Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 01-Mar-2022 | Report No: PIDA32941

BASIC INFORMATION

A. Basic Project Data

Country	Project ID	Project Name	Parent Project ID (if any)
Indonesia	P178009	Indonesia Mangroves for Coastal Resilience Project	
Region	**Estimated Appraisal Date**	**Estimated Board Date**	**Practice Area (Lead)**
EAST ASIA AND PACIFIC	21-Feb-2022	20-Apr-2022	Environment, Natural Resources & the Blue Economy
Financing Instrument	**Borrower(s)**	**Implementing Agency**	
Investment Project Financing	Republic of Indonesia	Ministry of Environment and Forestry, Peatland and Mangrove Restoration Agency	

Proposed Development Objective(s)

To enhance the management of mangroves and the livelihoods of local communities in selected areas

Components

Component 1. Strengthening Policy and Institutions for Mangrove Management
Component 2. Rehabilitating and Promoting Sustainable Mangrove Management
Component 3. Improving Livelihood Opportunities for Mangrove Communities
Component 4. Project Management

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	419.00
Total Financing	419.00
of which IBRD/IDA	400.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	400.00
Non-World Bank Group Financing	
Trust Funds	19.00
Sustainable Landscapes MDTF	15.00
Miscellaneous 1	4.00

Environmental and Social Risk Classification

Substantial

Decision

The review did authorize the team to appraise and negotiate

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 significantly reduced poverty.** It is the world's fourth most populous nation, with 270 million people (2019) living on an archipelago of more than 6,000 inhabited islands. It is the world's 10th-largest economy, with a gross domestic product (GDP) of over US$1 trillion (2018), and the only Southeast Asian member of the G20. Between 2015 and 2019, Indonesia maintained an average real GDP growth rate of 5 percent. Indonesia dramatically reduced its poverty rate, from 24 percent in 1998 to less than 10 percent in 2019. The income of the bottom 40 percent rose, although the pace of reduction has slowed in recent years. GDP per capita rose steadily between 2000 and 2017, from US$857 to US$3,847, and the country's growing middle-class reached about 115 million people.[1] Growth fell sharply to an estimated 2.1–3.5 percent in 2020 following the onset of the global COVID-19 pandemic. In 2021, the economy contracted 3.5 percent during the third quarter, but was projected to rebound to 3.7 percent by the end of the year and is expected to accelerate to 5.2 percent in 2022.[2] The economy is forecast to rebound to 5.1 percent in 2023.[3]

2. **Indonesia holds critical natural resources of significant global and domestic importance.** Its vast forests, marine resources, and agricultural products provide crucial ecosystem and agroecosystem goods and services. The country is home to 10 percent of the world's tropical rainforests, 20 percent of its mangroves, and 36 percent of its tropical peatlands (which store roughly 28 billion tons of carbon).[4] Indonesia's 120 million hectares of forests are among the world's most diverse and productive. Its marine and fisheries subsector accounts is of crucial importance to the 60 million people living near the coast.

3. **A large part of Indonesia's economy continues to be driven by unsustainable exploitation of natural resources, which undermines the country's stock of natural capital.** Renewable natural resources such as agriculture, forestry, and fish accounted for 12.7 percent of GDP in 2019 and two-thirds of exports.[5] Growth

remains 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 projected to experience lower land productivity, increased scarcity of renewable natural resource goods and services, and more severe impacts of climate change.[6]

4. **Coastal communities are among the most vulnerable in Indonesia. Their poverty rates are higher than the national average, and they face multiple threats to their livelihoods.** The poverty rate in coastal villages is 1.27 percent higher than in noncoastal villages, with the average fisher earning less than the minimum wage.[7] Coastal communities have limited access to services such as secondary schools, safe water, electricity, and transportation. The 2.5 million households involved in small-scale fisheries are characterized by high poverty rates (one-fifth of Indonesia's poor come from fishing households) and vulnerability, partly because of declining ecosystem health and climate change.[8] Women are particularly vulnerable to economic shocks due to gender disparities in assets ownership, and lower levels of access to formal financial institutions and inclusion in livelihoods development programs[9]. Poverty rates are likely to increase as a result of the economic downturn caused by the extended COVID-19 crisis.[10] Targeted policies and investments are needed to reach coastal communities that depend on natural resources and are vulnerable to shocks, including from climate change.

