community at Village Level	- Key Activities: Marine turtle hatchery management and release programs. Mangrove replanting and coral transplantation to restore degraded reef areas. - CSO Support: Promotes mangrove-based ecotourism. Provides education and capacity-building for villagers, especially youth. Focus areas: environmental awareness, local leadership, and entrepreneurship. - Objective: Support sustainable livelihoods while maintaining coastal and marine ecosystem health.

(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

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

Yes

Environmental and Social Safeguard (ESS) Risks

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

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
-----	-----------------------------	-----	----

Medium/Moderate

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	Grant / Non-Grant	GEF Project Grant(\$)	Agency Fee(\$)	Total GEF Financing (\$)
IFAD	GET	Indonesia	Biodiversity	BD STAR Allocation: BD-1	Grant	2,500,000.00	237,500.00	2,737,500.00
IFAD	GET	Indonesia	Biodiversity	BD STAR Allocation: BD-3	Grant	2,500,000.00	237,500.00	2,737,500.00
Total GEF Resources (\$)						5,000,000.00	475,000.00	5,475,000.00

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount (\$)

150000

PPG Agency Fee (\$)

14250

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	PPG(\$)	Agency Fee(\$)	Total PPG Funding(\$)
IFAD	GET	Indonesia	Biodiversity	BD STAR Allocation: BD-1	Grant	150,000.00	14,250.00	164,250.00
Total PPG Amount (\$)						150,000.00	14,250.00	164,250.00

Please provide justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total(\$)
IFAD	GET	Indonesia	Biodiversity	BD STAR Allocation	1,520,500.00
IFAD	GET	Indonesia	Climate Change	CC STAR Allocation	4,118,750.00
Total GEF Resources					5,639,250.00

Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing(\$)	Co-financing(\$)
BD-1-1	GET	2,500,000.00	32500000
BD-3-1	GET	2,500,000.00	32500000
Total Project Cost		5,000,000.00	65,000,000.00

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Ministry of Marine Affairs & Fisheries (MMAF)	Grant	Investment mobilized	5000000
GEF Agency	IFAD	Loans	Investment mobilized	60000000
Total Co-financing				65,000,000.00

Describe how any "Investment Mobilized" was identified

The investment mobilized derives from IFAD investment project "Indonesia Blue Economy for Coastal Livelihoods (Blue Coast)" (2026-2031, 100M US\$)

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
-----------------	------	------	---------------------------	-------	-------

GEF Agency Coordinator	Pierre Yves Guedez, Climate and Environment Funds Lead (AF, GEF, GCF)	12/23/2025			p.guedez@ifad.org
GEF Agency Coordinator	Paola Palestini, GEF Technical Focal Point	12/23/2025			p.palestini@ifad.org
Project Coordinator	Hani A. Elsadani Salem, Indonesia Country Director	12/23/2025			h.elsadani@ifad.org

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

Name	Position	Ministry	Date (MM/DD/YYYY)
Erik Teguh Primiantoro, S. Hut. MES	GEF Operational Focal Point Indonesia	Minister for International Relations and Environmental Diplomacy Ministry of Environment/Environmental Protection Agency	12/24/2025

ANNEX C: PROJECT LOCATION

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

Province	Project Intervention Site	Coordinates	Villages
Riau Island Province	Bintan	104.4139 East, 1.0565 North	Penanga
		104.2951 East, 1.2965 North	Sebong Perch
		104.3321 East, 1.1628 North	Sebong Lagoi
Central Java Province	Demak	110.5276 East, -6.8486 South	Tambak Bulusan
		110.5178 East, -6.8648 South	Surodadi
		110.55311 East, -6.8319 South	Morodemak
Central Sulawesi Province	Donggala	119.9045 East, 0.4773 North	Pangalaseang
		119.9874 East, 0.4794 North	Tonggolobibi
		120.0496 East, 0.5236 North	Siboang,
		120.0359 East, 0.5041 North	Siwalempu

