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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN IN THE AMOUNT OF US\$200 MILLION;

A GRANT IN THE AMOUNT OF US\$5 MILLION
FROM THE PROBLUE MULTI-DONOR TRUST FUND;

AND A GRANT IN THE AMOUNT OF US\$5 MILLION
FROM THE INDONESIA OCEANS, MARINE DEBRIS AND COASTAL RESOURCES MULTI-DONOR
TRUST FUND

TO THE

REPUBLIC OF INDONESIA

FOR AN

OCEANS FOR PROSPERITY PROJECT – LAUTRA

March 2, 2023

Environment, Natural Resources & The Blue Economy Global Practice
East Asia And Pacific Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective February 20, 2023)

Currency Unit = Indonesian Rupiah (IDR)

US\$1 = IDR 15,158

FISCAL YEAR

January 1 - December 31

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ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
Bappenas	National Development Planning Agency / <i>Kementerian Perencanaan Pembangunan Nasional/Badan Perencanaan Pembangunan Nasional</i>
BLU	Public Service Agency / <i>Badan Layanan Umum</i>
BPDLH	Indonesian Environment Fund / <i>Dana Lingkungan Hidup</i>
CMMAI	Coordinating Ministry of Maritime Affairs and Investments
COREMAP	Coral Reef Rehabilitation and Management Program
COVID-19	Coronavirus disease
CPF	Country Partnership Framework
DA	Designated Account
DG	Directorate General
DIPA	Annual Government Budget and Line Ministry Budget Document / <i>Daftar Isian Pelaksanaan Anggaran</i>
DJPPB	Directorate General of Aquaculture / <i>Direktorat Jenderal Perikanan Budidaya</i>
DJPRL	Directorate General of Marine Spatial Management / <i>Direktorat Jenderal Pengelolaan Ruang Laut</i>
DJPT	Directorate General of Capture Fisheries / <i>Direktorat Jenderal Perikanan Tangkap</i>
DKP	Provincial Marine and Fisheries Services / <i>Dinas Kelautan dan Perikanan</i>
E-KKP3K	Evaluation of Marine Protected Areas (MPA Evaluation Tool)
EAFM	Ecosystem Approaches for Fisheries Management
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standard
EVIKA	Evaluation Tool for Management of the Effectiveness of Conservation Areas in Indonesia / <i>Evaluasi Efektivitas Pengelolaan Kawasan Konservasi</i>
FAO	Food and Agriculture Organization
FM	Financial Management
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GOI	Government of Indonesia
Ha	Hectare
IBRD	International Bank for Reconstruction and Development
ICCTF	Indonesia Climate Change Trust Fund
IFR	Interim Unaudited Financial Report
IUCN	International Union for Conservation of Nature
KKPD	Conservation Areas Indonesia / Kawasan Konservasi di Indonesia
KPPN	State Treasury Office / <i>Kantor Pelayanan Perbendaharaan Negara</i>
LAUTRA	Oceans for Prosperity Project / <i>Lautan Sejahtera</i>
LKPP	National Public Procurement Agency / <i>Lembaga Kebijakan Pengadaan Barang Jasa Pemerintah</i>



LPMUKP	Marine and Fisheries Business Capital Management Institution / <i>Lembaga Pengelola Modal Usaha Kelautan dan Perikanan</i>
LPP	Fisheries Management Council / <i>Lembaga Pengelola Perikanan</i>
M&E	Monitoring and Evaluation
MDTF	Multi-Donor Trust Fund
M4CR	Mangroves for Coastal Resilience Project
MMAF	Ministry of Maritime Affairs and Fisheries
MoEF	Ministry of Environment and Forestry
MoF	Ministry of Finance
MOU	Memorandum of Understanding
MoV	Ministry of Villages, Development of Disadvantaged Regions, and Transmigration
MPA	Marine Protected Area
MSME	Micro, Small, and Medium Enterprise
MSP	Marine Spatial Planning (Marine Spatial Plan)
NGO	Nongovernmental Organization
NPSC	National Project Steering Committee
OJK	Financial Services Authority / <i>Otoritas Jasa Keuangan</i>
PDO	Project Development Objective
PIU	Project Implementation Unit
PPSU	Provincial Project Supporting Unit
PMO	Project Management Office
POM	Project Operations Manual
PP	Procurement Plan
PPSD	Project Procurement Strategy for Development
RPF	Resettlement Policy Framework
RPJMN	Mid-Term Development Plan / <i>Rencana Pembangunan Jangka Menengah Nasional</i>
SDG	Sustainable Development Goal
SIDAKO	Conservation Database System / <i>Sistem Database Konservasi</i>
SKKK	Ministerial Work Competency Standards / <i>Standar Kompetensi Kerja Khusus</i>
SKKNI	Indonesian National Competency Standards / <i>Standar Kompetensi Kerja Nasional Indonesia</i>
SPAN	Treasury Information System / <i>Sistem Perpendaharaan dan Anggaran Negara</i>
SPSE	Electronic Procurement System / <i>Sistem Pengadaan Secara Elektronik</i>
STEP	Systematic Tracking of Exchanges in Procurement
tCO ₂ e	tonnes of carbon dioxide equivalent
UNDP	United Nations Development Programme
UPP	Provincial Branch of the Fisheries Management Council / <i>Unit Pengelola Perikanan</i>
UPT	Technical Implementing Unit / <i>Unit Pelaksana Teknis</i>
WB	World Bank
WPP	Fishery Management Area / <i>Wilayah Pengelolaan Perikanan</i>

**TABLE OF CONTENTS**

DATASHEET.....	6
I. STRATEGIC CONTEXT	12
A. Country Context.....	12
B. Sectoral and Institutional Context.....	12
C. Relevance to Higher Level Objectives.....	16
II. PROJECT DESCRIPTION.....	16
A. Project Development Objective (PDO).....	16
B. Project Components	17
C. Project Beneficiaries	24
D. Results Chain	24
E. Rationale for World Bank Involvement and Role of Partners.....	26
F. Lessons Learned and Reflected in Project Design.....	27
III. IMPLEMENTATION ARRANGEMENTS	28
A. Institutional and Implementation Arrangements	28
B. Results Monitoring and Evaluation Arrangements.....	29
C. Sustainability.....	30
IV. PROJECT APPRAISAL SUMMARY	30
A. Technical, Economic and Financial Analysis	30
B. Fiduciary.....	33
C. Legal Operational Policies	34
D. Environmental and Social.....	34
V. GRIEVANCE REDRESS SERVICES	37
VI. KEY RISKS	37
VII. RESULTS FRAMEWORK AND MONITORING	40
ANNEX 1 - Implementation Arrangements and Support Plan	50
ANNEX 2 – Gender and Climate Change.....	59

DATASHEET

BASIC INFORMATION				
Country(ies)	Project Name			
Indonesia	Oceans for Prosperity Project - LAUTRA			
Project ID	Financing Instrument	Environmental and Social Risk Classification		
P173391	Investment Project Financing	Substantial		
Financing & Implementation Modalities				
<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input type="checkbox"/> Contingent Emergency Response Component (CERC)			
<input type="checkbox"/> Series of Projects (SOP)	<input type="checkbox"/> Fragile State(s)			
<input type="checkbox"/> Performance-Based Conditions (PBCs)	<input type="checkbox"/> Small State(s)			
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country			
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict			
<input type="checkbox"/> Deferred Drawdown	<input type="checkbox"/> Responding to Natural or Man-made Disaster			
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	<input type="checkbox"/> Hands-on Enhanced Implementation Support (HEIS)			
Expected Approval Date	Expected Closing Date			
23-Mar-2023	31-Mar-2028			
Bank/IFC Collaboration				
No				
Proposed Development Objective(s)				
To enhance the sustainable management of select marine protected areas and coral reef fisheries, and improve access to economic opportunities for local communities in target areas.				
Components				
Component Name		Cost (US\$, millions)		
Component 1: Infrastructure and Institutional Strengthening for Sustainable Marine Protected Areas Management		98.50		

Component 2: Expanding Economic Opportunities in and around Marine Protected Areas	86.50
Component 3: Sustainable Financing for Marine Protected Areas and Livelihoods	4.50
Component 4: Project Management	20.50

Organizations

Borrower:	Republic of Indonesia
Implementing Agency:	Ministry of Marine Affairs and Fisheries Ministry of National Development Planning (Bappenas)

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	210.00
Total Financing	210.00
of which IBRD/IDA	200.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	200.00
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Non-World Bank Group Financing

Trust Funds	10.00
Indonesia Oceans, Marine Debris, and Coastal Resources MDTF	5.00
PROBLUE MDTF	5.00

Expected Disbursements (in US\$, Millions)

WB Fiscal Year	2023	2024	2025	2026	2027	2028
Annual	2.00	33.00	60.00	50.00	40.00	15.00
Cumulative	2.00	35.00	95.00	145.00	185.00	200.00

INSTITUTIONAL DATA

Practice Area (Lead)	Contributing Practice Areas
Environment, Natural Resources & the Blue Economy	Social Sustainability and Inclusion

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	● Substantial
2. Macroeconomic	● Moderate
3. Sector Strategies and Policies	● Substantial
4. Technical Design of Project or Program	● Moderate
5. Institutional Capacity for Implementation and Sustainability	● Substantial
6. Fiduciary	● Substantial
7. Environment and Social	● Substantial
8. Stakeholders	● Moderate
9. Other	
10. Overall	● Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[] Yes [✓] No

Does the project require any waivers of Bank policies?

[] Yes [✓] No

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Relevant
Cultural Heritage	Relevant
Financial Intermediaries	Not Currently Relevant

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

Legal Covenants

Sections and Description

The Borrower shall be responsible for providing the overall strategic guidance for the Project through the National Project Steering Committee. To this end, the Borrower shall, not later than two (2) months after the Effective Date, establish and maintain, throughout Project implementation, the National Project Steering Committee, with a composition, institutional framework, functions, and resources satisfactory to the Borrower and the Bank for such purpose. (Section I.A.2 & 3 of Schedule 2 to the Loan Agreement)

Sections and Description

The Borrower shall not later than two (2) months after the Effective Date, establish and thereafter maintain, throughout Project implementation, the Project Management Office at the DJPRL under the MMAF, to be responsible for the general administration and management of the Project, including preparing Annual Work Plans and Budgets, appraising, guiding, supervising and monitoring the implementation of the Project. (Section I.A.4 of Schedule 2 to the Loan Agreement)

Sections and Description

The Borrower shall, not later than two (2) months after the Effective Date, establish and thereafter maintain, throughout Project implementation, the Project Technical Committee, with a composition, institutional framework, functions, and resources satisfactory to the Borrower and the Bank to be responsible for providing technical guidance and advice on specific issues to the Project Management Office. (Section I.A.5 of Schedule 2 to the Loan Agreement)

Sections and Description

The Borrower shall, not later than two (2) months after the Effective Date, establish and thereafter maintain, throughout Project implementation:

- (a) a Project Implementation Unit at DJPRL under the MMAF, to be responsible for the implementation of (i) Part 1.1 and Part 4.1 of the Project, and (ii) in coordination with DJPB and DJPT, Part 2 of the Project;
- (b) a Project Implementation Unit at DJPT under the MMAF, to be responsible for the implementation of (i) Part 1.2 of the Project, and (ii) in coordination with DJPRL and DJPB, Part 2 of the Project;
- (c) a Project Implementation Unit at DJPB under the MMAF, to be responsible, in coordination with DJPRL and DJPT, for the implementation of Part 2 of the Project; and
- (d) a Project Implementation Unit at the ICCTF-Bappenas, to be responsible for the implementation of Part 3 and Part 4.2 of the Project. (Section I.A.6 of Schedule 2 to the Loan Agreement)

Sections and Description

The Borrower shall, not later than two (2) months after the Effective Date, establish and thereafter maintain, throughout Project implementation, the Provincial Project Supporting Units, hosted in the Provincial Marine and Fisheries Services (“DKP”, Dinas Kelautan dan Perikanan) in the target provinces, to be responsible for receiving and managing funds of the Project to provide implementation support for activities for MPAs under Part 1.1 and Part 2 of the Project. (Section I.A.7 of Schedule 2 to the Loan Agreement)

Sections and Description

The Borrower shall provide, or cause to be provided, as the case may be, each of the Project Management Office, Project Technical Committee and Project Implementation Units at all times with adequate funds (allocated in the DIPA) and other resources, and with qualified and experienced personnel in adequate numbers, as shall be necessary to accomplish its terms of reference and objectives, as further detailed in the Project Operations Manual. (Section I.A.8 of Schedule 2 to the Loan Agreement)

Sections and Description

Without limitation to the provisions of the foregoing paragraphs of this Section I.A., the Borrower shall recruit and retain, or cause to be recruited and retained, such consultants as may be needed to support the functions of the entities referred to in this Section I.A., all with composition and terms of reference acceptable to the Bank and the Borrower as further detailed in the Project Operations Manual. (Section I.A.9 of Schedule 2 to the Loan Agreement)

Conditions

Type	Financing source	Description
Effectiveness	IBRD/IDA	The Additional Conditions of Effectiveness of the Loan Agreement consist of the following: the Borrower has adopted the Project Operations Manual, in form and substance satisfactory to the Bank. (Section 4.01 of the Loan Agreement)

I. STRATEGIC CONTEXT

A. Country Context

1. **After two decades of political and institutional reforms, Indonesia is a stable democracy that has reduced poverty significantly.** It is the world's fourth most populous nation, with 276 million people (2021) living throughout an archipelago of more than 6,000 inhabited islands; the world's 10th-largest economy, with a gross domestic product (GDP) of over US\$1 trillion (2020); and the only Southeast Asian member of the G20.¹ From 2015 to 2019, Indonesia maintained an average real GDP growth rate of 5 percent. Growth fell sharply to 2.1 percent in 2020 following the onset of the global COVID-19 pandemic, but the economy rebounded in 2021 (3.7 percent) and is projected to accelerate to 5.1 percent in 2022 and 2023 as consumption, exports, and investment pick up.²
2. **Natural resources have contributed to economic growth, but natural capital stocks are at risk.** Agriculture, forestry, and fisheries accounted for 12.7 percent of GDP in 2019 and two-thirds of exports.³ However, uncontrolled natural resource exploitation is undermining these economic benefits, leading to habitat degradation, biodiversity loss, and carbon emissions.⁴ Over the next 25 years, Indonesia is projected to experience lower land and sea productivity, scarcer renewable natural resource goods and services, and more severe climate change impacts. For example, climate change is predicted to cause a 13 to 29 percent decline in total fish catches by 2050—the strongest reduction of any nation and making Indonesia's fisheries sector one of the most vulnerable in the world.⁵ These trends pose substantial risk to Indonesia's sustainable development goals, including the targets to become a high-income country with near-zero poverty by 2045.⁶

B. Sectoral and Institutional Context

3. **Indonesia's blue economy, the largest in Southeast Asia, is valued at US\$256 billion annually or more than a quarter of GDP.**⁷ Indonesia's fisheries provide 2.6 percent of GDP, 20 percent of the country's agricultural product,⁸ and around seven million jobs.⁹ Fish contribute half of the protein in the national diet—well above the global average of one-sixth. In 2018, fishery exports were valued at US\$4.8 billion and supplied three percent of the global seafood market.¹⁰ Before the COVID-19 pandemic, Indonesia's tourism sector in 2017 generated US\$12 billion—the fourth largest source of foreign exchange—and provided 10.5 percent of employment, with 30 percent of tourism occurring in coastal locations, particularly around coral reef areas.¹¹
4. **Globally significant coral reefs and associated ecosystems¹² are vital for Indonesia's economy and social welfare.** Indonesia is the nation most dependent on marine ecosystems, particularly for their provision of nutritious

¹ The G20 or Group of Twenty is an intergovernmental forum comprising 19 countries and the European Union. It works to address major issues related to the global economy, such as international financial stability, climate change mitigation, and sustainable development.

² World Bank. (2022). "Macro Poverty Outlook: East Asia and the Pacific," Annual Meetings 2022.

³ World Bank National Accounts Data. Agriculture, Forestry, and Fishing, Value Added (percent of GDP) – Indonesia. Accessed April 21, 2022.

⁴ World Bank. (2019). "WAVES Partnership Policy Brief: Natural Capital Accounts and Policy in Indonesia."

⁵ Barange, M. et al. (2018). "Impacts of climate change on fisheries and aquaculture: synthesis of current knowledge, adaptation, and migration options." FAO technical paper.

⁶ BAPPENAS. (2019). Indonesia Vision 2045.

⁷ OECD. (2021). "Sustainable Ocean Economy Country Diagnostic of Indonesia."

⁸ FAO. Fishery and Aquaculture Country Profiles, "The Republic of Indonesia." Accessed on April 21, 2022.

⁹ California Environmental Associates. (2018). "Trends in Marine Resources and Fisheries Management in Indonesia: A 2018 Review."

¹⁰ Badan Pusat Statistik BPS. (2019). Statistics of Marine and Coastal Resources 2019.

¹¹ Spalding, M. et al. (2017). "Mapping the global value and distribution of coral reef tourism."

¹² Coral reefs and associated ecosystems as defined by the International Coral Reef Initiative include three main tropical coastal ecosystems: coral reefs, seagrass meadows, and mangrove forests. Coral reefs are ecologically connected to these other coastal ecosystems that serve as nurseries for juvenile species that will eventually move into the coral reef ecosystem. More broadly, the movement of organic matter and

food¹³; Indonesia's coral reefs deliver ecosystem services and benefits that include tourism (US\$3.1 billion per year),¹⁴ fisheries (US\$2.9 billion per year),¹⁵ and flood protection (US\$639 million per year).¹⁶ Diverse and productive coral reefs extend over 39,538 square kilometers and represent 16 percent of the world's total, while coral reef-associated ecosystems comprise 17 percent of the world's blue carbon reservoir and are in urgent need of protection to contribute to climate change mitigation.

5. Climate change and local human activities jeopardize Indonesia's coastal ecosystems, with one-third of the coral reef already in poor condition, and an estimated 40 percent of the country's mangroves and seagrasses degraded or lost. Coral reefs have declined globally by 20 to 50 percent since the 1950s, with a 90 percent loss predicted by 2050, due in part to ocean warming and acidification caused by greenhouse gas emissions. Effects are exacerbated by local threats including overfishing, destructive fishing, watershed pollution, and coastal development that affect over 90 percent of Indonesia's reefs, reducing their biodiversity, resilience to climate change, and the ecosystems services they deliver to the people.

6. Environmental degradation and climate change have increased the vulnerability of Indonesia's coastal communities to flooding, biodiversity loss, deteriorating fish stocks, and declining viability of coastal agriculture and aquaculture. This will only further widen the poverty gap in coastal villages, which is currently 1.27 percent higher than in non-coastal villages, with the average fisher earning less than the minimum wage.¹⁷ Poverty rates are likely to further increase if the COVID-19 pandemic persists. While women, especially in low-income households, make a significant contribution to coastal livelihoods and household incomes, they are particularly vulnerable to economic shocks due to gender disparities in asset ownership, non-inclusion in livelihood programs, and limited access to finance, which limit their capacity to cope with more frequent and extreme weather events. Marine plastic debris causes significant impacts to marine ecosystems, with sea-based leakage contributing at least 20 percent of all plastic waste that leaks into Indonesia's marine environment. Abandoned, lost, and discarded fishing gear is a major component, with potential to ensnare marine wildlife, entangle commercially important fishery species, and smother critical habitats.

7. The World Bank's Oceans for Prosperity¹⁸ report for Indonesia demonstrated that the future of the country's oceanic sectors, such as fisheries, tourism, and aquaculture, relies on the health of these natural assets. The report proposed key strategies to ensure a sustainable transition to a blue economy in Indonesia, including the need to improve the management of coastal and marine assets, such as coral reefs, mangrove forests, and seagrass meadows. To that end, the proposed Oceans for Prosperity Project (*Lautan Sejahtera*, LAUTRA) will support implementation of key policy recommendations from the Oceans for Prosperity report by (a) investing in Marine Protected Areas (MPAs)¹⁹ management effectiveness (b) enhancing fisheries monitoring and strengthening fisheries management institutions for more effective management of priority fisheries; (c) promoting diversified livelihoods and business growth in coastal communities through investments in infrastructure, business skills-building, and access to finance

nutrients within and between these ecosystems is critical for their respective productivity. They also share key threats, such as coastal development and land- and sea-use change. Therefore, these ecosystems have often been understood and managed as coherent and interlinked coastal ecosystems that must remain collectively intact to ensure the persistence of biodiversity and ecosystem services.

