



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 04-May-2020 | Report No: PIDC29134

**BASIC INFORMATION****A. Basic Project Data**

Country Indonesia	Project ID P173391	Parent Project ID (if any)	Project Name Oceans for Prosperity Program - LAUTRA Phase 1 (P173391)
Region EAST ASIA AND PACIFIC	Estimated Appraisal Date Apr 30, 2021	Estimated Board Date Sep 24, 2021	Practice Area (Lead) Environment, Natural Resources & the Blue Economy
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Finance	Implementing Agency Ministry of Marine Affairs and Fisheries, Ministry of National Development Planning (BAPPENAS)	

Proposed Development Objective(s)

To improve management of fisheries and coastal ecosystems in target fisheries management areas and to improve the livelihoods of target coastal communities

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	200.00
Total Financing	200.00
of which IBRD/IDA	166.00
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	166.00
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Non-World Bank Group Financing

Counterpart Funding	34.00
Borrower/Recipient	34.00



Environmental and Social Risk Classification

Substantial

Concept Review Decision

Track II-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

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 265 million people living on more than 6,000 inhabited islands. It is the tenth largest economy with a total GDP of over US\$ 1 trillion (2018) and the only Southeast Asian member of the G-20. Between 2015 and 2019, Indonesia maintained an average real GDP growth rate of 5 percent. However, this has been revised down sharply to between 2.1 and -3.5 percent for 2020 following the onset of the global COVID-19 pandemic.¹ Indonesia has dramatically reduced its poverty rate from 24 percent in 1998 to below 10 percent in 2019. The income of the bottom 40 percent has expanded, although the pace of reduction has slowed recently. GDP per capita has steadily risen from US\$ 857 in 2000 to US\$ 3,847 in 2017. There is a growing middle class of around 115 million people who have escaped poverty but are yet to achieve full economic security.²
- 2. A large part of Indonesia's economy continues to be driven by unsustainable exploitation of natural resources tying economy's state to commodity cycles and undermines country's stock of natural capital.** Renewable natural resources such as agriculture, forestry, and fishing accounted for 12.7 percent of GDP in 2019.³ Although Indonesia's economy has diversified beyond agriculture over the past decade, fixed investment and growth remain closely tied to the prices of Indonesia's key export commodities, including palm oil, pulp and paper, timber, and rubber. In the next 25 years, Indonesia is predicted to experience lower land productivity, increased scarcity of renewable natural resource goods and services, and worsened impacts of climate change.⁴
- 3. Coastal communities are among the most vulnerable in Indonesia facing higher-than-national-average poverty rates and multiple threats to their livelihoods.** The poverty rate in coastal villages is 1.27 percent higher than in non-coastal villages, with average fisher income below the minimum wage.⁵ Coastal poverty is more pronounced in Eastern Indonesia, particularly the provinces of Maluku, Nusa Tenggara Timur, and Sulawesi.⁶ Coastal communities have limited access to services such as access to secondary school, safe water, electricity, and transportation. Targeted policies and investments are needed to reach coastal communities with high dependence on natural resources and vulnerability to economic shocks, including those emanating from climate change.
- 4. Natural disaster and climate change impacts are a growing source of vulnerability.** Climate change is expected to increase frequency of extreme weather events, reduce fish stocks' productivity, cause sea levels to rise and corals to

¹ World Bank (2020). World Bank East Asia and Pacific Economic Update, April 2020. Washington, D.C. ([link](#)).

² World Bank (2018). Aspiring Indonesia – Expanding the Middle Class. World Bank Group, Washington, D.C. ([link](#)).

³ World Bank National Accounts data. Agriculture, forestry, and fishing, value added (percent of GDP) ([link](#)).

⁴ USAID (2016). Indonesia: Costs of Climate Change 2050. United States Agency for International Development ([link](#)).

⁵ Cahagi, D and Gurning, R (2018). A review on Indonesian fishermen prosperity in coastal areas. Applied Mechanics and Materials, 874: 3-9.

⁶ BPS (2019) Indikator Ekonomi Provinsi Nusa Tenggara Timur 2018. Jakarta, Badan Pusat Statistik, Government of Indonesia



bleach, impacting low-lying coastal areas. Given high dependency on protein from seafood and high pressure on coastal natural resources, Indonesia's coastal communities are some of the most at risk globally.⁷ These shocks pose significant risks for the poor and vulnerable and undermine prospects of economic resilience by eroding savings and assets, as well as forcing households to defer crucial investments in their children.