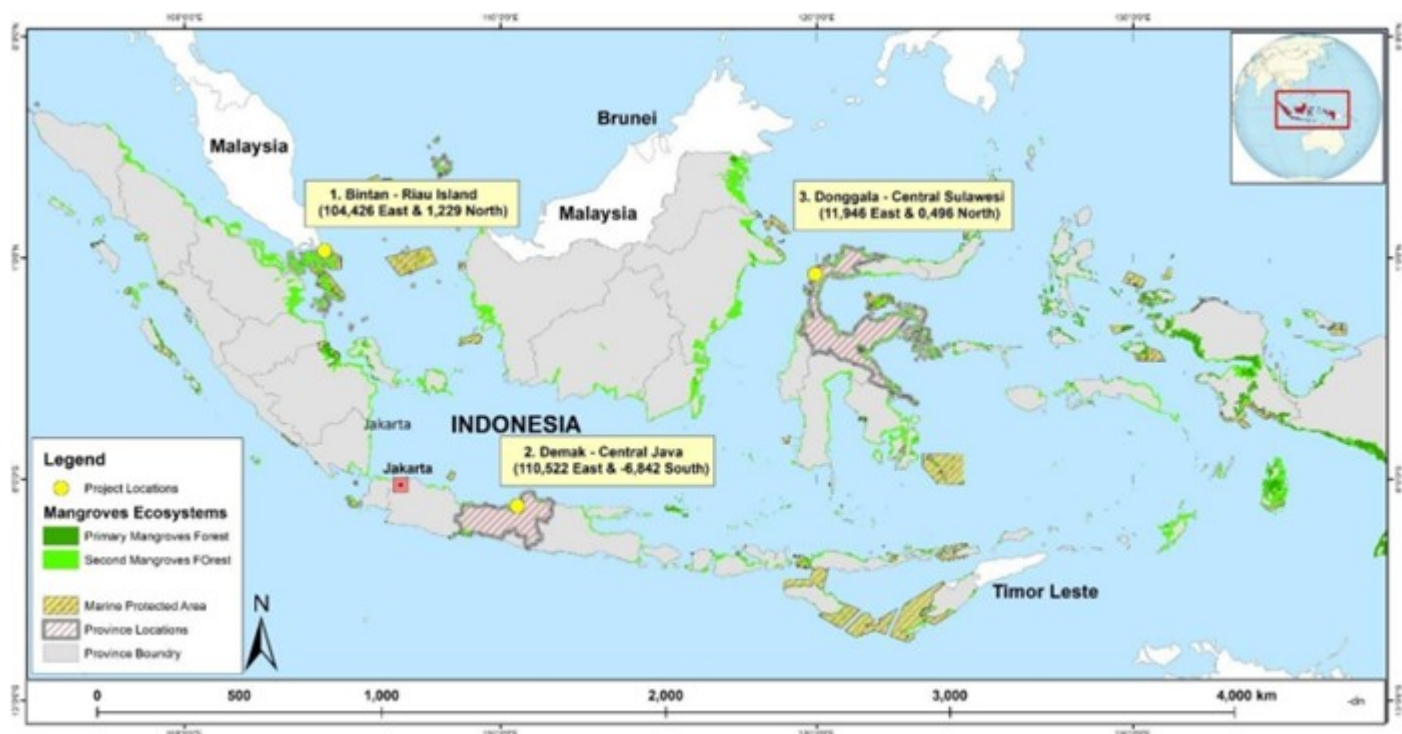


Figure 1: Map showing the location of 650 Potential and Candidate OECM in Indonesia, existing MPAs, reserves, and target OECM under Vision 30x45 covering a total area of 9.7 million ha.

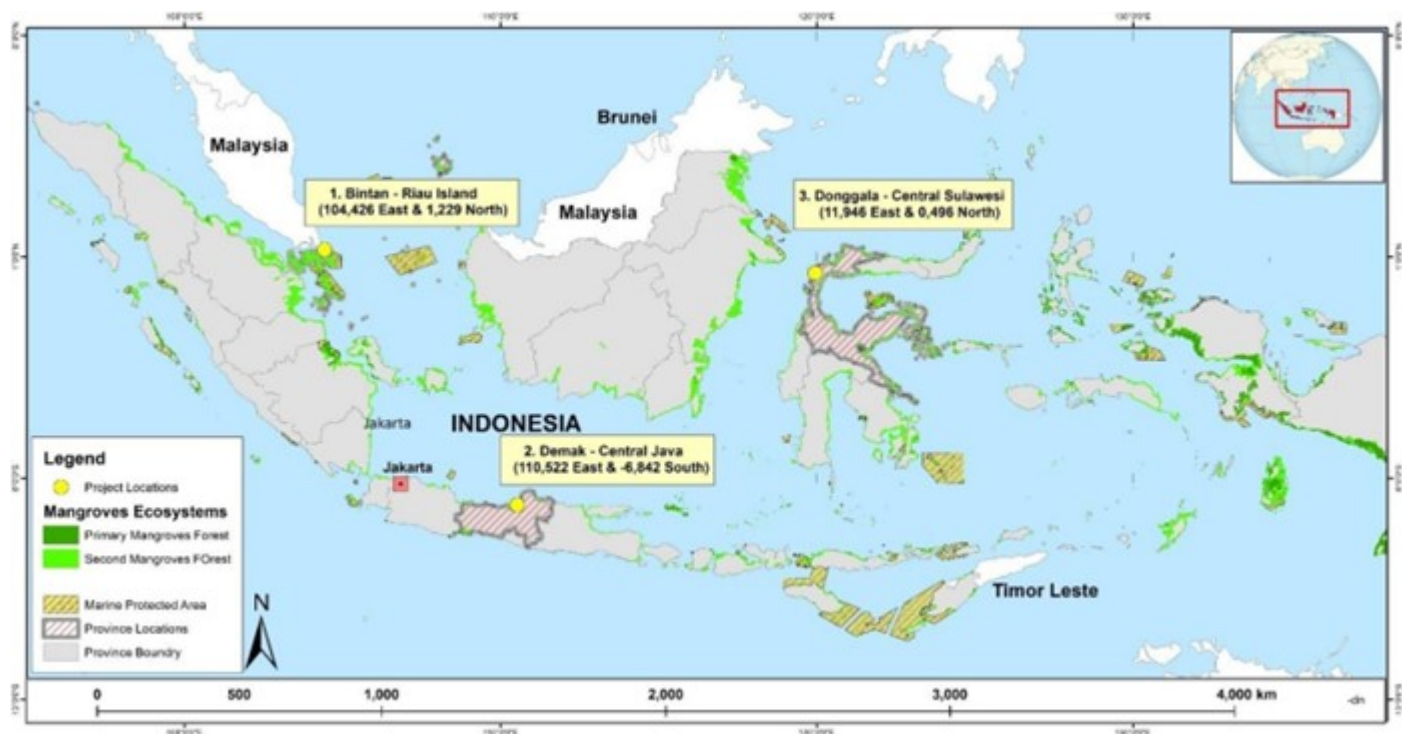


Figure 2: Map showing the project implementation sites including Bintan (Riau Island), Demak (Central Java Province) and Donggala, (Central Sulawesi).