¹³ Selig, E. R. et al. (2019). "Mapping Global Human Dependence on Marine Ecosystems."

¹⁴ Spalding et al. (2017). "Mapping the Global Value and Distribution of Coral Reef Tourism."

¹⁵ UNEP. (2018). "The Coral Reef Economy."

¹⁶ Beck et al. (2018). "The Global Flood Protection Savings Provided by Coral Reefs."

¹⁷ Cahagi, D., and Gurnung, R. (2018). "A Review on Indonesian Fishermen Prosperity in the Coastal Area."

¹⁸ World Bank. (2021). "Oceans for Prosperity: Reforms for a Blue Economy in Indonesia."

¹⁹ Indonesia's regulatory framework adopts the International Union for Conservation of Nature's (IUCN) definition of an MPA as "a clearly defined geographical marine space, recognised, dedicated, and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values."

programs; and (d) developing the systems to provide a sustainable flow of financing for MPA management and the development of coastal community livelihoods.

8. MPAs conserve marine and coastal ecosystem services and are a key nature-based solution to promote climate adaptation and mitigation. Effectively managed MPAs have the potential to deliver ecological and socioeconomic benefits²⁰ that far exceed their capital and operational investment. According to United Nations Environment Programme (UNEP) and Ministry of Maritime Affairs and Fisheries (MMAF) data, between 0.08²¹ and 15 percent²² of MPAs are managed effectively in Indonesia. Responding to international commitments to protect marine and coastal habitats (for example, Aichi Biodiversity Targets and the Sustainable Development Goals [SDGs]), the Government of Indonesia (GOI), supported by the World Bank-financed Coral Reef Rehabilitation and Management Program (COREMAP, P127813), has established 201 MPAs encompassing 24.1 million hectares (ha)²³ and containing around 40 percent of Indonesia's coral reef and seagrass meadow areas and 25 percent of mangrove forests.²⁴ The GOI further aims to expand the MPA network to 32.5 million ha of effectively managed MPAs by 2030²⁵ and 97.5 million ha by 2045. Technical Guidelines and Partnerships for evaluating conservation area effectiveness (*Evaluasi Efektivitas Pengelolaan Kawasan Konservasi, EVIKA*)²⁶ were recently established to support meeting this goal and to ensure MPAs are delivering targeted biophysical and socioeconomic benefits. An EVIKA Gold rating denotes a "sustainably managed" MPA, Silver an "optimally managed" MPA, and Bronze a "minimally managed" MPA.

9. To increase the contribution of MPAs to the sustainability of fisheries, MPAs need to be better integrated into wider fisheries management planning. Indonesia's oceans are divided into 11 Fishery Management Areas (*Wilayah Pengelolaan Perikanan, WPP*), with 38 percent of fish stocks currently overfished.²⁷ Recent stock assessments²⁸ indicate that coral reef fisheries are overexploited in eight of the 11 WPPs and represent one of Indonesia's most overexploited fish stocks. Coral reef fisheries target species that include snapper, grouper and ornamental fish using lines, traps and spears. MPAs can provide refugia for target species and support stock recovery and spillover, provided MPA and fishery management strategies are harmonized. Over the past decade, the GOI took steps to strengthen fishery management frameworks, and key institutions need to be operationalized, including a central Fishery Management Council (*Lembaga Pengelolaan Perikanan, LPP*) and WPP-level Fishery Management Units (*Unit Pengelolaan Perikanan, UPP*) that incorporate stakeholder coordination structures.

10. Indonesia's MPAs are also expected to deliver socioeconomic benefits, especially enhanced access to economic opportunities²⁹ for local communities by encouraging investments in small community institutions and coastal enterprises, in the sustainable tourism, fisheries, and aquaculture sectors. The MPA zoning system includes areas

²⁰ Campbell et al. (2020). "Fishing Restrictions and Remoteness Deliver Conservation Outcomes for Indonesia's Coral Reef Fisheries."

²¹ UNEP-WCMC and IUCN. (2021). "Protected Planet: The World Database on Protected Areas." Accessed March 2021.

²² MMAF. (2018). "Our MPAs: Sharing Plans, Investments, and Responsibilities."

²³ MMAF. (2021). MPA Management Status in 2020.

²⁴ Amkieltiela et al. (2022). "The rapid expansion of Indonesia's marine protected area requires improvement in management effectiveness."

²⁵ Republic of Indonesia (2020). The National Medium-Term Development Plan 2020–2024; Indonesia National MPA Vision 2030.

²⁶ Directorate General (DG) Marine Spatial Management decree 28/KEP-DJPRL/2020 on Technical Guidelines for Evaluating Conservation Area Effectiveness; Ministerial Regulation 21/PERMEN-KP/2015 on Partnerships for Marine Conservation Area Management.

²⁷ Ministerial Regulation 19/KEPMEN-KP/2022 on Estimation of Potential, Total Allowable Catch, and Utilisation of Fish Resources in the Fishery Management Areas of the Republic of Indonesia.

²⁸ Ibid

²⁹ "Access to economic opportunities" is defined in this project as access by individuals and MSMEs to improved infrastructure and facilities, and/or receipt of business development assistance, and/or receipt of financial instruments; for activities associated with sustainable coastal enterprise.

dedicated to the development of these three sectors. The current MMAF’s “Model Village” Program³⁰ adopts a community-based approach, aligning with international good practice, to identify and invest in the economic development potential of villages. Community groups and village governments submit proposals for investments in micro, small, and medium enterprise (MSME) development and public infrastructure. MMAF evaluates these proposals to ensure eligibility, consistency with regulations, legality of ownership, environmental sustainability, and feasibility. There is an opportunity to strengthen and expand this “Model Village” Program to villages in and around MPAs. A stronger MPA management framework will also help prioritize and target local investments in sustainable small-scale infrastructure and MSMEs. There is also a need to increase finance for and investment in MSMEs in villages in and around MPAs, especially for women-led MSMEs. The success of coastal enterprises is limited due to remoteness, poor market linkages and value-chain integration, as well as gaps in basic infrastructure and services. Several financial institutions offer financial services to marine sectors, but access to these sources of capital and credit is limited for many coastal enterprises in the informal sector, due to information asymmetry and limited capacity of coastal enterprises. Barriers for women are further exacerbated by traditional gender norms, which drive disparities in asset ownership, decision-making, and access to finance and technical support, leading to low levels of female business ownership and higher exposure of women to economic shocks.

11. Sustaining MPAs and resilient communities will require enhanced access to blue finance,³¹ particularly targeted to: (a) MPA operational and capital investments, (b) infrastructure to support coastal livelihoods and value chains, and (c) access to financial services for coastal MSMEs. Mobilizing blue finance is critical since the national budget (State Revenue and Expenditure Budget)³² amounts to only 20 percent of the funding required to meet the GOI’s marine and fisheries sector targets, including MPAs. Indonesia is also the largest impact investing market in Southeast Asia in terms of both capital deployed and number of transactions, facilitating potential access to a blue finance market. Yet, two sets of key challenges hinder the development of robust blue finance instruments. First is the uncoordinated enabling environment, including poor coordination among government institutions, development partners, and the private sector, the lack of consistent policies (particularly for the rapidly developing blue carbon market and payments for ecosystem services), suboptimal government expenditure in the fisheries and marine sector, and the lack of an agreed monitoring and reporting framework for blue finance. The second relates to undefined financing requirements and strategies encompassing the operating and capital requirements for MPAs and investments in coastal infrastructure as well as intermediary financing for MSMEs.

12. LAUTRA aligns with the GOI blue economy development strategy³³ for Indonesia’s economic transformation with the project’s emphasis on coastal and marine management (including of coral reef and associated ecosystems, fisheries, and MPAs) and on improving coastal community livelihoods. LAUTRA aims to strengthen government management capacity, data, and information systems, and to encourage enabling policies to leverage blue finance for enhanced coastal and marine management and livelihoods. LAUTRA builds on successful past operations such as COREMAP³⁴ to address the complexities and sequencing of interventions inherent in reforming the blue economy within the world’s largest archipelagic nation and second largest national fishery.

³⁰ MMAF Model Village Program: Ecotourism Village model (Dewi Bahari Villages); Advanced Fishing Village model (Kampung Nelayan Maju), Aquaculture Village model (Kampung Perikanan Budidaya). These programs consist of a package of technical assistance provided by MMAF to selected villages with local economic development potential. Technical assistance includes facilitating community-led economic development planning based on priority blue sectors, capacity building for producer groups, and financing of infrastructure, facilities, and services to improve productivity.

³¹ Blue finance refers to the capital required to preserve and restore oceans and to promote their sustainable use.

³² National Medium-Term Development Plan 2020–2024.

³³ BAPPENAS and OECD (2021). Blue Economy Development Framework for Indonesia’s Economic Transformation.

³⁴ See paragraph 51 on COREMAP lessons learned.

C. Relevance to Higher Level Objectives

13. LAUTRA will directly contribute to the World Bank Group's Indonesia Country Partnership Framework (CPF) for 2021–2025 (Report Number 157221-ID), particularly Engagement Area 4: Sustainable Management of Natural Assets, Natural Resources-Based Livelihoods and Disaster Resilience. It responds to all three objectives of this Engagement Area by strengthening the management of a key ecosystem, contributing to reducing pockets of poverty in coastal regions, and increasing resilience to coastal hazards such as flooding and sea level rise. The project is well aligned with the objectives of the PROBLUE MDTF and the Indonesia Oceans MDTF which aim to strengthen sustainable management of ocean resources both globally and in Indonesia, respectively. In addition, the project aligns with the World Bank Group's Gender Strategy (FY2016–23), particularly strategic objectives related to access to economic opportunities and enhancing women's voice and agency. The project aims to foster a more balanced distribution of power in decision-making on MPA management. It will address gender disparities limiting access to economic opportunities, including by promoting the conditions for women's entrepreneurship and access to finance. The project is well aligned with Pillar 3 (Strengthening Resilience) and Pillar 4 (Strengthening Policies, Institutions and Investments for Rebuilding Better) of the World Bank Global Crisis Response Framework (GCRF), promoting climate resilience, adaptive social protection systems, institutional strengthening, and capacity building, and with the World Bank's Green, Resilient and Inclusive Development (GRID) approach.

14. LAUTRA advances Indonesia's national and international commitments to develop the blue economy. By ensuring the effective management of MPAs, protecting biodiversity and carbon-rich ecosystems, and reducing the vulnerability of coastal communities through the development of enhanced and diversified sustainable livelihoods, the project will contribute to the GOI's national biodiversity and climate change targets defined in the National Medium Term Development Plan (*Rencana Pembangunan Jangka Menengah Nasional, RPJMN*) 2020–2024, National Ocean Policy, MPA Vision 2030, and international commitments (for example, [SDG14](#), *Coral Triangle Initiative, Convention on Biological Diversity*, International Coral Reef Initiative). The project will also contribute to the implementation of the Enhanced Nationally Determined Contribution actions, such as protection of MPAs and improving the livelihoods of communities living in coastal areas. It also contributes to Indonesia's COVID-19 green recovery, by promoting cash-for-work for labor-intensive coastal activities (e.g., small-scale infrastructure works, MPA management partnerships) and creating business opportunities that will spur medium-term recovery.

II. PROJECT DESCRIPTION

A. Project Development Objective (PDO)

15. To enhance the sustainable management of select marine protected areas and coral reef fisheries, and improve access to economic opportunities for local communities in target areas.

PDO Level Indicators

16. Achievement of the PDO will be measured through the following indicators:

- Target MPAs with increased management effectiveness (Hectares).
- Target fishery management area (WPP) with Fishery Management Units (UPP) operationalized (Number).
- People supported by the project with improved access to sustainable economic infrastructure or facilities (Number), of which are women (Percentage).
- Coastal enterprises supported by the project which receive enterprise development assistance and/or receive finance (Number), of which are led by women (Percentage).

B. Project Components

17. LAUTRA strengthens coastal resilience by improving management of marine protected areas and coral reef fisheries; improving the economic opportunities of local communities and MSMEs in sustainable fisheries, tourism, and aquaculture; and building government capacity to mobilize associated sustainable blue financing. The project will finance four components, working in 20 MPAs and villages located in 11 Provinces in Eastern Indonesia. Specific investments and actions in each MPA and village will be selected by MMAF based on assessment of the MPA management plans, EVIKA score rating of MPAs, village development plans, small infrastructure project proposals, and MSME capacity. The selection process and criteria will be elaborated further in the Project Operations Manual (POM). Investments to strengthen MPA management effectiveness will commence in the 15 MPAs³⁵ with existing management plans (with priority given to eight national MPAs during the initial stages of the project), expanding to the five proposed MPAs³⁶ once management plans have formally been adopted by MMAF via Ministerial Regulation. Innovative MPA management approaches will be piloted, including establishment of funds management systems (through Public Service Agencies (*Badan Layanan Umum*, [BLU]³⁷) in three MPAs Management Units³⁸ to establish a robust model suitable for replication. Following existing practices, livelihood development and diversification activities will follow a cycle of socialization, planning, and financing/technical assistance for target villages and MSMEs. Pilot villages with existing enterprises and community groups will be identified and engaged first, followed by other nearby villages, and based on the economic assessments and MPA management plans. The investments in Components 1 and 2 will inform the development of the sustainable blue finance strategies in Component 3, along with enabling environment investments.

18. Component 1. Infrastructure and Institutional Strengthening for Sustainable Marine Protected Areas Management (Total: US\$98.5 million; IBRD: US\$95 million; Oceans MDTF: US\$3.5 million). This component, led by MMAF, will strengthen ecosystem-based and participative management of about 20 MPAs and selected coral reef-associated fisheries within three target WPPs. These 20 MPAs consist of all the nine national-level MPAs in Eastern Indonesia and 11 provincial-level MPAs within the three target WPPs. This Component contributes to strengthening climate resilience under Pillar 3 (Strengthening Resilience) and to institutional strengthening, and capacity building under Pillar 4 (strengthening Policies, Institutions and Investments for Rebuilding Better) of the GCRF. It will finance climate adaptation and mitigation measures that improve MPA management effectiveness and enhance coordination among central, provincial, and village governments, the private sector, and community stakeholders. It will also promote participative and inclusive representation of women and other marginalized and vulnerable groups in the management of MPAs and coral reef fisheries.

19. Subcomponent 1.1. Infrastructure and Capacity Building for Marine Protected Areas Management (IBRD: US\$85 million; Oceans MDTF: US\$3.5 million) will deliver a measurable increase in MPA management effectiveness³⁹ through financing technical assistance, infrastructure, goods and services, trainings, and operating costs. Activities include *inter alia*: (a) development of species inventories, management plans, organizational plans, and other prerequisites for

³⁵ KKN Gili Matra, KKPD Selat Pantar, KKN Lau Sawu, KKPD Banggai Dalaka, KKN Kapoposang, KKPD Teluk Moramo, KKPD Teluk Gorontalo, KKN Lau Banda, KKN Aru Tenggara, KKPD Pulau Kei Kecil, KKPD Pulau Mare, KKN Kepulauan Raja Ampat, KKN Kepulauan Waigeo Sebelah Barat, KKPD Kepulauan Raja Ampat, KKN Papaido.

³⁶ KKN Laut Sulawesi Bagian Utara, KKPD Teluk Gorontalo, KKPD Kepulauan Babar, KKPD Wetar, KKPD Buru Selatan, KKPD Buru.

³⁷ A Public Service Agency (BLU) is legally enabled to undertake commercial, not for profit activities, with revenues publicly reported and reinvested into MPA management.

³⁸ KKPD Selat Pantar, KKPD Banggai Dalaka, BKKPN Kupang.

³⁹ The EVIKA scorecard measures management effectiveness via 187 indicators spanning management inputs (for example, management plans and human resources), processes (for example, implementation of surveillance and resource monitoring), outputs (for example, data reports, compliance rates, and proportion of stakeholders exposed to communication strategies), and outcomes (for example, conservation and socioeconomic targets). Silver status requires an EVIKA score of 50 to 85 percent, and Gold status > 85 percent.

MPA gazetttement under the Determination Criteria⁴⁰; (b) reviewing and updating selected existing management plans in line with international best practices; (c) development of small infrastructure works⁴¹, equipment⁴², operational⁴³ and capacity-building⁴⁴ activities required to manage MPAs effectively⁴⁵; (d) benchmarking and revising EVIKA against international MPA management standards such as those adopted by the *IUCN Green List* or *UNESCO World Heritage Sites*; (e) facilitating knowledge sharing and training events for MPA managers and other stakeholders; (f) reviewing MPA management strategies and impact evaluation of innovative MPA management strategy to be designed and tested in pilot sites; (g) assessment and identification of ecosystem services delivered by MPAs that have the potential for monetization; (h) coral reef rehabilitation activities in three target MPAs⁴⁶; and (i) establishment of BLUs, MPA collaborative management partnerships and MPA multi-stakeholder collaboration forums to enhance participatory management for MPA management.

20. Subcomponent 1.2. Infrastructure and Capacity Building for Coral Reef Fisheries Management (IBRD: US\$10 million) will strengthen effective ecosystem-based management of priority coral reef-associated fisheries⁴⁷ within target WPPs through financing technical assistance, infrastructure, goods and services, trainings, and operating costs. Activities include *inter alia*: (a) monitoring and publication of catch and effort data⁴⁸ of selected small-scale coral reef-associated fisheries in and around MPAs; (b) small infrastructure works,⁴⁹ capacity-building activities, developing standard operating procedures, and establishing key functional groups and units to operationalize UPPs for ecosystem-based management of selected coral reef-associated fisheries.

21. Criteria for operationalizing the UPPs are defined in regulation 22/PERMEN-KP/2021 and include a stakeholder engagement framework. It requires private sector and women's participation in stakeholder engagement forums, which in turn will improve capabilities to identify and respond to priority fishery management issues, such as identifying significant hotspots and impacts associated with abandoned, lost, and discarded fishing gear. The capacity-building activities include training and accreditation of fishery management personnel in line with established Ministerial Work Competency Standards (*Standar Kompetensi Kerja Khusus*, SKKK) and upgrading of these to comply with criteria for Indonesian National Competency Standards (*Standar Kompetensi Kerja Nasional Indonesia*, SKKNI) defined by the Ministry of Manpower. Physical activities financed by this Subcomponent will take place in target WPP

⁴⁰ Legal recognition of an MPA at the national level via Determination of the Minister of Marine Affairs and Fisheries. The gazetttement is defined in regulation 31/PERMEN-KP/2020.

⁴¹ Such as management unit offices, field stations, information centers, surveillance towers, small jetties, boundary demarcation, mooring buoys, and signage.

⁴² Such as small patrol boats and survey equipment.

⁴³ While the project will support the financing of target MPA operational costs (for activities such as surveillance, biophysical and socioeconomic monitoring, stakeholder outreach, and education), GOI will take over these costs in Year 4 of the project.

⁴⁴ Capacity development will address needs identified in the MMAF (2020), "Assessment of Capacity Development Needs for Marine Protected Area Managers in Indonesia 2020–2024".

⁴⁵ Part of the activities supported will include surveillance patrols. The project will only finance the operational costs (such as fuel) of surveillance patrols by MPA management units. Patrols will occur only within MPA boundaries, and to monitor compliance with MPA resource use regulations. Surveillance patrols supported by the project are limited to: (i) surveillance patrols conducted using small boats by MPA management unit personnel; and (ii) community-based patrols by legally established POKMASWAS (community surveillance groups). In both cases, activities are limited to surveillance and detection. All target MPAs are within Indonesia archipelagic waters and territorial seas. For the five proposed MPAs the project will only finance MPA patrolling activities after gazetttement once confirmed that the boundaries of these five MPAs do not extend beyond Indonesia archipelagic waters and territorial seas. The project will not finance any activities related to enforcement actions.

⁴⁶ Rehabilitation activities will be implemented in line with Ministerial Regulation 26/PERMEN-KP/2021 which emphasizes the need to first reduce and prevent anthropogenic threats and to facilitate processes of natural recovery and resilience via passive rehabilitation processes.

⁴⁷ Priority coral reef associated fisheries are those targeting grouper, snapper and ornamental fish using gears that include lines, traps and spears.

⁴⁸ Monitoring of catch and data collection will be carried out in ports. This Subcomponent will not fund at-sea fishery surveillance or patrols.

⁴⁹ LAUTRA will finance the procurement and operation of small infrastructure and equipment specified in WPP management plans, including for the establishment of small UPP offices and monitoring equipment for the collection and management of catch and effort data.

coastal areas and the evidence-based recommendations and fisheries management plans will be informed by ongoing maritime delimitation discussions with neighboring countries and adjusted accordingly.