Sectoral and Institutional Context

5. Indonesia's ocean resources contribute over US\$ 280 billion of economic activities annually, or more than a quarter of GDP⁸, and have irreplaceable value to the world. Indonesia is the world's second largest fishing nation, and fisheries contribute around 2.6 percent of GDP⁹ and generate US\$ 4 billion in export earnings annually. Maritime shipping and marine tourism are critical for the national economy, underpinned by the country's position at the center of major maritime trade routes and within a global hotspot of marine biodiversity. Seven out of the ten priority tourism destinations feature coastal and marine assets. Indonesia's oceans have significant global value. Indonesia's marine biodiversity ranks first in the world and the country's mangroves store around 3.14 billion metric tons of carbon, equivalent to one third of the carbon stored in Earth's coastal ecosystems.¹⁰

6. The fishing sector is critical for livelihoods and food security. Capture fisheries and aquaculture employ 2.7 million and 3.3 million people respectively, with 1 million additional workers involved in processing. Fishery production in 2018 included a marine catch of over 6 million metric tons and aquaculture production of over 4.95 million tons.¹¹ Women play critical roles in the fisheries value chain and account for as much as 50 percent of people engaged in the sector.¹² Fisheries supply more than 50 percent of animal-based protein in the national diet, making Indonesia one of the world's most fisheries-dependent nations. Small-scale vessels (less than 10 gross tons) account for more than 90 percent of Indonesia's total fleet and for more than 50 percent of production. Fishing methods range from traditional handline and cast net, trap and gillnet from non-motorized boats, to mechanized gears such as purse seines, longlines, and trawls. Catches include demersal species such as snapper, grouper and shrimp, and pelagic species, such as mackerel, anchovy, tuna, and squid.

7. Management of marine harvests is based on a decentralized system of eleven fishery management areas which remains only partially implemented. These fisheries management areas (or *Wilayah Pengelolaan Perikanan*, WPP) are expected to play a central role in Indonesia's sustainable fisheries management by facilitating a decentralized approach in defining optimal exploitation levels and allocating fishing rights while fostering coordination across levels and sectors of government. Fisheries Management Councils (*Lembaga Pengelola Perikanan*, LPP) have been established for each WPP, consisting of the Ministry of Maritime Affairs and Fisheries (MMAF), provincial government, academia as well as the private sector. However, LPPs are not allocated budget and regulations are missing. Fisheries management plans do not exist at the WPP level, which limits their capacity to effectively manage fisheries. WPP management is not yet harmonized with customary management of coastal and marine resources, which is common in some Eastern provinces.

8. Coastal¹³ ecosystems such as mangroves, reefs, and seagrass beds underpin Indonesia's fisheries and provide significant economic value to the country. Spanning around 3.5 million hectares (over 20 percent of global total),

⁷ WorldFish (2013). Implementing Ecosystem Approach to Fisheries Management in Small Scale Fisheries. EAFM Plan Report.

⁸ Total estimated value of ocean-based and ocean-related economic sectors in 2013, in 2019 US\$, of which marine construction – 35 percent, marine manufacturing industries – 26 percent, minerals, oil, and gas – 16 percent, fisheries and aquaculture – 11 percent, marine tourism and recreation – 10 percent. See Ebarvia, M. (2016). Economic Assessment of Oceans for Sustainable Blue Economy Development. *Journal of Ocean and Coastal Economics*, 2(2).

⁹ CIEC (2019). National accounts database. Fisheries and Gross Domestic Product time series. Fishery sector growth increased from 7.3 percent in 2014 to 8.3 percent in 2015, almost double the national GDP growth of 4.7 percent in 2015.

¹⁰ Laffoley et al (IUCN 2014), and Murdiyarto (2017)

¹¹ State of World Fisheries and Aquaculture (2018). Food and Agriculture Organization of the United Nations. Rome ([link](#)).

¹² Ministry of Marine Affairs and Fisheries (2011). Capture Fisheries Statistics of 2010. Publication Vol 11 No 1, Directorate-General of Capture Fisheries, Ministry of Marine Affairs and Fisheries, Jakarta. 182 p.

¹³ Indonesia defines coastal areas as "the transition area between land and ocean ecosystems that are affected by changes in both land and ocean",



Indonesia's mangroves serve as crucial nursery grounds for fisheries,¹⁴ and protect coastal communities and infrastructure from floods, storms, and coastal erosion, a protective service valued at over US\$ 387 million annually.¹⁵ Indonesia's coral reefs are the most expansive and biodiverse in the world and make a contribution to tourism revenues estimated at over US\$ 3.1 billion per year.¹⁶

9. Inadequate management threatens the economic and ecological value of these fisheries and coastal resources.

Fisheries face overexploitation that undermines stock resilience and economic returns by shrinking stocks and reducing their productivity. About 38 percent of Indonesia's fish stocks are overexploited and 44 percent are fully exploited.¹⁷ Over 40 percent of Indonesia's total mangrove stock has been lost in three decades – the highest rate of loss in the world (approximately 52,000 hectares per year)¹⁸ – mainly due to clearing for coastal development and aquaculture. If continued, this trend would lead to complete destruction of the country's mangrove stock in around 30 years. One-third of Indonesia's reefs are classified as being in poor condition due to climate change, destructive small-scale fishing practices (such as the use of explosives and poisons), and pollution, including plastics.

