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DEFINITION OF TERMS

Blue Economy - Sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of ocean ecosystems and water resources. (IFC, 2022).

Blue Finance - Investments dedicated to finance or refinance activities that contribute to oceans protection and/or improved water management.

Blue Loan - Loan that is aligned to the Green Loan Principles and where the proceeds are exclusively dedicated to finance or refinance activities that contribute to oceans protection and/or improved water management.

Blue Bond- Fixed income instrument that is aligned to the Green Bond Principles and where the proceeds are exclusively dedicated to finance or refinance activities that contribute to oceans protection and/or improved water management.

Blue Impact - The measurable variation in a physical, chemical, or biological variable of oceans ecosystems or water related systems as expressed by a quantitative indicator.

Financing Instruments or Mechanisms - The method in which financial resources are transferred from the source to the MPA's management. This can include annual budgetary spending, grants, loans, bonds, sukuks, and others (Bohorquez, 2022).

Return-seeking investment - An investment occurs when groups or individuals put cash or capital into an asset or public or private entity (a government or business) to realize future **financial** gain based on an increase in value of the asset or business. Investors typically demand financial returns that are adjusted for the risk of their investment (higher returns for riskier investments). Different types of investors may demand different levels of financial return; tolerate different levels of risk; have additional requirements of social, economic, and/or environmental outcomes; and/or have different timelines in which they expect to realize financial gains.

Sources of Finance - Where finance is originated. This can include government institutions, NGOs, philanthropic organizations, private investors, user fees, non-extractive use rights, carbon, payments from ecosystem services and various stakeholder groups representing different practices or industries from where funds can be leveraged (e.g., tourism, commercial fishing), and others (Bohorquez, 2022).

Impact investment: An investment that actively achieves positive (and measurable) social or environmental results while generating financial returns. To achieve these other objectives, impact investors are sometimes willing to wait longer for financial returns (patient capital), accept a lower return than commercial rates, or accept more risk. Impact capital usually flows to projects in several ways:

- Equity financing: A company sells stock or shares to investors.
- Fixed income/debt financing: Companies or governments borrow money from investors or financial institutions with an obligation to pay back the principal plus interest (also referred to as debt financing; this includes the sale of bonds).
- Lines of credit: Investors arrange for a line of credit to be extended to the borrower.
- Loan guarantees: Investors assume all or a portion of the debt obligation of a borrower if the borrower were to default.
- Hybrid investments: A combination of debt and equity.
- Sukuk Bond - a Sukuk bond is an Islamic financial certificate complying with Islamic religious law commonly known as Sharia. The issuer of a sukuk essentially sells an investor group a certificate, and then uses the proceeds to purchase an asset that the investor group has direct partial ownership interest in. (The Ministry of Finance of Indonesia, 2018).
- Sustainable Finance - Sustainable finance refers to the process of taking environmental, social and governance (ESG) considerations into account when making investment decisions in the financial sector, leading to more long-term investments in sustainable economic activities and projects (The European Commission, 2021).

ACRONYMS

APBN	National Budget
Bappenas	Ministry of National Development Planning Indonesia
BLU	Public Service Agency (*Badan Layanan Umum*)
BLU LPMUKP	Public Service Agency Fisheries Business Capital Mangement Institute (*Badan Layanan Umum Lembaga Pengelola Modal Usaha Kelautan dan Perikanan*)
BPDLH	The Indonesian Environment Fund (*Badan Pengelola Dana Lingkungan Hidup*)
BUMN	State Owned Enterprise
CMMAI	Coordinating Ministry for Marine and Investment Affairs
CSR	Corporate Social Responsibility
DIB	Development Impact Bonds
E&S	Environmental and Social Risks
EU	European Union
FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
GoI	Government of Indonesia
IFC	International Finance Corporation
MMAF	Ministry of Marine Affairs and Fisheries
MoEF	Ministry of Environment and Forestry
MoF	Ministry of Finance
MPA	Marine Protected Area
MSY	Maximum Sustainable Yield
OJK	Financial Services Authority (*Otoritas Jasa Keuangan*)
OECD	Organization for Economic Cooperation and Development
PEMSEA	Partnerships in Environmental Management for the Seas of East Asia
RAN GRK	National Action Plan for Greenhouse Gas Emission Reduction (*Rencana Aksi Nasional Gas Rumah Kaca*)
RPJMN	Medium Term National Development Plan (*Rencana Pembangunan Jangka Menengah Nasional*)
SBFI	Sustainable Blue Finance Institute
SDG	Sustainable Development Goals
SDG Bond	SDG Bond based on the SDGs Government Securities Framework 2021
SIB	Social Impact Bonds
SOE	State Owned Enterprise
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
WPP	Fisheries Management Area (*Wilayah Pengelolaan Perikanan*)
WB	World Bank Group

EXECUTIVE SUMMARY

This policy note informs the development of blue finance mechanisms in Indonesia, part of the Bank-supported Indonesia Sustainable Ocean Program. It has been shared with stakeholders representing Government Ministries and Agencies, Non- Government Organisation, Private Sector representatives and international agencies including United Nations Agency and Multilateral Development Bank (MDB). At a workshop in June 2022 for feedback. It has been updated to reflect the feedback provided.

This policy note builds on the World Bank's Oceans for Prosperity report (The World Bank, 2021) , which identifies the following priority sectors for engaging in blue finance: (a) sustainable fisheries (including aquaculture); (b) coastal and marine tourism; (c) managing coastal and marine assets (particularly marine protected areas) and (d) combating waste, plastics in particular. All these sectors experience a financing gap and require both capital investments and operational funds to ensure the long-term sustainability of the underlying ecosystems and natural capital. Marine protected areas (which protect mangroves, coral reefs, and seagrass beds) play a key role in providing ecosystem services that support near-shore economic activities, such as small-scale fisheries, aquaculture and marine tourism. Concurrently, marine debris, land-based pollution and unsustainable marine investments and fishing practices are negatively impacting any benefits provided by these natural assets and their derivative economic activities.

This document presents two broad recommendations to encourage the crowding in of finance to the sector. Firstly, to strengthen the enabling environment for mobilization, management, and utilization of blue finance through improved government spending and policy alignment. Secondly, it recommends the **development of blue finance strategies in collaboration with Bappenas and Ministry of Finance** based on the SDG Securities Framework developed by the GoI, with a particular focus on financing strategies for the operating and capital expenditure for Marine Protected Areas (MPA); investments in public infrastructure (e.g. landing sites, jetties, roads); and financing for SME and community based investments to enhance value chain performance.

The first part of this policy note describes the Indonesia context, the milestones achieved so far in the development of sustainable financing and the challenges and opportunities for to finance the transition to a blue economy. The second part proposes a roadmap for sustainable blue finance in Indonesia together with recommendations for the institutional capacity gaps that needs to be filled to implement the roadmap. The note is structured as follows:

- Section A provides a **background** of the context for which the policy note was developed and states the objectives of the note.
- Section B provides an **overview of the Indonesia blue economy sector** and introduces the rationale behind the development of blue economy financing in Indonesia.
- Section C discusses the **current state of sustainable, green and blue financing in Indonesia.** It is supported by Annex 2
- Section D identifies **potential sources of financing**
- Section E identifies **priority sectors** to target
- Section F proposes potential **Blue Finance Instruments**

- Section G proposes the **roadmap** to sustainable blue finance in Indonesia
- Sections H provides **recommendations and next steps**

This policy note is one of the deliverables in the Indonesia Sustainable Oceans Program (ISOP). Existing financing sources, reports, and stakeholder consultations were considered in the context of the overarching policy framework that exists in Indonesia, through documents such as the National Ocean Policy and Indonesia National Medium Term Development Plan (RPJMN).

Rationale for Blue Financing in Indonesia

Indonesia is home to more than 17,500 islands and some 108,000 kilometres of coastline. As the world's largest archipelago state, Indonesia oceans comprise more than two-thirds of its territory and are an integral component of well-being, cultural richness, and prosperity. With one of the highest levels of marine biodiversity globally (The World Bank, 2021) (Our shared seas, 2019), the country's oceans provide an important source of food security, livelihoods and climate regulation and sequestration as well as economic prosperity, through sectors including fisheries and aquaculture, coastal tourism, marine construction, and transportation (The World Bank, 2021).

Despite the significant economic value of Indonesia's oceanic and maritime resources, there is a significant gap in available financing for the sector. In large part this is a global challenge, in which ocean resources are considered open access and common property, and thus have not historically been economically valued by the financial sector. Consequently, despite the increasing realization of the economic values associated with healthy ocean ecosystems, there are few effective and demonstrated mechanisms to capture financial flows for conservation from marine ecosystems. This gap in financing is directly related to the lack of sources and instruments and needs to be addressed.

investment in the marine and ocean sector continues to lag in Indonesia. The GoI received an estimated US$5 billion and US$8 billion in the last 10 years (Friends of Oceans Action, 2020) from official development assistance and philanthropy, a level of funding insufficient to facilitate the changes needed to ensure the transition to a sustainable blue economy, due to the ongoing risks faced by coral reefs and marine ecosystems stemming from human activities and climate change.

GoI recognizes the benefits it receives from its ocean ecosystem and has launched a wide range of initiatives at the national and provincial level to support the ocean economy these include the National Medium-Term Development Plan (Rencana Pembangunan Jangka Menengah Nasional, RPJMN) (Bappenas, 2020), and the National Oceans Policy 2017. While the RPJMN acknowledges that improved management of blue sectors is crucial to the achievement of Indonesia's development agenda, it also recognizes that only 20% of the funding requirements is being met through the national budgeting process. The GoI in 2020, along with 13 other ocean-nations created the High-Level Panel for a Sustainable Ocean Economy and committed to building a sustainable ocean economy. Guided by the Sustainable Oceans Plans, the GoI has set out to sustainably manage 100% of the ocean area under its natural jurisdiction by 2025.

Indonesia is currently recognized as the largest impact investing market in southeast Asia, both by capital deployed and number of transactions (The Global Impact Investing Network, 2018). Indonesia was among the first emerging economies to embrace "sustainable finance" i.e., finance for sustainability. Some of the milestones of the GoI to promote sustainable finance include: the development of sustainable finance roadmaps in 2014 and in 2020; the issuance of a regulation on sustainable finance in 2017, which included measures to encourage green lending; and the adoption of a regulation on the issuance and the terms of green bonds in 2017. In 2018, Indonesia became the first country in the world to issue sovereign Sukuk green bonds (i.e., sharia compliant green bond-like instrument) with subscriptions totaling US$1.25 billion to fund green projects such as renewable energy, green tourism,

energy efficiency and waste management. Several banks have followed this move and a total of US$669 million of green bonds and US$3.2 million of green Sukuk have been issued. In 2021, Indonesia became the first country in Southeast Asia to issue an SDG Bond in the global debt capital market, raising EUR 500 million (USD 584 million) in 2021. The Bond enables the government to finance social and environmental projects, further demonstrating the government's commitment to the SDGs. The 12-year bond carries a coupon rate of 1.3%. The SDG bond provides an alternative source of financing for Indonesia to fast-track achievement of the SDGs, particularly in light of the pandemic.Another example is the GoI-supported Tropical Landscapes Finance Facility, which leverages public funds to unlock private finance for sustainable land use.

Unfortunately, the blue economy sectors in Indonesia have not benefited from these sustainable finance initiatives to date, a condition consistent with global trends. While economic values of these ecosystems are increasingly understood, financial mechanisms to realize these values lag. Consequently, impact investments in Oceans remains low in comparison to terrestrial investment at the global level.

According to the Ocean Finance Handbook (Friends of Oceans Action, 2020), SDG-14 – Life Below Water has received the least investment out of all the Sustainable Development Goals (SDG). In addition to the challenges associated with the public nature of marine based ecosystem services, Key challenges associated with attracting capital to sustainable marine and coastal investments include i) lack of track record of transactions (in comparison with terrestrial ecosystem investments); ii) lack of measurable and tradeable assets with strong monitoring; and iii) lack of reliable data related to fisheries and carbon in marine ecosystems (Coalition for private investment in conservation, 2021) each of which will be addressed through the OFP project.

It is imperative to develop a range of options to raise the necessary capital to secure Indonesia Blue Economy goals through a range of return and non-return seeking financial instruments that can be leveraged to provide the blue financing needed for the transition into a sustainable ocean economy in Indonesia.

Fortunately**,** Indonesia benefits from a healthy and evolving pool of blue plots in need of coordination and scaling. A diverse set of national organizations and pilot innovative initiatives led by a range of actors aiming to address the challenges associated with financing a healthy blue economy is currently being trialed in Indonesia. These include a broad array of mechanisms (Victurine, 2022) and partners ranging from the Asian Development Banks (ADB) Blue Sea Finance Hub to Conservation Trust Funds, experimental mechanisms to test MPA management (such as the BLU-D status), financing models such as LPMUKP at Ministry of Marine Affairs and Fisheries (MMAF) and innovative insurance models, blue carbon financing models, and planned impact bonds (please refer to Annex 1 for examples identified). Indonesia stands to benefit from many of these mechanisms if they can be utilized to fill the gap in MPA and live effectively tested, coordinated and scaled under the appropriate policy environment in the next 3 – 5 years.

The World Bank recognizes the importance of the Blue Economy for Indonesia's economic development. Through the Indonesia Sustainable Oceans Program the Bank currently undertakes a range of initiatives to promote Indonesia's transition to a sustainable blue economy (The World Bank, 2022).

Indonesia Blue Finance Roadmap

Indonesia possesses a wealth of natural assets which inform the priority sectors to target for sustainable financing. Building on the World Bank's Oceans for Prosperity (The World Bank, 2021) program, and in collaboration with Bappenas, this document makes two recommendations. Firstly, to strengthen the **enabling environment** for mobilization, management, and utilization of blue finance through improved government spending and policy alignment and secondly the **development of appropriate blue finance strategies and then instruments** based on the SDG Securities Framework developed by the GoI, with a particular focus on financing for the operating and capital expenditure for Marine Protected Areas;

investments in public infrastructure (e.g. landing sites, jetties, roads); and financing for SME and community based investments to enhance value chain performance.

This paper distinguishes between potential **sources** of revenue or funding as opposed to financing **instruments or mechanisms**. In developing financing strategies, the sources of revenue are important considerations in the design process. A number of sources of finance are available to support the development of the blue economy. These range from fees, levies and penalties to payments for ecosystem services and biodiversity offsets. Each of the sectors (tourism, fisheries, etc) we identify as benefiting from healthy ocean ecosystems can be induced to contribute additional non-tax revenue based on the following options (Bohorquez, 2022):

- **Fines and penalties for regular or semi-regular infractions** – leveraged from the tourism, fisheries, aquaculture, shipping and transport industry.
- **Volunteering and cost-sharing** – leveraged from specialist tourism (sport fishers), oil and gas industry, shipping and transport industry, telecommunications companies, and research institutions.
- **Non-extractive use rights (long term agreements)** – leveraged from the shipping and transport industry (i.e., transit fees) and telecommunications companies (i.e., right of way fees) and tourism concessions.
- **Non-extractive use rights (single use permits)** – leveraged from telecommunications companies (i.e., fees for maintenance) and research institutions (i.e., research permits) and tourism visitor fees.
- **Extractive use rights** – permits or licenses to benefit in areas benefiting from improved ecosystem health e.g., fisheries spillover effect adjacent to MPA's, aquaculture benefits
- **Biodiversity offsets** – leveraged from the oil and gas industry, the shipping and transport industry, and telecommunications companies.
- **Blue Carbon Payments** – secured from mangrove, seagrass; monetized for future investment in ecosystem health
- **Other Payments from Ecosystem Services** – payments derived from financial flows associated with ecosystem health.

Indonesia benefits from a deep pool of experience of each of these sources. However, both carbon payments and payments from ecosystem services require additional interventions prior to being able to generate funding for conservation and coastal livelihoods. The identified sources represent potentially significant revenue sources under the right circumstances. The GoI and the World Bank have an extensive historical partnership on this topic, which is not the subject of this document.

Indonesia also benefits from a robust pool of potential **blue finance mechanisms and instruments**. These range from trust funds to insurance instruments (please refer to Annex 1 and 2 for a list of instruments identified) which are being tested by a range of stakeholders. Based on the review undertaken for this paper, several instruments identified have been trialed in Indonesia, primarily in terrestrial ecosystems. While many of these instruments are being tested and piloted in Indonesia, they are generally not coordinated, and few have been tested in marine ecosystems. All would benefit from policy and enabling environment interventions to improve their effectiveness and scalability and the development of strategic financing strategies to be implemented at scale by Bappenas and the Ministry of Finance.

While an increasing number of instruments are being tested in marine ecosystems, Indonesia has not yet tested a blue bond or blue sukuk, despite having successfully launched green versions of these instruments. Table 1 below provides a summary of instruments and recommended next steps. Further details are available in Section C of this paper.

Table 1 Summary Table of Financing Instruments and recommended next steps

Instrument	Tested in Indonesia	Next Steps
SDG Bond	Yes, but not for Blue	Development of Blue SDG Bond
Blue Bond or Sukuk	No; but green sukuk has been tested	Test feasibility of blue bond / blue sukuk
Environmental Impact Bonds	No	Test feasibility of carbon credit or PES based Instrument
Insurance (Parametric Coral Reefs and Mangrove)	Yes (ADB & GEF; Mercy Corps)	Test feasibility of parametric insurance for environmental impacts. Determine barriers to scale
Trust Funds	Yes	Test scaling marine trust funds via BLU
Blended Finance Facilities	Yes – primarily in terrestrial	Engage with relevant blended facilities directly to scale
Impact Investment	Yes- esp. aquaculture, technology, fin tech and plastics	Define linkages with priority sectors to scale
Debt for Nature Swap	Yes, terrestrial	Determine if opportunity arises for marine related investments

Despite the identified governmental, private, and non-governmental initiatives promoting blue financing in Indonesia, there are a number of barriers that needs to be addressed to strengthen sustainable financing of the blue economy which may be summarized in two categories. The first relates to the enabling environment. The second relates to the continued development of financing instruments.

This paper identifies a number of **enabling environment and policy priorities**. These include the need to address (1) Improved coordination of a broad range of initiatives; (2) Inadequate frameworks and taxonomies; (3) Gaps and mismatches in information, awareness, capacity, and scale; (4) Policy gaps related to capitalizing on payments for ecosystem services, including carbon market rules; (5) High risk and insufficient enabling regulatory environment, particularly in relation to payments for ecosystem services related instruments; and competing government spending.

In order to address the these constraints, we propose as a first priority the establishment of a **Blue Finance Advisory Committee** to provide leadership and to foster cross-sectoral collaboration and coordination across multiple existing initiatives. This includes the coordination of respective "blue" frameworks, blue tagging of APBN expenses at a national and provincial level along with assessing opportunities presented by repurposing government funds, the reconciling of policy requirements to maximize carbon values for MPA's and the development of a robust Monitoring, reporting and verification framework to report investment impacts.

In tandem with this, the second priority identified in this note is to develop and implement long term investment strategies for the priority blue economy sectors identified in the Oceans for Prosperity report. The focus should be on long term sustainable financing for MPA management and long-term sustainable financing for the livelihoods of target coastal communities in and around MPAs based on securing improved ecosystem benefits. Based on a review of the financing requirement, expected use of funds, anticipated channelling mechanisms, and the expressed interests of the GoI, this document recommends the development of three financing strategies – one for marine protected areas; one for coastal infrastructure associated with livelihoods and improving access to financing from MSMEs

The findings of the interviews and Focus Group Discussions (FGD's) undertaken by this project are reinforced by the literature on this topic, (The High-Level Panel for a Sustainable Ocean Economy, 2020), (Credit Suisse, 2018), and identify the following opportunities to advance financing to the blue economy sector:

Opportunities

Set up and implement new (shared) rules, and guidelines.

1

Components

To guide investment decisions and develop sustainable blue economy policies, it is critical that **effective guardrails and guidelines are in place and are widely adopted**. An essential element of this emerging sustainable blue economy finance ecosystem will also be the **creation of ocean-based finance taxonomies**, in collaboration with partners which, in effect, will **create classification systems** of those activities considered to comply with strong principles for a sustainable blue economy.

Ultimately, the goal should be to ensure that existing frameworks and guidelines bridge and speak to each other and identify commonalities and differences that exist between them. It is very important to ensure **the frameworks developed are implemented**.

New standards and metrics need to be developed to encourage and support **stronger transparency and consistent reporting** across the blue finance community.

Adequate governance, tracking and monitoring of flows, as well as principles and policy frameworks, are needed to ensure that innovative financial mechanisms support the scaling up of blended finance and private funds that are effectively aligned with inclusive and sustainable development.

Opportunities

Strengthen knowledge, data, and capacity on ocean finance.

2

Components

This will allow decision-making processes and activities to **adapt to new knowledge of the potential risks, cumulative impacts and opportunities** associated with business activities. Moreover, information on the status of the natural asset being invested in is required for meeting rigorous criteria during a project's due diligence phase and throughout its life cycle.

Strengthening knowledge is especially relevant in developing countries, where data and information gaps are key challenges to attracting finance for investments.

Efforts should be made to more consistently and comprehensively **monitor and report on finance for the conservation and sustainable use of the ocean**, across both the public and private sectors. These efforts should involve better tracking and monitoring of financial flows for oceans ecosystems. In turn, private investors would have **sufficient information to make key investment decisions**. It will also help local entrepreneurs and support good business plans and practices.

National ocean accounts are a major component of the data infrastructure required. The integration of environmental and economic information through a sequence of ocean accounts is one means of improving the data situation highlighted here. For example, the time series of financial flows can be correlated with ecosystem changes within an integrated national accounting framework (Finechel, 2020).