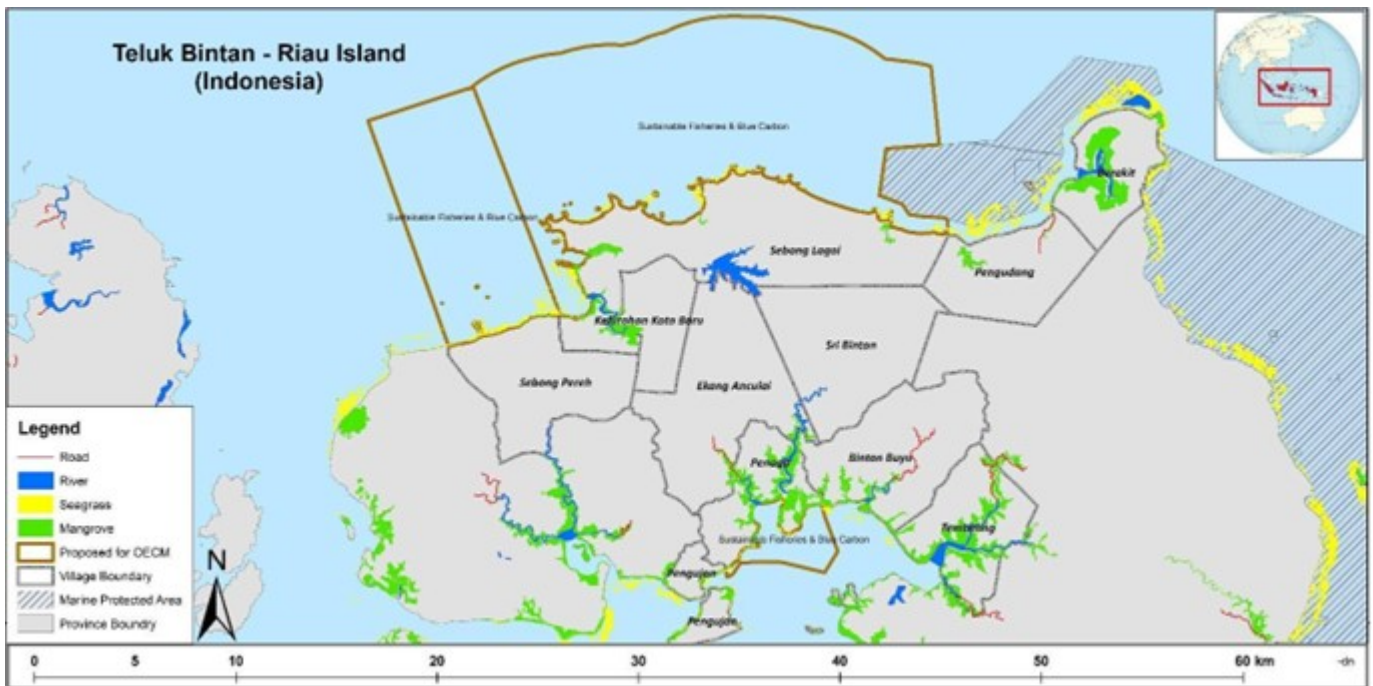


Figure 3: Map showing the project implementation site in Bintan (Riau Island Province)



Figure 4: Map showing the project implementation site in Demak (Central Java Province)

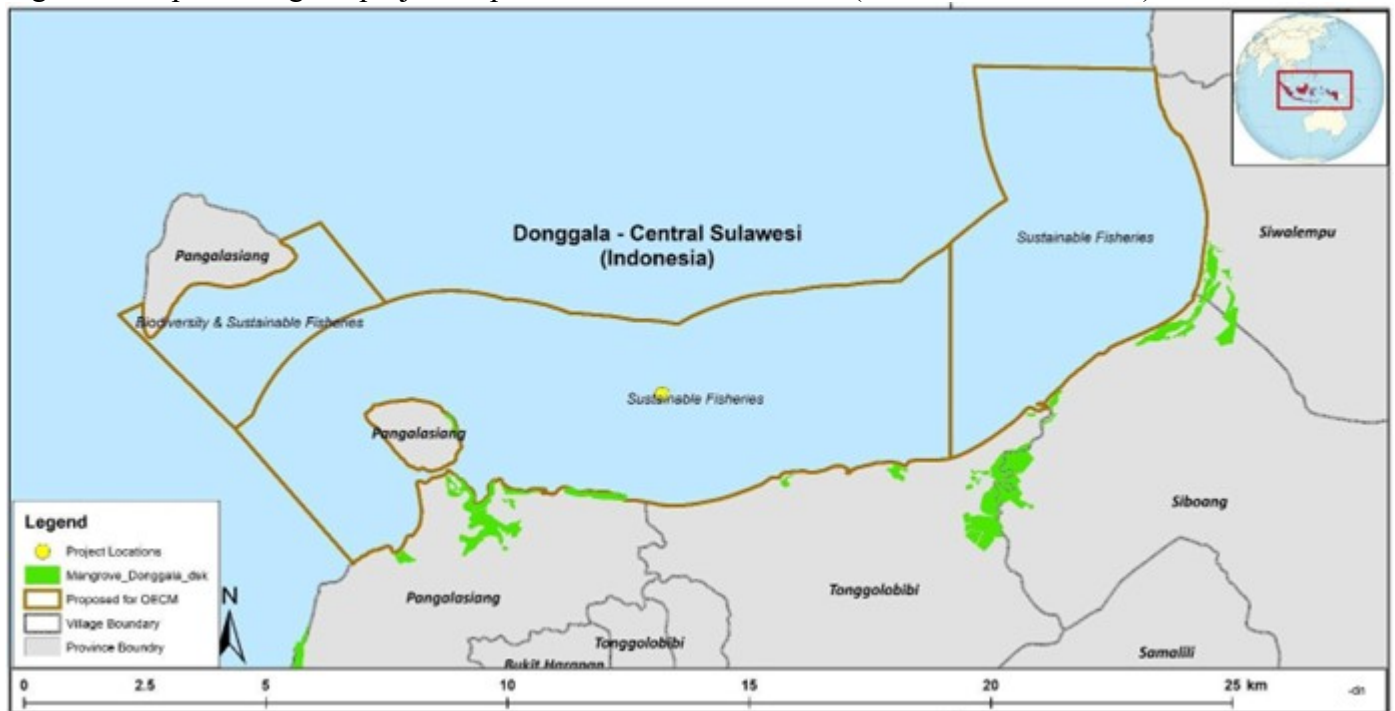


Figure 5: Map showing the project implementation site Donggala (Central Sulawesi Province)

1. Bintan Seascape – Riau Islands Province (Appendix C Figure 3)

The Bintan Seascape in Riau Islands Province forms an important ecological corridor in western Indonesia, located within the southern South China Sea biogeographic zone. The coastal and nearshore ecosystems include fringing reefs, extensive seagrass beds, and mangrove complexes that provide valuable ecosystem services and function as nursery habitats for commercially important reef fish and invertebrates. The area supports critically endangered dugongs, seahorses, reef fish diversity, migratory shorebirds, and significant seagrass-associated biodiversity. Seven seagrass species have been identified in the area (*Enhalus acoroides*, *Thalassia hemprichii*, *Cymodocea serrulata*, *Cymodocea rotundata*, *Thalassodendron ciliatum*, *Syringodium isoetifolium*, *Halodule uninervis*). These seagrass ecosystems provide nursery habitat for fish and invertebrates, stabilize coastal sediments, improve water quality, and act as significant blue carbon sinks. The seagrass beds of Bintan provide habitat for dugongs (*Dugong dugon*), a globally vulnerable marine mammal that relies on seagrass for feeding. Community surveys and field observations indicate frequent sightings of dugongs within seagrass areas in northern Bintan, highlighting the ecological importance of these habitats for marine megafauna.