10. Livelihoods in Indonesia's coastal communities are heavily dependent on fisheries and coastal resources and thus at risk from degradation of these resources.

They also face significant barriers to benefit further from coastal and marine resources, including: (i) inadequate skills; (ii) limited access to finance to improve or diversify sources of income; (iii) limited access to markets; and (iv) limited basic infrastructure and facilities to support economic activities and wellbeing. Indonesian women are particularly disadvantaged by these barriers, in addition to often being marginalized from decision-making processes. Government programs on coastal communities have been implemented in a fragmented fashion, lacking linkages to the management of fisheries and coastal resources, therefore reducing their effectiveness.

11. Fisheries and coastal resources degradation are driven by inadequate policies and institutions, insufficient funding, and perverse incentives.

WPPs do not have budget allocation, regulations are lacking, and there is limited coordination across levels of government and sectors. Stakeholders' participation in decision-making is limited, particularly of women who are under-represented. Fisheries management plans are incomplete for many species. Data on fisheries and coastal resources is limited, fragmented, inaccurate, and insufficiently incorporated into decision-making processes. While marine spatial plans (MSPs) have been developed in 21 provinces, provincial governments have limited capacity to implement and enforce them. They have not incorporated MSPs into permitting systems nor aligned MSPs with provincial development plans. The large network of marine protected areas (MPA)¹⁹ in Indonesia lacks budget, sufficiently trained staff, local community, and private sector involvement, and faces overlapping regulations and mandates. Private and public entities responsible for management of fisheries and coastal resources have limited financial incentives to conserve or restore them. Government budget allocation does not consider performance in managing fisheries and coastal resources, therefore limiting sub-national governments incentives to protect them. Market mechanisms to incentivize private actors to provide ecosystems services remain critically limited.

12. Climate change and marine debris compound these challenges, undermining ecosystems' resilience. Indonesia is projected to see some of the largest decreases of fish biomass globally due to increased sea surface temperatures.²⁰ More than 80 percent of Indonesia's coral reefs are projected to experience severe bleaching in at least five out of ten years

and coastal waters as those within 12 miles of the coastline. Coastal resources include coral reef, seagrass, and mangrove ecosystems.

¹⁴ Indonesia Ministry of Marine Affairs and Fisheries (2019)

¹⁵ Burke, I. et al. (2002). *Reefs at Risk in Southeast Asia*. Washington, DC. World Resources Institute.

¹⁶ Spalding, et al. (2017). Mapping the global value and distribution of coral reef tourism. *Marine Policy*, 82: 104-113 ([link](#)).

¹⁷ Ministry of Marine Affairs and Fisheries Ministerial Decree 50/Kepmen-Kp/2017

¹⁸ Based on 2000-15 data from Ministry of Marine Affairs and Fisheries, and Ministry of Environment and Forestry (2019).

¹⁹ Marine protected areas include marine reserves, fully protected marine areas, no-take zones, marine sanctuaries, ocean sanctuaries, marine parks, locally managed marine areas, and other managed areas. By 2018, Indonesia established almost 23 million hectares of MPAs.

²⁰ 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 ([link](#)).



during the 2030s, thus reducing their tolerance to direct human impacts. Rising sea levels are expected to cause coastal flooding, directly affecting 23 million people in Indonesia's coastal zones by 2050.²¹ Ecosystems are further degraded by the large flow of plastics into oceans in Indonesia – 0.27 to 0.59 million tons annually,²² which additionally harms tourism and fisheries and may represent a human health hazard.²³ Abandoned fishing gear (“ghost gear”) causes significant economic damage. As an example, an estimated 90 percent of species caught in ghost gear are of commercial value.

13. Rebuilding fisheries stocks’ productivity and conserving and restoring coastal resources can deliver substantial economic benefits. An additional US\$ 3-8 billion annually in economic returns are estimated to be possible under optimal fisheries management relative to a declining baseline under status quo conditions.²⁴ Investments in basic infrastructure and handling practices could reduce post-harvest losses, estimated at 40 percent in some locations.²⁵ Investments in market access (including to international markets), increased skills, and infrastructure (such as cold chains and landing facilities) can add value to existing fisheries and aquaculture products. These investments, however, must be coordinated with fisheries management so as not to increase pressure on stocks.