Opportunities

3

Strengthen the enabling environment, increase inclusivity, and correct market distortions.

Components

Effective and stable regulatory and policy environments will help in attracting investment. To maintain and potentially increase the flow of economic benefits from the blue economy, the government needs to continuously provide a supportive enabling environment.	Government and multilateral agencies have critical roles to play, therefore, in **creating attractive financing conditions by reforming policies and creating regulations** that strengthen the sustainable management and governance of natural capital and facilitate and incentivise social enterprise and new forms of capital.	Policymakers should **provide greater clarity** regarding their policy objectives and approaches and maintain a high level of transparency and consultation with stakeholders at all levels.	Given the **importance of small and medium enterprises** (SMEs) to portfolio development, governments should also create conditions that provide access to financing, savings, micro-insurance, and other services (Grace, 2019)
Sovereign bond and insurance products can also substantially improve the risk profile of projects.	**Capacity building, training and tertiary education** needs to support leaders, managers and local entrepreneurs who can **speak both the language of finance and the language of marine conservation**. National and international organisations can build the capacities in support of sustainable ocean finance through information provision, training, and networking. Building the kind of information needed to attract investments into the ocean economy **requires a significant increase in human capacity for acquiring, investing, and aligning blue finance** in many developing maritime countries. Effective capacity building in the areas of ocean finance, insurance, and the application of fiscal instruments—is urgently needed to support investment for a sustainable blue economy.		

Opportunities

4

Stimulate the pipeline of investible sustainable projects.

Components

It is **unlikely that a single financial transaction or institution** will be responsible for promoting blue finance all the way through the policy reform process. Yet **a variety of mechanisms** can blend early-stage grant funding and concessional finance from philanthropic organisations and development finance institutions with later-stage capital from the private sector (Environmental Defense Fund, 2018)	The **private sector** can also play a key role in **delivering sustainable coastal infrastructure at a local scale**, further supporting establishment of small fisheries businesses.	Small and medium enterprises facing problems with economies of scale and high transaction costs will benefit from the **use of technology and innovation incubators**.

Opportunities

Explore new financing instruments and tools.

5

Components

New financing tools and access to capital markets are needed to act as a **positive incentive** for sustainable and inclusive marine based economic activities. Furthermore, these tools can also facilitate effective management and governance.

Innovative instruments that bring new forms of finance into the system and are more accessible to communities in developing countries, particularly women, youth, and marginalised communities will need to be created while reducing the overexploitation of coastal resources.

Green/blue/climate bonds must **meet investment criteria and accountability requirements** (e.g., Green Bond Principles; ESG criteria; and investment principles for sustainable fisheries) and certification to qualify for such labels and ensure the integrity of markets in the investment community.

A debt conversion program, also known as **debt restructuring** (formerly known as debt-for-nature swaps), negotiations take place whereby a portion of the debt owed to creditors is restructured and converted into agreed-upon initiatives that address, for instance, marine conservation and climate change. The debtors are then obligated to execute the initiatives. However, this will only be possible with full government commitment.

A trusted project entity is needed to manage and distribute the funds across aggregated projects, reducing the overall project risk and transaction costs, especially when projects are small scale.

Blended finance can offer substantial opportunities to improve investor confidence by providing up-front low-interest or grant-based investments to strengthen the enabling environment towards reducing the risk profile and improving investor confidence.

Mobilization of private equity/ investment funds and funding from private banks and public financial institutions for short- to medium-term financing is a good opportunity the government can explore to encourage direct investments into priority blue sectors. This can be achieved by seeking opportunities for entering public-private arrangements in priority investment areas, such as developing fishing ports, or promoting access to renewable energy for blue businesses.

Some specific examples of priorities for the Blue Finance Advisory Committee include:

- **Non-APBN Financing** – Evaluate the potential of developing **Blue Projects using Non-APBN Fund** (e.g. private bonds) such as those currently developed / applied by PT SMI (SDG-One) or PT PI"

- **Blue Carbon and payment for ecosystem services** – Engage with KLHK (MoEF) working on climate change and blue carbon policies, that can connect with the coastal issues that borders with MMAF's domain of marine protected areas and coastal economic activities; explore current initiatives from environment-related agencies that may have linkage with the ocean-based sector to address policy constraints to enable the development of nature based assets; continue cross-sectoral collaboration to detail regulations which will regulate carbon markets, including blue carbon; ensure that efforts of measurement include other co-benefits beyond carbon, such as biodiversity and coastal resilience – this will increase the value that coastal and marine ecosystems can get beyond the basic price for carbon.

- **Tourism** – address policy constraints to raise tax and non-tax revenue at the national and provincial level; address challenges associated with allocation and jurisdiction of fees and levies raised; establish lease or concession based options to provide for long term, non-extractive use; enhance the role of investment vehicles such as BLU-D in secure funds for conservation and coastal livelihoods; test viability of insurance, outcome based impact instruments and payment for ecosystem services options.

- **Fisheries and aquaculture** – address policy constraints to raise tax and non-tax revenue at the national and provincial levels; address challenges associated with allocation and jurisdiction of fees and levies raised; identify permitted extractive use mechanisms to generate additional revenue from "spillover" effect; test viability of insurance, outcome based impact instruments and payment for ecosystem services options.

Recommendations

This document presents two broad recommendations. Firstly, to to strengthen the enabling environment for mobilization, management, and utilization of blue finance through improved government spending and policy alignment. Secondly, it recommends the development and implementation of long term investment strategies for the priority blue economy sectors identified in the Oceans for Prosperity report. The focus should be on long term sustainable financing for MPA management and long-term sustainable financing for the livelihoods of target coastal communities in and around MPAs based on securing improved ecosystem benefits.

To that end, we recommend:

a) The establishment a Blue Finance Advisory committee.
b) The strengthening of the enabling environment to mobilize, manage and utilize blue finance
c) .Development implementation of long term investment strategies for priority blue economy sectors, based on the experiences with the SDG Government Securities Framework.

The recommended activities would be implemented by the Ministry of National Development Planning (Bappenas) in close collaboration with the MoF. Bappenas has the planning mandate across ministries in Indonesia while the Ministry of Finance has the mandate to determine appropriate financing instruments. Bappenas is also the leading ministry for achieving Indonesia's SDG targets, and the work with OFP and blue financing will help accelerate in achieving SDG 14 targets.

Activities (further described in the LAUTRA project) are divided into two sub-components:

- **Strengthening the enabling environment and policy framework through:**
  a) Support the operationalization and strengthen the institutional capacity of a proposed Blue Finance Advisory Committee
  b) Coordination of national "blue" framework by the Blue Finance Advisory Committee as part of the SDG Government Securities Framework & OJK Green Finance Taxonomy;
  c) Coordination and adoption of a Blue Tagging for National Budgets (APBN) in collaboration with UNDP, ADB and related partners by the Blue Finance Advisory Committee;
  d) An assessment of the opportunities presented by repurposing government funds, particularly reducing harmful subsidies and maximizing beneficial subsidies along with an assessment of the necessary policy interventions to secure these changes (for example government fiscal transfers);
  e) Reconciling policy requirements to enhance carbon values from MPAs;
  f) Development of a Monitoring, Reporting and Verification (MRV) Framework associated with the Blue Taxonomy to effectively report investment impacts to external markets and investors
  g) Awareness, engagement of relevant blue finance agencies

The activities in this sub-component are intended to facilitate and strengthen the enabling environment for the mobilization, management and utilization of blue finance. Under the leadership of the proposed Blue Finance Advisory Committee, this sub-component will principally serve to coordinate actors working in the blue economy ranging from different government ministries and departments to financial institutions and intermediaries to the range of NGO's and impact investors increasingly developing innovative pilots in Indonesia.

Initial activities will include engaging closely with MoF and OJK, as the financial regulator in addressing questions related to how to best integrate the evolving "blue economy" framework with the Sustainable Finance Roadmap to ensure frameworks and policies align and mandates are matched. Coordination with UNDP and ADB, both of which are

engaged with the development of a blue taxonomy and blue tagging framework for state and national budgets will also be necessary. This effort is likely to be further informed by inputs from NGO's and financial organizations developing solutions in this space. Developing a robust framework for blue economy related investments will ensure that GoI can align actors in both the private and public sector, nationally and provincially.

Robust impact metrics are considered an integral part of any impact investment instrument (Rhote, 2022). One of the many lessons learned from the green bond market is the necessity of a transparent and viable monitoring, reporting and verification framework. A priority for the proposed Blue Finance Advisory committee would be to support the development and adoption of such a framework in Indonesia, within the context of the blue tagging and blue taxonomy.

Bappenas is expected to lead and chair this Committee. It will be necessary to coordinate relevant national and provincial public agencies to ensure an integrated approach. An agreed policy framework will be necessary to minimize the inevitable cross currents that will result from making decisions based on potentially conflicting priorities.

Finally, it is likely that policy and legal interventions will be required to ensure that GoI can maximize the conservation and livelihood outcomes associated with the proposed investments by ensuring that incentives are aligned. This is likely particularly the case in novel sectors such as blue carbon and payments for ecosystem services which will compete with more extractive forms of resource use. Effective engagement with KHLK and related ministries will be required through a body at a national level.

- **Development of long term investment strategies for priority blue economy sectors, based on the experiences with the SDG Government Securities Framework**
  a) Develop relevant long term sustainable financing strategies for Indonesia's MPA's in close collaboration with the MoF.
  b) Develop long term sustainable finance strategies for improved coastal livelihoods for public infrastructure in close collaboration with the MoF
  c) Develop long term sustainable finance strategies for improved coastal livelihoods for SME investment strategies in close collaboration with MoF and related intermediaries such as LPMUKP.

A Blue SDG Bond or sukuk has been identified as a potentially viable option, subject to the completion of a formal feasibility assessment. A sovereign instrument, issued with the backing of the GoI is more likely to attract investment to this relatively nascent sector at this time, assuming the enabling environment issues and the design issues identified in this document are addressed.

This determination has been made based on the intended use funds; the nature of the anticipated underlying assets and the lack of a robust financial pipeline of projects capable of generating adequate cashflows. While a blended finance vehicle may be viable in due course, the necessary prerequisites for the success of such a facility are not currently in place. These include a) the presence of an adequately sized and robust pipeline of investment ready projects representing adequate absorptive capacity; b) robust impact metrics and monitoring systems; c) the ability to target relevant investors; d) structural and legal capacity to address issuer, channelling options and legal costs; e) strong implementation and operational capacity to minimize transaction costs and f) strong coordination between private and public stakeholders. Critically, the pipeline must be consistent and large enough to cover the high transaction costs associated with developing blended finance facilities which can be both time and resource intensive.

From a design perspective, there are six critical steps to be considered in determining the feasibility of a blue bond or sukuk financing instrument. These may be summarized as follows (The World Bank, 2020)*:*

- Define and Document Eligible Use of Funds
- Define Amount of Capital Required
- Secure MoF support for a General Obligation, Sovereign bond
- Bond Characteristics – currency; tenor; risk mitigation requirements
- Agree channeling modalities for funds
- Identify and approach potential transaction partners, including legal counsel, potential investors

A Background, Objectives And Methods

Background

Indonesia is home to more than 17,500 islands and some 108,000 kilometres of coastline. As the world's largest archipelago state, Indonesia oceans comprise more than two-thirds of its territory and are an integral component of well-being, cultural richness, and prosperity. With one of the highest levels of marine biodiversity globally (The World Bank, 2021) (Our shared seas, 2019), the country's oceans provide an important source of food security, livelihoods and climate regulation and sequestration as well as economic prosperity, through sectors including fisheries and aquaculture, coastal tourism, marine construction, and transportation (The World Bank, 2021).

Indonesia's blue economy is underpinned by some the world's most extensive and biodiverse coastal ecosystems like mangroves, reefs, and seagrass beds. Indonesia holds an estimated 51 percent of the Southeast Asia's coral reefs, which span over 24,000 km^2, and serves as critical habitat to reef fish species in the world, of which Indonesia holds almost 40 percent of all species (Spalding , 2001) (Burke, Reefs at risk in Southeast Asia, 2002). Expenditures by tourists in reef-adjacent and on-reef activities is estimated at more than US$ 3 billion dollars annually, with 20 percent of those expenditures relating to on-reef activities (Burke, 2017). Coral reef tourism sites are disproportionately clustered, with most tourism concentrating in areas with existing infrastructure such as hotels and availability of basic services. Indonesia also holds the largest extent of mangrove ecosystem in the world with 3.31 million hectares, accounting for around 20 percent of the total global mangrove area (The Ministry of Environment and Forestry of Indonesia, 2019) (Choong, 1990). Nearly 50 percent of Indonesia's mangroves occur in the provinces of Papua and Western Papua and are crucial to the livelihoods of coastal Papuans.

Indonesia also holds expansive, biodiverse seagrass meadows reaching an estimated 30,0000 km^2, another world record.

Indonesia's coastal and marine ecosystems hosts a sub-marine biodiversity with among the richest coral reefs and seagrass meadows on earth. Those same play an important role in addressing climate change and protecting the country's vulnerable local communities from natural hazards. It is estimated that coral reefs provide ecosystem services in the form of coastal protection ($125.6 per hectare a year (Beck, 2010)), fisheries nurseries and reproduction areas ($313.73 per hectare a year) and tourism attractivity ($546 per hectares a year (Burke, 2017)), in addition to coastal protection benefits from its coral reefs estimated at US$639 million in annual averted damages (Menéndez, 2020).

Achieving Indonesia's huge ocean economy potential requires addressing natural resource management, enforcement, business readiness, investor environmental and social standards, coordination of actors, infrastructure, finance delivery mechanisms, data and transparency. Public and private investments are critical: public investments are required to develop infrastructure, human capital, and natural resources management. Private investments that meet sustainability criteria can help improve productivity and value chain development, while also achieving social and environmental outcomes.

A robust blue economy policy framework and coordination strategy is essential to create the necessary enabling environment (IFC, 2022) to achieve economic growth while ensuring sustainability. Fortunately, the overarching policy framework exists in Indonesia, through documents such as the National Ocean Policy and RPJMN. However, greater coordination, specifically around the numerous

blue finance strategies, investments in innovative sectors such as blue carbon and various pilots remain necessary across sectors and levels of government. Given the challenges to blue finance around natural resources management, business readiness, investor environmental and social standards, coordination of actors, infrastructure, finance delivery mechanisms, and data and transparency, there is a need for a work plan that can coordinate actors, build consensus, and identify and prioritize specific actions to be taken. Key to the work plan will be identifying key government institutions that can lead the process and enable blue financing at scale in collaboration with key stakeholders. Coordination between Bappenas, MMAF, CMMAI is a necessity. Learning from the current implementation of the MoEFand BPDLH is also important, among other lessons from existing institutions involved in blended (public and private) and socially responsible financing.

While developing a Blue Economy will require finance for a range of sectors, improving finance to support the transition to sustainable fisheries can be an important first step. Indonesia is the second largest fishing nation globally and the sector employs over 7 million people and contributes over 2.5 percent of GDP. However, the sector receives relatively little private investment, and that which does occur is not focused on sustainability. It also receives a very small proportion (around 1 percent according to the OECD) of overseas development assistance. Philanthropic funds have found it difficult to find investable projects. Government investments would benefit from improved alignment with fisheries sustainability goals.

The World Bank is undertaking a range of initiatives related to the blue economy under the Indonesia Sustainable Oceans Program (ISOP) (The World Bank, 2022). The activity supported by this TOR will be central to the Bank's support for Indonesia's blue finance development, which has close links with other parts of the ISOP portfolio.

Law No. 32 of 2014 (Article 13) mentions that marine activities in Indonesia are developed and managed through the formulation and implementation of basic policies as follows; a) good management of marine resources; b) human resource development; c) defence, security, law enforcement and safety d) governance and institutions; e) welfare improvement; f) marine welfare; g) proper management of the marine space and protection and h) marine culture. Meanwhile in the Indonesia National Medium-Term Development Plan (RPJMN) 2020-2024, improvement of Maritime, Fisheries and Maritime Management has become one of the national priority programs. The priority activities are to make the Fisheries Management Area (WPP) as a spatial basis in sustainable fisheries development, institutional transformation of WPP functions, improve the quality of WPP management, as well as the management and structuring of sea space and coastal zoning plans. In its implementation, innovative institutions and funding are needed to achieve the program's objectives. Therefore, the Government of Indonesia, through Bappenas, has taken the initiative to develop the Blue Finance Advisory Committee. This Committee aims to coordinate actors and develop innovative and sustainable financing in support of Indonesia's marine and blue economy sectors (through blue finance instruments and capital raising techniques). It aims to be a hub that links supply and demand for blue finance among Indonesian stakeholders, and to support the achievement of SDG14. In time, Bappenas vision is to transform this Committee into The Sustainable Blue Financing Institution (SBFI)

Objective

The objective of this document is provide the necessary information to coordinate key actors, build consensus, and identify and prioritize specific actions that will alleviate constraints to blue finance in Indonesia (with an emphasis on sustainable fisheries and marine conservation).

Specifically this document will:

a. Characterize the status of current blue financing in Indonesia
b. Highlight priority sectors to target
c. Identify operational, institutional and policy gaps
d. Identify potentially viable innovative financing mechanisms and instruments
e. Provide a strategy and recommendation to be pursued by the World Bank and Government of Indonesia

Implementation of the blue finance roadmap and physical investments are beyond the scope of this document.

Expected Outcomes include:

- Knowledge shared and consensus achieved among key stakeholders on blue finance needs, objectives, and institutional roles;
- Concrete steps identified and agreed to by key stakeholders; public sector coordination, policy review and financial instrument development.

Methods:

This policy note was developed and written using literature reviews, secondary data sources, focus group discussions and in-depth interviews with key actors relevant to sustainable finance and marine conservation.

The sources for the literature reviews are publications, reports, and studies with the topics of blue financing, sustainable financing for the ocean economy, financing marine conservation areas, and the blue economy, as well as on green finance and biodiversity financing. Also used as reference are relevant regulatory documents, such as the ones issued by the Indonesian Financial Authority (OJK).

From the literature, this document has compiled, categorized, and summarized information regarding: 1) challenges and opportunities of financing marine conservation and small-scale fisheries; 2) global best practices; 3) potential financial instruments for blue financing; 4) recommendations for institutions and policy that can be applied in Indonesia.

For the secondary data sources, we look at the sustainability reporting for major national banks, particularly on proportion of their loan and financing disbursement for the sustainability sectors, or if available, to the fishery and marine sector. Complementing the literature review and secondary data analysis, we also relied on focus group discussions (FGD) and in-depth interviews with key stakeholders. During the 12 months of this study, we have conducted one large FGD and at least three smaller thematic FGDs, as well as ten interviews. The large FGD, held in November 2020 was attended by 30 participants representing the financial sector (banks, financiers, private sector, and the OJK), CSO/NGO that work in marine conservation and fisheries, and government ministries and agencies (MMAF, Ministry of Finance, Bappenas). Smaller thematic FGDs are follow ups of specific topics that arose during the large FGD, and we grouped the participants relevant to the topics of 1) how marine conservation effort attract investment and financing; 2) regulatory and institutional settings; and 3) how to improve financial sector's awareness to marine conservation and blue financing.

B Indonesia's Oceans and the Natural Blue Economy

The Opportunity

The oceans are very important to our planet. As the largest natural carbon sink on the planet, the oceans are a tremendous source of economic livelihoods for billions of people. The value of global ocean assets is estimated at over US$ 24 trillion (Hwoegh-Guldberg, 2015) making it the 7th largest global economy in GDP terms. Fisheries and aquaculture alone provide direct or indirect employment to 10–12% of the world's population, with more than 90% of those employed in developing countries (The European Commission, 2019). The importance of oceans continues to grow as the global 'Blue Economy' is expected to expand at twice the rate of the mainstream economy by 2030 (OECD, 2016), and already contributes US$ 2.5 trillion a year in economic output.

Indonesia's oceans provide an unparalleled source of comparative economic advantage that are estimated to support more than US$ 180 billion of economic activity annually (PENSEA 2018). Yet, Indonesia's oceans have more to offer when managed more sustainably. Realizing this potential will deliver increased growth, jobs, food security, and reductions in the current account deficit; protect ecosystems for present and future generations; and further Indonesia's ambition of becoming a global "maritime nexus."

Indonesia's oceanic and maritime resources contribute over US$ 280 billion of economic activities annually, or more than a quarter of GDP (Erbavia, 2016). Indonesia is the world's second largest fishing nation, with fisheries contributing 2.6 percent of GDP (CIEC, 2008) and 20 percent of the country's agricultural product (FAO, 2021). Fisheries bring in almost US$ 4 billion in export earnings annually, while providing livelihood opportunities for an estimated 7 million Indonesians. Maritime shipping and marine tourism are also critical for the national economy, underpinned by the country's position at the center of major maritime trade routes (which Indonesia refers to as a Maritime Axis) and within a global hotspot of marine biodiversity. In 2019, revenue from maritime shipping was estimated at US$ 3.5 billion. Tourism contributes 4.9 percent of GDP (Badan Pusan Statistik, 2021) and provided employment for an estimated 2 million Indonesians (Mustika, 2020). . Indonesia has benefitted greatly from its coastal resources but holds untapped opportunity to transition to a more sustainable and prosperous blue economy.

Prioritizing the protection of seagrass, mangroves, and coral reefs together also results in higher coastal protection benefits as opposed to separating ecosystems. These coastal habitats also have substantive abilities to mitigate long-term threats from climate change. The conservation and restoration of this critical habitat is an essential to supporting climate adaptation and mitigation and tapping into its blue carbon potential could incentivize efforts while unlocking access to new financing for supporting the transition to a sustainable blue economy.