The coastal and marine ecosystems of Bintan Seascape possess globally significant biodiversity values and are increasingly recognized under marine conservation and Key Biodiversity Area (KBA)-related frameworks. The East Bintan Marine Conservation Area (*Kawasan Konservasi Perairan Wilayah Timur Pulau Bintan*) was established to protect ecologically important coastal habitats, including extensive seagrass meadows, coral reefs, mangroves, and associated fisheries ecosystems that support endangered marine species, coastal livelihoods, fisheries productivity, and blue carbon functions. Scientific studies have highlighted the high ecological importance of Bintan's seagrass ecosystems due to their biodiversity richness, carbon sequestration potential, and ecosystem services, strengthening their relevance for biodiversity conservation and potential KBA-related assessments (Habibah et al., 2022; Putri et al., 2018; Yulianti et al.,

2026) [1]⁶. Bintan's coastal waters are part of the broader Sunda Shelf marine ecosystem within the globally important Indo-Malay marine biodiversity region, recognized for exceptionally high marine species richness and ecological connectivity across Southeast Asia.

The most important conservation features include extensive seagrass ecosystems that serve as critical feeding habitats for the vulnerable dugong (*Dugong dugon*), green turtles (*Chelonia mydas*), and nursery grounds for commercially and ecologically important fish species. Studies in North and Eastern Bintan documented at least 9–11 seagrass species, including *Enhalus acoroides*, *Thalassia hemprichii*, *Halodule uninervis*, and *Cymodocea serrulata*, which support high marine biodiversity and significant blue carbon storage. Dugong feeding grounds have been specifically identified in Busung and North Bintan waters, confirming the global conservation significance of Bintan's seagrass habitats (Juraij et al., 2014; Supriyadi, 2022)[2]⁷. In addition, Bintan's coastal ecosystems support diverse fish assemblages, gastropods, echinoderms, and associated marine fauna that contribute to regional biodiversity connectivity within the Indo-Malay marine ecoregion.

Based on 2025 data from the Ministry of Marine Affairs and Fisheries (MMAF/KKP), Bintan records 425 fish species, including 30 classified as near threatened and 8 locally recorded species: *Neopomacentrus* (damsel fish), *Pentapodus cf. trivittatus*, *Parapercis cf. snyderi*, *Pseudochromis sp.*, *Ptereleotris cf. microlepis*, *Bathygobius sp.*, and *Cryptocentrus sp.* The area is also habitat to protected marine megafauna, including the green turtle (*Chelonia mydas*), hawksbill turtle (*Eretmochelys imbricata*), and dugong (*Dugong dugon*), indicating the ecological importance of its coastal and seagrass ecosystems.

Bintan's seagrass meadows remain in healthy condition, comprising 11 species (*Enhalus acoroides*, *Thalassia hemprichii*, *Cymodocea rotundata*, *Cymodocea serrulata*, *Syringodium isoetifolium*, *Halodule uninervis*, *Halodule pinifolia*, *Thalassodendron ciliatum*, *Halophila ovalis*, and *Halophila spinulosa*). Mangrove ecosystems are significant both ecologically and socio-economically. Regional data indicate that Bintan Regency's mangrove area is approximately 9,701.49 hectares. These mangrove forests support various species comprised of at least 9 species of mangroves [3]⁸[4]⁹[5]¹⁰[6]¹¹, including *Lumnitzera littorea*, *Xylocarpus granatum*, *Ceriops tagal*, *Rhizophora apiculata*, *Bruguiera gymnorhiza*, *Aegiceras corniculatum*, *Rhizophora mucronata*, *Avicennia spp.*, and *Nypa sp.* (other surveys sometimes record additional species), which reflects the biodiversity of this coastal ecosystem.

Bintan waters at least 30 commercially important and demersal fish species that reflect the ecological connectivity between coral reefs, seagrass meadows, and coastal pelagic systems, based on the MMAF data in 2025 [7]¹²[8]¹³. Key demersal and reef-associated species supporting local fisheries value chains and food security include kurisi (*Nemipterus nemurus*), stingray (*Neotrygon kuhlii*), giant catfish (*Netuma thalassina*), Indian halibut (*Psettodes erumei*), various shark species, groupers (Epinephelinae), red snappers (*Lutjanus spp.*, including *L. fulviflamma* and *L. johnii*), leopard coral grouper (*Plectropomus leopardus*), rabbitfish (*Siganus canaliculatus*), wrasses (Labridae), parrotfish (Scaridae), damselfish (Pomacentridae), butterflyfish

(*Chaetodon* spp., including *C. octofasciatus*), and sergeant major (*Abudefduf vaigiensis*), which are closely linked to healthy coral reef habitats. Soft-bottom and estuarine-associated species such as ponyfish (*Leiognathus equulus*), mullet (*Mugil cephalus*), spotted scat (*Scatophagus argus*), and gray eel-catfish (*Plotosus canius*) indicate productive coastal and mangrove systems. Small pelagics and higher trophic-level species—including Spanish mackerel (*Scomberomorus* spp.), kawakawa (*Euthynnus affinis*), yellowstripe scad (*Selaroides leptolepis*), sardines (*Sardinella* spp.), queenfish (*Scomberoides commersonnianus*), fourfinger threadfin (*Eleutheronema tetradactylum*), silver pomfret (*Pampus argenteus*), and pufferfish (Tetraodontidae). Collectively, this assemblage underscores Bintan’s high marine biodiversity and the economic significance of its multi-habitat coastal ecosystem. Another study found 26 fish species associated with seagrass ecosystems along the coast of Bintan Island^{[9]¹⁴} highlighting the ecological role as essential nursery, feeding, and shelter habitats that support coastal fisheries productivity and overall marine biodiversity in the Riau Islands.