22. Component 2. Expanding Economic Opportunities in and around Marine Protected Areas (Total: US\$86.5 million; US\$85 million IBRD; Oceans MDTF: US\$1.5 million). This component, led by MMAF, will enhance the values, and benefits that local communities capture from marine resources in and around MPAs by taking a multipronged approach to improving access to economic opportunities, especially in the tourism, fishery, and aquaculture sectors. All activities will be aligned with MPA management plans and environmental assessments to ensure biodiversity-positive or neutral development impacts. This component will address gender gaps in participation in local economic development planning, and in access to enterprise development assistance and access to finance. The component combines community-driven and market-driven approaches to promote viability, local ownership, and sustainability of public investments. As Component 2 activities support the development of adaptive social protection systems for people living in and around MPAs through investments in climate resilient village economic infrastructure, Component 2 contributes to the Pillar 3 of the GCRF.

23. Subcomponent 2.1. Infrastructure for Sustainable Economic Development in and around MPAs (IBRD: US\$75 million). This Subcomponent will finance public goods in the form of local economic infrastructure and relevant technical assistance based on a facilitated, community-based planning process. Activities include *inter alia*: (a) carrying out of assessment of economic opportunities (including location-specific gender gaps and how to address them) in MPAs to inform village planning processes; (b) facilitated development of gender-responsive and climate smart village-based local economic development plans to be led by trained village facilitators and informed by the economic assessments; and (c) building thematic village infrastructure and/or facilities based on village development plans (such as boardwalks, small jetties, mooring buoys, access to electricity, small basic sanitation facilities at village level, fish markets, seaweed drying and storage facilities, and so forth) that support the development of alternative livelihoods.

24. MMAF will work through existing extension staff and implementing partners (such as local nongovernmental organizations [NGOs]) to recruit and train village facilitators to lead participatory village planning processes in at least 75 villages, including via support to village governments, village councils (*Badan Pembangunan Desa*), and surveillance community groups (*Pokmaswas*). Village development plans and project proposals will be reviewed and approved by MMAF in line with MPA management plans and Environmental and Social Framework (ESF) instruments.

25. Subcomponent 2.2. Sustainable Business Development and Financial Access in and around MPAs (IBRD: US\$10 million; Oceans MDTF: US\$1.5 million). This Subcomponent will finance technical assistance to facilitate the growth of bankable MSMEs in and around MPAs. Activities include *inter alia*: (a) market assessments to develop strategies for value-chain finance⁵⁰, including gender gaps; (b) business development support to coastal enterprises in capture fisheries, aquaculture, and tourism; and (c) capacity building of financial institutions and service providers, especially the Marine and Fisheries Business Capital Management Institution (*Lembaga Pengelola Modal Usaha Kelautan dan Perikanan*, LPMUKP), to provide financial services to sustainable coastal enterprises.

26. Economic Assessments under Subcomponent 2.1, and the MPA management plans in Component 1 will inform the selection of MSMEs (especially climate adaptable and women led MSMEs), the definition of criteria for bankability, and the identification of local financial partners. Support for MSMEs will be aligned with MPA conservation and biodiversity targets and resource use restrictions. Implementation of this Subcomponent will be coordinated with the LPMUKP and other financial institutions to ensure these activities are aligned with bankability conditions and financing requirements and will include technical assistance to pilot innovative financing mechanisms and business models to

⁵⁰ Value chain finance refers to financial products and services that flow to or through any point in a value chain that enable investments that increase actors' returns and the growth and competitiveness of the chain.

enhance climate smart and biodiversity positive production and lending practices. This Subcomponent will also support female entrepreneurship and women's community groups through gender-sensitive training and prioritized access to business opportunities. These women-focused activities are to address the main gender gap identified during project preparation, namely, limited opportunities for female-focused entrepreneurship in coastal communities and limited access of female entrepreneurs to credit, limiting their businesses in the fisheries, aquaculture, and tourism sectors. Supporting women to expand their access to economic opportunities will increase their resilience to the impacts of climate change and allow them to better cope with the financial impacts of extreme weather events.

27. Component 3. Sustainable Financing for Marine Protected Areas and Livelihoods (PROBLUE Grant: US\$4.5 million). This component, led by the National Development Planning Agency (Bappenas), through the Indonesia Climate Change Trust Fund (ICCTF) under the Deputy for Marine Affairs and Natural Resources (ICCTF-Bappenas), in collaboration with MMAF, will improve the government's policy framework and capacity to mobilize long-term blue financing for: (a) Marine Protected Areas operating and capital investments; (b) developing coastal infrastructure with biodiversity-positive or neutral development impacts; and (c) enhancing MSME access to finance in the sustainable tourism, fisheries, and aquaculture sectors. It builds upon, sustains, and extends the outcomes of Components 1 and 2 of the LAUTRA Project beyond the project life. This component will finance technical assistance, workshops, goods and services and trainings.

28. Subcomponent 3.1. Strengthening the Enabling Environment and Policy Framework for Blue Finance (PROBLUE Grant US\$1.5 million). This Subcomponent will support: (a) establishment of the Blue Finance Advisory Committee led by ICCTF-Bappenas—an interministerial working group (including the Financial Services Authority [*Otoritas Jasa Keuangan*, OJK], MoF, Coordinating Ministry of Maritime Affairs and Investments [CMMAI], Bappenas, Indonesian Environment Fund [*Badan Pengelola Dana Lingkungan Hidup*, BPDLH], LPMUKP, and MMAF) to coordinate blue finance policies; (b) training and knowledge exchange related to blue finance to build capacity of GOI institutions and other stakeholders in blue finance); (c) development of policy and regulatory instruments to better leverage blue finance and improve its effectiveness, including, for example, options for blue carbon and alternative non-tax revenue options for MPAs; and (d) development of a monitoring and reporting framework for blue investments that aligns with international best practices and the existing GOI SDG Government Securities Framework.

29. Subcomponent 3.2. Development of Long-Term Investment Strategies for Priority Blue Economy Sectors (PROBLUE Grant US\$3 million). This Subcomponent will support: (a) technical assistance, communication and awareness raising for the development of three long-term sustainable blue financing strategies following international guidelines.⁵¹ The three strategies to be developed will address the priority demands which underpin the blue economy and are the focus of Components 1 and 2, namely Marine Protected Area operating and capital requirements, responsibly developing coastal infrastructure linked to enhancing sustainable economic opportunities and livelihoods, and enhancing MSME access to finance in tourism, fisheries, and aquaculture sectors. The strategies will include pipeline identification, preparation and quantification of investment requirements, and options for investment structures channeling; (b) preparation of financing proposals based on the findings of the three strategies, possibly including a sovereign thematic financing instrument (such as a bond or a sukuk⁵² for the blue sector) and a hybrid or non-sovereign financing instrument; and (c) a roundtable for public and private sector investors to stimulate interest in the financing strategies and proposed instruments.

30. Component 4. Project Management (Total: US\$20.5 million; IBRD: US\$20 million, PROBLUE Grant: US\$0.5 million). This component will support project management and coordination in accordance with operational, fiduciary, and environmental and social risk management requirements.

⁵¹ Such as the United Nations Global Compact and International Capital Markets Authority guidance.

⁵² Sharia compliant green/blue bond-like instrument.

31. Subcomponent 4.1. (IBRD: US\$20 million), led by MMAF, will support project management and coordination activities with respect to Components 1 and 2 of the project, including, *inter alia*, (a) staffing, operations, financial management, procurement, environmental and social risk management, monitoring, reporting, and evaluation of the PMO, PIUs and Provincial Project Supporting Units (PPSUs) in managing and overseeing project activities, (b) citizen and stakeholder engagement and coordination activities, including implementation of the grievance redress mechanism; (c) inter-institutional collaboration and coordination; and (d) project launch and completion workshops or events and knowledge sharing activities.

32. Subcomponent 4.2. (PROBLUE Grant: US\$0.5 million), led by ICCTF-Bappenas, will support project management and coordination activities with respect to Component 3 of the project, including, *inter alia*, (a) staffing, operations, financial management, procurement, environmental and social risk management, monitoring, reporting, and evaluation of the PIU at the ICCTF-Bappenas in managing and overseeing Component 3 activities of the project, (b) citizen and stakeholder engagement and coordination activities, including implementation of the grievance redress mechanism; (c) inter-institutional collaboration and coordination; and (d) knowledge sharing activities.

Cross-Cutting Themes

33. **Gender.** An analysis of gender gaps, action planning, and monitoring is summarized in Annex 2 (Table 2.1). The identified gender gaps were related to (a) women's representation and capacity in MPA management, (b) women's access to livelihood activities in MPAs, and (c) barriers to women's access to and control over assets. Actions to address these gaps will be addressed by project activities outlined under Components 1 and 2. A PDO indicator related to Component 2 and an intermediate indicator related to Component 1 were included in the Result Framework in line with measuring impact of actions to address identified gender gaps. 30 percent of all project beneficiaries will be women, which is a significant increase over baseline levels of participation in decision-making, access to economic opportunities, and access to business development services and MSME finance in coastal areas and industries. 30 percent of coastal enterprises receiving business development services and receiving finance from financial institutions will be led by women. The target of 30 percent was calculated based on extensive assessments across project target areas in Eastern Indonesia which found low baseline levels⁵³ of enterprise ownership and access to business development opportunities and access to finance for women-led coastal enterprises, compared to national averages. Approximately 36 percent of MSMEs in the agriculture, forestry, and fishing sectors are led by women, and over half of these face 'serious obstacles' to accessing finance and business development services⁵⁴, meaning that an approximate and optimistic baseline of women led MSMEs accessing business development services and finance is around 18 percent. The target of 30 percent was reached through consultation with various MMAF staff and livelihoods experts in order to both be achievable within the life of the project, and to significantly address the identified gender gaps, by incentivizing innovative outreach and capacity-building methods that are inclusive of women-led MSMEs that can be harder to reach or engage. Increased asset ownership and finance for women is embedded in a sub-indicator of 30 percent of businesses receiving financing for coastal enterprises led by women.⁵⁵

⁵³ Very low baseline levels of MSME ownership and women's role in decision-making and governance bodies related to MPA management and livelihoods was ascertained from a study commissioned for the project, and verified through secondary literature, including a 2016 IFC market research study on women-led MSMEs in Indonesia. Women-led MSMEs are less prevalent in coastal areas and industries than national averages (almost 50 percent of MSMEs nationally are women-led), due to a combination of male-dominated fishing livelihoods and lagging gender equality outcomes in remote and rural areas. Women-led MSMEs tend to be smaller in size and less able to access finance.

⁵⁴ Filliali et al. 2022, Men- and women-owned/led MSMEs and the COVID-19 policy responses in Indonesia, SMERU Research Institute, Accessed at: <https://smeru.or.id/en/publication/men-and-women-ownedled-msmes-and-covid-19-policy-responses-indonesia>.

⁵⁵ 'Led by women' means coastal enterprises, whether formal or informal, that; (i) if they are sole proprietorships, the owner is a woman and/or the senior management (the decision makers team) has at least one woman; or (ii) if they are corporations, cooperatives, or other informal groups, have at least 20 percent of the management structure being women, and at least one woman in senior management, and/or are at least 51 percent owned by women.

34. Citizen Engagement. The implementation of the project activities will depend on the meaningful participation and support of key stakeholders, including local communities, to ensure the sustainability of the priority investments. Inclusion and participation of coastal communities have been integrated into the project design. The local communities, indigenous peoples (*adat* communities) and vulnerable groups, are engaged through consultations on the planning and implementation of project activities (in the form of, among others, stakeholder workshops, focus group discussion, community meetings, socialization, information dissemination). A public consultation on the project was held on September 8, 2022, involving 137 participants from central government, local government, and civil society organizations. LAUTRA will implement an Environmental and Social Management Framework (ESMF) and Stakeholder Engagement Plan that includes a Feedback and Grievance Redress Mechanism. The project explicitly aims to strengthen participatory decision-making in MPA and fisheries management planning and livelihood support programs. The Results Framework includes dedicated citizen engagement indicators, including (a) target MPAs with collaborative management partnerships established and operational (target five with community groups); and (b) share of target beneficiaries satisfied with the project's engagement and planning processes (target 70 percent), which will be measured through a beneficiary satisfaction survey to be conducted at project midterm and completion. The project has also set targets for the inclusion of vulnerable groups, particularly women, and incorporates activities to facilitate their access to benefits.

35. Climate Change. Indonesia's marine biodiversity and 60 million coastal inhabitants are vulnerable to climate change effects, including sea level rise, coral bleaching, and loss due to ocean warming and acidification, as well as increased frequency and intensity of storms. These climate effects are particularly severe in areas that suffer from anthropogenic pressures such as pollution and fisheries over-exploitation. MPAs are a nature-based tool for reducing exploitation, maintaining existing ecosystems and repairing damage to overexploited ecosystems, thereby enhancing both adaptation to and mitigation of climate change. They support decreased sensitivity of coral reefs, mangroves, and seagrass ecosystems to warming and acidification, enhance ecosystem recovery following climate-related disturbances such as floods, storms or bleaching by promoting more intact habitats that offer coastal defense, and achieve significant carbon storage by enhancing carbon sequestration and avoided carbon emissions.⁵⁶ Effective management of MPAs is therefore critical to achieving climate objectives. LAUTRA activities will directly address climate vulnerabilities by: (a) ensuring an overall improvement in the management effectiveness of Indonesia's unique global public goods-enhancing and biodiversity-conserving MPAs, and (b) promoting the sustainable use of resources within conservation areas for improved livelihoods and resilience of target communities through climate-informed village development planning and coastal enterprise development, thereby reducing pressures on and enhancing ecosystems. The health of blue carbon habitats, such as seagrass meadows and mangroves, will be enhanced through the project's activities since improving management effectiveness of MPAs includes conserving and avoiding further degradation of the habitats included within MPA boundaries. This outcome is reflected in MPA scorecard (EVIKA) indicators such as "is data on the status of key habitats and conservation targets available", "is there evidence that threats to key habitats and conservation targets is reduced", and "is there evidence that the status of key habitats and conservation targets is maintained or improved". The project aims to avoid degradation of seagrass and mangrove habitats within MPA boundaries via a suite of interventions that include: (a) monitoring of habitat status; (b) stakeholder outreach, education and engagement; (c) development of alternative livelihoods and sustainable natural resource based economic activities; (d) surveillance and enhanced compliance with MPA management rules and regulations; (e) improved capacity for management planning and management effectiveness evaluation. A detailed climate co-benefit assessment of project activities is provided in Annex 2 (Table 2.2), as well as estimates of project emission reductions and removals from the sustainable management of mangrove ecosystems within the target MPAs (Table 2.3).

⁵⁶ Jankowska et al. (2022). "Climate benefits from establishing marine protected areas targeted at blue carbon solutions"; Rambe, V., and Johnsen, S. (2013). "Indonesia Sustainable Natural Resources Management through PNPM Green Investments."

36. In summary, key activities that directly contribute to improving climate resilience and mitigation include: (a) supporting the gazette of five additional MPAs and providing small MPA operational infrastructure, equipment, and capacity to strengthen the management effectiveness of 15 existing MPAs under the management jurisdiction of MMAF; (b) improving fisheries management processes in three WPPs with a focus on selecting fisheries management activities that boost climate adaptation, and providing small infrastructure and capacity for improving the climate resilience of livelihoods of people living in and around MPAs. Capacity-building activities will include specific climate-related training and accreditation (for example, SKKNI 455/2015 on disaster mitigation and climate change adaptation in coastal areas). Infrastructure works will incorporate climate-resilient design. The project will support the rehabilitation of seagrass meadows and the expansion of seaweed farming, both activities contributing to increased sequestration of blue carbon, thus promoting climate change adaptation and mitigation. Seaweed farming also supports climate-resilient economic diversification as communities involved in seaweed farming rely less on activities that exert climate pressure on coastal and marine ecosystems. The project will also support WPPs in strengthening fisheries governance and propagating sustainable fisheries practices including rebuilding overexploited fish stocks and repair of degraded fisheries habitat through enhanced coral reef-associated fisheries data collection and monitoring, reducing pressures on the ecosystem. Secondary adaptation benefits of improving management of WPPs include safeguarding food security and fishing livelihoods (Indonesia's fisheries industry is one of the most vulnerable to climate change in the world).⁵⁷ Expanding economic activities to strengthen coastal livelihoods will reduce anthropogenic pressures from fisheries and tourism activities on natural resources and enable ecosystems to regenerate and compensate for climate-induced reduction in local fish supplies. The Results Framework includes an indicator that will measure the number of MPAs with carbon potential determined via internationally accepted methodologies (target 20), contributing to improved carbon measuring, reporting, and verification.

37. **Global Crisis Response Framework.** A third of Indonesia's coral reefs and associated ecosystems which underpin local economic livelihoods through sectors such as tourism and fisheries, are in poor health due to climate change and unsustainable extraction. Over 60 million Indonesians living close to these ecosystems are vulnerable to climate change effects. LAUTRA will contribute to the World Bank GCRF by promoting climate resilience, adaptive social protection systems, institutional strengthening, and capacity building. Component 1 activities will improve the management effectiveness of MPAs and expand the network of gazetted MPAs under effective management, which is critical for climate change adaptation of coral reefs and associated ecosystems within MPAs. Component 1 activities will also strengthen institutions by establishing public service agencies to provide leadership and coordinate MPA management and fisheries management activities, investing in small infrastructure and equipment to strengthen institutional capacity for management of MPAs and fisheries management areas, and through capacity building for MPA and fisheries management staff. Component 1 therefore contributes to strengthening climate resilience under Pillar 3 (Strengthening Resilience) and to institutional strengthening, and capacity building under Pillar 4 (strengthening Policies, Institutions and Investments for Rebuilding Better) of the GCRF. Component 2 will support the development of adaptive social protection systems for people living in and around MPAs through investments in climate resilient village economic infrastructure. Component 2 activities also contribute to the adaptive social protection systems sub-pillar by (a) supporting people living in around coral reef and associated ecosystems to develop sustainable and climate informed businesses; and (b) providing access to financial services for coastal enterprises expansion. Component 2 therefore contributes to Pillar 3 of the GCRF.

⁵⁷ Cheung, W. et al. (2010). Large-scale redistribution of maximum fisheries catch potential in the global ocean under climate change. *Global Change Biol*, 16, 24-35.

C. Project Beneficiaries

38. **The main project beneficiaries are MMAF, Bappenas, MPA management bodies, coastal communities, and MSMEs in the reef fishery, aquaculture, and ecotourism value chains.** Indirect beneficiaries (not quantified) include those who will benefit from improvements in fisheries management within the twenty target MPAs and the three target WPPs, and financial institutions and service providers.