The fisheries sector is highly dependent on the health and ecological integrity of coastal ecosystems for fisheries production, of which 95 percent derives from artisanal fishers; inversely fishing activities could be a source of degradation of their own critical ecosystems, such as coral reefs. Coastal ecosystems provide critical habitat resources to fish at different life stages. It is estimated that up to 70% of nearshore fisheries are dependent upon mangroves during one or more critical stages in their livelihoods, both as nurseries and fish refugia, contributing at least USD $1.5 billion annually to the national economy.

Mangroves along with seagrass meadows and coral reefs constitute the three major blue carbon habitats which work in concert serving as critical nearshore fisheries habitat supporting Indonesia's vast artisanal fishers. Coral reefs' role as habitat for commercially important fish stocks is estimated at US$ 2.9 billion per year.

Challenges

Current management strategies are depleting global resources. The ocean economy is currently at risk from multiple stressors, ranging from over-extraction, direct habitat damage, pollution, and climate change (Gaines, 2019). Continuing with this 'business-as-usual' trajectory poses great risks to the health and integrity of the ocean and therefore to the world's population, especially the future well-being of hundreds of millions of people in coastal and island communities. The costs for not conserving and sustainably using the ocean are high. For instance, the total estimated cost of coastal protection, relocation of people and loss of land to sea level rise is projected to range from about $200 billion to $1 trillion annually by 2100, depending on the increase in sea level (0.5–1.0 metres) (IPCC, 2019). Furthermore, in the absence of proactive measures to mitigate climate change, the cost of damage to the ocean could be an additional $322 billion a year by 2050 (Noone, 2013). These risks undermine the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs) focused on 'life below water' (SDG 14) as well as others, including 'no poverty' (SDG 1), 'zero hunger' (SDG 2), 'decent work and economic growth' (SDG 8) and 'climate action' (SDG 13) (Wright, 2017).

Despite their significant value, Indonesia's marine assets are threatened by coastal degradation, climate change, unsustainable aquaculture practices, over-exploitation, and marine pollution such as plastic debris and solid waste in waterways and seas. Indeed, one-third of Indonesia's reefs are classified as being in poor condition due to destructive small-scale fishing practices (such as the use of explosives and poisons) and pollution, including plastics. The loss of these coastal and marine resources threatens the economic and ecological services they provide to Indonesia.

Climate change is also undermining ecosystems' resilience and services to communities. More than 80 percent of Indonesia's coral reefs are projected to experience severe bleaching in at least five out of ten years 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.[1] Indonesia is also projected to see some of the largest fishery biomass decreases globally, due to the loss of coastal ecosystems and other climate impact of fish stock. Moving forward, it will remain important that future investments to take climate risks into account and ensure coastal resources are protected from further degradation through climate-smart approaches.

Coastal communities are heavily dependent on coastal resources and thus at risk from degradation of these resources. They face significant barriers to benefit further from coastal and marine resources, including: (i) inadequate skills and technical capacity of coastal village community groups; (ii) lack of financial access to improve or diversify sources of income to support their livelihood and/or to expand their business as well as limited propensity to save; (iii) lack of market access to sell their products or services directly to end buyers; (iv) limited capacity for collective action among coastal communities; (v) lack of awareness of coastal resources sustainability importance and ways to achieve it; and (vi) 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 ecosystems and coastal resources, therefore reducing their effectiveness.

The Blue Economy Transition

Significantly, there is limited finance available to achieve the restoration, protection, and sustainable management of the ocean—to ensure the building blocks for achieving a sustainable blue economy are in place. While an estimated $8 billion from philanthropy and $5 billion from official development assistance (ODA) were invested during the last 10 years (Friends of Oceans Action, 2020) in Indonesia's

maritime ecosystem, this level is insufficient to drive the change needed to achieve a sustainable blue economy, representing a significant funding gap.

As an example, current government funding (APBN, Anggaran Pendapatan dan Belanja Nasional, the national budget) covers only around 20 percent of financial resources that would be required to meet Government of Indonesia (GoI)'s marine and fisheries sector targets under the RPJMN 2020-2025 (Bappenas, 2020). In addition, MPA management in Indonesia is estimated to cost Rp690 billion ($48 million) per year. So far, funds from all sources in Indonesia and from international NGOs amount to only Rp75 billion ($8.3 million) per year. The deficit would increase to Rp617 billion per year ($50.7 million) if capacity building and maintenance cost components were included (The Asian Development Bank, 2014). Similarly, blue economy businesses, like sustainable fisheries, aquaculture or ecotourism, also experience a financial gap regarding their capital expenditures and operating expenses financing. At the same time, coral reefs and MPAs continue to be threatened by the expanding and intensifying impacts and interactions of human activities and climate change (Andrello, 2021), with overfishing, coastal development (from tourism and construction) and water pollution from sedimentation and nitrogen as key threats in Indonesia (Burke, 2012).

To change this trajectory, it is imperative to build ocean resilience and minimise ocean risks by restoring, protecting, and effectively managing human use of and impacts to ocean ecosystems. Nevertheless, the bulk of investments in the ocean economy have so far not been directed to transitioning to a sustainable blue economy but rather at large-scale infrastructure, energy, transport, commercial fisheries, aquaculture, biotechnology, and tourism (Vivid Economics, 2020).

The WB's Oceans for Prosperity Report found that an integrated and multi-sectoral blue economy strategy will be key to improving marine and coastal activities, equal opportunities, and livelihoods. Building a sustainable blue economy is one of the most important tasks for Indonesia. As an archipelagic country with high marine biodiversity, Indonesia needs to ensure that its actions balance the needs of its people and its oceans. A sustainable and prosperous blue economy will contribute to bigger revenues from marine-based activities, improved coastal communities' livelihoods, and healthier oceans and coastal ecosystems that can generate services and products, and preserve biodiversity.

While commercial fisheries, long a driver of ocean-related income and investment, are for the most part fully exploited or even overexploited, many other investible opportunities exist or are emerging in other sectors of the Blue Economy. These include amongst others renewable energy derived from ocean currents, biotechnology, more sustainable maritime transport, waste management and recycling, eco-tourism and investments which are targeted at rebuilding the resilience of marine ecosystems in the face of a changing climate. The transition from the current short-term, destructive approach to ocean assets towards a more sustainable, climate-secure Blue Economy presents a tremendous economic and sustainable investment opportunity.

Blue financing refers to concessional, non-concessional, public, and private sector financing that supports ocean-related investments. While some financing is available from international donors, philanthropic sources, and governments, it will be important to explore options to address perverse subsidies and efficiently raise funds through market-based instruments and where possible, blended finance solutions that can leverage resources beyond what MDBs and other public sector sources offer. Blue use of proceeds bonds (The World Bank, 2018) KPI-linked bonds and responsible private sector investments may offer the opportunity to finance investment in activities that support the transition to a robust blue economy through the setting of ambitious performance targets, credible verification, and reporting. Each can play an important role and through coordination and integration, different types of capital can work together to finance Indonesia's commitment in the Blue Economy.

C The Current State of Blue Finance In Indonesia

It is important to understand the journey and milestones of sustainable financing in Indonesia more generally, in order that one might be aware of the challenges and beneficial lesson learned for blue finance implementation. Many of Indonesia's sustainable financing initiatives form the foundations of blue finance tools, mechanisms, or instruments. Sustainable practices in other sectors such as forestry, landscape, and energy (the green sector) or sustainable banking can provide a useful baseline on which blue finance can build upon.

Sustainable and Green Finance Timeline in Indonesia

Table 2 Timeline of Sustainable Finance Evolution in Indonesia

YEAR **1993**	**MILESTONES** Bank Indonesia Act 10/1998 obligates banks to conduct an Environmental Impact Assessment (EIA) for large or high risks loans.
YEAR **2005**	**MILESTONES** In January 2005, Bank Indonesia issued Regulation No.7/2/PBI/2005 on Asset Quality Rating for Commercial Banks. This regulation requires banks to appraise the "measures taken by the debtor to conserve the environment" as part of an assessment of the debtor's business prospects.
YEAR **2010**	**MILESTONES** In 2010, the Governor of Bank Indonesia and the Minister of the Environment(MOE/KLH) signed a Joint Agreement on Coordinating the Increased Role of Banking in Environmental Conservation and Management. In this memorandum of understanding (MOU), Bank Indonesia and KLH agreed on a joint work program for the period 2011-2013, which included a number of seminars and workshops for bankers on environmental risk assessment and green finance prospects, joint research on green financing, and the development of practical measures to promote green finance.
YEAR **2012**	**MILESTONES** Bank Indonesia participated in the Sustainable Banking Network (SBN), an informal group of bank regulators and banking associations that was launched by the International Finance Corporation (IFC) in September 2012. To improve access to finance, Bank Indonesia introduced two regulations (No.14/26/PBI/2012 and No.14/22/PBI/2012) requiring banks to increase productive loans and loan access for SMEs. As a consequence, since the beginning of 2013 Indonesian banks are required to give 20% of total loans to SMEs.

YEAR
2014

MILESTONES

In 2014, the Indonesian Government formed the Indonesia Financial Services Authority or Otoritas Jasa Keuangan (OJK). As the regulatory authority for banks, non-bank financial institutions and capital markets, OJK has since followed up on Bank Indonesia's green banking activities and broadened the focus to include all financial services.

In May 2014, OJK and KLH signed an MOU on Improving the Roles of Financial Services Institutions in Environmental Protection and Management by Developing Sustainable Financial Services.

In August 2014, OJK launched a group for Improving the Roles of Financial Services Institutions in Environment Protection and Management by Developing Sustainable Financial Services.

In December 2014, OJK published its Roadmap for Sustainable Finance in Indonesia 2015-2019, formalizing its commitment to sustainable finance.

Eight banks (Bank Mandiri, BRI, BNI, BCA, Bank Muamalat, BRI Syariah, BJB & Bank Artha Graha International) with a total of 46 % of Indonesia's national banking assets commit to be the first movers on sustainable banking and to support sustainable finance in Indonesia. The commitment manifests in a pilot project called "First step to be a sustainable bank", a partnership between Indonesia Financial Service Authority (FSA) and WWF-Indonesia.

YEAR
2016

MILESTONES

The Sustainable Finance Information Hub established. The hub is an integrated information system on Sustainable Finance provided by relevant ministries and institutions on green lending models, information on new financial products and supervision procedures. The information is available for FSI, government officials and wider audiences and presented in a microsite at OJK website.

YEAR
2017

MILESTONES

OJK introduced two new regulations:

1. POJK (OJK Regulation) No. 51/POJK.03/2017 (Ketentuan mengenai Keuangan Berkelanjutan / OJK Regulation on Sustainable Finance-P51/2017).
2. POJK (OJK Regulation) No. 60/POJK.04/2017 Green Bond/OJK Regulation on Green Bond issued by private banks or financial institutions.

YEAR
2018

MILESTONES

1. Issuance of the first Green Sukuk by the Government (USD1.25 billion).
2. Introduction of Technical guidelines for the implementation of OJK Regulation No. 51/2017 for banks.
3. The First Mover Bank establishment of Inisiatif Keuangan Berkelanjutan Indonesia (IKBI) or Indonesia Sustainable Finance Initiative.
4. Introduction of the Blended Finance Scheme by OJK that provides an option for sustainable financing.
5. Issuance of first domestic green bond in Indonesia by PT Sarana Multi Infrastruktur (PT SMI) IDR500 bn/$35 million equiv.)
6. Issuance of first green bond by a commercial bank in Indonesia by PT. Bank OCBC NISP Tbk ("Bank OCBC NISP" ($150 million)

YEAR **2019**

MILESTONES

- Indonesia becomes a first Mover for sustainable finance initiative in Emerging Countries.
- Issuance of second sovereign Green Sukuk ($750 million)
- Issuance of first Green Retail Sukuk in the world first year (The Ministry of Finance of Indonesia, 2021)
- Implementation of OJK Regulation No. 51/2017 for Bank BUKU 3, Bank BUKU 4 and Foreign Bank mandatory to report sustainable activities through Annual Report or Sustainability Report.
- Monitoring action plan for banks.
- Five Banks (Bank Syariah Mandiri, HSBC Indonesia, CIMB Niaga, OCBC NISP, Maybank Indonesia) join as IKBI members
- Preparing the Indonesia Sustainable Finance Roadmap Phase II (2021 - 2025).

YEAR **2020**

MILESTONES

1. PT. SMI join as IKBI member.
2. Indonesia Sustainable Finance Roadmap Phase II (2021 – 2025) is launched.

YEAR **2021**

MILESTONES

Issuance of green bond by Indonesia Infrastructure Finance ($150 million) (Indonesia Infrastructure Finance, 2021)

Source: Hadad, D. M., & Maftuchah, I., (2015), Sustainable Financing Industri Jasa Keuangan Dalam Pembiayaan Berkelanjutan, Jakarta

One of the most important milestones is the OJK Regulation No. 51/2017 (hereafter POJK 51). This regulation outlines the eight sustainable financing principles in Indonesia as follows:

- Responsible Investment
- Management of Social and Environmental Risks
- Informative Communication
- Development of Priority Sectors
- Sustainable Business Strategy and Practice
- Governance
- Coordination and Collaboration
- Inclusive

The eight principles provide practical guidelines for banks and non-banks financial institutions in the disbursement of loans and other financing instruments to businesses that are classified as sustainable (green).

The sustainable business activities mentioned above are defined as 12 category of Environmentally Friendly Business Activities (*Kegiatan Usaha Berwawasan Lingkungan/KUBL*), consisting of: 1) Renewable Energy; 2) Energy Efficiency; 3) Pollution Prevention and Control; 4) Management of biological natural resources and sustainable land use; 5) Land and water biodiversity conservation; 6) Environmentally friendly transportation; 7) Sustainable water and wastewater management; 8) Adaption to climate change; 9) Products that reduce resources use and produce less pollution; 10) Environmental sound building that meet and are recognized by national, regional or international standards of certification; 11) other business activities and or environmentally sound activities; and 12) Small and Medium Scale Enterprise (SMSE) activities.

Lessons Learned from the Indonesia Sustainable Finance Principles (Setyowati, 2020)

a. High degree of compliance with the various obligations set in POJK 51/2017 governing sustainable finance, especially by banking institutions. Some of the obligations include timely submission of sustainable finance action plans and publication of annual

sustainability reports

b. Sustainable finance products are succeeding in Indonesia. Products such as the green SUKUK issued in 2018, the first in the world; blended finance which aims to pool differences sources of capital together have benefited from the sustainable finance governance initiative from the government.
c. Sustainable finance lending portfolio has increased in priority areas, with the most increased observed in sustainable agricultural financing.

Some challenges impeding fully effective implementation of the sustainable finance roadmap include (i) limited effectiveness in communication of direction of what private sector banks should include in their sustainable finance action plan; (ii) insufficient risk management as most banks have not published their ESG lending policies for high risk sectors coupled to OJK's poor monitoring of the process; (iii) there is a varied degree of willingness, particularly from top banking sector leaders to mainstream sustainable finance in their business practice, the result is that sustainable investments remain a small fraction of overall financial portfolio of financial institutions.

Lessons from Green Bond Markets

Indonesia is fortunate in that it has established a robust "green" strategy, upon which Blue Finance can build. Despite the relatively innovative nature of blue finance and the documented barriers, the green finance market offers lessons which, if applied, would facilitate the development of the blue finance market (Roth, 2022). These include gaps specifically related to blue finance instruments as well as lessons learned from the green bond market which can be applied to the blue bond market.

Table 3 Blue Bond Gaps and Mitigation Solutions

Gaps & Barriers	Solutions
Lack of guidance on blue bonds	Base blue bond eligible projects on Green Bond Principles
Lack of projects	Provide feasibility support
Lack of Corporates adhering to blue standards	Explain benefits
Projects are too small	Bundle projects; Scale projects with other capital
Projects are too risky	De-risk through multiple revenue streams De-risk through credit enhancements or insurance
Projects are too complex	Clarify project structures
Low issuer credit rating	Add MDB guarantor
Lack of buyers	Focus on impact investors familiar with the space
Lack of awareness of benefits	Provide technical assistance
Lack of credibility	Develop metrics, principles, verification mechanisms
High transaction costs	Standardize assessments; develop transaction tools

Key lessons identified include:

- Buyers of green bonds remain a sub-set of the overall market
- Emerging markets are an important source of green bonds, with China leading the market
- Multilateral Development Banks are key partners in the development process, providing credentials, risk mitigation and technical assistance
- Definitions matter, but they do not have to be too narrow
- Guidelines, transparency and accountability are critical
- Reporting requirements on use of proceeds and impact are critical to credibility
- Institutional investors take time to cultivate and are a risk averse, but important audience for scale

Key challenges associated with attracting capital to sustainable marine and coastal investments include i) lack of track record of transactions (in comparison with terrestrial ecosystem investments); ii) lack of measurable and tradeable assets with strong monitoring, especially for nature-based investments (e.g. blue carbon); and iii) lack of reliable data related to fisheries, coral reefs, and marine ecosystems services (Coalition for private investment in conservation, 2021).

Blue Finance Instruments in Indonesia

Indonesia benefits from a broad array of financial instruments that may be applied to the blue economy. These instruments are summarized in the following table. Please refer to Annex 1 for a detailed description of these instruments and Annex 2 for a list of examples identified in Indonesia and globally.

Table 4 Summary Table of Blue Finance Potential Instruments in Indonesia

Instrument	Type	Pro	Con	Examples
Debt Based	SDG Bonds, Green Bonds	Green and SDG instruments have been issued by GoI	Blue instruments yet to be developed in Indonesia	SDG & Green Bond issued by GoI
	Banking Sector	Sector regulated by OJK; OJK developed sustainable finance principles which guide lending from banks to MSMEs and Corporates	Conservative lending; Typically unfamiliar with Blue Economy Sector, particularly natural assets See "Blue Finance Barriers" below	Multiple bank facilities available for established enterprises with business fundamentals
	Fin-Tech	Rapid opportunity to scale; lower transaction costs	Model relies on high volumes and low transaction costs	Aruna
	State Owned Enterprises	Provide bridge between grant and commercial lending; Support development of "bankability" Linked to ministries and defined mandates	Conservative lending; Typically unfamiliar with Blue Economy Sector, particularly natural assets See "Blue Finance Barriers" below	LPMUKP at MMAF PT PNM
	NGO or Donor supported	Examples are being developed and tested in Indonesia Focused on specific sectors / outcomes	Limited pool of resources Tightly focused Robust business plan required	Meloy Fund

Other Bonds	Impact / Outcome based Bonds	Payments linked to outcomes or impacts	Has not been successfully designed yet in a marine / MPA context in Indonesia	
Sharia Financing	Zakat Funds, Green Sukuk	Green Bond and Green Sukuk Framework exists and accepted by financial community	Has not been tested in "blue" economy in Indonesia; restricted to asset financing Market demand for "blue" product as yet unknown	
Trust Funds	Govt	GoI familiarity with these mechanisms and options	Capacity Constraints Subject to grant fund availability	ICCTF BPDLH
	NGO	Familiarity in Indonesia, with donors and NGO's Transparent mechanism	Presently grant supported; Transaction costs can be high	Blue Abadi Trust Fund (linked to BLU-D)
Capital Markets	Private sector Debt and Equity	Regulated by OJK OJK developed sustainable finance principles	Blue sector considered unfamiliar and risky See "Blue Finance Barriers" below	
Impact Investments	Both equity and debt	Very active in Indonesia esp. Aquaculture, fintech and plastics	See "Blue Finance Barriers" below	Aquaspark
Philanthropy	CSR Direct grants	Corporate Social Responsibility (CSR) Fund or Environmental Improvement Fund (Dana Bina Lingkungan) Grants for livelihoods & conservation	Funds often targeted Limited to "one off" gifts	Walton Packard etc
Development Partners	ADB, UNDP	Significant MDB support		Blue Sea Finance Hub
Blended Finance	Philanthropy; development partners; impact investment	Significant opportunity to scale, Good examples in Indonesia	Requires robust pipeline; capacity and resources to address transaction costs	The UN Global Coral Reef Fund; Tropical Landscape Finance Facility SDG Indonesia One
Debt for Nature Swaps	Terrestrial examples	Provides opportunity to unlock financing	No marine or blue examples in Indonesia	Seychelles & Belize
Insurance	Coral Reef Insurance Parametric Insurance	Nascent pilots being developed in Indonesia Strong Partners	No working models to scale	
Ecological Fiscal Transfers		Unknown	Unknown	

Blue Finance Barriers & Constraints in Indonesia

Despite the significant global interest in blue finance and in blue finance opportunities in Indonesia, several barriers exist and negatively impact investment to the sector. Globally, impact investments in Oceans remains low in comparison to terrestrial investment at the global level. According to the Ocean Finance Handbook (Friends of Oceans Action, 2020), SDG-14 – Life Below Water has received the least investment out of all the Sustainable Development Goals (SDG) and only only 21% of impact investors surveyed say they target SDG 14 – Life Below Water through their investments (Phenix Capital, 2019).