5. **Vulnerability to climate change poses a key threat to the resilience of coastal livelihoods.** Coastal villages are prone to flooding, changes in fish stocks, and declines in the viability of coastal agriculture and aquaculture. Women are particularly vulnerable to economic shocks because of gender disparities in asset ownership, lower levels of access to formal financial institutions, and inclusion in livelihoods programs. Given their high dependency on protein from seafood and pressure on coastal natural resources, Indonesia's coastal communities are some of the most at risk globally.[11]

Sectoral and Institutional Context

6. **Mangroves provide unique and critical services to Indonesia and the world; they are the focus of this project because of the key role they play within the country's broader natural resources landscape.** Mangroves have enormous carbon storage potential, sequestering five times as much carbon as tropical forests[12] and twice as much as peatlands. They provide habitat for numerous endangered, threatened, and unique animal species. They contribute to human well-being by attenuating storm surges and dissipating wave energy, reducing flood risk, erosion, and damage to coastal communities and assets.[13] The value of this coastal protection exceeds US$10,000 per hectare a year in parts of Indonesia. Mangroves also play a key role as fisheries refugia (marine or coastal areas in which specific management measures are applied to sustain important species) and nursing grounds; they are also a source of nutrients for species that are commercially harvested. About fifty-five percent of the total fish catch biomass in Indonesia consists of mangrove-dependent species, total annual production of which is valued at US$825 million.[14] Mangroves also have tourism value of almost US$30 million a year, and firewood and timber extraction is worth an average of US$170 per hectare a year.

7. **Indonesia has more and more diverse mangrove forests than any other country.** Spanning about 3.4 million hectares, Indonesia's mangroves account for over 20 percent of the global mangrove area.[15] Indonesia hosts 40 of the 54 global species of true mangroves. Indonesia's mangroves store nearly 4,000 tons of carbon dioxide (tCO_2) per hectare,[16] (commonly referred to as "blue carbon"). About half of Indonesia's mangroves (1.82 million hectares) are "high quality," with no or minimal degradation. The remaining 1.58 million hectares

of degraded mangroves (mangroves that have been partially converted to other land uses, such as aquaculture ponds) provide an important opportunity for rehabilitation.

8. **Mangroves are a key component of livelihoods in coastal communities, providing important sources of food and income.**[17] In mangrove villages, local communities often harvest shrimp, eel, clam, crab, sea snail, and a variety of fish species from mangrove ecosystems, which provide them income and food for families.[18] Dependence on mangrove forests for livelihoods varies based on poverty levels and land ownership, with households that are poorer and landless more dependent on the common property resources available in mangrove forests than wealthier households. Surveys of villagers commissioned by the World Bank in 2021 confirmed that they regard mangrove forests as important sources of income and food and recognize these forests for their fish habitat value and nontimber forest products.[19]

9. **Coastal villages engage primarily in small-scale agriculture, fishing, and coconut palm harvesting for their livelihoods.** The levels of economic development and basic services are low in many coastal mangrove villages, and there is little formal enterprise or industry, with most producers small, informal, and unregistered. Most villages lack an industrial center and have no more than two micro-industries. The majority rely on liquefied petroleum gas (LPG) or wood as the primary source of fuel. Coastal livelihoods are usually diversified, with most households having more than one livelihood, and are engaged in activities such as construction, mining, and primary processing.[20]

10. **Most coastal communities have relatively weak market linkages and are poorly integrated into larger value chains**. Remoteness, inadequate physical infrastructure, and limited access to financial services remain obstacles to the development of livelihood in poor coastal communities. Coastal producers have limited access to formal financial services, such as savings' options, credit services, insurance, and transaction services. They have very limited access to markets outside the village and are poorly integrated into organized commodity supply chains.

11. **Women are integral to coastal livelihoods, and often provide secondary incomes that are more stable than incomes from the irregular or seasonal activities that are dominated by men, such as farming and fishing.** Most women engaged in economic activities in coastal areas are involved in postproduction of primary commodities, such as cleaning, processing, and selling fish. They also engage directly in fishing and fish processing, the sale of mangrove forest products, and local trade (running small shops). Women in low-income households tend to bear a greater burden of generating income for families than do women in better-off families.[21]

12. **Despite their significant value, Indonesian mangroves are still being lost—through deforestation, degradation, and unsustainable use—as a result of economic forces and institutional weaknesses.** In the last 20 years, Indonesia's mangrove stock has undergone deforestation and degradation at the rate of approximately 13,000 hectares a year.[22] Perverse incentives drive deforestation and degradation. Economic forces result in mangrove conversion to high-value commodities. Conversion to aquaculture ponds for seafood accounts for almost half of the loss, followed more recently by the development of oil palm plantations, which account for 16 percent of mangrove loss in Indonesia.[23]

13. **Conversion of mangrove areas into seafood aquaculture (shrimp, fish) has been the main direct driver of mangrove loss.** Increased demand for seafood has led to massive mangrove conversion in various parts of Indonesia. Conversion of mangroves to brackish water aquaculture results in the drastic reduction of ecosystem

goods and services. Rehabilitation of mangroves requires compromise by current land users, including the provision of concrete benefits to landholders.