Relationship to CPF

14. The proposed project, Oceans for Prosperity (*Lautan Sehat*, or LAUTRA), is aligned with the Bank's current Country Partnership Framework (CPF) (2016-2020) and the draft Systematic Country Diagnostics (SCD) which will inform the upcoming CPF (2021-2025). LAUTRA will contribute to the current CPF's Engagement Area 3: Maritime Economy and Connectivity, which highlights a need for support to the blue economy and improved fisheries management practices. LAUTRA activities directly address key constraints for Indonesia's growth and shared prosperity identified in the upcoming SCD, particularly under Pillar 4: Managing Natural Assets for Enduring Prosperity. LAUTRA will also contribute to address remaining pockets of poverty by targeting coastal communities which face higher poverty rates than the national average.

15. LAUTRA contributes to key Government priorities, and the development of Indonesia's ocean economy has been a Presidential priority since 2014. LAUTRA will contribute to the country's mid-term development plan (RPJMN 2020-2024), particularly to Priority Area 1: 'strengthening and improving resilience of the economy for quality growth', and Priority Area 6: 'improving the environment and resilience against natural disasters and climate change'. LAUTRA activities contribute to two of Indonesia's "Major Projects", prioritized by the second Widodo administration, namely those related to increase fishers' income and seafood export value by 2024. Also, LAUTRA directly contributes to Indonesia's 2017 National Ocean Policy, particularly in relation to the missions to 'sustainably manage oceans resources', 'strengthen oceans governance', 'improve the welfare of coastal and small island communities', 'achieve economic growth based on competitive ocean industry sector', 'finalized spatial and zoning regulations', and 'protected coastal and ocean environment'. Project activities support implementation of Sustainable Development Goal (SDG) 14 ("Life Below Water"). The project will contribute to the Government's Nationally Determined Contribution (NDC) aiming to reduce carbon emissions and risks from climate change to all development sectors, including maritime and fisheries sectors.

²¹ Barange et al (2018) Impacts of climate change on fisheries and aquaculture: Synthesis of current knowledge, adaptation and mitigation options. FAO Fisheries and Aquaculture Technical Paper 627. Food and Agriculture Organization of the United Nations, Rome

²² Indonesian Institute of Science, December 2019. ([link](#))

²³ One study found particles of plastic debris (“microplastics”) in 28 percent of individual fish and 55 percent of all species sampled from fish markets in Makassar. See Rochman, CM, et al. (2015). Anthropogenic debris in seafood: Plastic debris and fibers from textiles in fish and bivalves sold for human consumption. Scientific Reports 5:14340–14349.

²⁴ Based on analysis published in Costello, C. et al. (2016). Global fishery prospects under contrasting management regimes. Proceedings of the National Academy of Sciences 113(18): 5125-5129.

²⁵ FAO (2017). Case Studies on Fish Loss Assessment of Small-Scale Fisheries in Indonesia. Food and Agriculture Organization ([link](#)).



C. Proposed Development Objective(s)

To improve management of fisheries and coastal ecosystems in target fisheries management areas and to improve the livelihoods of target coastal communities

Key Results (From PCN)

- Fisheries management plans and harvest strategies for target fishery management areas implemented (number)
- People in coastal areas in target provinces with access to diversified income sources (number) (disaggregated by gender²⁶ and geographic areas)
- Value of ecosystems services provided by coastal and marine ecosystems in target provinces (US\$) (as measured by the Natural Capital Accounting approach)²⁷