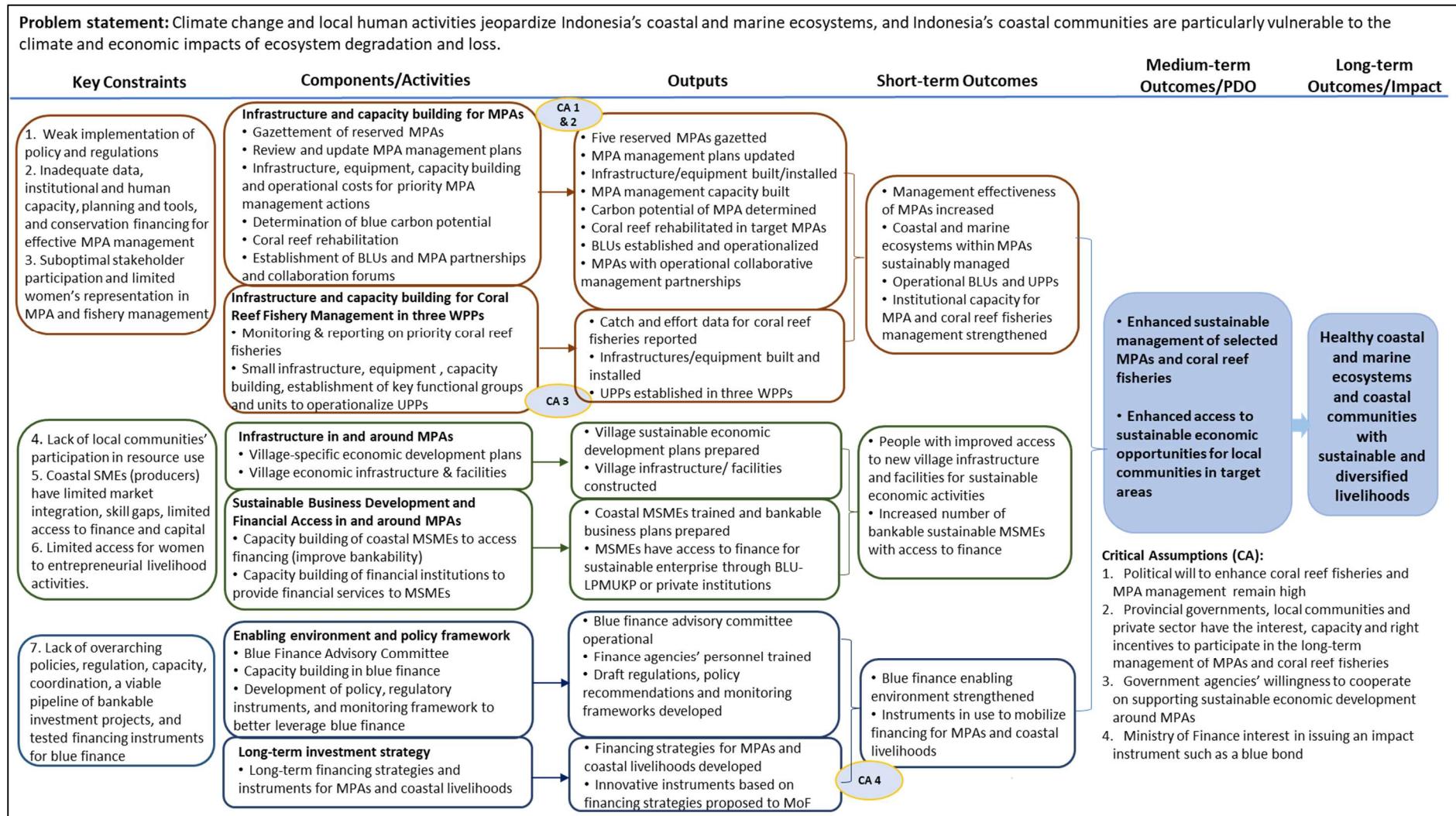
39. **LAUTRA will benefit directly approximately 80,000 people, including women, youths, and vulnerable or marginalized groups in and around target MPAs through the expanded economic opportunities resulting from the new local economic infrastructure and the support to MSMEs, governance strengthening, capacity building, and skills development at both the community and individual level.** The Results Framework includes indicators to ensure that at least 30 percent of project beneficiaries are women, female-led households, and/or female-led enterprises. Business development activities will prioritize women and youths. The project aims to strengthen participative and inclusive MPA and fisheries management and decision-making, including via increased representation of vulnerable and marginalized groups. Indigenous communities will benefit from project activities, including livelihood support and rights strengthening arising from the project's focus on participative MPA and fisheries management.

40. **LAUTRA will directly benefit Indonesia's governance institutions.** These include (a) institutions involved in MPA and fisheries management at the national and subnational levels through reinforced human resources, increased public revenue, improved scientific and monitoring capacities, enhanced planning, monitoring and evaluation capacity, and ultimately more effective management and governance processes; and (b) institutions involved in blue finance through enhancing the enabling environment for the mobilization, management, and utilization of blue finance, and the development of long-term financing tools and strategies for blue economy sectors.

D. Results Chain

41. **LAUTRA supports investments, policies, and technical assistance to strengthen the resilience of coastal and marine ecosystems, fisheries, and coastal communities, as described in Figure 1.**

Figure 1. LAUTRA Theory of Change



E. Rationale for World Bank Involvement and Role of Partners

42. The World Bank has significant experience supporting the governance and management of marine and coastal resources and associated livelihoods. It brings knowledge of global best practices in MPA and fisheries management; livelihood improvement, such as the Pacific Regional Oceanscape Program, which has strengthened oceanic and coastal fisheries in multiple Pacific Island Countries; the COREMAP Program, which facilitated the establishment of the Coral Triangle Initiative to addresses food security, climate change, and marine biodiversity in six countries including Indonesia; and the Blue Economy Program for Results in Morocco, which improves integrated management of natural resources and strengthens sectors for a climate resilient blue economy. The World Bank has deep experience with the tools to maximize inclusive participation of and benefits to local communities and proposes a robust monitoring and evaluation (M&E) system. It brings significant technical assistance on innovative topics including nature-based solutions for coastal management, collaborative management of protected areas, climate change mitigation and adaptation, and mechanisms to leverage blue finance.

43. The project will build on the solid foundation established over more than two decades in Indonesia. COREMAP supported the Government during its early efforts to better harness and maintain the benefits delivered by the blue economy. The initial stages of COREMAP successfully supported communities to take an active role in managing their own coastal resources and established many of the foundational aspects of the institutional and technical capacity related to coral reef and MPA management in Indonesia. Its recently completed third phase contributed to strengthening Indonesia's ocean research capacity by upgrading research facilities and training scientists, and undertaking nationwide coastal and marine ecosystem monitoring, while also improving management effectiveness in MPAs in West Papua and Nusa Tenggara Timur through ecotourism initiatives, community-based surveillance against illegal fishing, and conservation of threatened species.

44. The World Bank has also supported the coastal ecosystem resilience, sustainable fisheries, and blue finance agenda in Indonesia through investments, analytical work, and policy dialogue with MMAF, the Coordinating Ministry for Maritime and Investment Affairs, and Bappenas, via the Indonesia Oceans, Marine Debris, and Coastal Resources Multi-Donor Trust Fund (Oceans MDTF), PROBLUE, and the Global Environment Facility (GEF) Coastal Fisheries Initiative and the GEF and IBRD COREMAP project.

45. LAUTRA will seek synergies with other World Bank-financed projects. LAUTRA will complement and benefit from ongoing World Bank-financed projects, including (a) the Indonesia Mangroves for Coastal Resilience Project (P178009), which aims to enhance mangrove management and local community livelihoods, complementing LAUTRA's aim to improve natural capital and economic opportunities in coastal areas; (b) Institutional Strengthening for Improved Village Service Delivery (P165543), which improves the GOI's capacity for effective administration of village-level budgeting and planning, complementary to LAUTRA Component 2 interventions; (c) the Tourism Development project (P157599), with coastal tourism a potential focus for MSMEs supported under LAUTRA Component 2; and (d) Ports-led Development in Eastern Indonesia (P173879, under preparation), which will finance port developments that enhance access to markets, potentially unlocking business opportunities for the coastal communities supported by LAUTRA.

46. The advancement of Indonesia's blue economy is supported by several development partners, including multilateral and bilateral agencies, foundations, and NGOs. The Oceans MDTF has developed several important analytics on the Indonesian Blue Economy that influenced project design, including the identification of target areas, beneficiaries, and indicator baselines. LAUTRA will seek synergies supported by other development partners. The United States Agency for International Development is supporting enhanced management of MPAs and sustainable management of fisheries in WPP 711 and 715 (Ber-IKAN project). The project will also synergize closely with the Asian

Development Bank's and the United Nations Development Programme's ongoing initiatives to develop blue finance including blue tagging, SDG bonds, and MSME access to finance.

47. The PROBLUE grant co-financing will address the mobilization, management, and utilization of Blue Finance in Indonesia. Using PROBLUE grant resources, the project will (a) enhance inter-ministerial coordination via the Blue Finance Advisory Committee; (b) align global blue finance guidelines, nationally approved guidelines (such as the SDG Government Securities Framework), and lessons learned from the World Bank's experience with similar projects (see paragraph 49); (c) build upon existing government structures, authorities, and experience with thematic investment instruments in the global financial market (such as Green Bonds and Green Sukuk); and (d) strengthen the link between environmental conservation and economic development.

48. In December 2022, the Government of Canada decided to provide CA\$ 10 million to the Indonesia Oceans, Marine Debris and Coastal Resources Multi-Donor Trust Fund (Oceans MDTF), to finance activities that support marine protected areas management. The Governments of Norway and Denmark are also contributors to Oceans MDTF. Oceans MDTF will provide a US\$5 million grant, in tranches, the first of which is US\$1.15 million, to finance activities in Component 1 and 2 of LAUTRA such as benchmarking and revising EVIKA against international MPA management standards, facilitating knowledge sharing and training events for MPA managers and other stakeholders, piloting innovative MPA management strategies, and capacity building of financial institutions and service providers, including LPMUKP, to provide financial services to sustainable coastal enterprises.

F. Lessons Learned and Reflected in Project Design

49. LAUTRA builds on lessons learned in Indonesia and globally on coastal and marine ecosystem management, livelihood promotion, and blue finance. The project's design was influenced by experiences within World Bank portfolio, particularly the COREMAP program (P036048, P071318, P130389) that established and institutionalized ecosystem-based management of coastal and marine resources. Other projects in Indonesia such the Mangroves for Coastal Resilience Project (P178009); the Indonesia Tourism Development Project (P157599); the Village Law Program (P153219) provided strong guidance for the design of the conservation and blue carbon activities in Component 1 and the livelihood activities in Component 2. From other countries, projects such as the Seychelles Sovereign Blue Bond, which co-finances the Third South West Indian Ocean Fisheries Governance and Shared Growth Project (P155642), the Enhancing Coastal and Ocean Resource Efficiency Project (India – P167804), the Brazil MPA project (P128968), the Resilient Tourism and Blue Economy Development Project (Cabo Verde – P176981), the Pacific Regional Oceanscape Program Series, and the Sustainable Fisheries Development Project (Costa Rica – P168475) provided useful lessons on ecosystem conservation and management approaches. Lessons are also drawn from previous government programs and projects financed by other partners such as the Coastal Community Development Project (International Fund for Agricultural Development).

50. Indonesia's past village-level interventions have generated extensive knowledge on sustainable livelihood promotion that is reflected in LAUTRA's design, including the importance of market-based approaches that are aligned with sustainability objectives and the drivers of biodiversity loss. Past interventions have highlighted the need to implement livelihood value addition and income diversification as an integral part of natural resource governance strengthening. For example, efforts to enhance coastal management under the Coastal Community Development Project and COREMAP II were undermined by (a) the provision of assets (for example, engines and fishing gear) that increased fishing capacity and thus pressure on resources, and (b) rapid and unplanned uptake and expansion of seaweed mariculture that impacted water quality and increased susceptibility to crop-destroying

diseases.⁵⁸ Past interventions also highlight (a) the need to tailor training to the specific needs of local people; (b) the potential barriers to sustainable livelihood development, including constraints on infrastructure, skills, and access to finance and markets; (c) the sustained benefits that can be realized by strengthening linkages among producers, markets, and sources of finance; and (d) the need for early long-term sustainability planning, including identifying resources required for long-term operation and maintenance of infrastructure. LAUTRA's livelihood development activities will be coordinated with the Village Law Program, including to establish incentive structures for incorporating coastal and marine management into village planning processes. The village-led proposal solicitation process inherent in the Model Village Program will ensure that ownership over public village infrastructure is transferred to the village and that developments have a long-term operation and maintenance plan.

51. **To ensure long-term natural resource sustainability, it is crucial to empower participative and inclusive natural resource governance at the local level.** Lessons from all three phases of COREMAP as well as numerous other coastal resource management programs highlight the importance of local communities being integrally involved in decision making, planning, and management of MPAs, and for ensuring that they perceive direct and indirect benefits that are associated with the MPA. Strengthening social assets—the resources that enable individuals and communities to pursue collective action, including skills, knowledge, leadership, trust, advocacy, administration, accountability, and institutional structures—is essential for sustained natural resource management impacts and associated economic gains.⁵⁹ These lessons are tightly woven into LAUTRA's design, including through the provision of technical assistance to strengthen the capacity of community-based organizations and through the Results Framework incorporating explicit indicators related to stakeholder participation, especially women, in MPA and fishery management planning.
52. **LAUTRA will build on the COREMAP Program,** which established a strong foundation for coral reef ecosystem management in Indonesia, including by supporting development of the national MPA network, and establishing national standards such as Indonesia's Reef Health Index and professional competency standards. LAUTRA builds on these successes by (a) accelerating the implementation of the new EVIKA scorecard to ensure MPAs are delivering their targeted biophysical and socioeconomic outcomes; (b) improving the integration of MPAs into wider fisheries and ecosystem management; (c) enhancing livelihood opportunities that promote community stewardship of coastal resources; and (d) addressing critical long-term financing gaps for sustainable impact. LAUTRA deploys and scales up several approaches established under COREMAP, including the application of national coral reef monitoring protocols and data management.
53. The PROBLUE grant-financed Component 3 builds upon lessons learned from the Seychelles Sovereign Blue Bond, which include the need to establish an enabling legal and policy framework early, effective inter-ministerial coordination, development of a robust monitoring and reporting framework, and proactive engagement with financial intermediaries and MSMEs to establish a viable investment pipeline.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

54. **A National Project Steering Committee (NPSC) and an overall Project Management Office (PMO) under MMAF will be established within two months of project effectiveness.** The NPSC, chaired by the Bappenas Deputy of Maritime Affairs and Natural Resources and with relevant Director General level (Echelon 1) representatives as members, will provide overall strategic guidance for project implementation. The DJPRL of MMAF will host the PMO,

⁵⁸ Stacey, N. et al. (2021). "Developing Sustainable Small-Scale Fisheries Livelihoods in Indonesia: Trends, Enabling and Constraining Factors, and Future Opportunities."

⁵⁹ Rambe, V., and Johnsen, S. (2013). "Indonesia Sustainable Natural Resources Management through PNPM Green Investments."

which will be responsible for overall project coordination, day-to-day management, budgeting, financial management, safeguards monitoring, project progress monitoring, evaluation and reporting, and coordination with other government agencies.

55. A Project Technical Committee, chaired by Bappenas (Director of Marine and Fisheries, consisting of Director level representatives (Echelon 2) from MMAF, Bappenas, MoF, and MoHA will be formed within one month after project effectiveness. It will provide technical guidance and advice for project planning, implementation, and monitoring and evaluation, and play a key role in intra- and inter-ministerial coordination when difficult issues emerge.

56. MMAF and Bappenas will establish Project Implementation Units (PIUs) for different project components within one month after project effectiveness. MMAF will manage Component 1 and 2 activities, Bappenas will be responsible for Component 3 activities; and MMAF and Bappenas will manage component 4 activities. MMAF will establish three PIUs each in DJPRL, DJPT and DJPB. PIU DJPRL and DJPT will be responsible for implementing Subcomponent 1.1 (MPA management) and Subcomponent 1.2 (coral reef fisheries management), respectively. DJPRL, DJPT, and DJPB PIUs will work jointly to implement Component 2, under the leadership of DJPRL. Bappenas, through its Work Unit (*Satuan Kerja*) ICCTF - will implement Component 3 (Blue Finance). MMAF, as the executing agency, and ICCTF-Bappenas will be responsible for implementation of Component 4 (project management) funded by IBRD loan and PROBLUE grant, respectively. The Technical Implementing Unit (*Unit Pelaksana Teknis/UPT*), MMAF's representative offices in the provinces, will be responsible for day-to-day management and implementation of activities at the subnational level (provincial/district/village), including support to activities planning, facilitation, monitoring and evaluation, and reporting. The UPT will also facilitate the coordination with relevant stakeholders at the subnational level to ensure smooth project implementation.

57. At the subnational level, the PPSUs, hosted in the Provincial Marine and Fisheries Services (DKP, *Dinas Kelautan dan Perikanan*) in the target provinces, will receive and manage project funds, via Decentralized Fund (*Dana Dekonsentrasi*), to provide implementation support for activities for provincial MPAs under Subcomponent 1.1 and associated community support under Component 2. District Governments will be involved in coordination of relevant DKP staff to support project implementation, and to oversee alignment of village-based activities in Component 2.1 with local development plans and budgets.

58. Annex 1 provides details on the institutional and implementation arrangements. The POM will provide further details on project management and implementation arrangements, roles and responsibilities of each implementation unit, including provincial and district-level coordination arrangements and fora.

B. Results Monitoring and Evaluation Arrangements

59. The project will use existing M&E systems in MMFA and Bappenas and will strengthen them where necessary. M&E functions will be housed within the PMO and the PIUs. An M&E consultant will be hired to support the PMO and PIUs. Relevant MMAF and Bappenas staff in the PPSUs will provide project implementation status reports to PIUs and then to the PMO following reporting requirements and verification mechanisms to be set up by the PMO. The POM will include an M&E chapter that outlines baseline data, detailed protocols, responsibilities, and reporting templates. Most baselines for Indicators in the Results Framework are zero since most indicators are a direct measure of project's outcomes.

60. M&E for Component 1 will draw on the existing monitoring system within DJPRL that is used to compile MPA management effectiveness scorecards. The project will finance EVIKA assessments within the target MPAs, supporting the scorecard's implementation while also adopting it to measure project outcomes. The project will also

invest in data collection capacity including fishery catch and effort data, which are expected to be housed in the MMAF’s “OneData” system, thus improving MMAF’s capability to monitor and evaluate fishery management within WPPs. The project will carry out surveys to assess participant satisfaction with project interventions.

61. M&E of Component 2 livelihood activities will use village facilitators stationed in the target villages. The village facilitators will be responsible for development of village-level plans and documentation of public meetings, expenditures, and results from livelihood activities, including trainings and community small infrastructure developments. The project will also carry out baseline and endline assessments using beneficiary surveys to assess progress towards the Results Framework indicators.

62. M&E of Component 3 blue finance activities will use the M&E Consultant to document and report progress of project activities. As part of its reporting requirements, the World Bank’s PROBLUE secretariat will be informed of the progress of Component 3 activities and indicators in the project’s Results Framework (Section VII).

C. Sustainability

63. The project builds on and aligns with a range of national policies and international agreements. These include the priorities reflected in Presidential Regulation 16/2017 on Indonesia’s Maritime Policy and Presidential Regulation 34/2022 on the Plan of Action for Indonesia’s Maritime Policy 2021–2025, as well as the national targets defined in strategic and planning documents such as RPJMN 2020–2024. Where appropriate, the project supports, adopts, and strengthens country systems such as the EVIKA scorecard. The target MPA operational costs will be taken over by the GOI in the project’s final years.

64. The project seeks to promote sustainable livelihood activities to coastal communities in a way that ensures stewardship of the associated MPAs and fishery resources. This includes addressing the barriers to access markets and finance options to ensure the delivery of benefits beyond the project lifespan. LAUTRA aims to strengthen village governance systems, including with respect to the allocation and use of village funds (*dana desa*) for natural resources management and livelihood development. The project’s emphasis on participative and inclusive community-level action—including collaborative management of MPAs and fisheries—is expected to influence the behavior of natural resource users, promote greater stewardship, and ensure sustainability of outcomes.⁶⁰

65. LAUTRA explicitly recognizes and addresses the need for blue finance to support the development of Indonesia’s blue economy. Through Component 3, LAUTRA will build blue finance institutional capacity (including for the Blue Finance Advisory Committee), strengthen blue finance policy frameworks, and develop blue finance strategies and tools that are expected to assist Indonesia’s blue economy development both during the project and longer term.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

66. Rationale for sites selection. The project target areas include 20 MPAs (about 30 percent of the total MPAs in Indonesia) that meet the national regulatory requirements of being either already gazetted or having been reserved via provincial level regulation and marine spatial plans. The target MPAs are within 11 provinces (among 37) and include surrounding communities (of which at least 75 villages are targeted). The provinces include Gorontalo,

⁶⁰ Andrachuk, M. et al. (2022). “Coral Reef Governance: Strengthening Community and Collaborative Approaches”; Fidler, R. Y. et al. (2022) “Participation, not penalties: Community involvement and equitable governance contribute to more effective multiuse protected areas.”

Maluku, Maluku Utara, Nusa Tenggara Barat, Nusa Tenggara Timur, Papua, Papua Barat, Sulawesi Selatan, Sulawesi Tengah, Sulawesi Utara, and Sulawesi Tenggara. About 260,000 ha of coral reefs (about 10 percent of Indonesia's coral reefs) exist within the target MPAs. Selection of the WPPs (WPP-714, WPP-715, and WPP-718, about 30 percent of total WPPs) is based on the importance of coral reef-associated fisheries in these WPPs and the government's prioritization of these locations to implement its sustainable quota-based fisheries policy. Other selection criteria for the target MPAs and WPPs included their position in the eastern-most part of Indonesia, as the region with the lowest economic welfare scores, and the highest level of marine biodiversity being part of the Coral Triangle, a global marine biodiversity hotspot.