From several studies on blue finance or financing a sustainable blue economy (Credit Suisse, 2018) (The High-Level Panel for a Sustainable Ocean Economy, 2020) (Conway, 2017) (Holmes, 2014) and from our FGDs and interviews findings, the following are the identified barriers and challenges for investments or financing to the oceans sector.
Table 5 Summary table of Barriers

Table 5 Summary table of Barriers

	Key barriers	Components		
1	**Inadequate frameworks and taxonomies**	There are frameworks and taxonomies for green and sustainable investments, or other landscape-based sector, but none for blue sectors.	No common sustainable fisheries criteria that can enable organizations to utilize the same metrics.	Proper taxonomies are required by Indonesia's banks, financial institutions, and regulators.
2	**Gaps and mismatches in information, awareness, capacity and scale**	Lack of clearly identified strategies for attracting investment, treatment and retention for sustainable fisheries.	Lack of awareness of financing instruments and their value propositions.	Lack of after-care services and policy advocacy for local and international investors.
		Lack of proper international investment promotion and facilitation program.	Lack of complete "investor roadmap" and guide to fisheries and aquaculture investment, lack of support to SMEs with knowledge on how to export.	Investors need clarity and guidance on different fishery opportunities.
		Partners supporting the reform agenda have a high-level understanding of the key principles, but lack a robust understanding of the details (e.g., specific activities and investments at different levels of government or in various fisheries).		

Key barriers

Weak investment pipeline

3

Components

Lack of pipeline: lack of sufficiently large bankable investment opportunities; fragmentation; social enterprise prefer debt over equity investments.	Difficult to find business opportunities that are investable, credible, and receptive to external finance.	SME's are not organized as businesses (PTs/PMAs) and not attractive from a size perspective, meaning that their production output is small, and there are also high transaction costs to establishing PTs/PMAs as processes are not standardized.
Investor concern over longevity of investment and return- on-investment (ROI).	Limited exit strategies: equity investors generally expect management buy-back or to find strategic buyers. Hard to prove profitability.	Other factors limiting blue finance include the lack of intermediary capacity and transition capital.

Key barriers

High risk with little enabling regulatory environment

4

Components

Opportunity costs (perceived better options in the market) and lack of local talent or NGOs that can work with private sector or investors to teach better practices.	Perceived market risk (challenging local issues).	Social and market habits are difficult to change.
Resistance to change market preferences, for example to develop higher value supply chains.	Price volatility (markets).	Lack of reliable fishery data to make investment decisions.

Enabling Environment and Policy Constraints

The policy and regulatory environment helps investors to define what activities should be considered in either category. The Ministry of Finance and the Indonesian Financial Authority (OJK) may include 'blue' indicators in the current financial and investment guidelines and regulations. Indicators could include sustainability of fisheries stocks, adequacy of waste management protocols, or energy supply. Similarly, strengthening environmental licensing regulation to link it with sector sustainability targets can play an important role in encouraging financing into these areas. Such efforts will expand the opportunities for the financial sector to develop new instruments specific to the blue sector's needs, such as fisheries specific loans, insurance products or privately issued blue bonds. The capacity of the financial sector (both regulators and actors) in understanding the specificities of the blue sector needs to be improved.

The government can encourage direct investment into priority blue sectors by signalling the importance of those sectors through policy levers, such as defining certain activities as priorities for sustainable sector development. A particular way of doing this is to formalize the prioritization in a national planning document (RPJMN) or in other national level decree. They can seek opportunities for entering public-private arrangements in priority investment areas, such as developing fishing ports, or promoting access to renewable energy for blue businesses. Noting that to attract sustainable investment (such as in fisheries or ecosystem services), investors will rely on substantial public sector interventions such as credit guarantees, first-loss capital and the creation of a robust policy and legal framework to de-risk the prospects of investment. To accommodate needs of blue economy sector management with high risks to investors (particularly small-scale fisheries or eco-tourism investors), financiers can modify payment terms or loan collaterals. To encourage businesses to move toward more sustainable practices, banks can provide cheaper terms based on improvements in sustainability performance (for example, Fisheries).

Key policy tools include taxes, subsidies, permits, fines and fees to encourage desired investments and decisions affecting the blue economy. For example, fines can effectively disincentivize illegal behaviour, discouraging free-riding and ensuring a competitive marketplace. Similarly, ensuring taxes are set at a reasonable level to promote investment, and that subsidies align with the underlying policy framework, and do not create unintended perverse incentives/ outcomes, are both key to successful public-private collaboration for investment in a sustainable blue economy. Specific tax instruments that can foster a more sustainable outlook include product and resource taxes, energy, transportation and emission taxes, and more specialized environmental taxes for noise pollution, packaging, and waste. Notable examples with relevance to the blue economy include the emergence of levies on single-use plastic bags to reduce marine plastic debris, as well as the use of licenses or permits to regulate fishing. Many such taxes feature associated incentives, reliefs, and exemptions to incentivize more sustainable behaviours. Subsidies can create unintended outcomes, particularly when applied simplistically – fuel subsidies directed towards fishing fleets, for example, have directly contributed to both over-fishing and illegal fishing behaviour. Well-designed subsidies, however, can incentivize desirable behaviour by private sector and foster public-private partnerships.

The GOI can take efforts to attract climate finance for investments such as so-called nature-based solutions, including for mangrove restoration (which is expected to be scaled up through the National Mangrove Restoration Program). Adopting the legislation to clarify carbon ownership and institutional responsibilities for trading carbon would support carbon trade. The GOI can also expand the Indonesia Environment Fund (IEF) to blue sectors. The IEF can attract, expand, allocate and strengthen opportunities for additional blue finance, particularly those related to the climate (such as blue carbon opportunities for mangrove restoration). This would require capacity strengthening to the IEF, a recently established institution.

The same studies as the above (The High-Level Panel for a Sustainable Ocean Economy, 2020), (Credit Suisse, 2018), reinforced by our findings during the interviews and FGDs also identified opportunities for investments or financing to the oceans sector.

Table 6 Summary Table of Bappenas Opportunities

	Components	Opportunities		
		Set up and implement new (shared) rules, and guidelines.		
1	To guide investment decisions and develop sustainable blue economy policies, it is critical that **effective guardrails and guidelines are in place and are widely adopted**. An essential element of this emerging sustainable blue economy finance ecosystem will also be the **creation of ocean-based finance taxonomies**, in collaboration with partners which, in effect, will **create classification systems** of those activities considered to comply with strong principles for a sustainable blue economy.	Ultimately, the goal should be to ensure that existing frameworks and guidelines bridge and speak to each other and identify commonalities and differences that exist between them. It is very important to ensure **the frameworks developed are implemented**.	New standards and metrics need to be developed to encourage and support **stronger transparency and consistent reporting** across the blue finance community.	**Adequate governance, tracking and monitoring of flows, as well as principles and policy frameworks**, are needed to ensure that innovative financial mechanisms support the scaling up of blended finance and private funds that are effectively aligned with inclusive and sustainable development.
	Components	**Opportunities**		
		Strengthen knowledge, data, and capacity on ocean finance.		
2	This will allow decision-making processes and activities to **adapt to new knowledge of the potential risks, cumulative impacts and opportunities** associated with business activities. Moreover, information on the status of the natural asset being invested in is required for meeting rigorous criteria during a project's due diligence phase and throughout its life cycle.	**Strengthening knowledge** is especially relevant in developing countries, where data and information gaps are key challenges to attracting finance for investments (Holmes, 2014).	**Strengthening knowledge** is especially relevant in developing countries, where data and information gaps are key challenges to attracting finance for investments (Holmes, 2014).	Efforts should be made to more consistently and comprehensively **monitor and report on finance for the conservation and sustainable use of the ocean**, across both the public and private sectors. These efforts should involve better tracking and monitoring of financial flows for oceans ecosystems. In turn, private investors would have **sufficient information to make key investment decisions**. It will also help local entrepreneurs and support good business plans and practices.

National ocean accounts are a major component of the data infrastructure required. The integration of environmental and economic information through a sequence of ocean accounts is one means of improving the data situation highlighted here. For example, the time series of financial flows can be correlated with ecosystem changes within an integrated national accounting framework (Finechel, 2020).

Opportunities

3

Components

Strengthen the enabling environment, increase inclusivity, and correct market distortions.

Effective and stable regulatory and policy environments will help in attracting investment. To maintain and potentially increase the flow of economic benefits from the blue economy, the government needs to continuously provide a supportive enabling environment.

Government and multilateral agencies have critical roles to play, therefore, in **creating attractive financing conditions by reforming policies and creating regulations** that strengthen the sustainable management and governance of natural capital and facilitate and incentivise social enterprise and new forms of capital.

Policymakers should **provide greater clarity** regarding their policy objectives and approaches and maintain a high level of transparency and consultation with stakeholders at all levels.

Given the **importance of small and medium enterprises** (SMEs) to portfolio development, governments should also create conditions that provide access to financing, savings, micro-insurance, and other services (Grace, 2019)

Sovereign insurance products can also substantially improve the risk profile of projects.

Capacity building, training and tertiary education needs to support leaders, managers and local entrepreneurs who can **speak both the language of finance and the language of marine conservation**. National and international organisations can build the capacities in support of sustainable ocean finance through information provision, training, and networking.

Building the kind of information needed to attract investments into the ocean economy **requires a significant increase in human capacity for acquiring, investing, and aligning blue finance** in many developing maritime countries. Effective capacity building in the areas of ocean finance, insurance, and the application of fiscal instruments—is urgently needed to support investment for a sustainable blue economy.

Opportunities

4

Components

Stimulate the pipeline of investible sustainable projects.

It is **unlikely that a single financial transaction or institution** will be responsible for promoting blue finance all the way through the policy reform process.

Yet **a variety of mechanisms** can blend early-stage grant funding and concessional finance from philanthropic organisations and development finance institutions with later-stage capital from the private sector (Environmental Defense Fund, 2018)

The **private sector** can also play a key role in **delivering sustainable coastal infrastructure at a local scale**, further supporting establishment of small fisheries businesses.

Small and medium enterprises facing problems with economies of scale and high transaction costs will benefit from the **use of technology and innovation incubators**.

Given the **importance of small and medium enterprises** (SMEs) to portfolio development, governments should also create conditions that provide access to financing, savings, micro-insurance, and other services (Grace, 2019)

Opportunities

Explore new financing instruments and tools.

4

Components

New financing tools and access to capital markets are needed to act as a **positive incentive** for sustainable and inclusive marine based economic activities. Furthermore, these tools can also facilitate effective management and governance.

Innovative instruments that bring new forms of finance into the system and are more accessible to communities in developing countries, particularly women, youth, and marginalised communities will need to be created while reducing the overexploitation of coastal resources.

Green/blue/climate bonds must **meet investment criteria and accountability requirements** (e.g., Green Bond Principles; ESG criteria; and investment principles for sustainable fisheries) and certification to qualify for such labels and ensure the integrity of markets in the investment community.

A debt conversion program, also known as **debt restructuring** (formerly known as debt-for-nature swaps), negotiations take place whereby a portion of the debt owed to creditors is restructured and converted into agreed-upon initiatives that address, for instance, marine conservation and climate change. The debtors are then obligated to execute the initiatives. However, this will only be possible with full government commitment.

A trusted project entity is needed to manage and distribute the funds across aggregated projects, reducing the overall project risk and transaction costs, especially when projects are small scale.

Blended finance can offer substantial opportunities to improve investor confidence by providing up-front low-interest or grant-based investments to strengthen the enabling environment towards reducing the risk profile and improving investor confidence.

Mobilization of private equity/ investment funds and funding from private banks and public financial institutions for short- to medium-term financing is a good opportunity the government can explore to encourage direct investments into priority blue sectors. This can be achieved by seeking opportunities for entering public-private arrangements in priority investment areas, such as developing fishing ports, or promoting access to renewable energy for blue businesses.

In 2015 the Republic of Indonesia introduced a system for "tagging" of ministry budgets (Budget Tagging Process) to identify expenditures on projects that deliver specified climate change benefits in accordance with the Republic of Indonesia's climate objectives. The Budget Tagging Process was developed with the support of the UN Development Programme and involves a detailed assessment of the climate benefits of projects undertaken by Line Ministries. At the initial stage, the Budget Tagging Process covers climate change mitigation, involving 6 Line Ministries, i.e. (i) Ministry of Agriculture; (ii) Ministry of Energy and Mineral Resources; (iii) Ministry of Transportation; (iv) Ministry of Industry; (v) Ministry of Environment and Forestry; and (vi) Ministry of Public Works and Housing (and may be adopted by other Ministries in due course) based on key performance indicators of project output. In 2018, the Budget Tagging Process is expanded to cover climate change mitigation and adaptation, involving 17 Line Ministries, i.e. (i) Ministry of Agriculture; (ii) Ministry of Environment and Forestry; (iii) Ministry of Maritime Affairs and Fisheries; (iv) Ministry of Energy and Mineral Resources; (v) Ministry of Transportation; (vi) Ministry of Public Works and Housing; (vii) Ministry of Health; (viii) Ministry of Home Affairs; (ix) Ministry of Agrarian Affairs and Spatial Planning/National Land Agency; (x) Ministry of Law and Human Rights;

(xi) Indonesian Institute of Sciences; (xii) National Institute of Aeronautics and Space; (xiii) Geospatial Information Board; (xiv) Assessment and Application of Technology Agency; (xv) Indonesian 6 Agency for Meteorology, Climatology and Geophysics; (xvi) Indonesian Central Board of Statistics; and (xvii) National Development Planning Agency (Bappenas) (and may be adopted by other Ministries in due course). Currently Indonesia is in the process to expand the Budget Tagging Process to biodiversity under Biodiversity Financing Program.

Some roles that the GOI and private actors can play in creating and improving the enabling environment:

- **The Blue Finance Advisory Committee**- through relevant ministries that it will coordinate, can play central role in strengthening the enabling environment, and in turn promote and encourage new financial instruments in priority sectors, both sovereign and private. Increasing awareness and capacity of financial sectors actors as well as the demand side (such as companies, SMEs) will be key as these actors will help define the type of new instruments that fit with their particular business model.

- **Blue Carbon and payment for ecosystem services** – Engage with KLHK (MoEF) working on climate change and blue carbon policies, that can connect with the coastal issues that borders with MMAF's domain of marine protected areas and coastal economic activities; explore current initiatives from environment-related agencies that may have linkage with the ocean-based sector to address policy constraints to enable the development of nature based assets; continue cross-sectoral collaboration to detail regulations which will regulate carbon markets, including blue carbon; ensure that efforts of measurement include other co-benefits beyond carbon, such as biodiversity and coastal resilience – this will increase the value that coastal and marine ecosystems can get beyond the basic price for carbon.

- **Tourism** – address policy constraints to raise tax and non-tax revenue at the national and provincial level; address challenges associated with allocation and jurisdiction of fees and levies raised; establish lease or concession based options to provide for long term, non-extractive use; enhance the role of investment vehicles such as BLU-D in secure funds for conservation and coastal livelihoods; test viability of insurance, outcome based impact instruments and payment for ecosystem services mechanisms

- **Fisheries and aquaculture** – address policy constraints to raise tax and non-tax revenue at the national and provincial levels; address challenges associated with allocation and jurisdiction of fees and levies raised; identify permitted extractive use mechanisms to generate additional revenue from "spillover" effect; test viability of insurance, outcome based impact instruments and payment for ecosystem services mechanisms

- Based on the premise "what gets measured, gets managed", the integration of a robust tagging, taxonomy and blue finance framework to complement the green framework adopted by OJK will improve both awareness of funding size and the allocation of funding, particularly as the blue economy sector spans multiple ministries and stakeholders. While Bappenas can take a leading role in working with technical ministries to developing a comprehensive ocean account, technical ministries, such as the MMAF, or Ministry of Tourism, need to be aware of the ocean-based (blue) classifications and indicators in the green taxonomy to be able to support and adapt to relevant business activities and secure new investment. Business entities also need to be aware of the new framework and taxonomies, to be able to design a business model that can generate interest in new financing instruments and mechanisms. The buy-in from banks and other financial institutions are very important. They are the supply side of the equation and OJK will has influence to encourage them moving toward sustainable blue financing.

- **Tagging -** MoF to develop a framework for tagging of marine protected areas and fisheries related investment, to be eligible for blue bond, blue sukuk or other sovereign funding mechanism.

- **Taxonomy** - The fisheries and marine related business/ocean-based activities within the green taxonomy published by **OJK** can be strengthened in terms of classification and indicators that are

based on to be considered green, instead of just 'yellow' or even 'red'. The improvement on the classification and indicators can use lesson learned from implementation of LAUTRA.

- **Frameworks** - In making sure the frameworks developed are implemented, it is crucial for the **MoF** to issue supporting regulations, for example on improving the climate tagging framework, or on issuance of thematic bonds or sukuk.

- **Improve Reporting of Blue Investments -** OJK have mandated a reporting standard for financial institutions. The regulation should also be expanded to include blue investments as well as other business entities, including non-financial institutions (e.g., companies, SMEs)

- **Monitoring** - Monitoring of government agencies in implementing the ocean-based projects using sovereign funding should be the collaborative work of **Bappenas** and **MoF**. Monitoring of financial sectors actors, has always been **OJK's** domain, and should adopt the new framework and ocean-based classification in the green taxonomy.

D Sources of Finance

A number of sources of finance are available to support the development of the blue economy. These range from fees, levies and penalties to payments for ecosystem services and biodiversity offsets. As a general rule, each of the sectors identified as benefiting from healthy ocean ecosystems can be induced to contribute additional non-tax revenue based on the following options (Bohorquez, 2022):

- **Fines and penalties for regular or semi-regular infractions** – leveraged from the tourism, fisheries, aquaculture, shipping and transport industry.
- **Volunteering and cost-sharing** – leveraged from specialist tourism (sport fishers), oil and gas industry, shipping and transport industry, telecommunications companies, and research institutions.
- **Non-extractive use rights (long term agreements)** – leveraged from the shipping and transport industry (i.e., transit fees) and telecommunications companies (i.e., right of way fees) and tourism concessions.
- **Non-extractive use rights (single use permits)** – leveraged from telecommunications companies (i.e., fees for maintenance) and research institutions (i.e., research permits).
- **Extractive use rights** – permits or licenses to benefit in areas benefiting from improved ecosystem health e.g., fisheries spillover effect adjacent to MPA's; aquaculture benefits
- **Biodiversity offsets** – leveraged from the oil and gas industry, the shipping and transport industry, and telecommunications companies.
- **Blue Carbon Credits –** secured from mangrove, seagrass and coral reefs; monetized for future investment in ecosystem health
- **Other Payments from Ecosystem Services** – payments derived from financial flows associated with ecosystem health.

Fees, levies and penalties (Victurine, 2022)

Fees, levies, and penalties are mechanisms by which a government or a management authority can capture part of the value of an ecosystem service or sanction environmental harmful behaviour. This can take different forms and can be integrated into the sustainable management of a marine area through regulations of practices and human flows to reduce pressures (Victurine, 2022).

These tools can also act as a standalone financing source through user fees that constitute a payment from users (e.g. from fishermen, tourists etc) who benefit from ecosystem services provided by the area. It is a form of payment-for-ecosystem services, but as fisheries and tourism value chains have evolved as distinct sectors, they are typically treated differently to other payment for ecosystem services. As part of the same financing sources concept, penalties can constitute another source of financing for marine areas, based on the "polluter pays" principle.

This non-tax revenue is an important part of GoI's revenue diversification strategy as national and provincial budgets have been constrained, and supports the development of BLU-D's to fund MPA's. As an example the regency government of Raja Ampat created an entrance fee of $40 per international visitor, whose around 30% are allocated to a conservation fund via a BLU-D.

In addition to visitor tourism fees, Indonesia may also seek to develop concessions or lease fees from the tourism and fisheries sector. Examples of similar or relevant MPA related activities are included in Annex 2.1.1

Payment for ecosystem services (Victurine, 2022)

Marine ecosystems provide a broad range of services that benefit human beings at all scales. They may be grouped under four types of ecosystem services: provisioning, regulating, cultural and supporting services and range from coastal protection provided to communities by corals, to nursery and reproduction effects of coral reefs for marine species. The most developed ecosystem service is Blue Carbon due to the establishment of an emerging carbon market and verification protocols for carbon credits.

Marine ecosystems, through mangroves, seagrass and phytoplankton, have an outstanding carbon sequestration capacity. Together, they sequester 10 times more carbon than terrestrial carbon sinks, including forests and meadows.

As a consequence, blue carbon represents a strong opportunity for climate change mitigation. It can support countries in their National Determined Contribution (NDC) or result in a reliable source of financing through payment-for-ecosystem services. The financial benefits from blue carbon credits sales may be reinvested in mangroves or seagrass conservation, hence resulting in the emergence of a sustainable source of financing in the long run.

The voluntary carbon market has been developing for several years, with several credit issuers such as Verra or the Gold Standard issuing almost $7 billion worth in credits since its creation. However, blue carbon remains a niche as very few projects have been certified to date. Verra, the largest carbon credits provider on the market, issued nearly 970,000 blue carbon credits out of its 620 million credits issued (Jones, 2021) Blue carbon credits have a bright future, primarily due to high added value related to their ability to embed ecosystem services and community benefits beyond just carbon sequestration. Blue carbon credits currently trade at around $5 per tonne but are projected to be traded at $25-$55 per tonne by 2030 due to growing demand.
One key consideration is the ability to engage with coastal communities in such projects. In general, infrastructure and capacity are not fitted to develop blue carbon projects, especially for all monitoring related activities. Moreover, benefit sharing plans must be well defined so benefits can flow equally to project developers, coastal communities and marine conservation.

Blue carbon represents a potentially reliable financing source for marine conservation and blue finance activities due to the multiple benefits and strong market demand. However, it requires significant investments and capacity building, whether at international scale through the adoption of a streamlined blue carbon accounting method, or locally with management practices and benefit sharing programs.

Additional examples may be found in Annex 2.1.2.