D. Concept Description

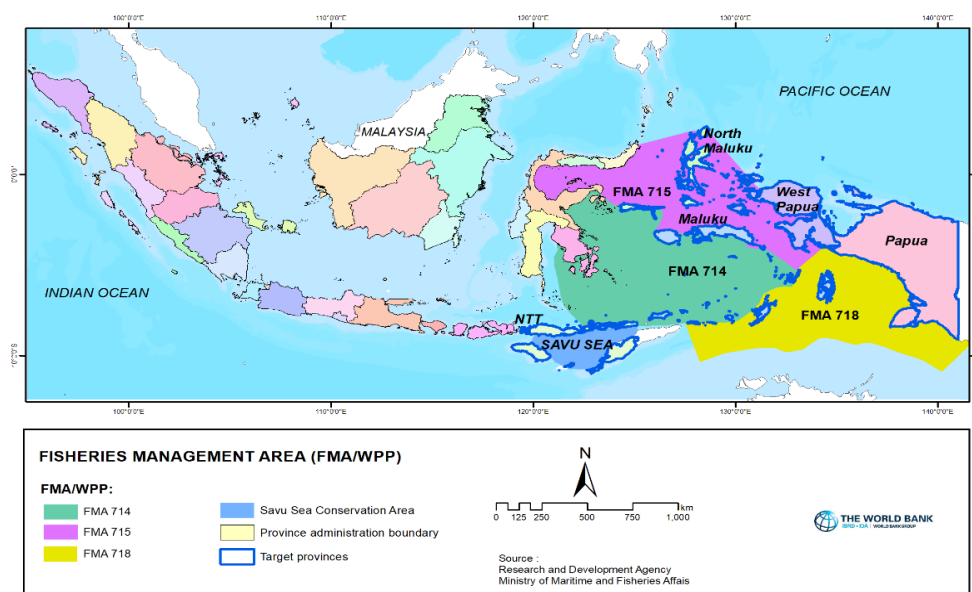
16. The LAUTRA Program would improve management of fisheries and coastal ecosystems and livelihoods of coastal communities through integrated investments and policy changes. Fisheries, coastal ecosystems and the livelihoods of coastal communities are closely intertwined. The integrated approach to implementation is a key value proposition of the program and a departure from the fragmented manner these challenges have been dealt with to date. Reforming fisheries management is expected to maintain productivity of fish stocks but it entails short-term costs to those who depend on fisheries. Support to coastal livelihoods would promote alternative livelihoods opportunities to allow communities to reduce reliance on fisheries and to mitigate the potential costs from fisheries management. Value-addition measures would increase returns-per unit of fish. Resilient coastal environments protect communities from climate change induced disasters and provide habitat for productive fisheries. Protecting and restoring reefs and mangroves would contribute to the livelihoods of coastal communities. Strengthened marine spatial planning, including by securing access and usage rights for coastal communities, and effective marine protected area management would ensure that investments in new economic activities (including those supported as 'alternative livelihoods') are planned strategically to maintain or enhance ecosystem services.

17. The LAUTRA Program is conceived as a series of projects (SoP) given the long-term policy changes and investments proposed. The Program goal is to *improve management and governance of fisheries and coastal ecosystems and to improve the livelihoods of coastal communities*. Through three phases, the Program would evolve into new geographies, thematic areas, mode of delivery and potentially implementing agencies, while keeping the same core elements (fisheries reform, coastal livelihoods and coastal resilience). SoP would allow flexibility to adjust to GOI's priorities and to lessons from previous phases, while ensuring continuity and predictability for the engagement in the agenda. The team will consider adding Performance-Based Conditions to the project during preparation.

18. LAUTRA Phase One is focused on Eastern Indonesia. At the request of GOI, the project (Phase one) would focus on fisheries management areas 714, 715, and 718 and the Savu Sea and within these areas the target provinces would be Maluku, Northern Maluku, Nusa Tenggara Timur (NTT), Papua, and West Papua (see map below). These areas have been selected due to: (i) high value of fisheries to local and national economies, (ii) high poverty rate, (iii) unique value of coastal ecosystems; and (iv) synergy with previous projects (including Bank-financed COREMAP Phases One and Two). Sites within these provinces for on-the-ground investments would be identified during project preparation.

²⁶ The team will conduct a gender assessment of the sector and proposed interventions during preparation.

²⁷ Natural capital accounting (NCA) of coastal ecosystems aims to strengthen the ability of the GOI to integrate coastal natural capital and ecosystem valuation in policies, programs and projects. This framework is based on the System of National Accounts with a focus on environmental resources and their interactions with economic activities. Regulating, provisioning, and cultural services such as carbon storage, coastal protection, and coastal tourism will be calculated. These values will inform baseline indicators for monitoring coastal and marine resilience.



COMPONENT 1. STRENGTHEN THE ENABLING ENVIRONMENT AND CAPACITY TO MANAGE TARGET FISHERIES AREAS

19. The component aims to maximize the economic yields of Indonesia’s fisheries by strengthening the enabling environment for sustainable fisheries management and by accelerating the implementation of management plans within target WPPs to ensure that fishing efforts align with the regenerative capacity of fish stocks. The component would finance human and institutional capacity building (government and other stakeholders), goods, services, and works at the national and sub-national levels.

Subcomponent 1.1. Strengthen the enabling environment for sustainable fisheries management

20. This subcomponent would strengthen the integration of fishery and marine sectors into national development planning. Activities would (i) support analytical studies and legal drafting to revise and strengthen policies and regulations²⁸ that address barriers to sustainable fisheries management; (ii) foster cross-sectoral and inter-jurisdictional coordination by financing the establishment and operation of a multi-stakeholder platform²⁹ for sustainable fisheries; and (iii) strengthen GOI institutional capacity to leverage and manage additional funding to finance to sustainable management of oceans, with an initial focus on sustainable fisheries (e.g., equipment and infrastructure to add value to seafood and, TA for fisheries certification schemes).