The OECMs within the Bintan Seascape covers approximately 25,816 hectares and are adjacent to three villages (Sebong Pereh, Sebong Lagoi, and Penaga) with a total population of 10,877 (2024 data). Most coastal communities in Bintan are characterized by small-scale, family-based fishing operations using traditional gears, with limited-capacity vessels, and strong dependence on daily catches for income and food security, making them highly vulnerable to environmental and market shocks. Within Bintan there are two principal fisher groups: the Suku Laut (sea nomads) and the settled Malay coastal community (Melayu darat), both of whom heavily depend on the island’s biodiverse nearshore ecosystems for livelihoods and food security^{[10]¹⁵,^{[11]¹⁶},^{[12]¹⁷}. The adaptive capacities of these two groups to climate change and ecosystem degradation differ markedly. The Suku Laut maintain semi-nomadic mobility, strong intergenerational ecological knowledge, and diversified fishing gears, allowing them to adjust fishing locations and target species in line with seasonal cycles, monsoon variability, and shifts in marine biodiversity. In contrast, Malay coastal fishers typically operate small-scale, family-based fisheries using single-gear systems—primarily stationary or floating lift nets (bagan tancap or bagan apung)—and reside in permanent coastal settlements. This mono-gear dependence and limited spatial flexibility reduce their ability to respond to declining fish stocks, habitat degradation, extreme weather events, and changing oceanographic conditions, thereby increasing their socio-economic vulnerability amid mounting climate and environmental pressures. Small-scale fishers on Bintan Island are increasingly exposed to multiple and compounding pressures, including climate change impacts (shifting monsoon patterns, stronger winds, coastal erosion, and declining catch predictability), extractive and coastal industrial activities, and marine pollution—particularly oil spills that tend to intensify during the northeast monsoon^{[13]¹⁸}. These stressors directly affect nearshore fishing grounds, coral reefs, and seagrass habitats that underpin local fisheries productivity.}

Despite its ecological importance, the Bintan seascape faces increasing environmental pressures from: coastal tourism and infrastructure development, habitat degradation of seagrass beds, unsustainable fishing practices, and marine pollution and sedimentation. The establishment of an OECM within this seascape will support community-based conservation and improved spatial management of coastal resources, strengthening the protection of marine ecosystems while supporting sustainable fisheries and tourism livelihoods.

2. Manggarai Barat Seascape – East Nusa Tenggara (Appendix C Figure 4).

The Manggarai Barat Seascape in East Nusa Tenggara Province is located within the Coral Triangle, the global epicenter of marine biodiversity. Situated adjacent to the globally renowned biodiversity of Komodo National Park, the Manggarai Barat Seascape hosts exceptionally high coral species richness, reef fish diversity, and endangered and threatened megafauna including dugong, manta rays, sharks and turtles. Strong oceanographic variability contributes to reef resilience and high productivity, making the area critical for maintaining ecological connectivity and climate-resilient reef systems and a high priority for biodiversity.

Seagrass meadows in Manggarai Barat are mixed communities, predominantly composed of the large, persistent species *Enhalus acoroides* and *Thalassia hemprichii*, which form extensive and structurally complex meadows in shallow intertidal and subtidal zones. Seagrass ecosystems in the wider Lesser Sunda biogeographic region are known to support dugong (*Dugong dugon*) [1] populations, which are classified as Vulnerable on the IUCN Red List since 1982. The area falls within “The Western Lesser Sunda Islands and Sumba coastal area Important Marine Mammal Area (IMMA)” [2]. Data on dugong is limited globally and in Indonesia, where the populations are estimated to be comprised of only 1000 individuals based. The Indonesian government declared the dugong as a fully protected species along with all other marine mammals (Government Regulation – No. 7. 1999). The species is becoming increasingly vulnerable due to habitat lost and overlap with human activities such as none eco-friendly seaweed farming activities.

Mangrove in Manggarai Barat demonstrates high species richness and ecological complexity, with at least ten recorded mangrove species distributed across intertidal zones, estuaries, and sheltered bays. Dominant true mangrove species include *Avicennia lanata*, *Rhizophora mucronata*, *Rhizophora apiculata*, *Ceriops tagal*, *Bruguiera parviflora*, *Bruguiera sexangula*, and *Bruguiera gymnorrhiza*, which form dense stands that contribute significantly to shoreline stabilization, sediment trapping, and coastal protection. Associated species such as *Xylocarpus granatum*, *Pemphis acidula*, *Acrostichum aureum*, and *Derris trifoliata* further enhance habitat heterogeneity and ecological resilience. Mangrove ecosystems function as critical nursery grounds for fish, crustaceans, and mollusks that support local fisheries and food security, while also contributing to blue carbon storage and climate change mitigation.

At least nine shark species have been identified in the area, including whitespotted wedgfish (*Rhynchobatus australiae*, Critically Endangered), tawny nurse shark (*Nebrius ferrugineus*, Vulnerable), sand tiger shark (*Carcharias taurus*, Critically Endangered), blacktip reef shark (*Carcharhinus melanopterus*, Vulnerable), blacktip shark (*Carcharhinus limbatus*, Vulnerable), grey reef shark (*Carcharhinus amblyrhynchos*, Endangered), whitetip reef shark (*Triaenodon obesus*, Vulnerable), blue shark (*Prionace glauca*, Near Threatened), and milk shark (*Rhizoprionodon acutus*, Least Concern) [3]. In recognition of the importance of sharks, the head of the District in Manggarai Barat has issued Regent Instruction No. DKPP/1309/VIII/2013 (2013) prohibiting the capture of sharks, manta rays (Elasmobranchii), certain fish species, and other marine biota within the marine waters of West Manggarai Regency [4].