14. **Lack of acknowledgment of, and the inability to capitalize on, the high and diverse values of mangrove ecosystem goods and services, reduce incentives for conservation.** Market mechanisms to incentivize private actors, including local communities, to provide ecosystem services, such as carbon storage, remain limited.[24]

15. **Adding value to rehabilitated and existing mangroves is a key part of successful mangrove restoration.** It can be achieved through promotion of alternative livelihoods and payment for mangrove ecosystem services (such as blue carbon) or labor in mangrove conservation and rehabilitation. Silvo-fisheries—the growing of mangroves within enclosed, actively managed ponds—are commonly recommended as a "win-win" solution, although further evidence is needed to ensure that this practice is a good one.

16. **Lack of coordination and insufficient collaboration by institutions are also driving mangrove loss.** Lack of overarching mangrove policies, inadequate enforcement of laws, and exclusion of communities in decision making results in loss of mangroves. More than 20 institutions in Indonesia have some responsibility for mangrove management.[25] Limited participation of subnational governments, communities, and the private sector in mangrove management also hampers coordination. Women play important roles in mangrove rehabilitation and conservation but are often excluded from broader planning and decision-making processes within communities[26]. At the national level, conflicting policies exist, with some policies aiming to protect mangroves and others encouraging aquaculture (particularly shrimp) and agriculture (oil palm) development for foreign cash earnings. Data and monitoring of the extent and condition of mangrove are limited and fragmented, making good management difficult. Climate change compounds these challenges by undermining the natural resource.[27]

17. **The degradation and loss of mangroves put coastal communities that are heavily dependent on these resources at risk.** Increasing flood risk and erosion directly affects the livelihoods of communities because of shoreline retreat and the loss of fishponds and agricultural land—as experienced in the heavily populated northern coast of Java. The loss of goods and services from mangrove conversion reduces access to nutritious food, energy (fuelwood), and healthy water resources.[28] Indonesian women and poor and vulnerable community members are disproportionately disadvantaged by the lack of access to, and control over, healthy productive mangrove resources.

18. **Mangroves are concentrated in nine provinces**[29] They are home to 48 percent of Indonesia's severely and moderately degraded mangroves and 41 percent of Indonesia's potentially degraded forests [30] (for example, brackish water aquaculture, erosional mangroves, and accretional areas).

19. **The Government of Indonesia (GoI) is taking bold steps to revert mangrove losses and rehabilitate degraded or deforested mangrove areas.** In 2020, it launched the National Mangrove Rehabilitation program, with the ambitious goal of restoring 600,000 hectares of mangroves between 2021 and 2024.[31] They allocated over US$50 million in the national budget to mangrove rehabilitation as part of the National Recovery Program to COVID-19, with funds used largely to pay for labor in coastal communities (cash-for-work). Over 30,000 hectares of mangroves were restored in 2021, through actions led mostly by the Peatland and Mangrove Restoration Agency (Badan Restorasi Gambut dan Rehabilitasi Mangrove [BRGM]). The program is supported by Presidential Regulation 120 of 2020, which broadened the mandate of the BRGM to include mangroves and extended its mandate until the end of 2024. In 2021, the GoI launched the updated National Mangrove Map, as

a part of the broader One Map initiative, signaling its intent to improve the quality of mangrove forest monitoring and the ability to measure progress in mangrove management efforts. The GoI is planning to adopt an overarching policy on sustainable management and conservation of the mangrove ecosystem and to strengthen multisectoral coordination platforms at the national and subnational levels, including the through the participation of stakeholders from nongovernmental organizations (NGOs) and the private sector.

20. **This project will support policy and institutional reforms as the foundation for more effective mangrove management, large-scale rehabilitation of degraded and deforested mangrove areas, and improved livelihoods of coastal communities.** Mangrove rehabilitation entails physical and ecological interventions on the ground (such as hydrological works and the planting of seedlings) to rehabilitate ecosystem functions (such as carbon storage, coastal protection, and biodiversity habitat).[32] Sustainable mangrove landscape management aims to attenuate the continued degradation of existing and rehabilitated mangrove areas through land use planning, patrolling and, most importantly, the delivery of benefits to local communities. Sustainable use of mangrove resources entails the harvesting of mangrove products, such as nontimber forest products, fish, and crab, to increase the value of the mangrove ecosystem for local communities. Increasing sustainable use also involves monetizing the ecosystem services provided by mangroves and ensuring that these benefits are shared with local communities, through blue carbon payments.

21. **The project seeks to promote green, resilient, and inclusive development among coastal communities by deploying a landscape approach to mangrove management (conservation and rehabilitation) while strengthening the resilience of coastal communities.** [33] It will promote landscape-level mangrove management by working with national, subnational, and local institutions (government, NGOs and local communities) to plan, execute, and evaluate mangrove management. Mangrove rehabilitation and management activities will be implemented at the community level by adopting the Mangrove Stewardship Village (*Desa Mandiri Peduli Mangrove*) approach, the GoI's village-based approach to empower communities and promote local economic development in mangrove areas. The project builds on years of experience in Indonesia with community-driven development (CDD) interventions and adapts cash-for-work arrangements used by the GoI in its COVID-19 National Recovery Program (*Program Pemulihan Ekonomi Nasional* [PEN]).