Subcomponent 1.2. Strengthening capacity of “fisheries management areas” (WPP) institutions

21. This subcomponent would strengthen capacity of WPP institutions and accelerate implementation of fishery management plans in target WPPs. Activities would (i) enhance fisheries and coastal resources data quality, availability and timeliness by strengthening monitoring (e.g., onboard observers, electronic monitoring, logbooks), research (e.g., port sampling, fishery-independent surveys), data management (e.g., OneData) and reporting (e.g., catch documentation,

²⁸ Some of the pre-identified policy gaps include: (i) regulations to allow for the full implementation of the WPP approach; (ii) regulations to clarify roles and responsibilities across levels of governance for fisheries and coastal management; (iii) adoption of instruments to incentivize actors, including coastal communities and the private sector, to adopt sustainable fisheries practices.

²⁹ The Platform would foster: (i) deliberation, agreement, and checking on progress towards the targets; (ii) adoption of an integrated action plan based on existing development indicators; and (iii) adoption of a monitoring framework to ensure lessons from the project implementation feed into policy making and into future phases of the program.



annual statistics) systems; (ii) strengthen science-based decision-making and management plans by incorporating harvest strategies; (iii) enhance human and institutional capacity of WPPs managing bodies (fisheries management councils and provincial governments), including by improving female representation;³⁰; and (iv) strengthen coordination mechanisms among WPP stakeholders (i.e., government, local communities, private sector).

COMPONENT 2. CONTRIBUTE TO LIVELIHOODS AND RESILIENCE OF TARGET COASTAL COMMUNITIES

22. This component would contribute to improving livelihoods, facilitating jobs creation and strengthening the resilience of coastal communities (including women) to sudden shocks and long-term changes such as the effects of disease pandemics or climate change. The activities would aim at promoting alternative sources of livelihoods and offsetting potential losses from strengthened fishery management. The project would finance capacity building, goods, services, infrastructure, and access to finance.

23. This component would leverage existing GOI programs: MMAF's "*Kampung Nelayan Mandiri*" (coastal livelihood development) and the Program *Keluarga Harapan Program* (PKH, conditional cash transfers). Activities to enhance market access would be implemented in synergy with the World Bank "Ports-led Development in Eastern Indonesia" (project under identification). Subcomponent Implementation would be ensured by MMAF (DG Capture Fisheries, DG Marine Spatial Planning, and DG Competitiveness), possibly in collaboration with other ministries.

Subcomponent 2.1. Promote business and create jobs in fisheries, mariculture and coastal tourism

24. This subcomponent aims to support businesses, particularly micro, small, and medium enterprises (MSME)³¹ and community groups in coastal communities to address barriers to increase monetary benefits from coastal and marine products (capture fisheries and mariculture)³² and from services (coastal tourism). Women-owned business would be targeted. Activities aim to (i) strengthen coastal communities' skills on business management, technical aspects of select products and services, and collective action such as community-based fisheries management. This would include supporting the expansion of existing training programs; (ii) finance public infrastructure to support value-addition to select products (e.g., cold storage, processing facilities, fish nurseries); and (iii) promote access to finance to coastal communities for business development. Adequate financial instruments for different business needs would be identified during project preparation, and could include matching grants, microfinance, community savings, and credit schemes. The project would seek to maximize the use of existing financial products, including those managed by MMAF. Beneficiaries would be required to comply with sustainability criteria in managing marine and coastal resources to avoid placing additional stress on natural resources. The project would tailor training, mentoring, and financial services to the needs of women.

Subcomponent 2.2. Pilot conditional cash transfers to target coastal households

25. This subcomponent would support affected households that may experience a loss in income from restrictions to natural resources by providing them with supplementary cash income. The subcomponent would (i) facilitate households (including those headed by women) to be included into existing national social assistance programs, such as the *Program Keluarga Harapan* (managed by the Ministry of Social Affairs)³³; (ii) starting in the second year of project implementation, pilot a conditional cash transfer mechanism that draws on community-based targeting methods as temporary compensation for loss in income arising from improved fisheries management measures such as seasonal fishing closures

³⁰ The FAO's Gender Assessment of Gender Assessment of Agriculture and Rural Sector in Indonesia found that women in the fisheries sector are often unorganized and lack access to public dialogues and decision-making.

³¹ 85 percent of all enterprises operating in the fisheries sector are Micro, Small, and Medium Enterprises (MSMEs). MMAF (2017).

³² Mariculture include products such as seaweeds, fish, octopus, shrimp, clams, oysters and others.

³³ Evidence shows that small-scale fishers and their households are often inadequately protected from shocks. Social Protection and Sustainable Natural Resources Management: Initial Findings and Good Practices from Small-Scale Fisheries (Bene; Devereux; Roelen); FAO Fisheries and Aquaculture Circular No. 1106 (2015).



or restrictions in the use of fishing gears. This temporary compensation would complement the promotion of alternative livelihoods (subcomponent 2.1).