67. Rationale for the selected project approaches, appropriateness to the GOI's needs, and conformity with international standards. The project aligns with the global target to protect and restore marine and coastal habitats by 2030 (SDG14) and the GOI's objective to expand the area of effectively managed MPAs in Indonesia, and benefits from the World Bank's global experience and capabilities related to evidence-based natural resource management. The proposed activities to strengthen MPA management effectiveness align with international standards, such as IUCN MPA guidelines, and priorities identified in the "MPA Vision 2030 and Roadmap to MPA Management." The proposed activities to expand economic opportunities in and around MPAs are based on global best practices, institutional assessment of MMAF's mandate and capacity, and in-depth assessments of local livelihood conditions, risks and needs. A combination of community-based methods and technical assessments will ensure quality and context appropriateness of infrastructure and technical assistance activities through predetermined criteria and empower communities to lead behavior change by involving them in priority setting and decision-making.

68. The project also addresses the need for sustainable MPA financing and conservation incentives in Indonesia and builds on the World Bank's experience related to valuing and monetizing natural assets to establish a framework for monetizing blue carbon and other ecosystem services to finance Indonesia's MPA management. The proposed blue finance approach also builds upon existing national guidelines (such as the SDG Government Securities Framework), international standard (such as the Green Bond Principles and the International Finance Corporation Blue Finance Guidelines), and GOI experience with thematic investment instruments in the global financial market (such as Green Bond and Sukuk).

69. The project will provide local, national, and global benefits through the provisioning of public goods. The project will deliver measurable improvements in MPA management effectiveness and builds on previous experience—including under the COREMAP project—to ensure that these measures consider biophysical and socioeconomic outcomes. By investing in the conservation, enhancement, and provision of marine and coastal ecosystem goods and services, LAUTRA will generate climate mitigation and adaptation co-benefits that include carbon sequestration and the improved resilience of local communities and coastal areas. The protection of critical spawning and nursery grounds within MPAs will contribute to maintaining the healthy fish stocks that underpin local livelihoods and national food security, as well as to the conservation of Indonesia's globally significant marine biodiversity.

Economic and Financial Analysis Summary

70. The project is expected to generate significant socioeconomic benefits. These include (a) increased fisheries production, (b) increased tourism activity, (c) increased coastal protection from storms, (d) income opportunities from sustainable alternative livelihood programs, (e) increased carbon sequestration from seagrasses and mangroves, and (f) improved small-scale infrastructure for coastal communities. Economic analysis has been undertaken on the benefits associated with these outcomes, using a benefit-cost methodology drawing on ecosystem services valuation studies and a bioeconomic model. The analysis uses a 30-year timeline to account for the long-term nature of benefits expected to accrue from ecosystem restoration over time and the slow rate of change in natural systems.

71. Public sector financing is justified by the project's substantial focus on local and global public environmental goods. The project will generate environmental benefits by improving the quality of management of MPAs, providing better-protected habitat for marine biodiversity, and generating global benefits through reduced greenhouse gas (GHG) emissions. Fishery resources are considered public assets in Indonesia and require a considerable degree of public governance given their common-pool nature. Benefits to ecosystems investments are diffuse and public, and do not presently attract significant private sector finance. A public-sector role is also important for catalyzing blue finance, which requires enabling conditions, standards, and systems to solve the information and coordination problems that otherwise hold back private financing.

72. World Bank support provides considerable valued added. The World Bank's involvement increases central and provincial governments' exposure to international experience in marine ecosystems management and helps to ensure lessons from recent World Bank-supported ecosystems-focused projects. The World Bank has considerable experience in marine conservation and fisheries investments in Indonesia and worldwide. LAUTRA builds on key elements of the COREMAP series of projects in Indonesia and integrates lessons from the World Bank-supported Mangroves for Coastal Resilience (M4CR) Program, and the Pacific Regional Oceanscape Program. The World Bank's involvement also helps incorporate lessons from World Bank-executed analytics undertaken specifically for LAUTRA's preparation and implementation, including studies on fisheries management systems operationalization, climate change impacts on fisheries and coastal communities, and coastal livelihood conditions and intervention opportunities. The World Bank brings expertise in the design of livelihoods interventions that complements ecosystems management, as well as specific expertise in blue finance, that complements implementing agencies' core expertise. The World Bank has provided support to the implementing agencies on blue finance since 2019; World Bank involvement can help ensure continued integration of lessons.

73. The economic case for the project based on quantified links between improvements in ecosystems and socioeconomic impacts. Socioeconomic benefits from Subcomponent 1.1 are expected to accrue from improved ecosystem health and functioning of important ecosystems (coral reefs, seagrass meadows, and mangroves), due to the improved management of MPAs. These improvements are expected to support improved tourism, fisheries, flood resilience values, and increased carbon sequestration. Per-unit values are taken from published literature and scaled by expected ecosystem changes under project conditions (relative to a no-project counterfactual). Socioeconomic benefits from Subcomponent 1.2 are expected to accrue from improved fishery harvest management. These benefits are quantified using a custom-developed bioeconomic model for this project focused on the snapper-grouper complex (an important reef-associated fishery). While activities under Subcomponent 1.1 contribute to fisheries through their expected positive impacts on habitat, activities under Subcomponent 1.2. focus on improved fishery management, a complementary but distinct source of economic benefits. Livelihood benefits (Component 2) are determined by the analysis of the impacts of similar investments in coastal community capacity in Indonesia and elsewhere.

74. The combined results of the analysis for Subcomponents 1.1 and 1.2 and Component 2 are positive at both lower-bound and upper-bound estimates (Table 1). Bounds are differentiated by high and low assumptions regarding rates of ecosystem change in response to the project, plus high and low assumptions of ecosystem values. Sensitivity analysis has also been performed on the carbon price and the discount rate. These factors change the project's overall estimated value considerably; however, the project remains net positive under the full range of assumptions tested.

Table 1. Results of the Economic Analysis including Estimated Net Present Value (US\$) by Component, Internal Rate of Return (IRR), and Benefit-Cost (B/C) Ratios

Scenario		Component 1.1	Component 1.2	Component 2	Project Overall	IRR	B/C Ratio
<i>6% discount rate</i>	<i>Low-Bound</i>	\$82,796,206	16,173,326	18,639,843	\$117,609,375	11.68%	1.71
	<i>High-Bound</i>	\$406,154,137	26,495,309	154,066,315	\$586,715,761	28.45%	4.58
<i>10% discount rate</i>	<i>Low-Bound</i>	\$8,840,551	7,355,277	5,506,810	\$21,702,638	11.68%	1.15
	<i>High-Bound</i>	\$150,218,625	13,753,904	112,587,794	\$276,560,323	28.45%	2.95
<i>6% discount rate</i>	<i>Low-Bound</i>	\$87,886,423	16,173,326	18,639,843	\$122,699,592	11.75%	1.73
	<i>High-Bound</i>	\$412,233,402	26,495,309	154,066,315	\$592,795,026	28.49%	4.59

B. Fiduciary

(i) Financial Management (FM)

75. **The PMO will be responsible for an overall budgeting plan and the project administration.** In line with the government system, there will be a Work Unit (*Satuan Kerja*) at each PIU, which includes government officers with the following FM functions: commitment maker, verification officer, treasurer, and accounting officers. In addition, an FM consultant will be hired by DJPRL under the loan to support the PMO to submit quarterly Interim Unaudited Financial Reports (IFRs) and prepare annual financial reports based on the IFRs, along with Notes to the Financial Statements, for the IBRD loan and the Oceans MDTF. The PIU in Bappenas will prepare the IFRs and the annual financial reports for the PROBLUE MDTF. The audit report should be made available to the World Bank no later than six months after the end of each fiscal year. The World Bank carried out an assessment of the adequacy of FM and concluded that with the implementation of the mitigation measures, the FM arrangements would satisfy the World Bank's minimum requirements under the World Bank Policies. The FM risks and the corresponding risk mitigation measures are discussed in Section VI. Further details on FM are in Annex 1.

(ii) Procurement

76. **Applicable procurement regulations.** All procurement under this project will follow the procedures specified in the World Bank Procurement Regulations for Investment Project Financing Borrowers, dated November 2020 (World Bank's Procurement Regulations) and the provisions stipulated in the Loan and Grant Agreement and approved Procurement Plan. The project will be subject to the World Bank's Anticorruption Guidelines, dated October 15, 2006, revised in January 2011, and July 1, 2016. The project will use the Systematic Tracking of Exchanges in Procurement (STEP) to plan, record, track procurement transactions, and contract administration. A draft Project Procurement Strategy for Development (PPSD), including a draft Procurement Plan for the first 18 months of implementation, has been prepared by MMAF with support from the World Bank. The PPSD includes detailed assessment of the markets for goods, works, and services required for project implementation, procurement approaches, and procurement risks analysis along with corresponding proposed risk mitigation measures.

77. **The scope of procurement under the project is expected to include** (a) consultants to support project management; (b) technical assistance to support project implementation; (c) NGO as implementation partner under

components 1 and 2, (d) equipment for e-reporting tools for coral reef fisheries; (e) small equipment to support the project implementation and (f) small equipment and infrastructure for MPA management and coastal livelihoods.

78. Use of National Procurement Procedures. All contracts for goods, works, and non-consultancy and consultancy services to be procured in line with the national market approach shall follow Indonesia's national procurement procedures, established to follow Presidential Regulation (PERPRES) No. 16/2018 and amendment PERPRES No. 12/2021, which are broadly consistent with the requirements of World Bank Procurement Regulations, section V, paragraph 5.4, National Procurement Procedures (subject to a few conditions specified in the PPSD and in the project text section of the Procurement Plan).

79. Procurement capacity and risk assessment. The PIUs would carry out all the procurements and contract management under the project. MMAF and Bappenas have prior experience in implementing World Bank-funded projects. Procurement risks and their mitigation measures are presented in Annex 1.

C. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

80. The Policy on "Projects on International Waterways" (OP 7.50) does not apply, as the project does not concern the use or risk of pollution of water of international waterways. The Policy on Projects in Disputed Areas (OP 7.60) does not apply to this project as project activities will not take place in such areas. Fisheries management plans and included recommendations will focus (a) only on coral reef associated fisheries; (b) are responsive to ongoing maritime delimitation discussions with neighbouring countries; and (c) will automatically be adjusted accordingly.

D. Environmental and Social.

81. **The overall environmental and social risk rating is Substantial.** The project will bring significant positive environmental and social benefits through the effective management of MPAs; protecting biodiversity-rich and carbon-rich natural areas; improving the environment and resilience against natural disasters and climate change; and improving coastal community livelihoods. The risk assessment considers the type, nature, and magnitude of activities, geographic coverage, ecological and social sensitivity of project locations, capacity of the implementing agencies, the importance of meaningful stakeholder consultation and engagement, and the potential for environmental and social impacts. Although the potential adverse impacts on the environment and population are not likely to be significant, some may be undertaken in ecologically sensitive areas. The negative environmental impacts arising from the project activities are predictable, of small to medium scale, site-specific, and of low to medium probability for serious adverse effects on human health and the environment. Several project Subcomponents will be undertaken within the footprint of marine protected areas, which could bring up contextual and client monitoring capacity issues—factors that have contributed to the overall risk rating.

82. **Environmental and Social Standards (ESS) that are currently relevant for the project include ESS1 (Assessment and Management of Environmental and Social Risks and Impacts), ESS2 (Labor and Working Conditions), ESS3 (Resource Efficiency and Pollution Prevention and Management), ESS4 (Community Health and Safety), ESS5 (Land Acquisition, Restrictions of Land Use and Involuntary Resettlement), ESS6 (Biodiversity Conservation and Sustainable Management of Living Natural Resources), ESS7 (Indigenous Peoples), ESS8 (Cultural Heritage), and ESS10**

(Stakeholder Engagement and Information Disclosure). The World Bank's due diligence assessment of the project's environmental and social risks and impacts is included in the project's Appraisal Environmental and Social Review Summary. The MMAF has developed the following instruments to address relevant ESS requirements: (a) a Social Assessment to understand general social baselines, including the presence of Indigenous Peoples, existing laws and regulatory frameworks, practices on the establishment and management of MPAs, and tenure issues in coastal areas, as well as inputs on the potential risks and impacts and the development of environmental and social mitigation documents; (b) an Environmental and Social Management Framework (ESMF) as an overarching environmental and social instrument to guide further project activities and to provide principles and guidelines on screening, assessing, and mitigating the potential environmental and social risks and impacts of each activity in accordance with the requirements of applicable national regulations, ESS, and World Bank Group environment, health and safety guidelines. This will include the use of templates for the subproject screening related to Environmental and Social Impact Assessment (ESIA), processes for the preparation of site-specific Environmental and Social Mitigation Plans (ESMPs), Process Framework to manage access restriction risks and impacts (due to marine resource access restrictions arising from improved management with a low to medium level of potential livelihood disruption), Resettlement Policy Framework (RPF) that includes protocols on land due diligence, voluntary transaction, and voluntary land donation, Indigenous Peoples Planning Framework to guide meaningful engagements and consultations and management of risks and impacts on Indigenous Peoples, and Labor Management Procedures to guide project risk management related to project workers, as well as protocols on COVID-19 prevention and Cultural Heritage Management Framework (CHMF), including Chance Find Procedures to anticipate the presence of cultural heritage within the project locations; (c) a Stakeholder Engagement Plan (SEP), which includes a Feedback and Grievance Redress Mechanism and information disclosure; and (iv) an Environmental and Social Commitment Plan (ESCP). The draft instruments were disclosed and consulted with project stakeholders throughout preparation. MMAF had disclosed the draft instruments on the MMAF website prior to the public consultation that was conducted on September 8, 2022 and redisclosed the final instruments on the MMAF's website on December 5, 2022 to meet the requirement of ESS10. The Social Assessment and ESMF were disclosed on the World Bank's website on December 12, 2022. The SEP and ESCP were disclosed on the Bank's website on November 29, 2022.

83. The MMAF and Bappenas have demonstrated full commitment to implementing the environmental and social risk management policy requirements in past projects supported by the World Bank. MMAF has implementation experience from COREMAP, while Bappenas has experience implementing the COREMAP-Coral Triangle Initiative Project (P127813). Assessments have not identified any additional environmental and social risks and impacts associated with Component 3 that have not already been identified as part of Components 1 and 2. Although it does not have practical experience with the World Bank's ESF, MMAF is aware of the environmental and social safeguard requirements of World Bank operational procedures and processing requirements. Given that MMAF is new to the ESF, continued support to the PMO, implementing agencies, and PPSUs will be required to ensure capacity building on the ESF and the allocation of adequate budget and resources to apply the ESS. The assessment of MMAF's current capacity to manage environmental and social risks and impacts are included in the ESMF along with the required capacity-building plan.

Environmental Risk Management

84. Environmental risk is rated Substantial. Most activities will be implemented in 20 existing MPAs that have been selected under MMAF's supervision. Component 1.1 will enhance effective management of existing MPAs, and Subcomponent 1.2 will promote sustainable management of coastal fisheries and deliver positive effects on the maintenance of fish stocks and the coral reef ecosystem function. Component 2 will contribute to improving current sustainable livelihoods in target areas, while avoiding alternative livelihoods that could bring new environmental risks. The existing MPAs are legally delineated and regulated and contain provision for biodiversity and environmental preservation that will be enhanced through project interventions, including by reviewing and updating existing

biodiversity related activities where necessary. The environmental risks relate mainly to small infrastructure works⁶¹ under Components 1 and 2 (including the identification of such works in the village economic development plans under Component 2). While villages in most cases are adjacent to MPAs and thus outside the physical footprint of MPAs, some project investments under Component 2 may be implemented at island villages that are surrounded by MPAs (such as small jetties for ecotourism). In these cases, the activities will be limited to dedicated sustainable use zones and be fully aligned with the MPA zoning plan, management plan, and regulations.

85. The potential environmental risks are site-specific, of low to medium magnitude, and mostly confined to civil works impacts during execution. Associated impacts are evaluated as being predictable, easily defined, reversible, and manageable by application of good engineering practice and standard construction techniques commonly applied in Indonesia, and with only temporary potential negative impact. Environmental impacts will be mitigated via application of the standard mitigation hierarchy and measures described in the project specific ESMF. Mitigation tools to be applied during project implementation include up-front environmental screenings, an environmental impact assessment, and the design and incorporation of mitigation measures, for example, in infrastructure development plans and MPA management plans. Incorporation of environmental screening criteria and the development of innovative MPA management models would generate positive impacts and contribute to the creation of healthy marine environments and improved socioeconomic situations. Where required as determined during the environmental screening, site-specific ESMPs will be prepared for infrastructure activities as a part of their design, in line with the national legislation and Bank's ESF. To further enhance institutional capacity for environmental protection, Component 4 includes capacity building and training activities focused on the project implementers. To address contextual risks, the project will undertake climate change vulnerability assessments throughout its implementation and as a core aspect of site-specific designs, to ensure suitable design and construction of infrastructure in the project areas.

Social Risk Management

86. Social risk is rated Substantial given the overall scope, scale and geographic distribution, complexity of the project, and potential risks and impacts related to Indigenous Peoples, land acquisitions, and cultural heritage, although the potential social risk and impacts are unlikely to be significant. Social risks are associated with inadequate stakeholder engagement and unequal access to project information and benefits, particularly in the context of (a) engagement of marginalized and vulnerable groups; (b) marine resource access restrictions arising from improved management with potential livelihood disruption; (c) potential for small- to medium-scale land acquisition related to infrastructure works; (d) the project's focus on Eastern Indonesia and the consequent importance of identifying and ensuring meaningful consultation with Indigenous Peoples; and (e) capacity of the implementing agencies. While the project anticipates that improved coastal and marine ecosystem management will deliver community livelihood benefits, these objectives risk being undermined by inadequate consultative and participatory processes, particularly among marine resource-dependent communities. The design of the project incorporates measures related to participatory and inclusive decision-making (for example, number of MPA collaborative management partnerships established, representation of vulnerable groups in stakeholder coordination forums) and the expansion of economic opportunities for coastal communities (for example, inclusive village development planning, proportion of female beneficiaries). To minimize social risks and impacts, LAUTRA will not finance the creation of new MPAs. The Stakeholder Engagement Plan includes strategies for engagement with vulnerable populations. The ESMF (via the Process Framework and Indigenous Peoples Planning Framework) will promote meaningful consultation to mitigate the risks associated with access restriction and the impacts on indigenous peoples. Active local grievance mechanisms will be conducted to capture and process grievances and responses in an inclusive and accessible manner.

⁶¹ Examples include MPA small field offices, signage, boundary markings, small patrol boats, mooring buoys, data control centers at existing fishing ports, small public jetties, public markets, walkaways, information centers, electricity, and internet infrastructure.

87. Risks of expropriation of property and physical displacement issues are not envisaged. Small- to medium-scale land acquisition is anticipated for infrastructure works, and the project will prioritize the use of government-owned land or existing facilities premises for ecosystem management infrastructure (Component 1), and the use of land owned by village beneficiaries for village-level infrastructures (Component 2). The ESMF incorporates land due diligence procedures, with the RPF prepared as a precaution process instrument in cases when the government owned land may be illegally occupied. The RPF includes voluntary land donation and voluntary transaction protocol in the case that land acquisition may be required for implementation of the village level infrastructure. The risk of child labor is considered low as the project does not support large-scale construction or large-scale coastal economic development. Risks related to forced labor are not envisaged. The Labor Management Procedures include provisions to limit children's participation in coastal-based activities to light works; prohibit certain tasks that may jeopardize the health, safety, or education of children; and outlines employment terms for project workers, including the minimum age of employment. Risks associated with labor influx, Sexual Exploitation & Abuse/Sexual Harassment and Community Health and Safety are considered low as civil works are small and medium scale and will mostly employ local labor. A Sexual Exploitation & Abuse/Sexual Harassment code of conduct is included in the Labor Management Procedures.

88. The project will only finance the operational costs (such as fuel) of surveillance patrols by MPA management units, with activities limited to surveillance and detection. While the project will not finance any activities related to enforcement actions, there is a risk due to overlapping legislation. Which legislation is used to prosecute and which sanctions are applied is often open to interpretation, leading to legal uncertainty and possibly impacting society's sense of justice. To mitigate this risk, the project will assess MPA surveillance activities and provide recommendation for improvement, provide training to MPA management units on MPA surveillance activities and closely monitor the outcome of surveillance patrols activities.

V. GRIEVANCE REDRESS SERVICES

89. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to the existing project-level Feedback and Grievance Redress Mechanism or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB noncompliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redressservice>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

VI. KEY RISKS

90. **The Overall Project Risk is assessed as Substantial.** Substantial risks are discussed below, along with their corresponding mitigation measures.

91. **Political and Governance (Substantial).** National elections are not expected until February 2024, when the project should be well into its implementation phase. The success of the project implementation is dependent on the national and provincial government's continued commitment to the sustainable management of coral reefs and

associated ecosystems, and there is a risk that the incoming elected administration may have different approaches and priorities. As a mitigation measure, the proposed project has a strong focus on policy, regulatory, and institutional strengthening and on securing high-level government commitment and leadership at all levels.