22. **The project will finance the rehabilitation of deforested and degraded mangrove areas and promote sustainable mangrove landscape management.** It will build capacity at the national, subnational, and village levels to assess sites for mangrove rehabilitation. It will use best-practice techniques to both increase the performance of mangrove rehabilitation and encourage institutional learning as a form of adaptive management. Successful rehabilitation will increase mangrove cover, biodiversity, productivity, and the value of mangrove ecosystem goods and services. These changes will increase environmental and socioeconomic resilience, providing an enhanced, diversified commodity base to improve livelihoods and safeguard coastal communities against shocks and disturbances, both natural and anthropogenic. The project will build capacity at the national and subnational levels, support policies, and strengthen inter-institutional coordination to conserve and promote the sustainable use of existing mangroves to prevent further degradation and deforestation. It will support the GoI in leveraging additional finance from payments for "blue carbon," which is expected to be stored in rehabilitated mangroves and areas where conversion is avoided through conservation.

23. **The project will improve local communities' livelihoods,[34] understood as the broad range of activities people engage in and assets they use to support themselves.** A livelihood is "sustainable" when it allows an individual to cope with and recover from stresses and shocks and maintain his or her capabilities and assets, both now and in the future, without undermining the natural resource base. Livelihoods have five dimensions,[35]

which are addressed through project activities and measured in the project results framework. The project addresses all five dimensions, through participatory, community-based activities at the village level and inclusive enterprise development activities.

24. **The project aims to strengthen the absorptive, adaptive, and transformative capacities of the government, institutions, communities, and individuals to shocks and stresses, including climate change.** Reducing the risk of exposure of communities to negative impacts through ecosystem protection and enhancing their preparedness would increase their resilience. Building skills and knowledge would increase the capacity to anticipate, learn, respond to, and recover from shocks and stresses. Strengthening new and improved livelihood opportunities and providing individuals with assets and resources could help reduce future risks and allow them to take advantage of new opportunities and adjust to new situations. Integrating sustainable resource management into village-level planning and increasing the role of women in mangrove management and village leadership could develop transformative capacity over time. The development of multistakeholder forums in target provinces to facilitate mangrove management builds both resilience and adaptive capacity by operationalizing institutions and networks that learn and store knowledge and experience, create flexibility in problem solving, and balance power among interest groups.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

To enhance the management of mangroves and the livelihoods of local communities in selected areas

Key Results

PDO-Level Indicators

1. Policy framework for mangrove management improved (Score)
2. Mangrove area rehabilitated and managed (Hectares)
3. People using sustainable livelihood activities supported by the project (Percentage of which are women) (Number)

D. Project Description

25. **M4CR will be implemented within nine provinces that contain a significant portion of existing and degraded mangroves areas, with an initial focus in four provinces.** These areas are the priority areas identified in Presidential Regulation No.120/2020. The initial four provinces are East Kalimantan, North Kalimantan, North Sumatra and Riau. Additional provinces may be added during project implementation at the Borrower's request and agreement with the Bank. Sites within the selected provinces will be identified during project preparation and implementation, using a robust site identification process that is detailed in the Project Operations Manual (POM).

26. **The project will be financed through Investment Project Financing (IPF) with Performance-Based Conditions (PBCs).**[1] Of the US$400 million of financing from the International Bank for Reconstruction and Development (IBRD), US$100 million is expected to be disbursed against PBCs and US$300 million as input-based financing. The SLMP Multi-Donor Trust Fund (MDTF) will provide US$15 million of grant funding to finance Subcomponents 1.1, 1.2, and 1.3, in line with the fund's goal of supporting improved landscape management. The Indonesia Oceans, Marine Debris and Coastal Resources MDTF will provide US$4 million of grant funding to finance Subcomponent 1.4, in line with its goal of promoting innovations in blue finance.

27. **PBCs will sharpen the project's focus on key results.** They will be used to finance activities under Subcomponents 2.1 and 2.2, with costs partially shared by PBC– and input-based disbursement. Component 2 will be partially implemented through the IPF-PBC modality (up to US$100 million). The PBCs are expected to motivate an effective mangrove rehabilitation process and the delivery of sustained results over the long term while enhancing the GoI's capacity to use results-based financing. Mangrove rehabilitation efforts by the GoI have traditionally been assessed based on investments made (such as labor engaged or seedlings planted) rather than on results. The PBCs incentivize performance on the ground while improving the quality of GoI spending, as some funds are disbursed against outcomes, not outputs. Table 1 describes the justification for each PBC. Section VII presents the full PBC descriptions.