Biodiversity offsets (Victurine, 2022)

Biodiversity offsets represent a very important financing mechanism opportunity. It consists in companies financing conservation or restoration projects to compensate for their negative environmental impact on biodiversity. It can be applied to coral reefs or mangrove destruction for instance. For instance, aquaculture companies deforesting mangroves to set up their ponds could finance mangrove restoration or conservation programs.

That's why this mechanism must be studied as part of a more global approach of marine conservation. First, it requires strong public commitments to design and implement regulations to minimize negative environmental impact in strategic marine sectors such as fisheries or coastal development. It should be paired with penalties and other enforcement policies. Moreover, a mitigation hierarchy should be developed to define priority mitigation areas, once again in strategic sectors such as fisheries or coastal development. Then, even complying companies would still have impacts that do not fall under regulations' mandates. Consequently, biodiversity offsets would be a way to compensate for remaining impacts. It would require strong guiding regulations and control. Coral reefs hotspot countries like Mozambique or Colombia have already developed their own coral reef biodiversity offset frameworks.

Estimates based on specific levels of future investment and on projected levels of global development estimate potential offset financing valued between USD$162-168 billion/year, which is at the level estimated to be required to meet protected areas finance needs by 2030 (Deuz, 2020).

Some mechanisms already exist to finance coral reef conservation through biodiversity offsets. In Australia, a reef credit scheme was developed to provide payments to landowners who employ practices that reduce sediment runoff into the Great Barrier Reef. Examples of offset programs are included in Annex 2.1.3

E Priority Sectors to Target

A number of taxonomies related to defining eligible blue investment sectors have been developed in recent years. These include the Guidelines for Blue Finance by the International Finance Group (IFC) (IFC, 2022), the Asian Development Bank (ADB) Ocean Finance Framework (The Asian Development Bank, 2019) and the United Nations Development Program (UNDP) as part of the Blue Financing Strategic document. Broadly, each of these includes investments in the following (The Asian Development Bank, 2022).

Ecosystem and Natural Resource Management - includes ecosystem management and restoration, sustainable fisheries management and aquaculture

Pollution Control – includes solid waste management, resource efficiency and circular economies, non-point source pollution management and waste water management

Sustainable Coastal and Marine Development – includes coastal resilience, coastal and marine tourism, ports and shipping and marine renewable Energy

Ocean Finance - includes support for ocean finance instruments

This policy note builds on the World Bank's Oceans for Prosperity (The World Bank, 2021), with identifies the following, priority sectors for deploying blue finance: (a) sustainable fisheries (including aquaculture); (b) tourism; (c) managing coastal and marine assets (marine protected areas) and (d) combating waste, plastics in particular. All these sectors require investment to ensure the long term sustainability of the underlying ecosystems. However, the challenge is how to make the necessary investments in a manner that is not detrimental to the underlying ecosystem, does not exacerbate over-extraction of natural resources and, ideally, to contribute to the costs of effectively managing protected areas and healthy ocean ecosystems.

Marine Protected Areas

As has been documented in this paper and elsewhere, marine protected areas (which protect mangroves, coral reefs, and seagrass beds) play a critical role in providing ecosystem services that support near-shore economic activities, such as small-scale fisheries, aquaculture and marine tourism. Each of these sectors provide significant employment in Indonesia and constitute close to 7% of GDP and as such are highly reliant on healthy marine ecosystems and protected areas . Concurrently, marine debris and other sources of land-based pollution negatively impact benefits provided by these natural assets and their derivative economic activities.

Generating resources from all economic sectors impacting MPA's, will require the adoption of revenue generating instruments. These are summarized as follows: (Bohorquez, 2022):

Fines and penalties for regular or semi-regular infractions – leveraged from the tourism, fisheries, aquaculture, shipping and transport industry.

- **Volunteering and cost-sharing** – leveraged from specialist tourism (sport fishers), oil and gas industry, shipping and transport industry, telecommunications companies, and research institutions.
- **Non-extractive use rights (long term agreements)** – leveraged from the shipping and transport industry (i.e., transit fees) and telecommunications companies (i.e., right of way fees) and tourism concessions.

- **Non-extractive use rights (single use permits)** – leveraged from telecommunications companies (i.e., fees for maintenance) and research institutions (i.e., research permits) and tourism visitor fees.
- **Extractive use rights** – permits or licenses to benefit in areas benefiting from improved ecosystem health e.g., fisheries spillover effect adjacent to MPA's; aquaculture benefits
- **Biodiversity offsets** – leveraged from the oil and gas industry, the shipping and transport industry, and telecommunications companies.
- **Blue Carbon Credits** – secured from mangrove, seagrass and coral reefs; monetized for future investment in ecosystem health
- **Other Payments from Ecosystem Services** – payments derived from financial flows associated with ecosystem health.

Carbon and Payments for Ecosystem Services (Victurine et al 2022)

There are significant ecological and economic interactions between coral reefs and other ecosystems including mangroves and seagrass beds. Mangroves protect seagrass beds and coral reefs from landward discharges and sedimentation, while the coral reefs also protect the other systems by buffering ocean currents and dissipating wave action. Mangroves and seagrass beds are also critical habitats for young or juvenile reef fish. The successful connectivity between the three ecosystems is vital for fishery resources, nutrient balance and mitigation of climate change (Kathiresan et al., 2011).

Mangroves and seagrass ecosystems store significant amounts of carbon from the atmosphere and ocean and are increasingly recognized for their role in mitigating climate change. Although these combined ecosystems currently cover less than 2% of total ocean area, they account for almost 50% of the total carbon stored in ocean sediments. Actions to capture or retain carbon in marine and coastal ecosystems falls under the term "blue carbon," which offers an opportunity for generating climate finance that can contribute to coral reef conservation through registering and selling carbon offsets.

Good quality blue carbon projects in coral areas could be quite lucrative and provide valuable co-benefits for biodiversity and livelihoods. The potential exists to link green carbon coming from watershed protection or restoration to blue finance if projects are integrated via a jurisdictional approach and projects could reduce sedimentation and pollution flowing into reef systems. With increasing demand in the voluntary carbon market, average prices are projected to rise to between $20 and $50 USD/tCO2e by 2030, and potentially higher as demand grows (Trove Research, 2021). Given the important co-benefits to biodiversity and livelihoods, blue carbon is expected to command prices at the higher end of the price range.

In addition to the development of a robust "blue carbon" system, the opportunity also exists to develop similar tools to capitalize on payments for ecosystem services and represents an important frontier in financing ecosystem services (see Section D, Sources of Finance).

The World Bank has an extensive history of supporting the GoI in the development of carbon-based instruments. The World Bank has been supporting the GoI, particularly MoEF, to raise climate financing, including through two large-scale performance-based payment projects (East Kalimantan and Jambi) and potentially blue carbon payments linked to the mangrove rehabilitation project.

In addition, the GoI is committed to accelerating Indonesia's low carbon transition and reach the net zero emission target by 2060. To support this ambitious, long-term goal, GoI is planning to introduce a mix of carbon pricing instruments. A *Presidential Regulation on 'Economic Value of Carbon'* (Perpres NEK) was issued in October 2021. It establishes an overarching policy framework and guiding principles for the development and deployment of a carbon pricing policy mix in Indonesia, including (i) allowance-based emissions trading and carbon offsets, (ii) results-based payments (RBP); (iii) use of carbon levies/tax; and (iv) others.

To that end, this document encourages the Bappenas engage with KLHK (MoEF) working on climate change and blue carbon policies, which can connect with the coastal issues that borders with MMAF's domain of marine protected areas and coastal economic activities; explore current initiatives from environment-related agencies that may have linkage with the ocean-based sector to address policy constraints to enable the development of nature based assets; continue cross-sectoral collaboration to detail regulations which will regulate carbon markets, including blue carbon; ensure that efforts of measurement include other co-benefits beyond carbon, such as biodiversity and coastal resilience – this will increase the value that coastal and marine ecosystems can get beyond the basic price for carbon.

F Potential Blue Finance Instruments

There are several potential financing options available for healthy marine ecosystems globally and in Indonesia, with some research identifying 21 financial instruments and 11 or more sources of finance, and more than 75 potential combinations (Bohorquez, 2022). **Blue finance instruments** (distinct from blue finance sources) such as trust funds, impact investments, debt-for-nature swaps, revolving loan funds, compensation funds, sovereign wealth fund, debt conversion, corporate social responsibility, parametric insurance products, bonds, and blended finance all constitute possible financing solutions. In addition there is a growing body of practice seeking to **develop sustainable financing sources** such as ecotourism, sustainable fisheries, sustainable aquaculture and payments for ecosystem services. As an example, in 2018, the World Bank supported Seychelles for the development of the World's first Sovereign Blue Bond, showing the adaptability of using these various funding instruments specifically for the blue economy. Indonesia specifically has previously issued green bonds/sukuks and the GoI is adapted to the deployment of bonds and blended finance instruments in general to support sustainable development initiatives.

As Indonesia has already established some of the identified instruments such as Trust Funds and has attracted significant impact investment. At the same time, given that the use of funds is intended to address marine protected areas and coastal livelihoods, without an effective underlying asset, a limited number of scalable instruments are available. These centre on sovereign blue bonds or blue sukuks which would be issued by the GoI.

A sovereign blue bond or blue sukuk has been identified as a potentially viable option, subject to the completion of a formal feasibility assessment. A sovereign instrument, issued with the backing of the GoI is more likely to attract investment to this relatively nascent sector at this time, assuming the enabling environment issues identified above and the design issues identified are addressed. This determination has been made based on the intended use funds; the nature of the anticipated underlying assets and the lack of a robust financial pipeline of projects capable of generating adequate cashflows.

While a blended finance vehicle may be viable in due course, the necessary prerequisites for the success of such a facility are not currently in place. These include a) the presence of an adequately sized and robust pipeline of investment ready projects representing adequate absorptive capacity; b) robust impact metrics and monitoring systems; c) the ability to target relevant investors; d) structural and legal capacity to address issuer, channelling options and legal costs; e) strong implementation and operational capacity to minimize transaction costs and f) strong coordination between private and public stakeholders. Critically, the pipeline must be consistent and large enough to cover the high transaction costs associated with developing blended finance facilities which can be both time and resource intensive.

Blue Bonds and Blue Sukuk

Bond frameworks generally consist of categories of acceptable projects or activities and a set of core principles. These core principles include implementation and transparency requirements related to project selection, monitoring and reporting as well as external review of the use of proceeds and impacts. At the same time, fitting a blue bond within the categories of social and sustainability bonds also permits to move beyond the environmental aspect and address specific livelihoods, education,

training, and social aspects. Coastal adaptation as well as coastal mitigation projects will almost certainly have a positive impact on alternative livelihoods, job creation, diversification of income streams and the strengthening of the social climate adaptation capacity. These are key social activities related to sustainable blue economy and might attract better financing through a sustainability bond rather than a pure green bond. As it is, the job creation and livelihood aspects are largely missing in the green bond principles.

Public bodies can contribute at different levels. First, they are the obvious issuers of blue bonds. This is for reasons of capacity, size, and complexity, but also due to the specific subject matter. Especially where blue bonds are used to restore and enhance blue habitats – activities widely perceived (rightly or wrongly) as a public, not necessarily an individual, responsibility – governments will be the primary agents to issue blue bonds and oversee the use of proceeds. Thus, governments are advised to improve the bond sourcing environment. This relates to the identification of a suitable project pipeline.

Governments need to be able to spread appropriated funds throughout the fiscal years and to issue, where applicable, success-based payments. Similarly, the need for governments to work with intermediary or other stakeholders during the implementation of the dedicated bond is sometimes hampered by procurement rules. Governments could consider aligning their procedures to allow harmonized sourcing and implementation.

Second, governments can use regulatory tools to improve the market environment for blue bonds. They can subject blue bond investment earnings to preferential tax treatment, exempting the earnings from taxation. Public funding could be used in certain conditions to subsidize the use of external reviews.

Third, the issuance of blue bonds can be substantially helped by international donor governments. These can provide bilateral technical assistance to developing countries targeting specifically the issuance of blue bonds. In most cases, however, donor countries will work through multilateral funding institutions, MDBs and special international funds. They are best suited to render both technical and financial support. They may assist – as the World Bank and GEF did in the case of the Sovereign Blue Bond of the Republic of the Seychelles.

As noted in section related to Green Sukuk's, Indonesia has experience in developing both domestic and international Green Sukuk instruments which are based on Islamic finance principles.

Brief Summary of Blue Bonds

At the time of writing, only four blue bonds have been issued globally. These are summarized below.

Name	Objective	Size/ Duration	Investors	Key Terms
Seychelles Blue Bond (The World Bank, 2018)	Transition support to sustainable fisheries	USD 15mn; 10 Years	World Bank; Private Placement: Calvert Impact Capital; Nuveen, and Prudential	Loan provided by GEF reduced interest rate For government from 6.5% to 2.8%
Nordic- Baltic Blue Bond (The Nordic Investment Bank, 2019)	Bond issuances focused on investments within Water resource management and Protection	USD 213mn; 5yrs	Capital Market	0.375% Coupon
Bank of China Blue Bond (Societe Generale, 2020)	Boost the expansion of sustainable blue economy through marine –related green projects, including offshore renewable energy and waste-water treatment	USD 942.5mn ; split between a three-year $500 million tranche and a two-year CNH (offshore Chinese yuan) billion tranche	Capital Market. By type of investors, banks and other financial institutions accounted for 46% of the bond, asset managers 27%, and insurance companies and other investors 8%	1.054% (USD; 3 years) 3.15% (CNH; 2 years)
Belize Blue Bond (The Nature Conservancy, 2021)	Financing for Marine Protected Areas	$23 mn conservation trust. $364 mn in principle 8 years	TNC, Credit Suisse, DFC	1.65% steps up to 4.47%

Other Parametric Insurance (The UNDP, 2020)

Parametric insurance is a promising alternative compared to traditional insurance to address catastrophic weather events and their impact on developing nations such as Indonesia, especially with the increasing adverse effects caused by climate change. Parametric insurance is a type of insurance that is founded on an agreement to make a payment upon the occurrence of a discrete event. This type of insurance is currently reliant on more subjective factors that are restructured into products with defined parameters that might enable digitalization and administration. Parametric insurance pay-outs are determined based on objective measures, such as the magnitude of a weather event as a highly correlated index of measurements, and not through a claim's adjuster surveying the damage. It is this type of structure that makes it preferable to apply within Indonesia, as it is a country that often suffers weather-based disasters such as flooding, earthquakes, and other unexpected disasters that require a quick pay- out to rebuild and to hire emergency workers (The World Bank, 2018).

One of the advantages of using parametric insurance is that pay-outs can be received quickly, because the parameter of catastrophe can be determined immediately. Thus, this type of insurance might be able to accommodate the uncertainty found in businesses engaged in blue finance to ensure the stability of practices. However, the downside of using parametric insurance is that it can be difficult to understand. This downside can be overcome by hiring experienced insurance companies that can utilize their knowledge and experience in developing climate-based risks and managing those risks in capital markets.

So far, Indonesia has not raised funds from parametric insurance for marine conservation purposes. However, instruments are being explored, especially in the case of a Flood Resilience Parametric Insurance that the Asian Development Bank is designing alongside the Global Environment Fund (GEF) and the Asia Pacific Climate Fund (APCliFF) (see note on Coral Reef Insurance).

Additional examples included in Annex 2.2.1.

Environmental impact bonds (Victurine, 2022) :

Impact bonds are instruments in which investors pay the upfront costs for implementing a project with specific measurable outcomes, and a public agency or private institution that benefits from these solutions repays investors an amount linked to achievement of those agreed-upon outcomes. The impact "bond" has a fixed term but does not offer a fixed rate of return to the investor. Instead, a payment is made by the issuer or a third party if the environmental outcome is reached.

The success of impact bonds depends on two key elements: a standardized metric against which to measure outcomes and inform payments to investors, and a source of outcome payments. The source of outcome payment can either rely on the activity being funded itself, or it can be done by a third-party.

While these instruments are not yet widely developed for marine purposes, environmental impact bonds have been developed on other topics. For instance, the World Bank recently issued the first Wildlife Conservation Bond. It is a mechanism that raises $150 million on the bond market for black-rhinoceros protection and repopulation in South-Africa. The outcome metric is the population of black rhinoceros. If it grows, then the Global Environmental Fund (GEF) will make a payment to bondholders.

The marine sector is challenged to engage with this kind of instrument due to a range of factors associated with the open access nature of the resource and the lack of robust, time series data, and the high transaction costs of data collection amongst other factors. However, recent advances with satellite imagery in assessing coral and vegetation health should spur innovative and cost effective solutions. (see also "Opportunities" in Section C, table 6) Additional examples are included in Annex 2.2.2.

Debt-for-nature swaps (Victurine, 2022)

Debt-for-nature swaps allows debtor countries to receive substantial discounts on the debt owed to its creditors in exchange for investments towards conservation and enacting environmental protection measures.

Even though it is a controversial practice, there is a growing interest in this financing instrument, especially with the development of two debt-for-nature swaps under the Seychelles and Belize's Blue Bonds.

The Belize Blue Bond is a $546 million dollars debt-for-nature swap due in 2034. The new loan enables Belize to repurchase and retire existing external commercial debt, create significant annual cash flows for conservation through 2040, and establish an endowment to fund conservation thereafter. The bond is made of a $364 loan repayment component and the remaining $178 million will be used to finance marine conservation, especially investing $23.4 million within a marine conservation independent trust fund, to reach the Aichi target of 30% of marine areas under protection by 2030.

Additional examples are available in Annex 2.2.3.

G The Blue Finance Roadmap

Drawing on key stakeholder interviews in Indonesia in 2019–2020, this section examines how Indonesia's sustainable finance roadmap has unfolded on the ground and investigates key challenges to its effective implementation. A key finding from the investigation is that there has been high procedural compliance by financial institutions through developing sustainable finance action plans and submitting annual sustainability reports to the financial regulator. However, there is considerable variation and inconsistency in interpreting what constitutes a 'green' project among financial institutions, enabling some financial institutions to engage in little more than tokenism. With the limited regulatory oversight currently provided, it is difficult to see how financial institutions might be incentivised to do more or how tangible sustainability outcomes can be achieved (Setyowati, 2020).

This roadmap laid out the general work plan on the blue finance for Indonesia, describing the roles of multiple actors in the financial sector as well as in the marine sector. This roadmap is prepared to provide guidance for financial institutions under the OJK, as the regulator, namely the banking, capital market, and non-bank financial services institution to be able to prepare for blue financing development in Indonesia. This roadmap also compliments the recently adopted Sustainable Finance Roadmap II (2021-2025) prepared by the GOI through the OJK which prescribed a set of principles that integrate and implement environmental, social and governance aspects in sustainable financing for a low carbon economy. While the Sustainable Finance Roadmap II creates the ecosystem that involves wholistic stakeholder management and promoting cooperation at various levels, the blue finance roadmap presented here recommends global best practices to sustainably finance oceanic sectors.

There are two priorities in this roadmap. The first one is **the Blue Finance Flows**, where it laid out the milestones that specific groups of actors should achieve, prepare, or implement in terms of the financial instruments and mechanism. The second one is the **Enabling Environment**, where it laid out the milestones that specific groups of actors should achieve, prepare, or implement in creating policy and regulatory environment that encourage and accommodate blue finance implementation in Indonesia.