92. Sector Strategies and Policies Risk (Substantial). Uncoordinated or overlapping policies and investments with impacts on oceans across sectoral ministries (for example, Marine Affairs and Fisheries, Environment and Forestry, Tourism, Energy) or levels of government (national and subnational) may hinder the achievement of the PDO. This includes the conservation of coral reefs and associated ecosystems that can be impacted by human activities-related pressures that arise upstream of project locations and from other sectors, including due to tourism and coastal development. As mitigation, the project will strengthen cross-sectoral collaboration by supporting the establishment and functioning of a multisectoral NPSC, and multi-stakeholder MPA and fisheries management coordination platforms at the subnational level. There is also a risk that technical assistance to MSMEs under Subcomponent 2.2 will be insufficient to improve bankability and access to finance of MSMEs due to broader changes to market conditions or larger than expected MSME capacity gaps. This risk will be mitigated by (a) financing detailed gap assessments within Component 2 to allow for targeted technical assistance to tractable issues; (b) supporting MSMEs to access both formal and informal sources of capital and credit; and (c) keeping targets and budget for this component low, with the potential to be increased based on performance.

93. Institutional Capacity for Implementation and Sustainability (Substantial). The project will be implemented by two national implementing agencies, with four PIUs under the coordination of the PMO. This arrangement presents significant risk of a suboptimal implementation coordination and decision-making process, particularly for MPAs and coral reef fisheries management and community livelihood development activities implemented at the subnational level. The implementing agencies have limited experience managing World Bank-financed projects, particularly with due diligence and compliance requirements on fiduciary responsibilities, environmental and social risk management, and reporting, and in leading inter-ministerial cooperation and coordination, or dealing with cross-sectoral agencies at the regional government level (provincial/district/village). MMAF also has limited experience in enterprise development activities that are the focus of Component 2.2, and sustainability of these activities is a risk. Mitigation measures include (a) agreement on clear targets by each implementing agency; (b) segregation of budget and accountability by implementing agency, while also assigning an executing agency to coordinate overall project monitoring, evaluation, and reporting; (c) agreed roles and responsibilities of each unit (PMO, PIU, PPSU); continued close collaboration with the implementing agencies on issues related to interagency coordination; (d) capacity gaps assessment within units, and hiring additional human resources and building capacity to fill these gaps; (e) establishment of the NPSC and the Project Technical Committee to optimize intra- and inter-ministerial and intersectoral agency coordination and dialogue; and (f) frequent implementation support missions to ensure close monitoring of project implementation and to assist implementing agencies as needed, especially during the early implementation stages; (g) PPSUs will be established in the target provinces to facilitate coordination with sub-national stakeholders. In addition, the capacity of Bappenas in blue finance needs to be built to ensure successful implementation of Component 3, focusing on a highly technical and complex issue, such as the preparation of investment strategies and innovative financing instruments that result in actual revenue for MPAs and MSMEs. Accordingly, Component 3 activities focus explicitly on strengthening human and institutional capacity for the implementation of blue finance. Finally, capacity building of both MMAF and Bappenas is particularly critical at the early stage of project implementation to help operationalize the project on, among other areas, financial management, procurement, environmental and social management, and the Feedback and Grievance Redress Mechanism.

94. Fiduciary Risk (Substantial). FM risk may arise from delays in reconciling Designated Account (DA) items due to multiple PIUs and PPSUs, which then cause delays in IFR preparation, and weaknesses in the verification of payments, particularly by the Technical Implementing Units/provincial offices. The proposed mitigation measures include hiring

an FM consultant by DJPRL to assist the PMO with collecting Remittance Order (*Surat Perintah Pencairan Dana*) information from all PIUs and PPSUs for timely preparation of IFRs and ensuring that the POM provides sufficient guidance to the payment verification team. The PMO will arrange training to ensure that all PIUs are equipped to comply with project requirements. Another risk is the lack of procurement staff experience with procurement in accordance with the World Bank's Procurement Regulations, potential procedural noncompliance during the procurement process, low procurement readiness in the first year of the project, and weak procurement monitoring and contract administration including contract documentation. These risks will be mitigated through (a) hiring a procurement specialist to support implementation of procurement; (b) setting up the procurement committee (pokja) early; (c) conducting early trainings to the PMO, PIUs, and pokja to build capacity on the application of World Bank Procurement Regulations; (d) providing hands-on guidance during project implementation; (e) explicit provision in the loan agreement that procurement shall be carried out per the World Bank's Procurement Regulations; (f) including an explicit provision in the POM and procurement plan to highlight that the World Bank's Procurement Regulations shall govern all procurement under the project and take precedence over government procurement processes; and (g) requiring use of STEP to ensure compliance with the World Bank's Procurement Regulations.

95. Environment and Social Risks (Substantial). Environmental and social risks are assessed as substantial due to (a) potential inadequate stakeholder engagement and unequal access, especially for vulnerable groups; (b) negative social impacts arising from natural resource access restrictions resulting from strengthened management if stakeholder engagement is inadequate; (c) ecological sensitivity of targeted areas, including the possible presence of Indigenous Peoples; and (d) potential inadequate capacity for management of environmental and social risks within some local implementing parties at the subregional and village levels. The PMO will arrange trainings to ensure that all relevant project staff, including at the subnational level, are equipped to manage environmental and social risks. The Borrower has also prepared environmental and social risk and impact management instruments (ESMF, ESIA, ESMP, Stakeholder Engagement Plan, Process Framework, Resettlement Policy Framework, and Indigenous People Planning Framework) to manage potential environmental and social risks. A social assessment was conducted to understand general social baselines—including the presence of Indigenous Peoples and existing laws, regulatory frameworks, and practices related to the establishment and management of MPAs—and to provide inputs on potential risks, impacts, and the development of environmental and social mitigation documents. These issues are detailed more fully in Section D, above.



VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Indonesia

Oceans for Prosperity Project - LAUTRA

Project Development Objectives(s)

To enhance the sustainable management of select marine protected areas and coral reef fisheries, and improve access to economic opportunities for local communities in target areas.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	End Target
Enhancing Sustainable Management of Selected Marine Protected Areas and Coral Reef Fisheries			
Target MPAs with increased management effectiveness (Hectare(Ha))		2,000,000.00	8,300,000.00
EVIKA Silver (Hectare(Ha))		2,000,000.00	2,700,000.00
EVIKA Gold (Hectare(Ha))		0.00	5,600,000.00
Target Fishery Management Area (WPP) with Fishery Management Unit (UPP) operationalized (Number)		0.00	1.00
Enhancing Access to Sustainable Economic Opportunities for Local Communities			
People supported by the project with improved access to sustainable economic infrastructure or facilities (Number)		0.00	75,850.00
Of which are women (Percentage)		0.00	30.00
Coastal enterprises supported by the project which receive enterprise development assistance and/or receive finance		0.00	150.00



Indicator Name	PBC	Baseline	End Target
(Number)			
Of which are led by women (Percentage)	0.00		30.00

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	End Target
Component 1. Infrastructure and Institutional Strengthening for Sustainable MPAs Management			
Target MPAs with carbon potential determined via internationally accepted methodologies (Number)	0.00		20.00
Applications for target MPA Management Units to be designated as Public Service Agencies (BLU) submitted to the relevant ministry (Number)	0.00		3.00
Target MPAs collaborative management partnerships established with stakeholders and operational (Number)	0.00		10.00
With community groups (Number)	0.00		5.00
With private sector associations (Number)	0.00		5.00
Fisheries Management Areas (WPPs) for which catch and effort data for priority coral reef-associated fisheries have been publicly reported (Number)	0.00		3.00
Fishery Management Units (UPP) within Fisheries Management Areas (WPPs) established (Number)	0.00		3.00
Female participants in decision-making stakeholder coordination forums (including MPA Forum Koordinasi, UPP Panel Konsultatif, and/or community KomPak) (Percentage)	0.00		30.00
Share of target beneficiaries satisfied with the project's engagement and planning processes (Percentage)	0.00		70.00



Indicator Name	PBC	Baseline	End Target
Of which are women (Percentage)	0.00		50.00
Component 2. Expanding Economic Opportunities in and around Marine Protected Areas			
Village economic infrastructure/facilities projects submitted to and approved by MMAF that are completed in target villages (Percentage)	0.00		90.00
Coastal enterprises supported by the project that receive finance for sustainable enterprise from state-owned or private institutions (Number)	0.00		50.00
Of which are led by women (Percentage)	0.00		30.00
Of which receive finance through the BLU-LPMUKP (Number)	0.00		15.00
Component 3. Sustainable Financing for Marine Protected Areas and Livelihoods			
Tools and instruments developed to strengthen the blue finance enabling environment (Number)	0.00		7.00
Personnel from financial agencies with increased knowledge and skills on blue finance (Number)	0.00		80.00
Of which are women (Percentage)	0.00		30.00

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Target MPAs with increased management effectiveness	The area of marine protected areas under improved management. Improved management	Annual	EVIKA annual report and SIDAKO web dashboard	Assessment and verification of EVIKA score following procedures defined	PIU M&E function



	means an increase of at least one EVIKA rating (i.e., Bronze to Silver, or Silver to Gold)			under 28/KEP-DJPRL/2020	
EVIKA Silver	As above	As above	As above	As above	As above
EVIKA Gold	As above	As above	As above	As above	As above
Target Fishery Management Area (WPP) with Fishery Management Unit (UPP) operationalized	The number of Fishery Management Units that are fully operational. The definition "fully operational" is adopted from 22/PERMEN-KP/2021, and means that the UPPs' primary mandated output in the form of evidence-based recommendations are produced and available	Annual	Annual management recommendations report	Review of annual management recommendation reports	PIU M&E function
People supported by the project with improved access to sustainable economic infrastructure or facilities	"Sustainable" means consistent with criteria and processes outlined in the POM which will assure alignment with environmental carrying capacity and no negative impact on biodiversity	Biennial	Village project proposals	Review of project proposals and household surveys	PIU, and external evaluation firm contracted by the PIU
Of which are women	Number of women as a percentage of the total number of people of the indicator above	Biennial	Biennial	Review of project proposals and household surveys	PIU, and external evaluation firm contracted by the PIU



Coastal enterprises supported by the project which receive enterprise development assistance and/or receive finance	Total number of coastal enterprises that receive training, enterprise development assistance, and/or receive finance through participation in activities financed under subcomponent 2.2	Biennial	Progress reports	Review of progress reports	PIU M&E function
Of which are led by women	Number of coastal enterprises led by women as a percentage of the total number of coastal enterprises of the indicator above	Biennial	Progress reports	Review of progress reports	PIU M&E function

Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Target MPAs with carbon potential determined via internationally accepted methodologies	The number of MPAs within which a quantified assessment of carbon stocks and flows within “blue carbon” habitats such as seagrasses has been completed	Annual	Technical reports for each MPA	Review of technical reports	PIU M&E function
Applications for target MPA Management Units to be designated as Public Service Agencies (BLU) submitted to the relevant ministry	The number of MPA management units that have met the technical, administrative, and substantive requirements to	Annual	For each BLU, application package to MoF	Review of application package to MoF and letter of receipt	PIU M&E function



	be recognised as a BLU/D				
Target MPAs collaborative management partnerships established with stakeholders and operational	The definition of “partnership” is adopted from 21/PERMEN-KP/2015 and means a collaboration with stakeholders to meet MPA management needs	Annual	MOU. Partnership activity report	Review of MOUs and partnership activity reports	PIU M&E function
With community groups	The number of collaborative MPA management partnerships that have been established with community groups and are operational	Annual	MOU. Partnership activity reports	Review of MOUs and Partnership activity reports	PIU M&E function
With private sector associations	This indicator measures the number of collaborative MPA management partnerships that have been established with private sector organizations and are operational	Annual	MOU. Partnership activity reports	Review of MOUs and Partnership activity reports	PIU M&E function
Fisheries Management Areas (WPPs) for which catch and effort data for priority coral reef-associated fisheries have been publicly reported	“Catch and effort data” means that data have been collected, managed, validated, analyzed and reported as per established protocols	Annual	Technical reports for each WPP	Review of technical reports	PIU M&E function
Fishery Management Units (UPP) within Fisheries Management Areas (WPPs) established	The definition of “established” is adopted from 22/PERMEN-KP/2021	Annual	Documents on UPP establishment	Review of legal documents, letters of appointment, and minutes of meetings	PIU M&E function



Female participants in decision-making stakeholder coordination forums (including MPA Forum Koordinasi, UPP Panel Konsultatif, and/or community KomPak)	Representation of women within stakeholder coordination forums, which are part of local MPA and WPP management institutions	Annual	Decision meeting reports	Review of minutes of meetings	PIU M&E function
Share of target beneficiaries satisfied with the project's engagement and planning processes	Satisfaction of beneficiaries with their participation in decision-making and the feedback loop in the project	Annual	Beneficiary satisfaction surveys	Review of beneficiary satisfaction surveys	PIU M&E function
Of which are women	Percentage of target beneficiaries satisfied with the project's engagement and planning processes that are women	Annual	Beneficiary satisfaction surveys	Review of beneficiary satisfaction surveys	PIU M&E function
Village economic infrastructure/facilities projects submitted to and approved by MMAF that are completed in target villages	Percentage of projects that are fully constructed in accordance with the approved village proposals	Annual	Village project completion reports	Review at PIU of all completion reports	PIU M&E function
Coastal enterprises supported by the project that receive finance for sustainable enterprise from state-owned or private institutions	Number of coastal enterprises that are granted finance (such as loans, grants) from private or state-owned institutions resulting from project technical assistance	Annual from year two	Reports on approved and executed financing proposals	Review of financing proposals.	PIU M&E function
Of which are led by women	Percentage of coastal enterprises receiving finance which are led by women. See footnote 55 for indicator definition	Annual from year two	Reports on approved and executed financing proposals	Review of progress reports	PIU M&E function



Of which receive finance through the BLU-LPMUKP	Number of coastal enterprises that receive finance (see above) from the BLU-LPMUKP	Annual from year two	Reports on approved and executed financing proposals	Review of financing proposals verified against BLU-LPMUKP record	PIU M&E function
Tools and instruments developed to strengthen the blue finance enabling environment	Tools and instruments include: (1) Blue Finance Advisory Committee; (2) Monitoring and Reporting framework for blue investments; (3) Draft regulations to repurpose government spending; (4) Draft regulations to incentivize sustainable business practices. Draft regulations are equivalent to the PROBLUE intermediate outcome indicators 2.25: National policy reforms in the fisheries aquaculture informed (number = 1), and 2.29: National policy reform in coastal tourism informed (number = 1). (5) Policy recommendations for realization of scalable non-tax revenue options for	Annual	Report(s) developed by Bappenas for the respective tools and instruments	Review of documents relating to blue financing tools and instruments	PIU M&E function



	MPA related to blue carbon (and potentially tourism). This instrument is equivalent to the PROBLUE intermediate outcome indicators 2.25: National policy reforms in the fisheries aquaculture informed (number = 1). (6) Three long-term blue financing strategies. (7) Two blue finance proposals for instruments submitted to MoF. This instrument is equivalent of the PROBLUE intermediate indicator 2.3: Investment cases in PROBLUE relevant sectors presented to potential investors (number = 2)				
Personnel from financial agencies with increased knowledge and skills on blue finance	Number of eligible personnel who have successfully completed training focusing on blue finance	Annual	Training reports	Review of training reports	PIU M&E function
Of which are women	Number of women as a percentage of the total number of people described in the above indicator	Annual	Training reports	Review of training reports	PIU M&E function



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Oceans for Prosperity - LAUTRA (P173391)

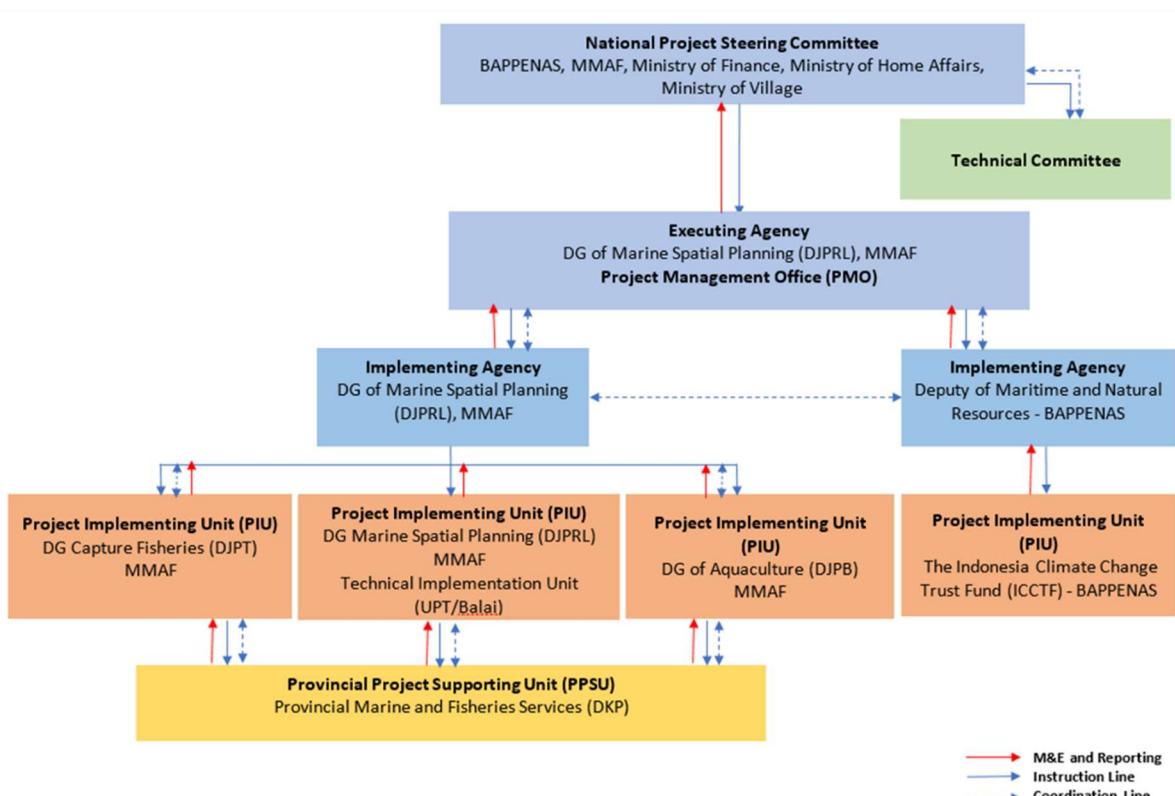


ANNEX 1 - Implementation Arrangements and Support Plan

COUNTRY: Indonesia
Oceans for Prosperity Project – LAUTRA

1. The Ministry of Marine Affairs and Fisheries (MMAF) will act as the Executing Agency and will also be the implementing agency for activities financed by IBRD loan and grant from the Indonesia Oceans, Marine Debris and Coastal Resources Multi Donor Trust Fund (Oceans MDTF). The Ministry of National Development Planning (*Badan Perencanaan Pembangunan Nasional*, Bappenas) will serve as the implementing agency for PROBLUE-financed Component 3 activities. Figure A1.1 presents an overview of the institutional arrangements.

Figure A1.1. LAUTRA Institutional Arrangements



2. A National Project Steering Committee (NPSC) and an overall Project Management Office (PMO) under MMAF will be established within two months of project effectiveness. The NPSC will provide overall strategic guidance for project implementation. It will be chaired by the Bappenas Deputy of Maritime Affairs and Natural Resources and will include relevant Director General level (Echelon 1) representatives of the Directorate General (DG) of Marine Spatial Management (DJPRl), DG of Capture Fisheries (DJPT), and DG of Aquaculture (DJPB) of MMAF, the DG of Financing and Risk Management (DJPPR) of the Ministry of Finance (MoF), the DG of Regional Development (*Bina Bangda*) of the Ministry of Home Affairs (MoHA), and the DG of Rural and Village Development (DJPDP) of the Ministry of Villages (MoV). The MMAF DJPRl will host the



PMO, which will be responsible for overall project coordination, day-to-day management, budgeting, financial management, safeguards monitoring, project progress monitoring, evaluation and reporting, and coordination with other government agencies. The PMO will prepare an annual work plan, budget, update monitoring and evaluation indicators, procurement plan, and required reporting, which will be endorsed by the Project Technical Committee. The PMO will report every six months to the NPSC on project progress and issues. The PMO staffing arrangements and roles and responsibilities are detailed in the Project Operations Manual (POM).