Table 1. Justification for the Performance-Based Conditions

Performance-Based Condition	Justification	Indicative allocation (US$ millions)
Mangrove area with appraised and approved rehabilitation plans (hectares)	Ensures that the key steps of assessment, design and planning for rehabilitation and monitoring (formalized in rehabilitation plans) are carried out. Plans ensure that activities are conducted in suitable areas and follow appropriate techniques and processes (output).	18
Mangrove area under rehabilitation and management (hectares)	Ensures that rehabilitation is implemented throughout the identified area based on agreed upon technical guidelines (output).	30
Mangrove area rehabilitated and managed (hectares)	Ensures that areas that have been rehabilitated experience a minimum survival rate, measured by stem density after 18 months of implementation on the ground (outcome).	45
Subnational mangrove management plans submitted for approval and adopted (number)	Ensures that mangroves within the target provinces are managed based on a plan that has the buy-in of the relevant authorities (outcome).	7

28. **PBCs will be verified using a verification protocol.** The GoI will appoint the Finance and Development Supervisory Agency (*Badan Pengawasan Keuangan dan Pembangunan* [BPKP]) and third-party agencies as independent verification agents. The BPKP is an official government verifying agency with experience with other World Bank–financed operations. The Ministry of Environment and Forestry (MoEF) will hire independent third-party entities with qualifications, experience, and terms of reference satisfactory to the Bank to carry out the verification activities for certain PBCs (see Section VII for details on the verification protocol).

Summary of Project Components

29. ***Component 1. Strengthening Policy and Institutions for Mangrove Management (Grant: US$19 million; Subcomponents 1.1-1.3 led by MoEF; Subcomponent 1.4 led by CMMAI).*** Component 1 aims to strengthen enabling policies and institutions to improve the management and financing of mangrove ecosystems.

30. Subcomponent 1.1: Strengthening Policy, Governance, and Coordination (SLM MDTF: US$4 million). This subcomponent will support: (a) development of a national regulation and national action plan for sustainable mangrove management; (b) development of subnational regulations on mangrove management ; (c) enhancement of cross-sectoral coordination on mangrove management by supporting national and subnational coordination bodies; (d) capacity enhancement of stakeholders involved in mangrove management through knowledge exchanges; (e) strategic communications campaigns; (f) analytics on mangrove management; and (g)analytics, policy dialogue, advocacy and public consultations on land tenure issues in mangrove areas.

31. Subcomponent 1.2: Improving and Updating the National Mangrove Map (Peta Mangrove National [PMN]) (SLM MDTF: US$4.7 million). This subcomponent will support improvement and updating of the national mangrove map through, *inter alia*: (a) identification and inventory of mangrove data; (b) design and implementation of a web-based spatial data portal; (c) improvement of institutional capacity in mapping mangroves and provision of related infrastructure; and (d) generation and dissemination of data and mapping products.

32. Subcomponent 1.3: Registration and Monitoring of Mangrove Rehabilitation and Sustainable Mangrove Management (SLM MDTF: US$6.3 million). This subcomponent supports: (a) design and implementation of a monitoring system, including, *inter alia*, a comprehensive monitoring methodology and its governance mechanism; (b) design and establishment of a mangrove sampling network with permanent plots; (c) update of the national carbon registry to include mangrove ecosystems; and (d) integration of the monitoring system into the national mangrove program.

33. Subcomponent 1.4: Facilitating Payments for Blue Carbon (Oceans MDTF: US$4 million). This subcomponent will support the development of a blue carbon program for making emissions reductions generated under the project eligible for payments on international markets for carbon offsets, including, *inter alia*, through undertaking of necessary analysis and research, systems building, development of carbon regulatory framework, market testing, and capacity building for blue carbon finance readiness.

[1] The team explored using the Program for Results (PforR) instrument. It was unable to do **it** because the social and environmental risks of the project are considered high and the National Mangrove Program has not yet been formally institutionalized.

34. ***Component 2. Rehabilitating and Promoting Sustainable Mangrove Management (IBRD: US$300 million; led by the BRGM and MoEF).*** Component 2 aims to rehabilitate and manage mangroves through a landscape approach. It supports mangrove rehabilitation and sustainable mangrove management at the provincial and village levels in target provinces.

35. Subcomponent 2.1: Large-Scale Community-Based Mangrove Rehabilitation (US$290 million). This subcomponent will rehabilitate mangroves in selected villages in the target provinces, following global best practices and a robust step-wise process [2]It will support, *inter alia*: (a) institutional strengthening at the village level; (b) establishment of mangrove management field school groups; (c) assessment and selection of mangrove rehabilitation sites; (d) training of local facilitators on mangrove rehabilitation; (e) development of village-level mangrove rehabilitation plans; (f) rehabilitation of mangroves through a cash-for-work program, including provision of equipment and hand tools; and (g) monitoring and mid-term corrections of rehabilitated sites.