According to the Marine and Fisheries Agency, at least 23 capture fishery species have been recorded in the area, including tembang (*Sardinella fimbriata*), lemuru (*Sardinella lemuru*), flying fish/terbang (*Exocoetidae* spp.), julung-julung/needlefish (*Hemiramphidae* spp.), Indian mackerel/kembung (*Rastrelliger kanagurta*), selar/trevally scad (*Selar crumenophthalmus*), tongkol/little tuna (*Euthynnus affinis*), layur/hairtail (*Trichiurus lepturus*), red snapper/kakap merah (*Lutjanus* spp.), coral grouper/kerapu karang (*Epinephelus* spp.), skipjack tuna/cakalang (*Katsuwonus pelamis*), cendro/garfish (*Tylosurus crocodilus*), layang anggur/scad (*Decapterus macrosoma*), kurisi/threadfin bream (*Nemipterus* spp.), peperek/silver-biddy (*Gerres* spp.), biji nangka/goatfish (*Upeneus* spp.), pinjalo/pink snapper (*Pinjalo pinjalo*), blue lolosi (*Caesio teres*), tuna (*Thunnus* spp.), kuwe/giant trevally (*Caranx ignobilis*), Spanish mackerel/tenggiri (*Scomberomorus commerson*), lencam/emperor (*Lethrinus* spp.), and anchovy/teri (*Stolephorus* spp.).

The OECM areas within the Manggarai Barat Seascape collectively cover approximately 38,939 hectares, provisionally classified as Sustainable Fisheries, Sustainable Fisheries & Blue Carbon, Biodiversity & Blue Carbon. The OECMs are adjacent to six villages (Labuan Bajo, Batur Cermin, Wae Kelambu, Tanjung

Boleng, Golo Sepang) with a combined population of 28,429. The West Manggarai District Statistics Agency identified four key capture fishery commodities with high economic value: skipjack tuna (*Katsuwonus pelamis*), little tuna (*Euthynnus affinis*), tuna (*Thunnus* spp.), and shrimp (*Penaeus* spp.)^[5]^[6].

The coastal ecosystems of Manggarai Barat face increasing environmental pressures from: tourism expansion, overfishing and unsustainable fishing practices, coastal infrastructure development, and climate-related stressors including coral bleaching and ocean warming. The establishment of OECMs and strengthened integrated coastal management, will enhance community-based stewardship, sustainable fisheries management, and ecosystem restoration, ensuring the long-term protection of these globally significant marine habitats.

3- Donggala Seascape – Central Sulawesi (Appendix C Figure 5).

The Donggala Seascape in Central Sulawesi is influenced by the Makassar Strait and Indonesian Throughflow system, a significant oceanographic phenomenon, driven by the persistent trade winds of the Pacific Ocean. These winds push warm surface water westward, creating a hydraulic pressure gradient between the Pacific and Indian Oceans, which propels a massive volume of water, estimated at 10-15 million cubic meters per second, through the intricate network of straits and passages within the Indonesian archipelago. This continuous influx of cooler, nutrient-rich oceanic water from the Pacific has a profound effect on the regional climate and marine ecosystems and in particular the coral reefs. The ITF provides a cooling mechanism, mitigating the effects of warmer sea water temperatures, and reduces the risk during global mass coral bleaching events.

The Coastal and Small Islands Conservation Area of Donggala, Buol, Tolitoli, and Surrounding Waters in Central Sulawesi Province was officially established through Ministerial Decree of the Ministry of Marine Affairs and Fisheries No. 50/KEPMEN-KP/2019 as a marine conservation area under the “Park” category, covering approximately 60,042.73 ha. The conservation area is managed through a zoning system consisting of core zones, limited-use zones, and rehabilitation zones to ensure sustainable management of ecologically important coastal and marine ecosystems. The area supports significant marine biodiversity, including coral reefs, seagrass beds, mangrove ecosystems, and habitats for economically and ecologically important species such as Napoleon wrasse (*Cheilinus undulatus*), groupers, snappers, sea cucumbers, giant clams, blacktip sharks, sea turtles, and red shrimp. These ecosystems are recognized as important components of the Wallacea marine biodiversity hotspot and contribute to regional ecological connectivity and fisheries productivity (MMAF, 2019; Ma’ruf et al., 2024; Ihsan et al., 2025)^[1]. Recent ecological studies in Pasoso Island Wildlife Reserve further confirmed high bird diversity, endemic Sulawesi avifauna, and important feeding guild structures, highlighting the global conservation significance of the area (Ma’ruf et al., 2024; Ihsan et al., 2025)^[2].

The targeted coastal and island ecosystems in Donggala, in Pasoso Island Wildlife Reserve (*Suaka Margasatwa Pulau Pasoso*) and adjacent marine ecosystems, already meet internationally recognized biodiversity significance criteria under the Key Biodiversity Area (KBA) and Important Bird Area (IBA) frameworks. Pasoso has been officially recorded in the global KBA database as a confirmed KBA site (KBA ID 16375) under the CEPF Wallacea Ecosystem Profile assessment process, covering approximately 187 km² of interconnected marine and terrestrial ecosystems. The site was identified using globally recognized KBA/IBA criteria due to the presence of endemic and geographically restricted species, important marine turtle habitats, and ecologically intact island ecosystems within the Wallacea biodiversity hotspot. The proposed GEF intervention will therefore support biodiversity monitoring, strengthening of conservation management, and updating of KBA assessment and registration processes in line with the Global KBA Standard and national biodiversity conservation priorities (KBA Secretariat, 2025; CEPF Wallacea, 2014)^[3].

The Donggala Seascape supports highly productive and diverse coastal and marine ecosystems, with healthy coral reefs, seagrass beds and mangrove forests, diverse coral and fish communities, spawning aggregation sites

and serves as a migratory corridor for pelagics. The seascape diverse coastal and nearshore marine habitats play an important role in maintaining ecological connectivity across Sulawesi's reef systems, and they are vital for sustaining fisheries-based livelihoods, local food security, and regional marine biodiversity.