	Component	Key Actors	Activities	Timeline
Priority 1: Blue Finance Flows				
	Environmental, Social, and Governance (ESG) Policies and Regulations	OJK & Bank Indonesia (Financial Regulators)	Provide broad policy signalling to promote blue finance (monetary policy, etc.) Policy signalling includes clear strategy and goals from the government of Indonesia to achieve fisheries and marine conservation objectives, and that there are large financing gap that have to be closed. Other signal should be aimed at the market, where the OJK, Ministry of Finance, or MMAF have clear guides on what fisheries and marine conservation activities needed to be financed, and clear enabling environment on which the financing could be disbursed.	Short term (1-3 years)
			Expand/revise the current guidelines and framework The current sustainable financing guidelines and framework from OJK not defined or expand the blue (e.g., fisheries and marine conservation) sector to be able to be differentiated from other sustainability sectors.	Medium term (3-7 years)
			Provide blue finance incentive mechanisms. The incentive can be broad. Ranging from formal acknowledgement (e.g., awards and certificates) that can improve reputation, to fiscal incentives to boost interest of new actors entering the fisheries and marine conservation relevant business activities.	Long term (>7 years)
			Introduce differentiated prudential requirements to promote blue finance The prudential requirements could include: 1. Clear Environmental, Social, and Governance (ESG) indicators and requirement for different types of blue business activities financed; 2. Blue business activities risk assessment guidelines from the OJK.	Long term
			Build blue finance policy and supervision capacity of regulators. An initial step required is the establishment of the Blue Finance Advisory Committee. This committee could then design, working together with OJK and financial sector actors, the necessary revision or addition to the current regulation on mandatory capacity building.	Long term
		Government (relevant ministries)	Set up an enabling regulatory environment Most of the financial sector regulatory scheme are under OJK's authority. However, other ministries can also contribute important elements: 1. MoF with designing fiscal incentives to encourage more investment and financing to fisheries and marine conservation. 2. MMAF or the Ministry of Tourism and Creative Economy, with designing ministerial projects that align with sub-national economic targets and potential business development.	Short term
			Allocate resources to blue activities through targeted refinance schemes, matching funds, guarantees and other risk sharing instruments	Short term
			Promote access for blue start-up to international green funding sources including concessional funding, venture capital, grants, and technical assistance	Short term
			Introduce guidelines for blue Foreign Direct Investments (FDI)	Medium term

	Defining Blue Finance	Financial regulators (supported by multi-stakeholders)	Define blue finance and develop sector specific taxonomies	Short term
			Develop tools and guidelines to assess blue projects	Short term
			Build local capacity to assess, identify, measure, develop and write green project proposals	Medium term
			Develop blue project Monitoring, Reporting, and Verification (MRV) and certification	Medium term
	Blue Bond/Blue Sukuk	Government and financial regulators (supported by multi-stakeholders)	Conduct scoping study to assess needs and identify strategy to develop blue bond market	Short term
			Conduct market assessment and feasibility study of potential blue projects to be financed with bonds	Short term
			Introduce blue bond guidelines, blue bond catalogue, reporting guidance and incentive mechanisms	Medium term
			Develop third-party verification system	Medium term
			Issuing an operational blue bond scheme	Long term
			Build capacity and awareness, and provide technical implementation support and guidance to relevant stakeholders	Continuous
	Monitoring, evaluation, and measurement	Cross-actors	Develop blue finance strategic investment plan The Blue Finance Advisory committee can lead the development of the strategic investment plan by first mapping or tagging blue related projects within ministries, and then design a plan to attract investments or financing for those projects.	Medium term
			Introduce statistics system to track blue finance flows	Medium term
			Develop calculation methodology, tools and tracking platforms for financial institutions, regulators, and policymakers	Medium term
	Blue Finance products	Cross-actors	Support financial institutions in the process to develop new blue products and services	Short – medium term
			Develop various financial products (both banking and capital markets) and related policy	Medium term
			Implement comprehensive green finance capacity building programme for financial institutions	Continuous
Priority 2: Enabling Environment				
	Institutional and governance	Government and financial regulators (supported by multi-stakeholders)	Establish a Blue Finance Advisory committee, scaling up from current institutions with relevant mandate and function. The Steering Committee will provide leadership and multisectoral strategic guidance and facilitate a whole-of government implementation of the sustainable blue finance initiative	Short term
			Set up thematic working groups and workplan for the coordinating agency	Short term
			The coordinating agency develop an action plan and roadmap	Short term
			Create/enhance partnerships with blue or sustainable finance networks and international organizations	Continuous
			Track progress and report publicly the implementation of the roadmap	Continuous
			Build the capacity of the Committee	Continuous

	Capacity building	Government and financial regulators (supported by multi-stakeholders)	Financial institutions. The capacity building aimed at financial institutions should consist of: 1. Estimating and mitigating risks from a fisheries or marine conservation project. 2. Awareness on ESG relevant to blue projects. 3. Potential instruments compatible with the characteristics of blue economic activities.	Continuous
			Regulators and policymakers The capacity building aimed at regulators and policy makers should consist of: 1. Capacity to design enabling environment, including guidelines, strategic policy, and regulations that can encourage more investments toward blue projects. 2. Capacity to design impactful blue projects within ministries, that can further be aligned with sub-national development targets.	Continuous
			Project owners/investors The capacity building aimed at project owners should consist of: 1. Designing a business plan that can demonstrate projected benefits both for the investors/financiers as well as economic and social impact. 2. Capacity to identify potential market for source of financing.	Continuous
			Non-government organizations working on fisheries and marine issues The capacity building aimed at NGOs should include: 1. Community financial literacy and on utilizing local financial institutions. 2. Designing business plan for community-based business projects.	Continuous
			General awareness-raising Capacity building aimed at the general public should consist of: 1. Introduction to ESG and why companies or financial institution should comply. 2. Raising awareness on blue issues to encourage decision making towards blue (or more generally, sustainable/green) investment products and services.	Continuous
			Support blue finance research in collaboration with universities, NGOs and research institutions	Continuous
	Measuring progress	Cross-actors	Develop measurement framework to track implementation of roadmap	Continuous
			Develop reporting framework	Continuous
			Conduct regular review and update of the roadmap	Continuous

H Recommendations and Next Steps

The following recommendations are intended to a) strengthen the enabling environment and policy framework for the mobilization, management and utilization of blue finance; and b) develop up to two financing mechanisms to finance marine conservation and sustainable livelihoods. This will be achieved by:

a) The establishment a Blue Finance Advisory Committee.
b) The strengthening of the enabling environment to attract blue financing.
c) Development and issuance a Blue bond (or sukuk) as medium- to long-term primary source of financing to blue sectors.

a. Establish a Blue Finance Advisory Committee. Given the multiplicity of initiatives and activities in the blue economy, along with the need to effectively coordinate activities, and the intention of integrating sustainable blue financing as part of national goal, Bappenas will take a lead as Coordinator of the proposed Blue Finance Steering Committee. Bappenas is expected to play role as coordinator with details as follows: To coordinate and formulate policies in the fields of development planning, national development strategy, providing direction to sectoral, cross-sectoral, and cross-regional policies, national and regional macro-economic framework, engineering design of facilities and infrastructure, framework of regulations, institutions, and funding, and in the field of monitoring, evaluation, and managing the national development implementation with regards to the proposed SBFI. Second, to coordinate the seeking out of domestic and foreign sources of financing, and in the allocation of funds. Furthermore, to coordinate and synchronize the implementation of policies national development planning and budgeting and the preparation of construction designing of facilities and infrastructure of SBFI. Finally, to coordinate strategic activities in the handling of urgent and large-scale problems, in accordance with the specially assigned tasks

The committee's main roles are as follows:

1. Provide strategic plan and review the implementation
2. Responsible for formulating general and technical policies for the Blended Finance Mechanism, including asset allocation and overall evaluation.
3. Supporting the program in coordinating the funds with Ministry/Agency, development partners, civil community organizations, private sectors, and other financial institutions to manage the implementation of the program and their activities.

Ministry of Finance (MoF) is expected to play a role as follow; Formulating, stipulating, and implementing policies in terms of budgeting, taxes, customs and excise, treasury, State assets management, fiscal balance, and budget financing and risk management to support SBFI. Also, managing State properties/ assets that are under the responsibility of Ministry of Finance to support SBFI; Holding education, training, and competence in terms of State finance; and providing substantial support to entire elements of organization in the Ministry of Finance.

The line Ministries will play role to play role as: Formulating, stipulating, and implementing policies in terms of internal or in region. OJK plays role as bridging with private sector, Banks and financial institution non-Bank to support SBFI. Donor as part who provide funding to support SBFI will be give

advice to BTT about the progress. Represent from Academic and Business Association mainly mission provide advice or input to coordinator of BFSC.

b. **Strengthen the enabling environment to attract blue financing.** There is a major push by institutional investors to invest in "sustainable" activities (such as those that both do no harm, and those that are actively promoting sustainable outcomes). The policy and regulatory environment can play a key role in helping investors to define what activities should be considered in either category. The Ministry of Finance, together with the Indonesian Financial Authority (OJK), can include 'blue' indicators in the current financial and investment guidelines and regulations. Such an effort could, for example adjust the investment criteria on which financiers are making decisions on resource allocation. These indicators might include, e.g., sustainability of fisheries stocks, adequacy of waste management protocols, or energy supply, to encourage investment into those areas where performance is stronger. In this vein, strengthening of environmental licensing regulation to link it with sector sustainability targets as an example can play an important role in encouraging financing into these areas. Such efforts will expand the opportunities for the financial sector to develop new instruments specific to the blue sector's needs, such as fisheries specific loans, insurance products or privately issued blue bonds. OJK can expand existing sustainability taxonomies to include the blue sector's economic activities and projects. This will enable banks and financial institutions to formally recognize the characteristics of the activities before deciding on whether to provide financing. The capacity of the financial sector (both regulators and actors) in understanding the specificities of the blue sector, particularly fisheries, needs to be improved, as does the capacity of financing recipients, to increase financial inclusivity. Moreover, given the potential importance of promoting public-private ventures in blue sectors, efforts to build capacity for public-private partnerships at the local level would be extremely useful. This could include training, developing and sharing good practice examples, and providing funding to project development It remains challenging in a non-mature capital market to establish good governance and institutions, create potential instruments, and develop investment portfolio.

Develop and issue a Blue bond (sukuk) as medium- to long-term primary source of financing to blue sectors. A sovereign blue bond or blue sukuk has been identified as a potentially viable option, subject to the completion of a formal feasibility assessment. A sovereign instrument, issued with the backing of the GoI is more likely to attract investment to this relatively nascent sector at this time, assuming the enabling environment issues identified above and the design issues identified are addressed. This determination has been made based on the intended use funds; the nature of the anticipated underlying assets and the lack of a robust financial pipeline of projects capable of generating adequate cashflows.

There is increased global interest among market players to purchase sustainable bonds, including blue bonds. For example, the Asian Development Bank (ADB) recently committed to investing USD 5 billion on effort that includes promoting blue bonds to finance ocean and SDG 14 projects; the Nordic Investment Bank launched a USD 240 million bond for water-waste treatment; Morgan Stanley sold USD 10 million of blue bonds to finance ocean plastic pollution removal. Indonesia can build on lessons learned from the Green Sukuk to raise capital market funds through a blue bond (blue sukuk). In 2019, Indonesia's Green Sukuk met their USD 1.25 billion capitalization goals and has allocated funding to priority green projects which would otherwise not have secured funding. This was achieved by using clear allocation criteria (indicators) and a transparent selection process led by the Green Sukuk Authority. A blue bond should use a similar management process. For private-issued bonds, project ratings specific to the blue sector or guarantees by financial agencies could be used lower the perceived risk. This requires enhancing the knowledge of the financial sector about the specificities of the fisheries sub-sector.

The proposed next steps are outlined below. These activities are captured as Component 3 of the LAUTRA project.

These steps are intended to a) strengthen the enabling environment and policy framework for the mobilization, management and utilization of blue finance; and b) develop up to two financing mechanisms to finance marine conservation and sustainable livelihoods.

Activities

The main activities would be implemented by the Ministry of National Development Planning (Bappenas). Bappenas has the planning mandate across ministries in Indonesia and has taken a leadership role in blue finance through the Directorate of Fisheries. Bappenas is also the leading ministry for achieving Indonesia's SDG targets, and the work with OFP and blue financing will help accelerate in achieving SDG 14 targets.
Activities in Component 3.1 are divided into two sub-components:

- **Strengthening the enabling environment and policy framework through:**
    a) Support the operationalization and strengthen the institutional capacity of a proposed Blue Finance Advisory Committee
    b) Coordination and adoption of a blue taxonomy by OJK
    c) Coordination and adoption of blue tagging for state budget
    d) Development of MRV framework associated with the Blue Taxonomy to measure for environmental and social impact of Blue Economy activities
    e) Awareness, engagement of relevant blue finance agencies (Annex 2)
    f) Identify necessary policy interventions to enhance ecosystem values in MPAs primarily related to blue carbon and payments for ecosystems services

The activities in this sub-component are intended to facilitate and strengthen the enabling environment for the mobilization, management and utilization of blue finance. Under the leadership of the proposed Blue Finance Advisory Committee, this sub-component will principally serve to coordinate actors working in the blue economy ranging from different government ministries and departments to financial institutions and intermediaries to the range of NGO's and impact investors increasingly developing innovative pilots in Indonesia.

Initial activities will include engaging closely with OJK, as the financial regulator in addressing questions related to how to best integrate the evolving "blue economy" framework with the Sustainable Finance Roadmap to ensure frameworks and policies align and mandates are matched. Coordination with UNDP and ADB, both of which are engaged with the development of a blue taxonomy and blue tagging framework for state and national budgets will also be necessary. This effort is likely to be further informed by inputs from NGO's and financial organizations developing solutions in this space. Developing a robust framework for blue economy related investments will ensure that GoI can align actors in both the private and public sector, nationally and provincially.

Robust impact metrics are considered an integral part of any impact investment instrument (Rhote, 2022). One of the many lessons learned from the green bond market is the necessity of a transparent and viable monitoring, reporting and verification framework. A priority for the proposed Blue Finance Advisory committee would be to support the development and adoption of such a framework in Indonesia, within the context of the blue tagging and blue taxonomy.

Bappenas is expected to lead and chair this Committee. It will be necessary to coordinate relevant national and provincial public agencies to ensure an integrated approach. An agreed policy framework will be necessary to minimize the inevitable cross currents that will result from making decisions based on potentially conflicting priorities.

Finally, it is likely that policy and legal interventions will be required to ensure that GoI can maximize the conservation and livelihood outcomes associated with the proposed investments by ensuring that incentives are aligned. This is likely particularly the case in novel sectors such as blue carbon and payments for ecosystem services which will compete

with more extractive forms of resource use. Effective identification and coordination of these policy interventions across the different ministries will be required through a body at a national level. To that end, this document encourages the GoI to continue cross-sectoral collaboration to detail regulations to the PerPres NEK which will regulate carbon markets, including blue carbon; and ensure that efforts of measurement include other co-benefits beyond carbon, such as biodiversity and coastal resilience – this will increase the value that coastal and marine ecosystems can get beyond the basic price for carbon.

- **Development of up to two pilot financing mechanisms through:**
  a) Design and implement a blue bond to support effective MPA management and Livelihood financing
  b) Establish the expertise necessary to launch appropriate blue financing instruments to ensure the effective management of MPA's and support livelihoods

From a design perspective, there are six critical steps to be considered in determining the feasibility of a blue bond or sukuk financing instrument. These may be summarized as follows (The World Bank, 2020)*:*

- Define and Document Eligible Use of Funds
- Define Amount of Capital Required
- Secure MoF support for a General Obligation, Sovereign bond
- Bond Characteristics – currency; tenor; risk mitigation requirements
- Agree channeling modalities for funds
- Identify and approach potential transaction partners, including legal counsel, potential investors

Define and Document Eligible Use of Funds – the activities identified in Component 1 and Component 2 in relation to financing MPA's and supporting access to finance for livelihoods are intended to provide the principal inputs to eligible use of funds.

This activity should result in a suite of potential solutions and a pool of potential investments and Uses of Funds spanning MPAs (Component 1), Livelihoods (Component 2) and investments to address the long-term threats to MPAs. Please refer to annex 5 for additional details on the activities to be undertaken in the context of Component 1 and Component 2 of the OFP project. Coordination between involved stakeholders, especially Bappenas and MMAF is critical in this context so that the financing mechanism will match the overall Blue Economy strategy of Indonesia and address pending financing challenges for marine conservation and sustainable livelihoods.

Having completed the above, Bappenas will need to coordinate the next steps with the Ministry of Finance (MoF):

Define Amount of Capital Required – based on the above potential uses of funds, an anticipated amount of capital required should be identified and considered. Ideally, this would be broken down into technical assistance and investment capital and incorporate any credit enhancement requirements.

Secure MoF Support – on the assumption that the GoI will, in this first instance, issue a sovereign bond, support from the relevant treasury department in the MoF will need to be secured to proceed, if only in principle. Parameters related to timing, term, amounts etc should all be understood.

Define Bond Characteristics – based on the above information, the outline for a bond should be agreed upon by the relevant agencies, likely resulting in a term sheet.

Agree Channeling modalities – the agencies and entities responsible for providing fiduciary management of the funds will need to be addressed with the MoF. Examples include BPDLH and LPMUKP. Furthermore, agreement regarding how best to channel funds to the identified pool of eligible uses will need to be determined. This is particularly relevant if the funds are to include solutions not currently supported by the GoI or a line ministry such as any one of the initiatives identified in Annex 1.

Identify and approach transaction partners – with the broad outlines above, along with the proposed term sheet agreed by the principal agencies in the MoF, it would then be possible to approach potential transaction partners.

ANNEX

ANNEX - 1
Blue Finance Instruments in Indonesia

SDG Bonds

Indonesia became the first country in Southeast Asia to issue an SDG Bond in the global debt capital market, raising EUR 500 million (USD 584 million) in 2021. The Bond enables the government to finance social and environmental projects, further demonstrating the government's commitment to the SDGs. The 12-year bond carries a coupon rate of 1.3%. The SDG bond provides an alternative source of financing for Indonesia to fast-track achievement of the SDGs, particularly in light of the pandemic.

Prior to the issuance, the Government of Indonesia created a securities framework to ensure that the proceeds of the SDG Bond will be directed to the most appropriate projects. The Framework—which was developed by the Ministry of Finance, in collaboration with the Ministry of National Development Planning (Bappenas), Coordinating Ministry for Maritime and Investment Affairs (CMMAI), with support from UNDP, HSBC and Credit Agricole—includes project selection criteria such as indicators to ensure that proceeds are allocated to projects with long-term impacts.

As part of a globally recognized external review process, CICERO (an independent sustainability bond verifier) and the International Institute for Sustainable Development (IISD) subjected the framework to a verification process to ensure it met the highest international standards. The reviewers classified the framework as "Medium Green", citing its strong outlook for medium-to-long-term green development, and gave a "Good" rating to the framework's overall governance.

UNDP worked in partnership with the Ministry of Finance during all stages of the technical aspects of SDG Bond's issuance. This collaboration included developing a feasibility study and the securities framework as well as supporting the verification process (The United Nations, 2021).

Sharia Financing

Zakat Funds (Joan, 2019)

The mechanism for lending to fishermen through the sharia system is one of the many instruments that have been developed in Indonesia. Sharia institutions engaged in studying zakat, infaq and shadaqoh funds usually provide funds to small fishermen with zakat. The proceeds are then used to assist with capital needs. The funds offered may be non-assistance or have restrictions attached to them, such as interest-free loans. Unfortunately, no information about the amount of Islamic funds provided to fishermen or other fields in the marine and fisheries sector is publicly available. Based on the current findings of an interview with one of the former Directors of Indonesia's largest Sharia Institution, zakat funds are commonly used to assist fishermen, especially for resources or the ability of small entrepreneurs or those who are deemed incapable but unable. If the fisherman or entrepreneur has a large turnover of profits and is bankable and requires more capital, such as above IDR 100 million (USD 7,143), then the resource uses a waqaf. According to the agreement of both parties, this waqf fund can be lent to fishermen or a company on a profit-sharing basis. When applying for a waqaf loan, fishermen or entrepreneurs must meet the general requirements, which include submitting a proposal that includes details on the viability of the proposal.

Green Sukuk (The Ministry of Finance of Indonesia, 2021) (The Ministry of Finance of Indonesia, 2018) Green Sukuk are Islamic financial instruments which the Republic of Indonesia (ROI) has developed to finance and or re-finance Eligible Green Projects. The issuance of these instruments are covered by a Green Bond and Green Sukuk Framework (the "Framework"). Building on the Green Bond Principles, the proceeds of each Green Bond or Green Sukuk is used exclusively to finance, or re-finance expenditure directly related to "Eligible Green Projects". "Eligible Green Projects" refer to projects which promote the

transition to low-emission economy and climate resilient growth, including climate mitigation, adaptation, and biodiversity in accordance with the criteria and process set out in this Framework. Indonesia's Green *Sukuk*s are asset-backed securities with the functionality of a typical conventional bond. Under the Indonesian Green framework, 9 sectors can be financed by Green Bonds/Sukuk, namely: renewable energy, sustainable natural resource management, energy efficiency, green tourism, resilience to climate change, green buildings, sustainable transportation, sustainable agriculture and waste and energy waste management.

The Green Bonds and Sukuk Initiative aims to support Indonesia's commitment to reducing greenhouse gas emissions and meeting the identified financing gap. It is estimated that the financing needs for climate change mitigation and adaptation actions in 2015 - 2020 will reach 1,065 trillion or 213 trillion rupiah/ year. however, the funds allocated for 2015 - 2019 mitigation and adaptation actions are 728 trillion rupiah. In the 2016 - 2017 APBN, the total budget allocation for climate change mitigation in 2016 and 2017 was 154 trillion rupiah.

In 2018, Indonesia became the first country in the world to issue sovereign Sukuk green bonds with subscriptions totaling US$1.25 billion to fund Indonesia's Green Framework. This issuance was the first Green Sukuk in the world with investors spread all over the world, namely: 32% Islamic market, 25% Asian market, 15% EU, 18% US, and 10% Indonesia.

Several banks have followed this move and a total of US$669 million of green bonds and US$3.2 million of green Sukuk have been issued. However, the *Sukuk* is yet to allocate funds for core blue activities such as biodiversity conservation or in other blue economy sectors (The OECD, 2021). Current sukuk proceeds of fund are used for national scale renewable energy and transportation projects.

In 2021, the GOI returned to its annual Global Sukuk market and successfully conducted sales transactions of US$ 3 billion, consisting of US$ 1.25 billion with a 5 year tenor, US$ 1 billion with a 10 year tenor, and US$ 1 billion with a tenor of 10 years. $ 750 million with a tenor of 30 years (Green series) in the format of 144A / Reg S Trust Certificate with Wakalah contracts maturing in 2026, 2031 and 2051 ("Sukuk Wakalah"). This Wakalah Sukuk is issued by the Government through the Indonesian SBSN III Issuing Company, a legal entity formed by the Government of the Republic of Indonesia specifically to issue Surat Berharga Syariah Negara (or Sovereign Syariah Bond or SBSN). The issuance of the Global Sukuk this time were listed on the Singapore Stock Exchange and NASDAQ Dubai (dual listing).

In this transaction, the Government introduced the Green Sukuk format with a 30-year tenor for the first time, which is also the first in the world, after consistently issuing Green Sukuk with a 5-year tenor every year since its debut in 2018. This issuance proves its dedication and long-term commitment.

Government for Green and sustainable financing, as well as pioneering financing methods in the effort to fight climate change. The Green Sukuk issued in this offering are the fourth global Green Sukuk issued based on the ROI of the Green Bond and Sukuk Framework.

Some of the important achievements of this issuance include: 1) the achievement of yield, spread over the US Treasury and the lowest coupons for 5, 10- and 30-year tenors for Global Sukuk ever issued by the Government, 2) the issuance of the first Global Green Sukuk for 30 tenors. years in global financial markets, 3) achieving below-fair value yields supported by a strong orderbook for all tenors, and 4) the lowest yield on 5-year global government bonds issued in USD.