36. Subcomponent 2.2: Sustainable Mangrove Management (US$10 million). This subcomponent will support the sustainable management and protection of mangroves in select areas of the target provinces through, *inter alia*: (a) formation and enhancement of stakeholder forums in Target Provinces to strength mangrove landscape management; (b) preparation and adoption of mangrove landscape management plan for each selected large-scale mangrove landscape; (c) strengthening institutional coordination at the local level; (d) implementation of mangrove protection activities, including training, awareness campaigns, forest monitoring, at the village level; and (e) training on community-based protection, assessment and mapping of mangroves.

37. ***Component 3. Improving Livelihood Opportunities for Mangrove Communities (IBRD: US$80 million; led by BRGM and MoEF).*** Component 3 supports the development of livelihoods and sustainable enterprises in target villages to reduce the degradation pressure on mangrove forests and improve sustainable livelihood opportunities. It will be financed through expenditure-based IBRD disbursements.

38. Subcomponent 3.1: Promoting Community-Based Livelihoods (US$15 million). The subcomponent will support sustainable, community-based livelihoods activities in select areas of the Target Provinces through, *inter alia*: (a) carrying out rapid local livelihood assessments to develop tailored field training manuals for coastal field schools and enterprise skills training activities; (b) training of various stakeholders to support sustainable production practices and enterprise skills training; (c) acquisition of equipment and basic packages of inputs for participants in the training programs; and (d) technical assistance to support training activities.

39. Subcomponent 3.2: Coastal Enterprise Development (US$65 million). This subcomponent will develop and support growth of sustainable enterprise activity in coastal communities through, *inter alia*: (a) carrying out site-specific market assessments; (b) Coastal Enterprise Development Matching Grants to support coastal producer groups and/or buyers to finance business plans, capital and operating costs of new or expanded businesses; and (c) technical assistance to support development and implementation of the business plans to be supported by Coastal Enterprise Development Matching Grants, including on linkages with financial services.

40. ***Component 4. Project Management (IBRD: US$20 million).*** This component will support project management and coordination activities to ensure that the project is effectively managed and in accordance with fiduciary and

[2] Global best practices refer to mangrove rehabilitation techniques successfully applied in Indonesia and/or other countries. They normally consider community participation, site-level planning, site-specific physical and socio-economic conditions.

environment and social risk management requirements. It will provide support for the PMO and PIUs in managing and overseeing project activities, including, *inter alia*: (a) staffing; (b) safeguards monitoring and compliance with ESCP; (c) monitoring, evaluation and reporting activities, including for carbon monitoring and verification of the achievement of PBCs; (d) communication and stakeholder engagement; (e) fiduciary management; (f) costs associated with maintenance of the GRM; and (g) overall Incremental Operating Costs, audit costs, monitoring evaluation.

Legal Operational Policies

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

Summary of Assessment of Environmental and Social Risks and Impacts

1. Based on available information, type of investments, institutional capacities, experience of implementing institutions with similar work and general implementation challenges, the environmental risk is assessed as substantial. The Project takes a comprehensive landscape approach to support the long-term, sustainable management of mangroves ecosystems and improve ecosystem services and livelihoods in target coastal communities in nine provinces, without causing any loss or conversion of natural forests or other ecosystems. The Project has potential for significant positive environmental impacts by rehabilitation of 75,000 ha and promoting conservation on existing 400,000 ha of mangroves, and by building capacity for these activities at national and sub- national level. The project will achieve significant net biodiversity gain over the long run. The substantial level of environmental risk is determined upon the inherent characteristics of the project, locations that may contain sensitive and fragile ecosystems and protected areas, disperse site locations and simultaneous work execution at multiple sites – and consequential requirements related to number of workers and site supervisors, logistics requirement for planting material's production, transport, management, quality control, monitoring and reporting. The project will apply robust mangroves rehabilitation process through 6 globally recognized techniques. Component 3 will support development of mangrove-based livelihoods to reduce degradation pressure on mangroves forests and improve sustainable livelihoods opportunities. It will promote livelihood planning and skill-building activities, incl. development of micro, small and medium enterprises. Activities under component 2 will include small-scale civil works, with details yet to be finalized. Component 1 will aim to strengthen enabling policies and institutions to improve conservation, sustainable use, adaptive management and financing of mangroves ecosystems – thorough updating of National Mangroves Map and improving data portal for mangrove information; development of monitoring system to track implementation progress; and general governance and coordination among the mangrove stakeholders. Component 1 will create the enabling conditions for receiving payment for blue carbon. Component 4 will cover project management and coordination activities, M&E, financial, safeguards, risks, communication, and others. Project activities do not involve large scale physical infrastructure works that imply significant negative environmental impacts. Cumulative impacts, direct and indirect environmental impacts are expected to be positive through reduction of emissions, reduction of erosion and other forms of land degradation, improvement of conservations status, biodiversity conservation and positive environmental effects of mangroves ecosystems. The environmental risks and impacts are related to general land-based management of restoration activities that are associated with specific work processes, like harmful use of pesticides, invasive species and small-scale civil