Subcomponent 2.3. Facilitate market access for select seafood products

26. This subcomponent would support government entities in facilitating enhanced market access for specific seafood products (tunas, groupers, snappers, seaweed, blue swimming crab, and/or shrimp – products to be confirmed during project preparation) to international markets. Activities include (i) promoting policy reforms to enhance product competitiveness; (ii) strengthening capacity of authorities for export certification purposes; (iii) enhancing the knowledge among local private sector of international markets opportunities; and (iv) improving systems for product traceability to enable access to new markets. These activities would be closely coordinated with the implementation of fisheries management measures to prevent adding pressure to fisheries stocks.

COMPONENT 3: MAINTAIN AND ENHANCE RESILIENT COASTAL AND MARINE ECOSYSTEMS

27. This component aims to maintain and enhance the resilience of coastal and marine ecosystems within target WPPs and provinces to ensure that essential supporting ecosystem services and functions can withstand shocks and pressures, both natural and anthropogenic (such as marine plastics). The project would finance technical assistance to government (national and sub-national) and other stakeholders, goods, services, and small infrastructure. It will be implemented by MMAF DG of Marine Spatial Planning.

Subcomponent 3.1. Strengthen the implementation of marine spatial plans (MSP) and manage critical ecosystems

28. This subcomponent would strengthen MSP implementation at provincial and local levels to conserve and restore critical ecosystems such as mangroves. Activities would (i) strengthen capacity of national and sub-national government officers and of other stakeholders through short-term and postgraduate training; (ii) strengthen the enabling environment for MSP implementation;³⁴; and (iii) restore critical coastal habitats (mangroves, coral reef) through labour-intensive work and in collaboration with the private sector.

Subcomponent 3.2. Strengthen management of marine protected areas and community-based fisheries management

29. This subcomponent would enhance management effectiveness of target MPAs, particularly provincial-level ones, and facilitate advancement towards a sustainable and self-reliant MPA model. The activities would (i) support implementation of innovative MPA management models (such as co-management with private sector and local communities) and of sustainable financing mechanisms (such as conservation endowment funds); (ii) improve MPA management effectiveness through technical assistance, goods, services, and infrastructure to target MPAs; (iii) strengthen capacity of customary institutions in charge of coastal and marine management through extension services and support to community-based surveillance; and (iv) integrate community-based coastal and marine management plans into village-level planning processes.

Subcomponent 3.3. Reduce marine debris from fisheries and pilot cost-effective sea cleanup

30. This subcomponent addresses the challenge of marine debris, particularly plastics coming from fishing activities, and promote coastal cleanup. The activities would (i) identify policy and investment needs for cost-efficient coastal cleanup; (ii) pilot cleanup technologies in priority locations through goods and services, establish monitoring systems, and enhance public awareness and engagement; and (iii) provide equipment, public infrastructure, and incentives to accelerate retrieval, collection, and recycling of abandoned, lost, and discarded fishing gear ('ghost nets') by local fishing groups and the private sector.

³⁴ Examples include design of incentives for provincial governments to ensure MSP implementation, design of an MSP scorecard to evaluate MSP implementation and incorporate natural capital accounting (including valuation of ecosystem services) in decision making.



COMPONENT 4: PROJECT MANAGEMENT

31. This component supports the implementation, management, coordination, and oversight of the proposed project, including establishing and implementing a monitoring and evaluation (M&E) system, grievance redress mechanism (GRM), and training of the implementing entities on World Bank’s Environmental and Social Framework (ESF) and standards (ESS). This subcomponent would also finance the establishment and operations of the Project Management Office (PMO) at the national level (MMAF, Jakarta) and Provincial Project Implementing Units (PPIU, in target provinces), including costs of consultants to support implementation. The component would fund studies for the preparation of Phase 2 of the Program.

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

Summary of Screening of Environmental and Social Risks and Impacts

Environmental Risk Rating (Substantial)

32. Considering the type, locations, nature and magnitude of project activities, the environmental risk at concept stage is assessed as substantial. Project has potential for a significant positive environmental impact, but also for substantial negative impact, which can be mitigated during project preparation and implementation by applying the standard mitigation hierarchy to be described in a project-specific Environmental and Social Management Framework (ESMF). Range of mitigation measures required would relate to up-front environmental screenings, EIA and design of mitigation measures for the infrastructure related activities, as well as design and incorporation of the environmental screening methodology for development of MPAs management plans.

33. Under component 1 the project would focus on improving coordination mechanisms within WPPs, integrating research data bases and processes to strengthen the coordination between national institutions and provincial branches of MMAF and WPPs. As these activities would contribute to determining sustainable mechanisms for management of WPPs and result in improved coordination between the various institutions - it is expected to have potential positive impact on fostering conservation of existing natural resources, health of the existing fish-stock and surrounding ecosystems.