Banking Sector

The POJK 51[5] mandated three categories of banks to issue an annual sustainability report. These categories are called Bank BUKU 3 (Banks with core capital between IDR 5 – 30 trillion), Bank BUKU 4 (core capital above IDR 30 trillion), and Foreign Banks (owned by foreign entity). As part of implementing of the Sustainable Finance Principles, these banks are recording the financing/credit portfolio based on the category of sustainable business activities.

The table below shows the total disbursement of funds from the BUKU 3, BUKU 4, and Foreign Banks to sustainable business activities, from 2016 to 2019.

[5]POJK (OJK Regulation) No. 51/POJK.03/2017 (Ketentuan mengenai Keuangan Berkelanjutan /OJK Regulation on Sustainable Finance-P51/2017).

Table 7 Total Sustainable Financing Bank BUKU 4, BUKU 3, Foreign Bank from 2016 – 2019 based on an Annual Report or a Sustainability Report (IDR Million)

Total Sustainable Financing Bank BUKU 4, BUKU 3, Foreign Bank from 2016 – 2019 based on an Annual Report or a Sustainability Report (IDR Million)

	BANK BUKU 4	BANK BUKU 3	Foreign BANK	Total
SME's	1.764.845.000	233.652.142	1.778.296	2.015.575.438
Green Portfolio	456.548.545	57.031.305	2.501.191	516.081.040
Sustainable finance Portfolio	2.221.393.545	290.683.447	19.579.487	2.531.656.478

The highest green portfolio disclosure (KUBL) in the aggregate came from in the Sector of Biological Natural Resources Management and Sustainable Land Use which reached a total financing of IDR 157.3 trillion (USD 11,2 billion) or 39.25% which is still largely dominated by palm oil financing (OJK, 2017)[6]. Since the report does not show specific information pertaining to any marine and fisheries sectors, we assume this loan portfolio to be too small for reporting.

In 2013, Foreign Direct Investments (FDI) flows to Indonesia totalled IDR 60.6 trillion or USD 4.7 trillion, not including oil & gas, banking, non-bank financial institutions, insurance and leasing. Indonesia's total FDI inflows increased significantly between 2010 and 2019 and totalled USD 232 billion in 2019. The FDI inflow into Indonesia during this period indicates that tourism, oil and gas, wind and ocean-based energy, and marine logistics are the largest marine related FDI sectors. Although not all FDI in tourism may be directed to coastal and maritime tourism, it can be assumed that the majority is directly or indirectly related as Bali, an island destination, is the recipient of most tourism related FDI[7].

Based on the disclosure in the Annual Report or Sustainability Report on Bank BUKU 3 & BUKU 4 in 2017 until 2019 fiscal year, found that several banks funded (excluded CSR) the marine and fishery sectors about IDR 33 Trillion/USD 2,3 Billion (Table 8). Most of Bank (BUKU 3 & BUKU 4) provided funding to fisheries in micro and small scale.

Banks Disclosure on Financing on Marine & Fisheries in 2017-2019 (million)

Table 8 Banks Disclosure on Financing on Marine & Fisheries in 2017-2019 (million)

BANK	2017		2018		2019		Total	
	IDR	USD	IDR	USD	IDR	USD	IDR	USD
BUKU 3	6.300.099	450	7.783.060	556	13.443.336	960	27.526.495	1.966
BUKU 4	1.723.507	123	1.770.368	126	1.931.158	138	5.425.032	388
Total	**8.023.606**	**573**	**9.553.428**	**682**	**15.374.494**	**1.098**	**32.951.527**	**2.354**

in BUKU 4, Bank BNI shows the highest level of disclosure regarding its funding of the marine and fisheries sector. Based on the 2019 Sustainability Report, Bank BNI's maritime sector loan portfolio has increased every year, in December 2019 loan amounts were some IDR 16.82 trillion, with a default rate of less than 4%. The best collectability rate is found in the bank's "Loan for Poor People" (Kredit Usaha Rakyat-KUR) products with a repayment rate of 99.1%. The highest portion of BNI's financing in maritime credit is in the field of aquaculture, which amounts to IDR 1,026 billion (USD 73 million) distributed across 4,461 debtors. In the cultivation and capture sector, the highest financing is in the fishery catching sector, which amounts to IDR 994 billion (USD 71

[6] Palm oil business with sustainable certificate (RSPO/ISPO) categorized as Sustainable Management of Biological Natural Resources and Land Use refer to Technical Guidance of implementing POJK 51/20117 issued by OJK

[7] Sustainable Fisheries Investment Environment for the Private Sector in Indonesia. Hatfield. 2020.

million) across 1,928 debtors. Below Table 9 show BNI's portfolio in the maritime sector including marine and fisheries (BNI, 2021);

Portfolio of Bank BNI On Marine and Fisheries Sector from 2015 – 2019 (IDR billion)

Table 9 Portfolio of Bank BNI On Marine and Fisheries Sector from 2015 – 2019 (IDR billion)

	2015	2016	2017	2018	2019	Total
Portfolio	10,38	12,01	15,41	15,24	16,82	69,86
Percentage	14,9%	17,2%	22,1%	21,8%	24,1%	100,0%

In its 2020 Annual Report, BNI has committed to continuously develop marine and fishery ecosystems, both upstream and downstream. In July 2020, BNI synergizes with the CMMAI with the Indonesian Fisheries Perum (Perindo) to provide funding. BNI's is member of UNEP FI that apply equator principle. In 2020, BNI distributed financing amounting to IDR 317 billion (USD 22.7 million) for sub-sectors of the small segment fishery processing industry.

Several innovations from BNI for the fisheries and marine sector includes:

- Fisherman's card Kusuka. This is a multifunction card for BNI's customers from the fishermen communities, that functions as an identity card that enables them to access various BNI's financial services.
- BNI also work together with FishON and Aruna in developing tools that help fishermen in finding the good fishing spot using technology, as well as in providing buyers and the marketplace for fish products.

State Owned Enterprise (BUMN) with Mandate Financial Services Non-Banks

The SOE's arm that provides financial services excluding Banks that actively the fisheries sector is PT. Penanaman Modal Madani (PT. PNM). PT. PNM is one of the government's funding institutions other than banks that provide funds to fishermen. PT. PNM collaborates with MMAF to program activities in the region on a micro scale through "Fostering a Prosperous Family Economy" (PNM Mekaar). In 2019, PT. PNM distributed partnership funds amounting as IDR 1.2 billion (USD 85.7 thousand) (PT PNM, 2020) to fisheries sectors (Table 10).

Table 10 PT. PNM Fund Disbursed Based on Sector in 2019

Business Sector	Trade Sector	Services	Industry	Plantation	Farming	Agriculture	Fisheries	Other	Coaching Sector	Amount
Amount Disbursed (IDR million Rupiah)	40.491	11.694	5.007	2.419	2.342	3.660	1.298	1.035	904	**68.850**

On the other hand, in March 2020, GoI issued government regulation No 20-year 2020 which stated assigned PT Bahana Pembinaan Usaha Indonesia (Persero) as a state-owned Insurance and Guarantee Holding, where it acquired PT Jasa Raharja, PT Jasa Asuransi Indonesia (Jasindo), PT Jaminan Kredit Indonesia (Jamkrindo), and PT Asuransi Kredit Indonesia (Askrindo). In 2020, PT Bahana Pembinaan Usaha Indonesia (Persero) as state-owned Insurance and Guarantee Holding changed its brand as Indonesia Financial Group (IFG). As of April 2021, IFG has 9 subsidiaries, which are PT Jasa Raharja, PT Jaminan Kredit Indonesia (Jamkrindo), PT Asuransi Kredit Indonesia (Askrindo), PT Jasa Asuransi Indonesia (Jasindo), PT Bahana Sekuritas, PT Bahana TCW Investment Management, PT Bahana Artha Ventura, PT Bahana Kapital Investa dan PT Graha Niaga Tata Utama. PT. Bahana Artha Ventura is one of the companies actively providing financing to productive business and ultra-micro business including fisheries.

BPDLH (The Indonesian Environment Fund / *Badan Pengelola Dana Lingkungan Hidup*)

The Indonesian Environment Fund (*Badan Pengelola Dana Lingkungan Hidup* – BPDLH) was established to manage funds for the protection and management of the environment. The fund deploys environmental economic instruments with the overarching purpose of ensuring the accountability and compliance of environmental conservation and management; altering various stakeholders' mindset and behavior in economic activities; managing finance for the environment in a systematic, consistent, structured, and measurable way; and building public and global trust in the management of environmental funds.

The process for establishment of BPDLH was initiated by the Ministry of Environment and Forestry in 2015. The funds being managed under BPDLH are part of a larger framework of environmental economic instruments envisioned under Government Regulation Number 46/2017 on Environmental Economic Instruments.

BPDLH's mandate is not limited to efforts to reduce greenhouse gas emissions. The Environment Fund is designed to manage multiple financing schemes to finance multiple programs and recipients from multiple funding sources. Historically however, the main reason why the fund was established was because of the need to have effective fund disbursements in place to reach targets to reduce emissions from land-use change and forestry. The Environment Fund's full mandate is broad, encompassing two kinds of funds: (1) Conservation Funds, and (2) Pollution and Restoration Funds.

BPDLH is a non-echelon public service agency accountable to the Ministry of Finance through the Directorate General of Treasury. A Steering Committee (SC) consists of 9-line ministries that oversee BPDLH general policy, technical policy including asset allocation, and overall evaluation with the help of a secretariat and, if necessary, the help of non-governmental parties. BPDLH is mandated by regulation to manage environmental funds specifically in the field of forestry, energy and mineral resources, carbon trading, payment for ecosystem services, industry, transportation, agriculture, marine and fisheries, and other fields related to environment.

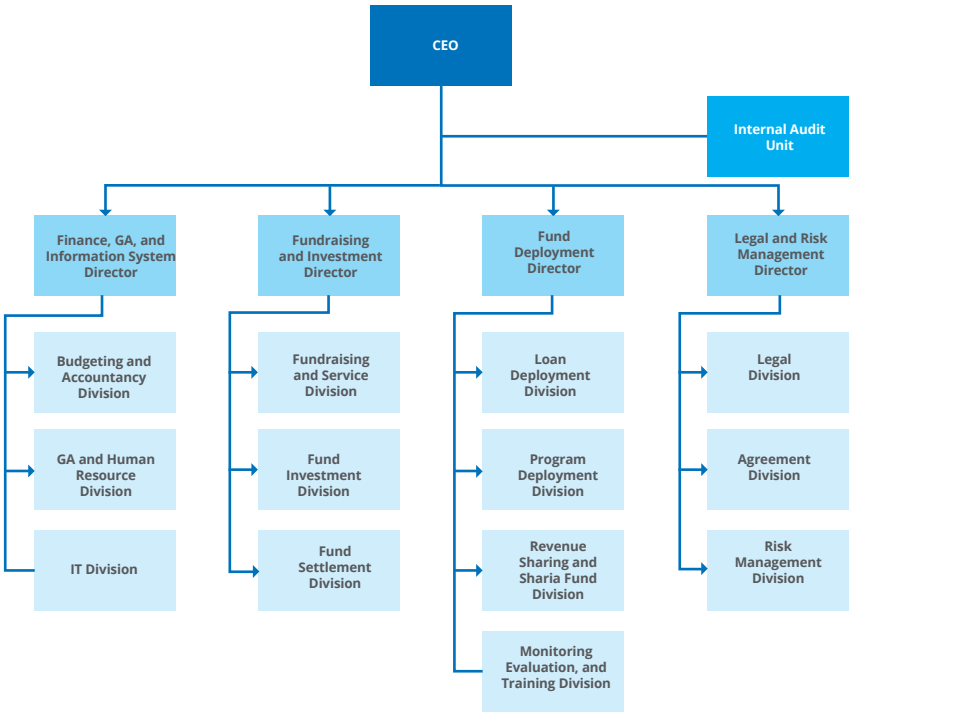

Figure 1 BPDLH Governance Structure

BPDLH's role includes:

1. Fund raising.
BPDLH can source funding from state funds (APBN) and non-state funds as non-tax revenue (Penerimaan Negara Bukan Pajak, PNBP). Non-state funds may be sourced from:

- Conventional grants
- Results-based payment grants
- Donations
- Return on investment
- Carbon trading
- Other legitimate sources (interest, penalties, taxes, service fees, etc)

So far, BPDLH is the only BLU in Indonesia that may actively solicit funds from donors in accordance with donor mechanisms, including to design logical results frameworks, create proposals for funding programs, and submit proposals to prospective donors.
Funds received from donors must be managed in accordance with contractual arrangements with the donor.

2.Fund investment
Following BLU Regulation, BPLDH may be able to enter into short-term and/or long-term investments, depending on its strategic direction. For long-term investments, BPDLH must first obtain permission from the Ministry of Finance.

3.Fund deployment
The environmental funds managed by BPDLH will be allocated to finance the programs/projects/activities that achieve the objectives and targets of BPDLH and/or cooperation contracts with donors. In addition, they can be allocated for management support, subsidy, grant, guarantee, and financing/loan expenditure. The distribution of funds through subsidy, grant, guarantee, and financing/loan expenditures is made through BPDLH custodian accounts at the custodian bank, while expenditures for management support are paid through operational accounts of BPDLH at operational banks.

The Environment Fund can be disbursed through the following financial instruments:
- Conventional grants
- Results based payments
- Loans
- Subsidies
- Carbon trading
- Other mechanisms

Badan Layanan Umum (Public Service Agency) with Mandated Financial Services for Marine and Fisheries

Badan Layanan Umum (BLU) is a public institution partially supported by state funds but with autonomy to receive and manage their own funds in order to improve operational productivity, efficiency, and effectiveness. The concept of the BLU was first developed in 2004 in an effort to "enterprise the government" by enabling the creation of government units managed on a semicommercial basis to deliver better non-profit services. A BLU differs from conventional government working units because their management and staff can be appointed from outside the government, and they are explicitly designed to receive funding from international donors as well as state funds. BLUs is able receive revenue from the provision of services, grants, and its investments. These sources are categorized as Non-Tax State Revenue (PNBP). There are three types of BLU regarding main business:

1) Service providers of goods and/or services, for example: education and training, health, research and development, and the field of public broadcasting.
2) Those that manage certain regions, for example: special location purposes (Kawasan Otorita), integrated economic development areas (Kawasan Berikat).
3) Special fund managers, for example: revolving fund managers, investment fund accounts, and regional development accounts.

LPMUKP

LPMUKP is the only public institution in Indonesia with main roles is managing loans or financing revolving funds that are assisted for Micro, Small and Medium Enterprises in the Marine and Fisheries Sector.

LPMUKP was established by the MMAF to improve the access to capital for marine and fisheries communities. The LPMUKP was established on

September 20, 2009 through the Regulation of the Minister of Marine Affairs and Fisheries Number PER.20/MEN/2009. The establishment of LPMUKP was carried out after the discontinuation of the Coastal Community Economic Empowerment Program (PEMP) as well as the Aquaculture Capital Strengthening Fund (DPM-PB) in 2007. It also responds to the demands of Government Regulation No. 23 of 2005 in which all capital strengthening programs through revolving fund programs must be carried out with the pattern of Financial Management of The Public Service Agency (BLU). The main business LPMUKP is to manage loans or revolving fund for micro, small and medium enterprises in the Marine and Fisheries Sector (MSMEs-KP). In 2017, The MMAF issued the Regulation of the Minister of Marine Affairs and Fisheries No. 3/PERMEN-KP/2017 concerning Organization and Working Procedure of the Marine and Fisheries Business Capital Management Agency (OTK LPMUKP) (LPMUKP, 2018).

LPMUKP has two standard rate services categories: conventional and Islamic law (sharia) (Direktorat Utama Pembinaan dan Pengembangan Hukum Pemeriksaan Keuangan Negara, 2017). Under the conventional standard, a LPMUKP will implement an interest rate when channelling funds to micro, small, or medium enterprises; under sharia standards profit sharing is employed. The LPMUKP channels both loan standards through an intermediary financial institution, such as conventional banks and cooperatives or local level micro-finance institutions. Under a conventional loan, the LPMUKP can loan to the intermediary with a maximum rate of 4% interests; the intermediary can then loan this forward to the micro, small and medium enterprises with a maximum interest rate of 7%. Under sharia rules, LPMUKP channels funds to beneficiaries of micro, small and medium enterprises through financial institutions applying Mudharabah and Musyrakah financing mechanisms[8], these have a maximum sharing rate of 65% for debtor and 35% to LPMUKP based on net profit (LPMUKP, 2018).

Between 2017 and 2020, the LPMUKP program has channelled IDR. 602 billion (USD 42.4 million) to marine and fisheries businesses. In 2020, the LPMUKP provided funding amounting to IDR. 192.7 billion (USD 13.5million).

LPMUKP Fund disbursement in 2017 – 2020 on Aquaculture (in IDR billion)

Table 11 LPMUKP Fund disbursement in 2017 – 2020 on Aquaculture (in IDR billion)

Year	2020	2019	2018	2017	Total
Disburse	192,7	182,5	215,7	11,1	**602**
Applicants	389	400	293	7	**1.089**
Beneficiaries (person)	4.108	3.937	8.683	417	**17.330**

In 2020, the LPMUKP categorized five primary sectors in term of financing in marine and fisheries sectors. These include aquaculture, catch, fish processing, community-based salt businesses and other coastal community business. Some examples of the use of loan by the borrowers are as follows:

Table 12 LPMUKP - Example use of funds

Borrower/sector	Examples of use of loans
Aquaculture	Capital expenses, seed, shrimp feed, expanding business/opening new 'tambak'.
Catch	Boat repairs, gear repairs, buying new net or equipments.
Fish processing	For small scale processors: Buying new processing equipments (small machines, cutting devices, storage boxes. For large scale processors: capital investments, machine upgrades, cold storage, expanding business.
Community based salt business	Invoice financing, gear and equipment repairs.
Coastal community business	Capital investments (vary according to business owned), business expansion, invoice financing, purchase of goods to be sold

As of December 31, 2020, IDR 295.8 billion (USD 21.1 million) have been approved (out of that approved amount, IDR 192.7 billion are already disbursed). LPMUKP's experience on funding the marine and fishery sector becomes a model to enhance organizational capacity.

LPMUKP Credit Approval on Marine and Fisheries Sector in 2020

Table 13 LPMUKP Credit Approval on Marine and Fisheries Sector in 2020

Sector	Aquaculture	Catch Fisheries	Fish processing	Community Salt Business	Other coastal community business	Total
Approved (IDR Billion)	192,7	68.9	90	6.3	0.7	**295.8**
Number of beneficiaries	1.668	2.033	1.662	92	7	**5.462**

In addition to LPMUKP, the GoI trough MoF has a funding institution for ultra-micro finance including channeling to marine and fisheries sector, namely Badan Layanan Umum Pusat Investasi Pemerintah (PIP). PIP has role as coordinate fund form GoI to others financial institution to provide loan for ultra micro sector (Direktorat Utama Pembinaan dan Pengembangan Hukum Pemeriksaan Keuangan Negara, 2018). For example, as of April 2021, PIP channelling funds to PT. PNM amounted to IDR 8.2 trillion.

UPTD BLUD for Raja Ampat Marine Protected Areas

The management of the Raja Ampat conservation area is implemented by the Regional Public Service Agency Regional Technical Implementation Unit (BLUD UPTD) Management of Marine Protected Areas (MPA) of the Raja Ampat Islands. It is a technical implementing unit responsible for facilitating management within the MPA as an extension of the Marine and Fisheries Service (DKP) of the Provincial Government West Papua. The agency also responsible for acquiring financing and funding for the operations of the conservation area.

The MPA in Raja Ampat is the first conservation area network in Indonesia that implements the organizational and financial system as described above, and therefore can manage and protect conservation areas in Raja Ampat which are rich in living natural resources in a professional, transparent, and sustainable manner (Raja Ampat Geopark Management Body, 2022).

Managing and protecting marine conservation areas covering an area of 2+ million hectares in the long term requires enormous and sustainable funding, which is impossible to achieve if only depending on the government budget alone. For this reason, one of the strategies implemented to ensure the sustainability of MPA management funding is through the financial system of the regional public service agency or BLUD. The system provides flexibility for BLUD UPTD Raja Ampat Islands MPA Management to obtain funds from other sources of income besides the government budget.

In addition to the government budget and hibachi funds, the BLUD UPTD for the Management of the Raja Ampat Islands MPA also has what is called the Environmental Service Maintenance Service Tariff (West Papua Governor Regulation Number 4 of 2019). All these revenues are managed directly and exclusively for the benefit of MPA management. The Local Public Service Agency (BLUD) is one form of Local Technical Implementing Unit (UPTD) within the organizational structures of the local government in Indonesia. With BLUD status, an UPTD has more flexibility in its financial management patterns that differs from other general financial management provisions applied to the rest of the other (general) forms of UPTDs. For example, the general financial management provisions require all collected fees/ retributions/taxes to be deposited to a national or local treasury agency. However, a BLUD is instead allowed to retain the collected fees/retributions at the BLUD itself and use them to support financing its own activities, as described in the BLUD's internal regulations (by-laws). A good example of an UPTD BLUD for marine conservation is the UPTD BLUD for Raja Ampat MPA, under the West Papua provincial government structure. That UPTD BLUD is mandated to among others determine and collect tourism entrance fees to Raja Ampat MPA and retain collected fees within the UPTD financial system to support the

long-term implementation of conservation programs of the Raja Ampat MPA in West Papua province. This local government UPTD is granted flexibility on its financial arrangements, including in determining its amount and collecting entrance fees to Raja Ampat MPA and disbursing the collected funding (in addition to regular government funding allocation) to support improving the effective management of Raja Ampat MPA. To support its effective functioning and ensure legal basis for any of its actions, BLUD develops various by-laws (Standard Operating Procedures) needed to support efficient execution of its programs and plan. An example of these by-laws includes procedures to determine, collect, use/disburse, monitor, and supervise the use of funding (e.g., collected entrance fees) to support long-term effective management of the Raja Ampat MPA.