works, management of communal and construction waste related to civil works and general health and safety of workers, stakeholders and general population alike. The project-related risks and impacts are spatially localized, temporary, site-specific, predictable and easily mitigated through applying standard mitigation procedures, good engineering practice and health and safety measures, including personal protective equipment for workers. To ensure adequate application of the risk mitigation hierarchy, project prepared an Environmental and Social Management Framework (ESMF) that includes a guidance for preparation of specific ESMPs and other environmental and social (E&S) instruments). ESMF also contains guidance on application and operationalization of various E&S instruments, to be customized for specific sites during project implementation.

2. The social risk is assessed to remain substantial considering i) the diverse social contexts within the nine priority provinces, such as existing and potential land and tenurial conflicts, presence of Indigenous Peoples and other vulnerable mangrove forest-dependent communities; ii) unproven institutional capacities to address complex social issues such as land/ tenurial rights which the project seeks to support; iii) complex political economy situations and stakeholders dynamics, involving those with vested interests in maintaining the status quo for profits and local political power. While the project may initially operate in areas considered as low hanging fruits, including clean and clear land parcels, intact forests, unclaimed lands, etc., subsequent phases of the project will eventually need to address difficult issues, particularly around land tenure where there are overlapping claims. Improving natural resource management in highly degraded mangroves where communities are highly dependent on unsustainable extraction of natural resources may potentially trigger and/or exacerbate the existing social tension over resource control and use and may result in conflicts if the project fails to secure broad community consensus and maintain social license to operate. While the overall project's outcomes under components 2 and 3 are expected to be positive, such outcomes are highly dependent on the quality of implementation of specific activities and the capacity of field implementers in ensuring inclusive engagement and participatory decision making, not only with the community but also with individuals and/or companies who seek to maintain the status quo. Under such circumstances, weak capacity to adhere to good practices in natural resource management, lack of inclusive consultative processes, participation and community ownership and transparency in decision making processes may heighten the risks especially in contexts where there are substantial trade-offs. Lack of inclusive engagement may disproportionately the vulnerable groups (i.e., poor coastal communities, Indigenous Peoples, women, and other vulnerable groups) who may be voiceless and excluded from participation. Such risks may be exacerbated due to remoteness of the project locations and lack of ability amongst the implementing agencies to reach out and meaningfully consult and engage these groups. Mobilization of community facilitators is expected to bridge the required engagement between the affected community and decision makers, and at the same time, provide additional assistance to the community in their transition towards sustainable practices. Furthermore, poor working conditions, including working in areas where there are personal safety risks, are also considered as an area of concern under Component 2. There is a potential risk of involvement of child labor in mangrove planting and maintenance activities. The use of child labor will be included in the negative list and the capacity of the project implementing agencies to monitor and enforce such requirements will be assessed and strengthened where needed

E. Implementation

Institutional and Implementation Arrangements

3. **Project implementation arrangements are embedded in existing institutions**. The Ministry of Environment and Forestry (MoEF) will act as the Executing Agency and will be an Implementing Agency (IA). The other IAs are the Peatland and Mangrove Restoration Agency (BRGM), Coordinating Ministry of Maritime Affairs and Investment (CMMAI) and the Indonesia Environmental Fund (IEF). Figure A1.1 provides an overview of the

institutional arrangements.

4. **A National Steering Committee (NSC) will be established** to provide strategic guidance on project implementation. It will include members from the MoEF, BRGM, the Ministry of Marine Affairs and Fisheries (MMAF), the Ministry of Finance, the Ministry of Home Affairs, the Ministry of Villages, and the Ministry of National Development Planning (Bappenas). It will be formally established and chaired by the Coordinating Ministry of Maritime Affairs and Investment (CMMAI) and meet at least twice a year.

5. **The MoEF executes the project** through a Project Management Office (PMO) housed at the Directorate General of Watershed Management and Forest Rehabilitation (DG PDASRH). The PMO will ensure that the project is implemented in line with its design and the legal agreements governing it. To do so, it will submit annual project work plans, budgets, and required reports (for example, monitoring, safeguards, fiduciary) and consolidate inputs from the implementing agencies.