3. **A Project Technical Committee will be formed within two months of project effectiveness.** It will be chaired by Bappenas (Director of Marine and Fisheries), consisting of representatives of Director level (Echelon 2) from MMAF (Secretary to DJPRL, Director of Planning Bureau, Director of Law and Organization Center, Director of Public Relations and International Cooperation, Secretary to DJPT, Secretary to DJPB, Director of Marine Resources Surveillance, and Director of Marine Business and Investment), Bappenas (Director of Multilateral Funding), MoF (Director of Budgeting, Director of Loan and Grant, Director of Budget Implementation), MoHA (Director of Home Affairs Synchronization Regional II), and MoV (Director of Village Fund Utilization). The Project Technical Committee will provide technical guidance and advice for project planning, implementation, and monitoring and evaluation, and play a key role in intra- and inter-ministerial coordination when difficult issues emerge.

4. **The MMAF will assign its staff** as project director, financial management, procurement, environmental and social risk management, monitoring, evaluation and reporting officers, and administrative assistants. The PMO will be supported by project management consultants, consisting of a set of technical specialists and administrative personnel including, among others, financial management, procurement, environmental and social risk management, monitoring, evaluation, and reporting, and communication and outreach specialists.

5. **At the national level, MMAF and Bappenas will establish Project Implementation Units (PIUs) for different project components within two months of project effectiveness.** The PIUs, under the coordination of the PMO, will be responsible for all procurement work (planning and preparing the technical requirements), contract signing and contract management work; and the bidding process will be centralized in the Procurement Service Unit under the Secretariat General of each ministry. MMAF will manage Component 1 and 2 activities financed by the IBRD loan and Oceans MDTF grant, Bappenas will be responsible for Component 3 activities; and MMAF and ICCTF-Bappenas will be responsible for implementation of component 4 (project management) funded by the IBRD loan and PROBLUE grant, respectively. Each PIU will be headed by a PIU Coordinator, who will be appointed by MMAF and Bappenas. PIUs will include technical specialists and administrative personnel who will assist in the implementation of project activities. The PIUs will be established, with detailed composition, roles, and responsibilities, through a director general decree within one month after project effectiveness in accordance with the legal covenant. The POM will reflect details concerning the required personnel.

The PIUs are as follows:

- The Directorate General of Marine Spatial Management (DJPRL) PIU will be responsible for implementing Subcomponent 1.1 (Marine Protected Area [MPA] management), parts of Component 2 (livelihood development) concerning infrastructure and capacity building to support ecotourism, and Component 4 (project management) financed by the IBRD loan.



- The Directorate General of Capture Fisheries (DJPT) PIU will be responsible for implementing Subcomponent 1.2 (coral reef fisheries management) and parts of Component 2 concerning infrastructure and capacity building to support sustainable fisheries enterprise.
- The Directorate General of Aquaculture (DJPB) PIU will be responsible for implementing Component 2 concerning infrastructure and capacity building to support sustainable aquaculture.
- The Bappenas Deputy for Maritime Affairs and Natural Resources, through its Work Unit (*Satuan Kerja*), the Indonesia Climate Change Trust Fund (ICCTF), will implement Component 3 (Blue Finance) and Component 4 (project management) financed by the PROBLUE grant.

6. **The Technical Implementing Unit (*Unit Pelaksana Teknis/UPT*)**, MMAF's representative offices in the provinces, will support project implementation at the subnational level. UPT will be supported by technical and administrative personnel who will be responsible for day-to-day management and implementation of activities at the subnational level (provincial/district/village), including support to activities planning, facilitation, monitoring and evaluation, and reporting. The UPT will also facilitate the coordination with relevant stakeholders at the subnational level.

7. **At the subnational level**, a Provincial Project Supporting Unit (PPSU), hosted in the Provincial Marine and Fisheries Services (DKP, *Dinas Kelautan dan Perikanan*) in the target provinces, will receive and manage project funds, via a Decentralized Fund (*Dana Dekonsentrasi*), to provide implementation support for activities for provincial MPAs under Subcomponent 1.1 and associated community support under Component 2. District Governments will be involved in coordination of relevant DKP staff to support project implementation, and to oversee alignment of village-based activities in Component 2.1 with local development plans and budgets. The UPT will receive and manage project funds to provide implementation support to national PIUs on infrastructure activities under Subcomponent 1.1 and Component 2.

8. **A POM will guide project implementation. The adoption of the POM is a condition of project effectiveness.** The POM will include details on institutional and implementation responsibilities, technical aspects of all components and activities, guidance related to monitoring and evaluation of the results framework, environmental and social safeguards, disbursements and financial management aspects, applicable procurement rules and plans, and supervision and reporting provisions related to the project between the PMO and other implementing agencies.

Financial Management

9. **The FM implementation arrangements will follow government systems on budgeting, fund flows, and accounting records.** The project budget will be included in the annual government budget and line ministry/agency budget document (*Daftar Isian Pelaksanaan Anggaran*). The PMO will maintain a consolidated project budget by activity to enable monitoring of project progress against its budget.

10. **Fund flow.** Government payment procedures are applied using Treasury Single Account advance to the designated accounts (DAs) based on six-monthly forecasts to ensure sufficient funds are always available. Access to funds in the DAs follow the government's treasury system. Work units in PIUs and PPSUs review requests for payment from third parties (consultants/contractors/community groups/nongovernmental



organizations [NGOs]) and submit payment orders (*Surat Perintah Membayar*) to the treasury office (*Kantor Pelayanan Perbendaharaan Negara* - KPPN) for payment. The treasury office input the payment request to the treasury information system (*Sistem Perbendaharaan dan Anggaran Negara* - SPAN) and issue a remittance order to the operational bank to process the payment. For the PIU and PPSU in the province, payment orders are submitted to the treasury office branch at the province level, which will process the payment and do the input to SPAN. SPAN data in KPPN at the province level is connected in real time with the data in the central database. KPPN has a one working day standard for processing payments when all documents are correct and complete. The system has reasonable time to transfer funds from the operational bank to the parties' bank accounts.

11. The existence of multiple PIUs may create delays in reconciling the DA items and preparing Interim Unaudited Financial Reports (IFRs). A financial management consultant will be hired by DJPRL to support the PMO in fulfilling the World Bank's reporting and audit requirements, including collection of information on all Remittance Orders (*Surat Perintah Pencairan Dana*) issued under PIUs to ensure timely IFR submission. Weaknesses in the verification of payments, noted in previous World Bank-financed projects through audit findings, pose a risk, particularly at the Technical Implementing Units and DKP offices. The POM will list all valid supporting documents required for different types of expenditures.

12. Disbursement Arrangements. The applicable disbursement methods will be (a) "Advance," (b) "Direct Payment," and (c) "Reimbursement". Segregated DAs will be opened by the MoF Treasury DG in Bank Indonesia (the central bank), denominated in U.S. dollars for (a) the IBRD loan, (b) the Oceans MDTF, and (c) the PROBLUE grant. The DAs will be used solely to finance eligible expenditures. The ceiling of the advance to the DAs will be variable, and the advance(s) will be made based on the six-month projected expenditures. Reporting on the use of DA funds will be based on the quarterly IFRs to be prepared by the PMO and PIU ICCTF-Bappenas, which should be submitted to the World Bank no later than 45 days after the end of each quarter. Applications for an advance to the DAs will be submitted together with the reporting on use of DA funds, which will consist of (a) IFRs and a list of payments for contracts under the World Bank's prior review; (b) projected expenditures for six months; and (c) the DA reconciliation statements. Claims are made based on the actual Remittance Order issued by KPPN. All documentation for the expenditures as reported for disbursements will be retained at the implementing units and made available to the auditors for an annual audit and to the World Bank and its representatives, if requested.

13. The MMAF DG of Marine Spatial Management will be responsible for reconciling the IBRD loan and the Oceans MDTF DAs and preparing separate applications for the withdrawal of reimbursements and advances under the loan. ICCTF-Bappenas will be responsible for reconciling the DA and preparing the applications under the PROBLUE grant. Copies of DA bank statements will be provided to the MMAF and the ICCTF-Bappenas by the DG Treasury in MoF, which will authorize its relevant KPPNs to authorize payments of eligible project expenditures by issuing Remittance Orders. For this purpose, DG Treasury shall issue a circular letter to the relevant KPPNs, providing guidelines and criteria for eligible project expenditures in accordance with the loan/grant agreements. When expenditures or payments are due, PIUs will prepare payment requests to the payment officer within the Work Unit (*Satuan Kerja*). After document verification, the payment officer will issue payment orders together with supporting documentation for submission to the relevant KPPN. The KPPN will check the budget eligibility and issue a Remittance Order to the KPPN's operational bank, which transfers the funds directly to the payee's account and arranges for debit for the loan/grant portion to the DAs. The loan and the grants will finance 100 percent of eligible expenditures,



inclusive of taxes. There is no provision of retroactive financing under the project. Tables 1.1, 1.2, and 1.3 outline the disbursement category and allocations to be financed by IBRD and the grants.

Table 1.1. Allocation of Loan Proceeds

	Category	Loan Amount (expressed in US\$)	% of Expenditure To Be Financed
1	Training and Workshops, Works, Consulting Services, Goods, Non-Consulting Services, Incremental Operating Cost for Components 1, 2, and Subcomponent 4.1 of the project, excluding activities (d), (e) and (f) in Subcomponent 1.1. and activity (c) in Subcomponent 2.2 of the Project	200,000,000	100
	TOTAL	200,000,000	

Table 1.2. Allocation of Oceans MDTF Grant Proceeds

	Category	Grant Amount (expressed in US\$)	% of Expenditure To Be Financed
1	Training and Workshops, Consulting Services, and Goods for activities (d), (e) and (f) in Subcomponent 1.1. and activity (c) in Subcomponent 2.2 of the project	5,000,000	100
	TOTAL	5,000,000	

Table 1. 3. Allocation of PROBLUE Grant Proceeds

	Category	Grant Amount (expressed in US\$)	% of Expenditure To Be Financed
1	Training and Workshops, Consulting Services, Goods, Non-Consulting Services, Incremental Operating Cost for Components 3 and Subcomponent 4.2 of the project	5,000,000	100
	TOTAL	5,000,000	

Procurement

14. Procurement for the project will be carried out in accordance with the World Bank's Procurement Regulations for IPF Borrowers, dated November 2020. The project will be subject to the World Bank's Anticorruption Guidelines, dated October 15, 2006, revised in January 2011, and July 1, 2016. The project will use the Systematic Tracking of Exchanges in Procurement (STEP) to plan, record, track procurement transactions, and contract administration.

15. The Project Procurement Strategy for Development (PPSD) includes detailed assessments of the markets for goods, works, and services required for project implementation, procurement approaches, and procurement risks analysis along with corresponding proposed risk mitigation measures. Based on the PPSD conclusions, MMAF and Bappenas have developed the procurement plan for the first 18 months of project implementation. The procurement plan will be updated at least annually or as required during project implementation to reflect any substantial changes in procurement approaches and methods to meet the



actual implementation needs, market fluctuations, and improvements in institutional capacity. The updated procurement plan along with the revised PPSD will be subject to the World Bank's prior review and approval.

16. The Government's SPSE e-procurement may only be used for procurement of goods, works and non-consulting services through the Open National Competitive Procurement and using the bidding documents acceptable the World Bank. Furthermore, the SPSE International Competitive Bidding (SPSE ICB) e-procurement system modified by LKPP may be used only for selection of consultant firms under the Quality and Cost Based Selection (QCBS) and Selection Based on Consultant's Qualifications (CQS) method; and using the World Bank's standard Request for Proposal document adjusted satisfactorily to the World Bank for electronic use. Procurement under all other methods including Open International Competitive Procurement shall be carried out through non-electronic process with manual issuance of invitation for bids and receipt of bids/proposals, until such time that the modification of the LKPP's modified SPSE ICB e-procurement system has been completed by LKPP acceptable to the World Bank, which will be confirmed through the World Bank's written no objection.

17. **Procurement capacity and risk assessment.** Procurement risks and their mitigation measures are presented in Table 1.4.

Table 1.4. Procurement Risks and Mitigation Measures

Risk Description	Description of Mitigation
Potential delays in the procurement process due to capacity constraints, lack of experience with the World Bank's Procurement Regulations. This includes limited understanding of how to properly carry out procurement under those regulations.	<ul style="list-style-type: none">• Hiring of procurement specialist to support implementation of procurement under the project.• Procurement Committee (<i>pokja</i>) will be set up early in project implementation.• The World Bank will deliver training to PMO/PIUs/<i>pokja</i> on the World Bank's Procurement Regulations.• The World Bank will conduct prior review of the strategically important and large-value or complex contracts.• The World Bank will provide hands-on operational and fiduciary advice and guidance.
Conflicts between World Bank Procurement Regulations and the provisions of the Government Procurement Regulations (<i>Peraturan Presiden, Perpres</i>)	<ul style="list-style-type: none">• The POM will include a procurement chapter to clarify that procurement will follow the World Bank Procurement Regulations as specified in the Loan and Grant Agreement.• The POM will detail procurement steps for various methods to be used under the project as well as guidance related to due diligence on the verification of bidders' qualification documents.• For open national competitive procurement, Indonesia's national procurement procedures can be applied subject to the conditions specified in the PPSD and in the project text section of the Procurement Plan.



Risk of delays and procedural non-compliance due to procurement process following the government procurement regulations instead of the World Bank's Procurement Regulations.	<ul style="list-style-type: none">• Procurement shall be carried out as per the provisions of the World Bank's Procurement Regulations referenced in the loan agreement.• Including an explicit provision in the Project Operations Manual that the Bank's Procurement Regulations shall govern all procurement under the project and take precedence over government procurement regulations.• Requiring use of the World Bank's online procurement planning and tracking tool (STEP); regular monitoring and reporting of progress of procurement performance to ensure compliance with the World Bank's Procurement Regulations.
Starting the procurement process prior to obtaining the World Bank's no objection to the procurement plan.	<ul style="list-style-type: none">• PIU and/or pokja should check the STEP system prior to starting the procurement process to ensure that the World Bank has no objection to the procurement activity.
Rejection of lower priced bids due to narrow interpretation of qualification criteria or not seeking clarifications from bidders on factual/historic qualification information.	<ul style="list-style-type: none">• Specifying qualification criteria in bidding documents in an explicit manner such that there is no rejection of lower priced bids without seeking written clarifications from bidders on historical and factual qualification information if not provided in the bid.
Low procurement readiness in the first year of the project.	<ul style="list-style-type: none">• Procurement readiness will be enhanced by mobilizing resources to prepare terms of reference for critical consultancy services, specifications and draft bidding documents of key goods and works packages, training on procurement procedures, and STEP before project effectiveness.
Weak procurement monitoring and contract administration includes contract documentation.	<ul style="list-style-type: none">• The project will mandate use of the World Bank's online procurement planning and tracking tool (STEP) and regular reporting on procurement performance to ensure compliance with the World Bank's Procurement Regulations; these reports can be used for monitoring.• Monitoring of procurement and contract management compliance and performance will be strengthened through centralized oversight by the PMU with the support of a procurement consultant.

18. It is expected that civil works, goods and non-consulting services (if any) will be procured through Open National Competitive Procurement. Consulting services to support project implementation, for technical assistance and NGOs will be selected through the CQS and QCBS method. The selection of individuals consultants will be selected mostly through open national competitive selection.



19. **Frequency of procurement supervision.** The World Bank will oversee procurement through implementation support and procurement post-review of a sample of contracts awarded, based on risk. All contracts not covered under prior review by the World Bank will be subject to post-review during implementation support missions and/or special post-review missions, including missions by consultants hired by the World Bank. The World Bank may conduct Independent Procurement Reviews of all the contracts financed under the loan at any time.

Implementation Support Plan

20. **Joint Implementation Support.** The World Bank and the Government of Indonesia (GOI) will conduct implementation support missions at least twice a year, and more often in the first two years of project implementation. These missions will include field visits to the targeted sites and will be complemented by several thematic supervision and technical missions. Aide-Memoires and Management Letters will be issued at the conclusion of all formal missions. Findings, recommendations, and agreed decisions in the Aide-Memoire will be used jointly by the GOI and the World Bank to improve project implementation.

21. **The World Bank will maintain a core team based in Jakarta and Washington D.C., comprised of specialists in natural resources management, marine and fisheries aquaculture, community development, blue finance, financial management, procurement, social and environmental safeguards, and monitoring and evaluation (M&E).** The team based in Jakarta will maintain frequent and intensive coordination and collaboration with the GOI, particularly with MMAF and Bappenas. The team will collaborate with other relevant sectoral specialists, including World Bank experts on social sustainability and inclusion, finance, competitiveness, innovation, and climate change. Table 1.5 shows the estimated level of support during project implementation.

Table 1.54. Implementation Support Plan – Estimate of Skills and Resources Needed

Focus	Specialist	Estimated Annual Resources
Overall guidance, project management, and supervision	Task Team Leader	Six to eight staff weeks, two missions, site visits as needed
Technical supervision (MPA/marine conservation specialist)	MPA/Marine Conservation Specialist	Four to six staff weeks, two missions, site visits as needed
Technical supervision (sustainable fisheries management specialist)	Sustainable Fisheries Management Specialist	Four to six staff weeks, two missions, site visits as needed
Technical supervision (community-based coastal livelihoods)	Coastal Livelihood Specialist	Four to six staff weeks, two missions, site visits as needed
Technical supervision (blue finance)	Blue Finance Specialist	Four staff weeks, site visits as needed
Technical supervision (implementation)	Operations Specialist	Six staff weeks, two missions, site visits as needed
Financial management, disbursement arrangements, training, and supervision	Financial Management Specialist	Three to four staff weeks, two missions, site visits as needed



Procurement training and supervision	Procurement Specialist	Three to four staff weeks, two missions, site visits as needed
Environmental risk management, training, and monitoring	Environmental Risk Management Specialist	Four to six staff weeks, two missions, site visits as needed
Social risk management, training, and monitoring	Social Risk Management Specialist	Six to eight staff weeks, two missions, site visits as needed
Monitoring and evaluation implementation support	M&E Specialist	Two to three staff weeks, two missions, site visits as needed

ANNEX 2 – Gender and Climate Change

Table 2.1: Gender Gap Analysis and Result Framework

Gender Gap/Analysis	Actions	Indicator
<p>Women's representation and capacity in MPA management</p> <p>In Indonesia, women are underrepresented in marine and resource policy, governance, and management frameworks including being excluded from participation in community-based arrangements. At local levels, women also face barriers to leadership and decision-making roles.</p> <p>To address this gap, the project will focus on (i) gender-sensitive education and awareness activities; (ii) improving participation of women in public consultations and collaborative forums on MPA management; and (iii) ensuring that recruitment and training of MPA Management Unit and BLU staff and contractors is gender sensitive and extends opportunities for capacity development to women, especially.</p>	<p><i>Component 1: Institutional Strengthening and Infrastructure for Sustainable Management of MPAs and Coral Reef Fisheries</i></p> <ol style="list-style-type: none"> 1. Undertake targeted outreach to female MPA unit staff for training and capacity-building activities, to enhance women's representation in decision-making positions in MPA management institutions. 2. Establish a target percentage (25–35 percent) of women's representation in decision-making bodies (Conservation Community Groups, (<i>Kompak Kelompok Masyarakat Penggerak Konservasi</i>)). Outcome indicator in next column. 3. Promote women's participation in community outreach initiatives, specifically including collaborative forums (e.g., MPA Forum Koordinasi, [KOMPAK], and UPP Stakeholder Forum) and public consultations on MPA implementation. 4. Develop communications and outreach programs that consider existing social networks, literacy rates. 	<p>Female participants in decision-making stakeholder coordination forums (including MPA Forum Koordinasi, UPP Panel Konsultatif, and/or community KomPak) (Percentage). (Target: 30%)</p>
<p>Women's access to livelihood activities in MPAs</p> <p>There are limited opportunities for female-focused entrepreneurship in coastal communities, leading to a small number of female-led businesses and limited access of female entrepreneurs to credit, which results in fewer opportunities to expand their business in the fisheries, aquaculture, and tourism sectors.</p> <p>To address this gap, the project will focus on delivering gender-sensitive training and outreach to women's groups and women-led or managed businesses.</p>	<p><i>Component 2: Expanding Economic Opportunities in and around MPAs</i></p> <p><i>Subcomponent 2.1: Infrastructure for Sustainable Development in and around MPAs:</i></p> <ol style="list-style-type: none"> 1. Gender-informed economic assessments of MPAs, to identify gaps and context-specific entry points to address them. 2. Gender sensitive participatory economic development planning in target villages. indicator measures outcomes in improved access to economic infrastructure and services. 	<p>People supported by the project with improved access to sustainable economic infrastructure or facilities (Number) Of which 30% are women</p> <p>Coastal enterprises supported by the project which receive enterprise development assistance and/or receive finance (Number) (Target: 30% of which are led by women)</p>