Fish communities in Donggala Regency are highly diverse reflecting the health of coral reef and nearshore benthic ecosystems and comprised of both demersal and pelagic species that support local capture fisheries. Five seagrass species have been recorded in the Donggala coastal waters (*Thalassodendron ciliatum*, *Cymodocea rotundata*, *Cymodocea serrulata*, *Thalassia hemprichii*, *Enhalus acoroides*). The seagrass habitats around Donggala support Green sea turtle (*Chelonia mydas*) and the Dugong (*Dugong dugon*) populations, which depend on healthy seagrass ecosystems for feeding^[4]^[5]. Their continued occurrence indicates the ecological significance and relative health of the coastal and seagrass ecosystems and highlights the need to strengthen marine habitat protection and sustainable coastal management to conserve Donggala's biodiversity and associated ecosystem services^[6]^[7]. The mangrove ecosystems comprise at least six recorded species (*Sonneratia alba*, *Bruguiera gymnorrhiza*, *Rhizophora apiculata*, *Rhizophora mucronata*, *Sonneratia ovata*, and *Bruguiera cylindrica*)^[8]^[9]. These species form dense intertidal stands, particularly in sheltered bays and estuarine areas, where they play a crucial role in coastal protection, sediment stabilization, and nutrient cycling. Notably, *Sonneratia ovata* and *Bruguiera cylindrica* are listed as Endangered (EN) on the International Union for Conservation of Nature (IUCN) Red List. The presence of both common and threatened mangrove species highlights Donggala's ecological significance and the need for strengthened management measures to safeguard biodiversity and sustain associated fisheries and coastal livelihoods.

The Donggala seascape has OECD area is approximately 9,245 hectares and adjacent to four coastal villages (Pangalasiang, Tonggolobibi, Siboang, and Siwalempu) with a combined total population of 15,628. Fishermen in Donggala are predominantly small-scale traditional fishers who use relatively simple fishing gear, including purse seines, beach seines, handlines, gillnets, and payang nets^[10]. Demersal species commonly landed by fishers include starry triggerfish (*Abalistes stellaris*), trevallies (Carangidae), rabbitfish (*Siganus* spp.), goatfish (Mullidae), emperors (Lethrinidae), coral trout grouper (*Plectropomus leopardus*), grunters (Haemulidae), parrotfish (Scaridae), surgeonfish (Acanthuridae), lined sweetlips (*Plectorhinchus lineatus*). Their main catches consist of small pelagic species such as skipjack tuna (*Katsuwonus pelamis*), Indian scad (*Decapterus russelli*), yellowstripe scad (*Selaroides leptolepis*), Indian anchovy (*Stolephorus indicus*), fringescale sardine (*Sardinella fimbriata*), Bali sardine (*Sardinella longiceps*), and Indian mackerel (*Rastrelliger* spp.), which are essential for sustaining local livelihoods and coastal food security. The capture fisheries sector in Donggala Regency is relatively homogeneous, with most fishers operating on a small or traditional scale, characterized by low-capacity vessels, limited fishing range, and modest production systems.

The Donggala seascape faces several environmental pressures, including: coastal habitat degradation, destructive fishing practices, overfishing, sedimentation and land-based pollution and climate change impacts on marine ecosystems. The LIVE-SEA project will support the establishment of an OECD to strengthen community-based coastal governance, habitat restoration, and sustainable fisheries management, thereby protecting biodiversity while improving resilience of coastal communities.

^[1] Ministry of Marine Affairs and Fisheries (MMAF). 2019. Decree No. 50/KEPMEN-KP/2019 concerning Coastal and Small Islands Conservation Areas in Donggala, Buol, and Tolitoli Waters.; Ma'ruf, A.U. et al. (2024). Diversity of Insectivorous Birds in Pasoso Island Wildlife Reserve, Donggala, Central Sulawesi. ForestSains Journal.; Ihsan, M. et al. (2025). Feeding Guild Structure of Bird Communities on Pasoso Island, Central Sulawesi. Jurnal Belantara.

^[2] Ma'ruf, A.U. et al. (2024) *ibid.*; Ihsan, M. et al. (2025) *ibid.*

-
- [3] Key Biodiversity Areas Secretariat (2025). Pasoso KBA Factsheet (KBA ID 16375); Critical Ecosystem Partnership Fund (CEPF). 2014. Ecosystem Profile: Wallacea Biodiversity Hotspot. Arlington, Virginia, USA.
- [4] Alatas et al.2022. Demersal Fishing Technology and Economic Aspects of Fisherman Cacth Results in Banawa, Donggala Regency, Central Sulawesi. Journal TROFISH 1(2):44-50.
- [5] Moore et al. 2018. Monitoring ekosistem pesisir daerah perlindungan laut (DPL) Tanjung Ayuan, Kabupaten Donggala. DOI:10.31230/osf.io/4p87k
- [6] <https://sulteng.antaranews.com/berita/335101/pemkab-donggala-ajak-masyarakat-jaga-dan-lestarikan-hewan-endemik>
- [7] <https://www.kkp.go.id/news/news-detail/kkp-kuburkan-dugong-terdampar-mati-di-kabupaten-donggala65c1a71eb907e.html>
- [8] Rizal et al.2023. Kabonga Besar mangrove ecosystem health status, Donggala, Indonesia – an analysis of viability versus threats. IOP Conf. Ser.: Earth Environ. Sci. 1253 012113DOI 10.1088/1755-1315/1253/1/012113
- [9] <https://voi.id/en/lifestyle/461915>
- [10] Fachrudin et al.2020. Sustainability Status of Fishery Business in Supporting Development of coastal village based on agribusiness fisheries in Donggala, Indonesia. RJOAS 10 (106) <https://doi.org/10.18551/rjoas.2020-10.10>
-
- [1] Marsh, H., Penrose, H., Eros, C. and Hugues, J. 2002. Dugong status report and action plan for countries and territories. UNEP. Early warning and assessment report series. 162 pp.
- [2] <https://www.marinemammalhabitat.org/factsheets/lesser-sunda-sumba-coast/>
- [3] Alaydrus et al.2014. Jenis dan Status Konservasi Ikan Hiue yang tertangkap di Tempat Pelelangan Ikan (TPI) Labuhan Bajo, Manggrai Barat, Flore. Al-Kauniah Jurnal Biologi Volume 7 Nomor 2
- [4] <http://www.wwf.id/id/blog/manggarai-barat-rintis-regulasi-perlindungan-hiu-dan-pari-melalui-pengelolaan-pariwisata>
- [5] <https://www.manggaraitimurkab.go.id/phocadownloadpap/4%20Dinas%20Kelautan%20dan%20Perikanan.pdf>
- [6] <https://manggarai Baratkab.bps.go.id/>
-
- [1] Habibah, S.N. et al. (2022). Effectiveness of Seagrass Conservation Management in the East Bintan Marine Conservation Area. Jurnal Akuatiklestari.; Putri, P.I. et al. (2018). Potential of Seagrass Resources for Conservation Area Reservation in Bintan Waters. Jurnal Akuatiklestari.; Yulianti, I.D. et al. (2026). Nitrogen and Blue Carbon Storage in Seagrass Ecosystems of Bintan Island. Journal of Marine and Coastal Science.