6. **The project will be implemented through three PIUs, housed at MoEF, BRGM, CMMAI and the IEF**. The PIU at MoEF will be responsible for activities under Components 1.1, 1.2., 1.3 and 4. It will be led by the Secretary of DG PDASRH. The PIU at BRGM will be responsible for activities under Components 2 and 3. It will be led by the Secretary of BRGM. The PIU at CMMAI will lead Component 1.4. The PIUs will include teams of administrative and technical specialists as well as consultants, who will assist in the design, execution, supervision, and monitoring of project components. Details of the required personnel will be reflected in the POM.

7. **Based on Presidential Regulation No.120/2020, BRGM's mandate will expire in December 2024 and MoEF will take over BRGM's project responsibilities from then on**. During the first year of the project, the MoEF and BRGM will prepare a strategy detailing how this transfer will be handled.

8. **BRGM will implement local-level activities under Components 2 and 3, in collaboration with MoEF**. Activities that take place within the forest estate (*Kawasan hutan*) will be coordinated with MoEF's Provincial Representation Office (UPT/Balai); activities in non-forest areas will be implemented by BRGM, in collaboration with subnational governments and/or NGOs.

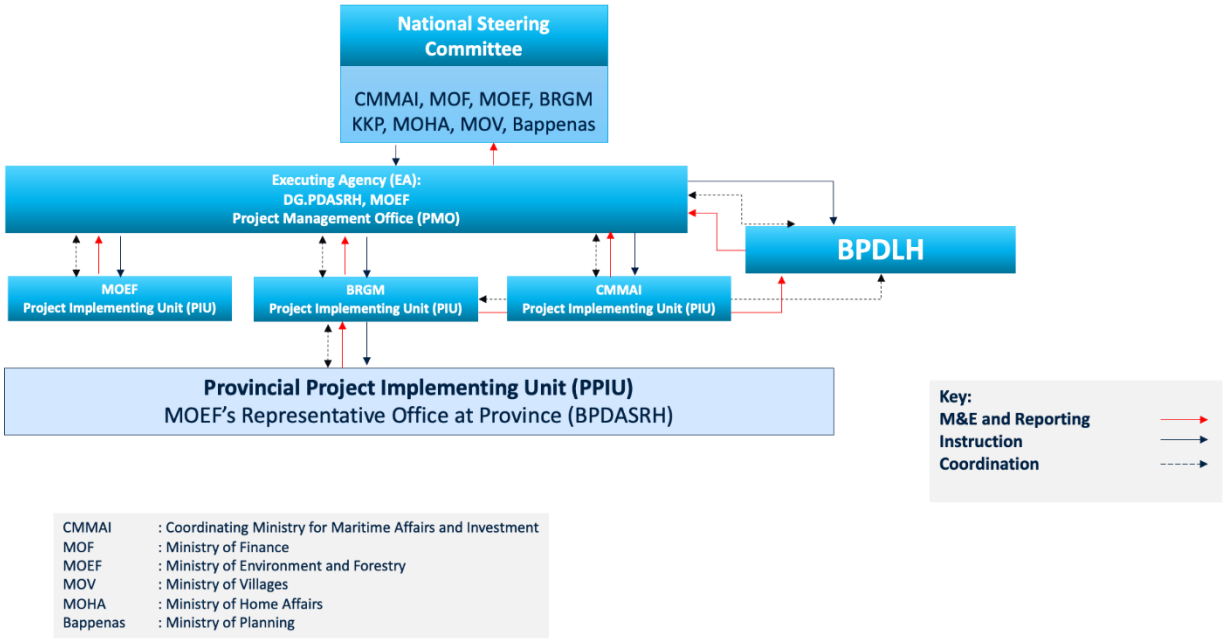
9. **Provincial Project Implementation Units (PPIUs) will be established in each target province**, under MOEF's Provincial Representation Office (UPT/Balai), to support the implementation of project activities implemented by different agencies (subnational office/dinas, NGOs, etc.). The PPIUs will coordinate with the PIU at BRGM on technical project implementation aspects and with IEF for funds utilization issues. The POM will detail the roles and responsibilities of the PPIUs.

10. **CMMAI will lead Component 1.4 – Facilitating Payments for Blue Carbon.** CMMAI will conduct studies, support cross-sectoral coordination, and lead policy work to leverage payments for blue carbon (Component 1.4). They will work closely with MoEF, BRGM and other ministries, including the Ministry of Marine Affairs and Fisheries which has a mandate to monitor blue carbon.

11. **The IEF will administer project funds and act as one of PIU.** It is a Public Service Agency (*Badan Layanan Umum [BLU]*) under the Ministry of Finance (MoF). It will coordinate with the MoF to withdraw funds from the Treasury general account of the MoF (*Rekening Kas Umum Negara* [RKUN]), disburse funds to the PMO, PIUs,

and PPIUs, and implement some procurement activities. The IEF will reduce the administrative burden on PIUs and support the PMO in consolidating financial reporting from PIUs and PPIUs.

Figure 1. MC4R Institutional arrangements



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