	<p><i>Subcomponent 2.2: Sustainable business development and financial access in and around Protected Areas.</i></p> <ol style="list-style-type: none"> 1. Gender-sensitive training on entrepreneurship and business plan development. PDO indicator on MSMEs led by women with access to business development services and accessing finance. 2. Targeted outreach to women-led and managed businesses and community groups. 	
<p>Barriers to women's access to and control over assets (land, technology, financial inclusion):</p> <p>There are significant gender disparities in asset ownership. There are also disparities in access to formal financial institutions, and inclusion in livelihood development programs, which cause higher vulnerability of women to economic shocks. Unequal use of and control over land and productive assets (e.g., harvest and post-harvest technologies and assets, and agricultural, foraging, or fishing equipment, insurance, training, information, technology, extension services), is common.</p> <p>To address this gap, the project will focus on (i) inclusion of women in village planning processes and decision-making related to economic development and infrastructure development, (ii) improving the capacity of women-led MSMEs, and (iii) linking women-led businesses and community groups to opportunities to access finance.</p>	<p><i>Subcomponent 2.1: Infrastructure for Sustainable Development in and around MPAs:</i></p> <ol style="list-style-type: none"> 1. Ensuring inclusion of women in infrastructure and livelihoods planning processes and groups. Tracked through PDO indicator. <p><i>Subcomponent 2.2: Sustainable business development and financial access in and around Protected Areas.</i></p> <ol style="list-style-type: none"> 1. Support women's access to and control over productive assets, finance, and technologies in coastal communities through: 2. Gender-informed market assessments. 3. Gender-sensitive training on entrepreneurship and business plan development. Tracked through PDO indicator 4. Targeted outreach to women-led and managed businesses and community groups. 	<p>People supported by the project with improved access to sustainable economic infrastructure or facilities (Number) Of which 30% are women</p> <p>Coastal enterprises supported by the project which receive enterprise development assistance and/or receive finance (Number) (Target: 30% of which are led by women)</p> <p>Coastal enterprises supported by the project that receive finance for sustainable enterprise from state-owned or private institutions (Target: 30% of which are led by women)</p>

Table 2.2. Climate Adaptation and Mitigation Activities to be Implemented under the Project

Project Activities and Budget	Climate Adaptation Co-Benefits of Activities	Climate Mitigation Co-Benefits of Activities
<ul style="list-style-type: none"> • Overall approach 	<ul style="list-style-type: none"> • The project is designed using a resilience framework to strengthen MPA management effectiveness and to improve the sustainable use of coastal and marine resources for livelihood activities in a way that considers the impacts of climate change on resource use and vice versa. This approach ensures that project activities boost climate adaptation benefits from conservation and regeneration of important coastal ecosystems (coral reefs, mangroves, seagrass meadows), and reduce the vulnerability of target coastal areas and communities to climate shocks. • Effectively managed MPAs and reduced pressure on MPAs from livelihoods activities provide several ecosystem benefits for climate adaptation including (a) decreased sensitivity of coral reefs, mangroves, and seagrass beds to warming and acidification; (b) enhanced ecosystem recovery following climate-related disturbance events such as floods, storms, or bleaching; (c) protection against coastal erosion and floods; (d) increased assemblage of larger fish stocks that are more resistant to local extinction as climate stress increases, thereby sustaining fisheries productivity; (e) enhanced biodiversity from protected management promotes genetic diversity of marine organisms that provide raw material for climate change adaptation; and (f) protection of apex predators that confer increased stability to coastal habitats. 	<ul style="list-style-type: none"> • The project will increase MPA management effectiveness, which in turn will increase carbon sequestration and reduce carbon emissions from habitats within the MPAs.
Subcomponent 1.1. Infrastructure and Capacity Building for Marine Protected Areas Management (IBRD US\$80 million)		
<ul style="list-style-type: none"> • Gazette five reserved MPAs encompassing 1,600,000 ha of coastal habitats (Subcomponent 1.1.(a)) 	<ul style="list-style-type: none"> • The five MPAs to be gazetted are already delineated, reserved in regulation, and included in marine spatial plans, thereby minimizing the potential for adverse environmental and social risks. However, the gazette notifications of the five reserved MPAs results in legal recognition of these MPAs. Recognition is necessary to ensure that government resources can be directed towards these MPAs for activities that improve their management effectiveness, a key aim of the project. 	<ul style="list-style-type: none"> • Gazetting of MPAs is critical to enabling effective management of MPAs. Newly established MPAs stimulate increased carbon sequestration and decreased carbon emissions from target areas, through protection of carbon-rich habitats.
<ul style="list-style-type: none"> • Small infrastructure works and equipment, and capacity-building activities required to manage MPAs effectively (Subcomponent 1.1.(b), (c), (d), (e), (f)) 	<ul style="list-style-type: none"> • Activities under this Subcomponent are crucial to the achievement of the first PDO outcome to enhance the sustainable management of MPAs. They support investments within 20 MPAs to enhance the EVIKA management effectiveness score. Field assessments and benchmarking of MPA management plans to globally recognized standards will be used to identify specific priority investments and actions to improve management effectiveness in each MPA, in line with specified EVIKA scoring criteria. Target EVIKA ratings reflect strong management 	<ul style="list-style-type: none"> • These activities are critical to increasing effectiveness of MPA management. Increased management effectiveness of 8.3 million ha of MPA area will enhance the health of carbon-rich ecosystems (mangroves and seagrasses) in these MPAs, increasing their sequestration of carbon and thus reducing net GHG emissions.

- effectiveness of MPAs, thereby maximizing the climate adaptation and mitigation benefits from the MPAs.
- The infrastructure and equipment that will be financed for each MPA will differ but will be pre-assessed as required investments to operationalize and optimize key functions such as MPA management (management unit offices, signage, boundary markings), MPA supervision (small patrol boats, survey and surveillance equipment, safety at sea kits, jetties, mooring buoys), and education and public awareness (information centers, field laboratories, research centers). The pre-assessment will include climate considerations such as exposure to climate risks, and the consideration for infrastructure and equipment that promote low-carbon technologies. Education and public awareness campaigns will inform community groups and resource users such as fisher folk and eco-tourism operators on how MPAs contribute to climate adaptation. This Subcomponent will also finance operating costs for surveillance, biomonitoring, and habitat restoration, further improving MPA management. Specific climate considerations with the operating cost activities will include capacity to collect relevant climate-related information. For example, surveillance and monitoring activities will ensure compliance with MPA resource use regulations which will further enhance MPA management effectiveness and climate adaptation.
 - Capacity building activities will tackle identified human resource capacity needs in MPA management via training and accreditation of at least 160 MPA management unit personnel to strengthen operational capabilities of MPA management units, including at the provincial MPAs level. Capacity building activities are necessary to administer MPAs effectively and fairly, protecting biodiversity and boosting climate adaptation and resilience. The training curriculum includes educating MPA management personnel on habitat monitoring, analyzing carrying capacity and environmental impacts of coastal and marine resource utilization, all of which promote climate adaptation. Strengthened capacities of management personnel further support sustainability of investment and realization of the climate adaptation and mitigation co-benefits from the network of effectively managed MPAs the project supports.
 - MPA management personnel training activities will include specific training and accreditation curriculums such as the SKNRI 455/2015 on disaster mitigation and climate change adaption in coastal areas, which will increase climate change awareness of MPA management unit personnel.

<ul style="list-style-type: none"> Technical assistance to strengthen regulatory frameworks for sustainable economic use of natural assets (Subcomponent 1.1.(g)) <i>(including establishing inventories of GHG emissions and sequestration, and determining baselines, plans, and targets for GHG mitigation)</i> 	<ul style="list-style-type: none"> The project will make targeted investments to support government obligations under Presidential Regulation 98/2021 to help identify mechanisms and strategies to monetize ecosystem services such as blue carbon from carbon sequestering ecosystems within MPAs (seagrass, mangroves). Monetization of ecosystem services (majorly carbon sequestration and livelihood opportunities from seaweed farming, tourism-oriented recreation activities such as snorkelling, scuba diving and other recreational activities involving access to coral reefs) is a specific Government objective in order to generate the levels of financing needed to address climate change vulnerability through strengthened MPA management. 	<ul style="list-style-type: none"> Planned activities will enable tracking of efforts to reduce GHG emissions from the established and increasingly well-managed MPAs. Gross GHG emission reduction and removal from the mangrove ecosystems in the target MPAs total 144,798.9 tCO₂e over 30 years. Average net annual emission reductions/removals are 4,827 tCO₂e/year (see Table 2.3. for details). The extent of seagrass meadows in the target MPAs is not reliably mapped yet and will be done as part of this Subcomponent, in addition to seagrass meadows rehabilitation activities, which will further improve the management and monetization of GHG emission reduction benefits from the project.
<ul style="list-style-type: none"> Rehabilitate degraded coral reef habitats (Subcomponent 1.1.(h)) 	<ul style="list-style-type: none"> Activities toward rehabilitation of degraded coral reef habitats include development of technical manuals, standard operating procedures, trainings, monitoring and evaluation strategy, and implementation of rehabilitation plans within at least three coral reef rehabilitation zones. These activities aim to reduce and prevent climate change impacts and anthropogenic threats and to facilitate processes of natural recovery and resilience of coral reef habitats via passive rehabilitation processes, thus strengthening climate adaptation. The technical manuals, standard operating procedures and monitoring strategy documents will develop guidance based on climate-related considerations, such as how rehabilitation approaches affect coral reef health and resilience to climate change. The rehabilitation plans will aim to mitigate and reduce the specific causes of degradation through fisheries impacts, tourism impacts, anchor damage, or eutrophication, which will facilitate natural coral reef recovery processes. Combined, these activities will decrease the sensitivity of coral reef habitats in target MPAs to warming and acidification and facilitate recovery from coral bleaching. 	
<ul style="list-style-type: none"> Enhance participatory management and innovative partnerships for MPA management (Subcomponent 1.1.(i)) 	<ul style="list-style-type: none"> This activity will primarily finance creating, operationalizing, and strengthening three Public Service Agencies (BLUs) to oversee development of innovative sustainable MPA financing, which will enhance the sustainability of MPA management effectiveness achieved with the Project, thereby further strengthening climate adaptation. 	<ul style="list-style-type: none"> Establishment of the Public Service Agencies is critical to enabling effective MPA management and therefore for achieving emission reductions from MPAs.

	<ul style="list-style-type: none"> • Development of partnership agreements with community groups in and around MPAs to enhance efficiency and effectiveness of MPA management while promoting greater stakeholder engagement and stewardship promotes local ownership of natural resources, and accountability for natural resources use, thereby strengthening community-driven climate adaptation and resilience. 	
Subcomponent 1.2. Infrastructure and Capacity for Coral Reef Fisheries Management (IBRD US\$10 million)		
<ul style="list-style-type: none"> • Enhance monitoring of selected small-scale coral reef-associated fisheries in and around MPAs (Subcomponent 1.2.(a)) 	<ul style="list-style-type: none"> • Establishment of data control centers, and data collection at fishing ports to enable long-term trends to be identified and to provide early warnings of impacts such as those arising from climate change. Regular catch and effort data collection at fishing ports is a climate adaptation measure aimed at monitoring fisheries yield as it will enable climate relevant, and data driven conservation and management decisions on use of coastal and marine ecosystems for fisheries activities. Catch and effort data collection also improves the foundational database to increase fish stock harvest and consequently employment in coral reef-associated small-scale fisheries, thereby strengthening climate resilient livelihoods of small-scale fishers. • Fisheries monitoring and data collection activities planned will include climate-related data to inform the design of activities to minimize climate impacts on fish species and avoid sudden fishery closures in the fisheries management areas.^d • Development of technical manuals, and standard operating procedures for priority coral reef fisheries will include consideration for climate change impacts on fisheries. Capacity-building activities will include specific training on monitoring climate variables. These activities will improve fisheries management governance decisions and overall MPA management effectiveness, thereby strengthening climate change adaptation in the sector. 	
<ul style="list-style-type: none"> • Develop the infrastructure and capacity for ecosystems-based management of selected coral reef-associated fisheries within WPP 714, 715, and 718 (Key activities include upgrading existing ministerial-level professional competency 	<ul style="list-style-type: none"> • Development of institutional capacity for climate resilient ecosystem-based management of selected coral reef-associated fisheries in the three WPPs will include modules on the climate benefits of ecosystem management and on integration of climate change considerations in ecosystem management. This will promote a strong ecosystem-based management framework for coral reef fisheries. This improves adaptive capacity to climate vulnerabilities and contributes to identification and response to priority fishery management issues (e.g., exploited stocks and degraded fisheries habitat, abandoned, lost, discarded, or end-of-life 	<ul style="list-style-type: none"> • Effective system of fisheries management at ecosystem scales reduces GHG from the sector (by allowing for rationalization in boat numbers) and mitigates reduced livelihoods and food security risks from fish stock loss.

<p>standards on an ecosystem approach to fisheries management, trainings, drafting fisheries management recommendations for approval, and strengthening regulatory frameworks and instruments).</p>	<p>fishing gear management), thereby boosting climate change resilience of the sector.</p> <ul style="list-style-type: none"> Management recommendations will particularly outline management responses such as reducing the number of fishing licenses/quotas issued for specific overexploited fish stocks to reduce population pressure. The recommendations will also consider climate change projections in management responses for strengthening regulatory frameworks and instruments. 	
<p>Component 2.1. Infrastructure for Sustainable Economic Development in and around MPAs (IBRD US\$80 million)</p>		
<p>• Economic assessments of viable opportunities in and around MPAs aligned with MPA management plans</p>	<ul style="list-style-type: none"> Economic assessments will be climate-informed and take into consideration the climate risks that the economic opportunities face. They will (a) focus on activities that incorporate analysis of climate risks and adaptation measures, and identify opportunities to promote climate resilience in value chains; and (b) promote climate-adaptive business models that fit into sustainable MPA management plans in villages around MPAs, thus ensuring that livelihood activities do not pose additional stresses on the natural assets, and that resource sharing promotes equitable access to women who are often more economically affected by climate change impacts. Strategies to enhance community compliance with MPA management measures will include climate change impacts on the MPAs and describe the importance of MPAs for climate change adaptation/mitigation. This will further increase climate change awareness and adaptive capacity in target communities. Specific infrastructure/facilities financed for the various villages supported by the project will be tailored to village needs in line with each village's MPA management plans. Project interventions through infrastructure/facilities are direct measures to promote climate adaptation. For example, basic sanitation facilities at village level in locations not prone to climate risks will prevent pollution to coastal ecosystems, seaweed drying, and storage facilities with climate resilient design measures such as wider drains for flood management, and passive ventilation measures will enable enhanced seaweed farming which will further boast carbon sequestration and increased livelihood opportunities from seaweed farming. Drains and boardwalks, cooling facilities for fisheries villages improve climate adaptation. The design of infrastructure and facilities will include weather resistant materials to improve climate adaptation. These measures ensure infrastructure/facilities interventions are sustainable, climate-informed, 	<ul style="list-style-type: none"> Economic assessments will also help promote mitigation. Assessments will only promote business models that do not cause losses and damage of carbon-rich ecosystems (mangroves, seagrasses), thus helping to avoid emissions.

	and promote climate-resilient livelihood opportunities without increasing pressure on coral reefs and associated ecosystems.	
Component 2.2. Sustainable Business Development and Financial Access in and around MPAs (IBRD US\$10 million)		
● Site-specific Market Analysis of sustainable value-chain development opportunities	<ul style="list-style-type: none"> Proposed activities will increase climate resilience of target communities by increasing access to sources of income that improve resilience to the financial impacts of extreme weather events and reduce reliance on climate-vulnerable activities. Market analysis will be climate-informed and will promote climate resilience in value chain development and reduce the climate change impacts of identified opportunities. Specifically, market analysis will consider vulnerability of different promising sectors to climate change and explore opportunities in sectors that are less weather-dependent, with further considerations for vulnerability of sector activity areas to climate risks. 	<ul style="list-style-type: none"> Analysis will also help promote mitigation. Value-chain opportunities will only be defined as sustainable if they help reduce losses and damage of carbon-rich ecosystems, thus helping to avoid emissions.
● Support to MMAF to strengthen capacity of MSMES to develop bankable business plans and access finance	<ul style="list-style-type: none"> Strengthening coastal MSMEs will improve resilience against climate shocks in two ways: (a) expanded business ventures improve the financial capacity to cope with the economic impact of climate change by promoting economic diversification and reducing the economic dependence of climate-vulnerable economic activities; and (b) incorporation of business activities aligned with MPA management plans ensures that climate change considerations are made and that climate change risks are taken into account and that pressures on ecosystems from fisheries and tourism activities (that exacerbate climate pressures on those ecosystems) fisheries are reduced. 	
Component 3. Sustainable Financing for Marine Protected Area and Livelihoods (US\$4.5 million PROBLUE Grant)		
● Not eligible for co-benefits as this is grant-financed		
Component 4. Project Management (IBRD: US\$20 million and PROBLUE Grant \$0.5 Million)		
Project Management	<ul style="list-style-type: none"> This component supports management of the above activities. 	

Sources: a. The EVIKA is a scoring tool developed under the DG Marine Spatial Management decree 28/KEP-DJPRL/2020 on Technical Guidelines for Evaluating Conservation Area Effectiveness; Ministerial Regulation 21/PERMEN-KP/2015 on Partnerships for Marine Conservation Area Management. The scoring was recently established to ensure MPAs are delivering targeted biophysical and socioeconomic benefits to facilitate climate change adaptation. An EVIKA Gold rating denotes a “sustainably managed” MPA, Silver an “optimally managed” MPA, and Bronze a “minimally managed” MPA.

b. Roberts, C. M. et al. (2017). “Marine reserves can mitigate and promote adaptation to climate change.” c. Duarte, C. M. et al. (2013). “The role of coastal plant communities for climate change mitigation and adaptation.” d. FAO. (2018). “Impacts of climate change on fisheries and aquaculture.”

Table 2.3. Project Emission Reductions and Removals Compared to Baseline from the Sustainable Management of Mangrove Ecosystems under LAUTRA

Parameter	Avoided Deforestation in LAUTRA Target MPAs
Baseline emissions factors, tCO ₂ e ha ⁻¹ year ⁻¹	95
Total project area (extent of mangroves within MPAs) ^a	24,614 ha
Total effective project area of avoided deforestation (total area of deforestation) ^b	50.8 ha (135 ha)
Baseline emissions from project area (tCO₂e)	385,824.5
Estimated GHG emissions <i>reductions</i> against the baseline over 30 years (tCO ₂ e)	144,798.9
% GHG emission <i>reductions</i> against the baseline from effective project implementation	37.5%
Total GHG emissions <i>reductions and removals</i> over 30 years (tCO₂e)	144,798.9
% against the baseline over 30 years	37.5%
Average GHG emissions <i>reductions and removals</i> per year (tCO₂e) over 30 years	4,827
% against the baseline per year	1.3%

Note: a. This is the total mangrove extent within the MPA areas under LAUTRA. b. The estimated rate of loss across all provinces is estimated to be 0.11 percent per year, which equates to 27.1 ha per year or 135.4 ha in total over five years. The project is assumed to be effective at slowing the loss of 0.25 percent of mangrove extent in year 1, or 6.8 ha, which increases in 6.25 percent increments per year as the project is implemented, so that by year five the project is successful in halting 50 percent of ongoing deforestation (13.5 ha), or 50.8 ha in total out of 135.4 ha. c. A 30-year time frame is considered as it is a typical time frame for carbon emission reduction programs, and it is considered the economic lifetime of the project as per the Economic and Financial Analysis conducted for the project. Baseline emissions (or reductions) are calculated as GHGbiomass loss + GHGsoil loss - GHG sequestration. Seagrass meadows also play a critical carbon sequestration role. Improved MPA management effectiveness will conserve and avoid further deterioration of seagrass habitats within MPA boundaries. As yet, information on the extent and status of Indonesia's seagrass habitats is limited. The project will make an important contribution to developing Indonesia's national seagrass map and inventory and quantifying the carbon potential of this habitats. The current lack of data on seagrass extent means that these habitats have not been factored into the project's GHG calculations, hence these likely underestimate the project's actual emissions reduction impact from sustainable management of carbon sequestering ecosystems in target MPAs.