34. Environmental risk under component 2 results from investments in infrastructure such as cold storage, small processing facilities, small-scale tourism related infrastructure. These may have local negative environmental impacts, particularly if the facilities are located in protected areas, in which case they will be undertaken only after MPA management plans are available. Proposed infrastructure would be subject to ES screening, preparation of site-specific ES instruments and application of the conservation criteria. Project will not finance implementation of large-scale infrastructure projects.

35. Due to limited scale, potential risks would not be major, long-lasting or irreversible, and could be mitigated by application of the good engineering practice. Uncertainty of the nature of infrastructure, and/or specific locations could bring site-specific environmental risks would be dealt during Project preparation and implementation through development of project-specific ESMF, which would include several generic ES Mitigation Plans (ESMPs). Generic ESMPs would be, during project implementation phase, further developed and adjusted to fit each specific location.



36. Component 3 would focus on activities related to strengthening and implementation of MPA instruments that are environmentally positive, as their objective is to reduce degradation of coastal and marine resources. Incorporation of environmental screening criteria and development of innovative MPA management models would have potential positive impact, contributing to the creation of healthy marine environment and improved socio-economic situation. Activities related to marine debris would result in direct environmental benefit with a potential for subsequent nation-wide application, thus creating significant positive impact. The ESMPs, as part of the ESMF, would include procedures for ensuring re-use, re-cycle and where the above two are not possible, safe storage and disposal of these materials.

37. The risk related to Borrower's capacity will be mitigated by ensuring better coordination, provision of additional training to provincial agencies and regular monitoring of implementation of specific ES instruments. In order to facilitate the above, the project would include capacity building, TA and training activities directly focused to the project implementers. In order to deal with contextual risks, the project would undertake climate change vulnerability assessment in order to ensure suitable design and construction of the infrastructure within the project areas. Activities related to climate change vulnerability assessment are currently underway.

Social Risk Rating (Substantial)

38. Considering the type of project and nature of its activities, the social risk is rated Substantial due to potential risks and impacts and limited capacity of implementing agencies. Potential social risks include potential disturbance to coastal communities that rely heavily on marine resources for livelihoods. The presence of indigenous peoples (IPs) in the project locations i.e. WPP 714, WPP 715, WPP 718 and the coastal areas of Savu Sea is expected – such as Misool Timur customary community in Papua and the Bajau in Wakatobi. Impacts to indigenous people are expected to include changes to their customary resources' management, economic, and cultural practices. There is also a potential risk of sexual exploitation and abuse/sexual harassment (SEA/SH) in relation to some project activities, including research planning activities related to local communities, workers for infrastructure, and eco-tourism – although this risk is assessed as low.

39. Component 1 would strengthen the enabling environment for sustainable fisheries and capacity of fisheries management areas institutions through analytical studies, technical assistance, and cross-sectoral coordination. Potential risks include lack of consultative processes and transparency in decision making process that may exclude consideration of risks to local coastal communities and aspirations of the concerned stakeholders (coastal communities, indigenous peoples, women, and other vulnerable groups). This may be exacerbated due to remoteness of the project locations and inability of implementing agencies to reach out to those groups.

40. Component 2 is expected to generate positive impacts to coastal communities in the target locations through various programs including skills development, diversified livelihoods, and improved access to finance, investment and markets. Potential risks identified under this component include elite capture; exclusion of vulnerable groups within the communities from the project activities such as those who are extremely poor, women, disabled, elderly, and other marginalized peoples; risk of project activities such as eco-tourism program that are not adapted to social, economic and cultural circumstances of coastal communities, particularly if there was no sufficient consideration of IPs, thus adversely impacting their livelihood and cultural practices.

41. Component 3 would maintain and enhance resilience of coastal and marine ecosystems within WPPs and provinces to ensure that essential supporting ecosystem services and functions can withstand shocks and pressures, both natural and anthropogenic, by strengthening the implementation of MSPs and MPAs and reducing marine debris. Potential social risks under this component include livelihood impacts both intended and unintended from potential access restrictions



and enhanced enforcement in MPAs and risks to customary resource management systems that may differ from the management system and plans supported by the project.

42. Preliminary social assessment would be conducted during project preparation to understand general social baseline, institutional, and legal aspects including customary resource management of the target areas, as well as assessing the potential risks and impacts. Such assessment would rely on available public information and relevant researches, lessons learned from similar projects. The assessment would provide recommendation to strengthen public consultation mechanism and stakeholders' engagement and to enhance the synergies between conservation and social/ cultural aspects of the project and the coastal communities that will benefit and may be affected. Results of the assessment would be used to inform the project design, ESMF and relevant social instruments. Comprehensive social assessment would be conducted during project implementation when the exact project activities and locations have been determined. The assessment would inform ESMPs to address identified risks.

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