- [2] Juraij, Bengen, D.G., & Kawaroe, M. (2014). Seagrass Diversity as Dugong Feeding Habitat in North Bintan. *Omni-Akuatika*.; Supriyadi, I.H. (2022). The Conditions of Seagrass at Small Islands in Eastern Waters of Bintan Island. *Cutting Edge Research in Biology*.
- [3] Narswari et al.2023. Klasifikasi Perubahan Tutupan Lahan Mangrove di Pulau Bintan Provinsi Kepulauan Riau. <https://repository.ipb.ac.id/handle/123456789/124148>
- [4] Hapsari et al.2022. Karbon Organik dalam Sedimen Mangrove terhadap pasang surut di Pulau Bintan. *Buletin Oseanografi Marina Februari 2022 Vol 11 No 1:86–98* (<https://ejournal.undip.ac.id/index.php/buloma/article/download/39107/20982>)
- [5] Baliyan, B., Lestari, F., & Susiana, S. (2021). Jenis dan Tingkat Kerusakan Ekosistem Mangrove di Pulau Beralas Bakau Desa Teluk Bakau Kabupaten Bintan. *Jurnal Akuatiklestari*, 5(1): 1-8. DOI: <https://doi.org/10.31629/akuatiklestari.v5i1.3103>
- [6] Tamid et al (2015). Habitat Quality Mud Crab (*Scylla serrata*) in Mangrove Ecosystem of Bintan Bay, Binta Distr, Riau Islands. *Jurnal Ilmu dan Teknologi Kelautan Tropis*, Vol. 7, No. 2: 535-551 (<https://media.neliti.com/media/publications/98904-ID-none.pdf>)
- [7] Lubis, E.K., Sinaga, T.Y., & Susiana. (2021). Inventarisasi Ikan Damersal dan Ikan Pelagis yang Didaratkan di PPI Kijang Kecamatan Bintan Timur Kabupaten Bintan. *Jurnal Akuatiklestari*, 4(2): 47-57. DOI: <https://doi.org/10.31629/akuatiklestari.v4i2.2536>
- [8] Wardiatno et al. 2025. Biodiversitas dan Sebaran Sumberdaya Ikan di daerah Ekosisem Lamun Pesisir Timur Pulau Bintan, Kepulauan Riau. https://www.academia.edu/19649190/BIODIVERSITAS_DAN_SEBARAN_SUMBERDAYA_IKAN_DI_DAERAH_EKOSISTEM_LAMUN_PESISIR_TIMUR_PULAU_BINTAN_KEPULAUAN_RIAU
- [9] Nugraha et al., 2023. The Composition of Seagrass Fish Community in Bintan Island”. *Authentic Research of Global Fisheries Application Journal (Aurelia Journal)*, Vol. 5(1), April 2023: 159–166
- [10] Helfinalis, et al./ *Journal of Fisheries and Marine Research* Vol. 4 No 3(2020) 428-435. <https://jfmr.ub.ac.id/index.php/jfmr/article/download/471/217/2217>
- [11] https://www.e3s-conferences.org/articles/e3sconf/pdf/2018/22/e3sconf_scifimas2018_07001.pdf
- [12] https://www.itto.int/files/itto_project_db_input/2985/technical/Full%20Report_Review%20%26%20Policy%20Analysis.pdf?v=1709090783
- [13] <https://www.sciencedirect.com/science/article/abs/pii/S0025326X25014948>

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.

Title

2000005000_secap_environmental_and_social_worksheet_93f9914e99d19730fc7039ea9c5d0434

ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
Significant Objective 1	Significant Objective 1	Principal Objective 2	No Contribution 0

ANNEX F: TAXONOMY WORKSHEET

Level 1	Level 2	Level 3	Level 4
☒ Influencing models	☒ Transform policy and regulatory environments ☒ Convene multi-stakeholder alliances ☒ Demonstrate innovative approaches	OECMs recognised within MSP Deploying innovative financial instruments	Legal instruments and permit systems linked to MSP layers Biodiversity credits, result based schemes and payments for ecosystem services
☒ Stakeholders	☒ Strengthen institutional capacity and decision-making ☒ Indigenous Peoples ☒ Private Sector ☒ Civil Society ☒ Type of Engagement ☒ Communications	Empowering the staff and community on spatial plan and sustainable finance at national & subnational level IPLC co-management and FPIC MSMEs Financial institutions and investors ☒ Non-Governmental Organization ☒ Consultation ☒ Participation ☒ Awareness Raising ☒ Education ☒ Public Campaigns	Sustainable seafood/tourism certification Data sharing, co-implementation
☒ Capacity, Knowledge and Research	☒ Capacity Development ☒ Knowledge Generation and Exchange ☒ Targeted Research ☒ Knowledge and Learning	Establishing biodiversity baselines and community-driven monitoring mechanisms for OECMs. ☒ Knowledge Management ☒ Capacity Development	
☒ Gender Equality	☒ Stakeholder Engagement Plan ☒ Gender Mainstreaming	☒ Beneficiaries ☒ Women groups ☒ Sex-disaggregated indicators	
☒ Focal Areas/Theme	☒ Biodiversity	☒ Coastal/marine ecosystems (seagrass/mangroves) ☒ Mainstreaming ☒ Species ☒ Biomes ☒ Financial and Accounting ☒ Supplementary Protocol to the CBD	OECMs, MPAs, community-managed areas ☒ Community Based Natural Resource Management ☒ Tourism ☒ Agriculture & agrobiodiversity ☒ Fisheries ☒ Infrastructure ☒ Threatened Species Mangroves and seagrass for blue carbon ☒ Payment for Ecosystem Services

☒Forests

☒Forest and Landscape Restoration
☒Climate Change Mitigation

Mangroves protection
☒Agriculture, Forestry, and other
Land Use

☒Climate Change

☒Climate Change Adaptation
☒United Nations Framework on Climate Change

☒Nationally Determined Contribution