Trust Funds (Victurine, 2022)

Conservation Trust Funds (CTFs) are private, legally independent entities raising and managing finance to conserve biodiversity at different geographic scales. Significantly, 45% of CTFs are involved in MPA management and marine conservation financing.

CTFs are non-financial return instruments. Funds come from a diverse source of investors, from philanthropists to multi-lateral agencies to private companies. Investor are also called grantors and funds trustees. They work as endowment mechanisms that generate annual revenue flows directed to achieve conservation outcomes. These endowments are managed to exist in perpetuity.

Not only do they provide funds, but they also manage them to reach conservation targets. Hence, trustees can provide direct conservation financing under the form of grant or concessional finance, but also develop or take part in other financing instruments like blended finance and insurance or payment for ecosystem services solutions.

Indonesia has several trust funds for green and blue economy related sectors already set up by the government or CSOs (Table below). In addition to trust funds that support the development of the blue economy, Indonesia could also establish the Indonesia Fund Management Agencies, known as *Badan Pengelola Dana* (BPD). Unlike the BLU, the BPD provides services and acts as a fund management body that channels funds to selected projects in specific industries. Similar to Trust Funds, the management process is akin to investment management, as it collects and raises funds to provide services. One example of this is the *Badan Pengelola Dana Perkebunan Kelapa Sawit* (BPDPKS) that was established in 2015 to provide rejuvenation funding for palm oil plantations that relevant farmers capable of implementing the technicalities of the projects could access. Instead of having the government collecting tax just before exporting goods, the BPDPKS collects the tax from palm oil industries, and the money collected is then distributed and managed by the agency for industry wide improvements to enhance the sustainability of the palm oil industry (The UNDP, 2020).

Indonesia has a public trust fund regulation, namely the Presidential Decree 80 of 2011 (Perpres 80/2011) regarding Trust Fund. There are two institutions that are clearly the basis of the establishment of the Institution in Perpres 80/2011, namely Millennium Challenge Account -Indonesia (MCA-Indonesia) and Indonesia Climate Change Trust Fund (ICCTF). MCA-Indonesia was closed leaving the ICCTF as the only existing national public trust fund in Indonesia.

The ICCTF is a National Trust Fund that has served as a funding instrument for the Government of Indonesia to support the Indonesian Government in reducing GHG emission through moves towards a low carbon economy and adaptation to climate change impacts. The ICCTF has two main goals: integrating climate change issues into national, provincial and district development plans; and implementing mitigation and adaptation initiatives in the context of GHG emission reduction. The fund supports national efforts to achieve a 29% emission reduction target through national effort, and up to 41% with international support by 2030 (Indonesia's NDC Target).

ICCTF distributes state budget and international funding from development partners for activities that aligned with Government priorities as outlined in National Action Plan (NAP) on GHG Emission Reduction (RAN-GRK).

ICCTF was established on 3 September 2009 by the Ministry of National Development Planning / Bappenas and the Ministry of Finance through

Decree of the Minister of National Development Planning/ Bappenas No. 49/2009 with the aim to accommodating and coordinating all funds from various international donor agencies and channelling its funding for climate change program and policies to achieve GHG emission reduction targets. Since 2010-2019, ICCTF has channelled and managed funds to climate change project from bilateral and multilateral funding amounting to some USD 22 Million. During this period, 82 projects were funded across 101 project locations throughout Indonesia under 3 (three) activity areas (windows), namely: 1) Land-based mitigation; 2) Energy; and 3) Adaptation and resilience. With these projects, the ICCTF has successfully helped significantly reduce GHG emissions, accounting for a potential of some 9.4 million tonnes of CO2 equivalent. A value equivalent to 1% of Indonesia's NDC target.

ICCTF's Donor on Grant 2015 – 2020

Table 14 ICCTF's Donor on Grant 2015 – 2020

Donor	USAID	UKCCU	DANIDA	World Bank	ADB	BMUB GIZ/INFIS
Amount	USD 5 mio	GDP 4 mio	DKK 5 mio	6,2 mio	5,2 mio	3.5 mi0
Type	grant	grant	grant	grant	grant	Technical Assistance

In 2018, ICCTF received a new mandate to carry out activities under a new thematic window: marine and fisheries, based on the Regulation of the Minister of National Development Planning/ Bappenas No. 12/2018 concerning the second amendment of establishment of Trustee Institution for ICCTF. Under this new thematic activity, ICCTF has received funds from the Global Environment Facility (GEF) amounting to USD 11,4 million through the World Bank and Asian Development Bank (ADB). The ICCTF is currently managing and channelling these funds to 12 projects related to the Coral Reef Management Program – Coral Triangle Initiative (COREMAP-CTI) in Bali, West Nusa Tenggara, East Nusa Tenggara and West Papua until 2022. Under this window, ICCTF also carries out activities related to blue financing, blue carbon and bioeconomic.

Trust Funds in Indonesia

Table 15 Trust Funds in Indonesia

Name	Objective	Activities	Size/Duration	Investors	Category	Presence in Indonesia
Indonesia Climate Change Trust Fund (ICCTF) (ICCTF, 2020)	Achieving Indonesia's goals of a low carbon economy and greater resilience towards climate change.	Land-based Mitigation: financial support for the programs of reforestation / rehabilitation of degraded lands. Adaptation and Resilience:	In 2019, ICCTF have received *dana dukungan Rupiah Murni APBN* amounting to IDR 34,47 billion ICCTF have also received international	UNDP, GIZ, USAID, GCF, GEF, GGGI, World Bank, AFC	Green and Blue	Yes
Blue Abadi Fund by conservation International (CI) (WWF - GEF, 2017)	A dedicated conservation trust fund for the Bird's Head Seascape in Eastern Indonesia	Empowering local communities and agencies to sustainably manage their marine resources by procuring local revenue sources and providing grants	USD 2,635,211		Blue	Yes

The National Environmental Fund Management Agency or better known as BPD LH (*Badan Pengelola Dana Lingkunga n Hidup)* (Olivia, 2019) (Kumara, 2017)	Indonesia's commitment to the protection of environmental sustainability	Fund collection Government non-tax revenue Revenue generation from service provided & investment Developing partners	It estimates that with the combination from the State Budget and *Pusat Pembiayaan Pembangunan Hutan* (P3H), the total operational funds for BPD LH will reach IDR 4,29 Trillion.		Blue and Green	Yes

Examples of Global Trust Funds

Mesoamerican Reef Fund (MAR Fund) (MAR Fund, 2020)	To drive regional funding and partnerships for conservation, restoration, and sustainable use of the Mesoamerican Reef	The MAR Fund operates as an ecoregional planning and coordinating body which prioritizes projects and allocates funding.	Since 2004,	American Commission on Environment and Development (CCAD), Protected Areas Conservation Trust (Belize),	Blue	No
PACÍFICO Foundation (PACIFICO Foundation, 2020)	A coordination platform made up of four environmental funds in Latin American countries. Which aims to be an innovative regional financing platform that seeks to ensure the sustainable management of the Eastern Tropical Pacific.	The initiative focuses on channeling financing to: Focus conservation actions around a shared set of priorities Mitigate Key Threats Fill gaps in the scientific data Facilitate the distribution of information for decision making	Since 2017	Gordon and Betty Moore Foundation, The David Lucile & Packard Foundation, The Leona M and Harry R Helmsley Charitable Trust, The Walton Family Foundation, Shark Conservation Fund, WAITT foundation, Oceans5.	Blue	No
The Phoenix Island Protected Area in Kiribati (The Republic of Kiribati, 2009) PIPA Trust	PIPA is the world's largest, truly deep water MPA, encompassing 408,250 square kilometers (157,626 square miles) PIPA trust is a non-for-profit non- governmental organization established under the laws of the republic of Kiribati whose primary	PIPA provides protection for terrestrial habitats on each of its islands safeguarding important nesting ground for seabirds and rare traditional plants that have cultural and medicinal values in Kiribati.	Since 2004	New England Aquarium (funding support, biological monitoring and legal and technical advice). CI's Global Conservation Fund (main donor), CI's Pacific Islands Program (technical support and policy advice).	Blue	No

Capital Markets

In 2016, the OJK in collaboration with the Central Java Provincial Government, MMFA, and the Indonesia Stock Exchange pitched the opportunity to be listed in the Indonesia Stock Exchange to fisheries and marine-related businesses. The main aim of this activity was to further disseminate information related to the Capital Market to businesses in the region so that the utilization of capital markets in the region as a source of funding can be improved, especially encouraging business development in the fishery and marine sectors and other related industries.

As of 2020, seven companies are listed in the Indonesia Stock Exchange with business relating with marine and fisheries.

Listed fisheries companies in the IDX as of 2020

Table 16 Listed fisheries companies in the IDX as of 2020

Company	Establish & Listed	Head Office	Business Area	Total Asset in 2019 (Rp. billion)
PT Era Mandiri Cemerlang Tbk (IKAN)	2000/2020	North Jakarta	Fishery (seafood)	133.06
PT Morenzo Abadi Perkasa Tbk (ENZO)	2013/2020	Demak, Central Java	fishery (crab and frozen seafood)	257.7
PT Prima Cakrawala Abadi Tbk (PCAR)	2014/2017	Semarang, Central Java	Fishery (crab)	114.8
PT Central Proteinaprima Tbk (CPRO)	1980/2006	Sidoarjo, East Java	Aquaculture (shrimp and food producer)	6,150.9
PT Into Agri Resources Tbk (IIKP)	1999/2002	South Jakarta	Fishery (arwana)	376.1
PT Dharma Samudera Fishing Industries Tbk (DSFI)	1973/2000	North Jakarta	Fishery (seafood)	366.3

Corporate Social Responsibility - Grants from Private Institution on Marine and Fisheries

Grants from private institutions usually coming from Corporate Social Responsibility (CSR) Fund or Environmental Improvement Fund (Dana Bina Lingkungan) from state owned enterprises. For the fisheries and marine sector, these funds are usually provided to marine protected areas or coastal community improvement programs. Rarely are they targeted for community's investments into business activities or productive economic activities. It is difficult to gauge all CSR funds coming from private institutions for marine conservation, however we present an estimate coming from the banking sector in another section of this report.

Development Partners

Asian Development Bank

Indonesia was a founding member of the Asian Development Bank (ADB) in 1966. Today, the country is ADB's sixth largest shareholder and one of its largest sovereign borrowers. ADB operations in Indonesia are guided by the country partnership strategy covering 2020–2024, which aims to support inclusive, competitive, and sustainable development. Since 1966, ADB has committed sovereign and nonsovereign loans, grants, and technical assistance totaling $43.37 billion for Indonesia (The Asian Development Bank, 2022).

In 2021, ADB launched the **Blue Sea Finance Hub** hosted in Indonesia and aims to eventually support the entire Association of Southeast Asian Nations (ASEAN) region. The hub aims to address the challenges in mitigating oceans pollution and adapting to climate change impacts by: a) accelerating the development of a pipeline of 'blue' projects that improve the sustainability and conservation of the region's oceans, water bodies and

marine ecosystems; and b) catalysing a large flow of capital from both public and private sources into well designed blue projects.

ADB's overall Action Plan for Healthy Oceans and Sustainable Blue Economies will expand financing solutions and technical assistance for ocean health protection and its biodiversity conservation and marine economy projects up to $5 billion from 2019 to 2024, with ADB financing and support of ADB's partners.

It will focus on four areas:

- Creating inclusive livelihoods and business opportunities in sustainable tourism and fisheries
- Protecting and restoring coastal and marine ecosystems and key rivers
- Reducing land-based sources of marine pollution, including plastics, wastewater, and agricultural runoff
- Improving sustainability in port and coastal infrastructure development (The Asian Development Bank, 2022).

UNDP

UNDP works to support Indonesia's fight against poverty, promote inclusive economic growth, reduce inequalities between groups and regions, and help achieve the 17 Sustainable Development Goals by 2030 across the country. UNDP targets investments aligned with SDG -14 (life below water).

UNDP completed the "Blue Financing Strategic Document" in 2020 as part of their support to the GoI. This work mainly provides guidelines on blue tagging by offering a different level of blue (such as light blue, dark blue, medium blue) to national projects, to show the level of appropriateness to blue indicators of the projects. This document covers mostly large-scale project classifications such as ports, transportation, and logistics, but not so many on marine conservation or small-scale fisheries, that are the focus of LAUTRA.

Grants from Indonesia Foundations and INGO in Marine and Fisheries

Aside from public funding and private sector investments, private foundations and development aid organizations (which includes both bilateral and multilateral donors) also represent an important funding source for marine and fisheries issues in Indonesia. Between 2007 and 2015, the philanthropic sector provided USD 113 million in funding and the development aid sector provided USD 84 million in ocean-related grants in Indonesia.
Grants from Foundations for marine-related issues in Indonesia has risen substantially in recent years. Between 2007 and 2016, grants have increased by more than 300 percent—from USD 12.5 million in 2007 to more than USD 34 million in 2015. These increases are driven primarily by large commitments from long-standing funders as well as the entrance of new funders to the field (such as Oceans 5, Vulcan Philanthropy, and Leonardo DiCaprio Foundation). The Indonesia Marine Funders Collaborative (IMFC)—an initiative of foundations that share a vision of restoring and protecting coastal and marine resources while enhancing fisheries management in Indonesia—has played a key role in for facilitating donor coordination and alignment among foundations.

Between 2007 and 2016, Indonesia received USD 459 million in marine-related official development assistance (ODA) funding. By category, infrastructure received 36 percent of this funding, while fisheries received 34 percent. The remaining share was allocated to science and conservation categories. By flow type, roughly 60 percent of the total amount was in the form of grants and the remaining 40 percent came from an equal proportion of loans and non-export credits. Considering marine-related ODA grants alone (with a fisheries or conservation focus and excluding infrastructure-related projects), Indonesia received approximately USD 150 million in grants between 2007 and 2016. The top grant makers during this timeframe included Japan, Germany, and the United States.

International NGO Initiatives

Meloy Fund

The Meloy Fund for Sustainable Community Fisheries is an impact investment fund that invests debt and equity into enterprises that support (the transition towards) sustainable coastal fisheries and seafood-related enterprises promoting better management and formerly unappreciated and undervalued natural

assets. While currently focused on Indonesia and the Philippines, the Fund offers opportunities for local fishers to secure more sustainable livelihoods. Over its ten-year lifespan, it aims to create a positive impact on 100,000 fishers (including their households), and place over 1.2 million hectares of coastal habitat under improved management (Rare, 2019). Meloy Fund GP, a subsidiary owned by Rare, manages the fund. The fund makes debt and equity investments in fisheries-related entities. It aims to invest $1 - $5 million in companies that are too large for microfinance loans but have yet to grow enough for private equity. The investments are made in synchronisation with Rare's main programme and are targeted to create demand for its Fish Forever Programme (Rare, 2019).

Blue Abadi Trust Fund

The Blue Abadi Fund is a USD 38 million fund which is being implemented in partnership with Conservation International is targeted to support sustainable financing in the preservation of the Bird's Head Seascape (22.5 million hectares of sea and small islands). The fund is fully operational in the West Papua Province to finance support for a network of local institutions with a focus on protection of coastal ecosystem, and enhanced fisheries production beneficial to small-scale fishers and their communities. The fund aims to produce Indonesia's first sustainably financed network of MPAs, serving as a model for sustainable marine resource management (FAO, 2022).

Launched in February 2017, The Blue Abadi Fund is a dedicated conservation trust fund for the Bird's Head Seascape designed to provide steady and ongoing funding for the core operations of the Seascape to ensure the results of the Seascape endure in perpetuity (FKKI, 2018). The Blue Abadi fund's structure consists of a trustee, governance committees, administrator, and grant recipient (Conservation International, 2016).

The Blue Abadi fund is managed by professional and experienced investment managers. Fund managers will work closely with various fund stakeholders to establish investment guidelines that consider near-term and long-term needs, balance risk and security, and take advantage of a wide array of investment vehicles to hedge and other wise minimize exposure to systemic and idiosyncratic risk. Despite this, some fluctuation in annual returns is inevitable. Though projected costs are smoothed over time, the endowment has been calculated to cover some volatility in costs, leaving a small buffer in most years. Moreover, managers will be obligated to leave excess returns untouched, adding to endowment principle and increasing buffer size, unless certain conditions are met (The Bird's Head Seascape Coalition, 2015).

Impact Investments (Victurine, 2022)

Impact investments are investments made with the intention of generating positive, measurable social and environmental impacts together with a financial return (The Global Impact Investment Network, 2020). This type of investment intentionally and explicitly seeks the dual objective of producing both financial and social/environmental returns. These investments not only enhance the profile of an organization by demonstrating social value that enables it to contribute towards sustainable development but can also generate a return on capital. It is this financial gain that separates impact investing from more traditional Corporate Social Responsibility programs which also seek better societal outcomes.

The potential in blue finance to an impact investor is considerable. The services provided by marine bio-resources are valued conservatively at USD 2.5 trillion annually. Furthermore, the United Nations Environment Program estimates that over 60 percent of the world's total Gross National Product comes from areas within 100 kilometers of our coastline. The presence of impact investment players in Indonesia continues to rise. Most impact investment funds/facilities are based offshore, but the presence of domestic consortiums and funds continues to improve. In Southeast Asia, Indonesia and Singapore are the fastest growing markets for impact investment. Many of the impact funds prefer taking an equity stake, or at least a convertible debt position, to benefit from strong performance, but social enterprises often prefer loans (Conway, 2017).

Indeed, Indonesia is currently recognized as the largest impact investing market in southeast Asia, both by capital deployed and number of transactions

(The Global Impact Investment Network, 2018). Unfortunately, the blue economy sectors in Indonesia have not benefited from these sustainable finance initiatives to date, a condition consistent with global trends. Impact investments in Oceans remains low in comparison to terrestrial investment at the global level. According to the Ocean Finance Handbook (Friends of Oceans Action, 2020), SDG-14 – Life Below Water has received the least investment out of all the Sustainable Development Goals (SDG) and only only 21% of impact investors surveyed say they target SDG 14 – Life Below Water through their investments (Phenix Capital, 2019).

Key challenges associated with attracting capital to sustainable marine and coastal investments include i) lack of track record of transactions (in comparison with terrestrial ecosystem investments); ii) lack of measurable and tradeable assets with strong monitoring; and iii) lack of reliable data related to fisheries and carbon in marine ecosystems (Coalition for private investment in conservation, 2021).

Resulting from a growing demand from asset owners, especially in Europe, Impact investors represent a growing source of finance in Indonesia. Indeed, $267 million have been invested by asset managers to finance impact investments on environmental, education or health so far. Due to critical coastal environmental pressures and related development challenges, marine conservation represents an investment opportunity for thematic impact funds as additionality can be achieved faster. Several funds are active in Indonesia. For instance, the Mirova Sustainable Ocean Fund, a $160 million impact investment fund, focused on circular economy, sustainable seafood, and marine conservation, invested a $6 million dollars in Jala Tech, a start-up providing monitoring material and software to support shrimp farmers in their sustainability transition. A growing number of asset managers are showing interest in the Blue Economy and new vehicles are currently under design: the $136 million Swen Capital Partners Blue Ocean fund, $170 million Ocean 14 Capital or Katapult Ocean represent potential investors on a broad range of topics from marine conservation to innovative technologies.

One of the impact investments in Indonesia within the blue sector is the Meloy Fund (2018). This fund received USD5 million investment from FMO, the Dutch development bank. This brings the fund total of over USD 22 million. This fund will incentivize the development and adoption of sustainable fisheries by making debt and equity investments in fishing-related enterprises that support the recovery of coastal fisheries in Indonesia and the Philippines. The general partner of the Fund is a wholly owned subsidiary of Rare. Rare is an NGO that works on catalyzing behavior change to achieve enduring conservation results.

Table 17 Global impact investors in the Blue Economy

Name	Objective	Activities	Size	Investors	Category	Status	Presence in Indonesia	Invested companies
Encourage Capital (Encourage Capital, 2016)	Investing for sustaining global fisheries	Clean Energy Finance Financial Inclusion Environmental Markets Sustainable Infrastructure Sustainable Seafood Water		Not disclosed	Green and Blue	Operating	No	#NA
Mirova's (formerly Athelia) Sustainable Ocean Fund (SOF) (Mirova, 2020)	Providing growth capital to companies that harness the ocean's natural capital	Sustainable seafood Circular economy with especially plastic waste management Marine conservation	USD 132 million	OEDF Environmental Defense Fund Conservation International	Blue	Operating	Yes	Jala Tech

Circulate Capital (American Security News , 2019)	Protecting South & Southeast Asia from plastic waste	Circulate capital is an investment management firm dedicated to financing innovation, companies and infrastructure that prevent the flow of plastic waste into the world's ocean while advancing the circular economy	In 2019, USAID provided USD 35 Million, 50% loan-portfolio guarantee.	PepsiCo, Coca-Cola, Danone, Dow, Procter & Gamble, Unilever	Blue	Operating	Yes	PT Tridi Oasis Group
		Identify, incubate, and invest opportunities by collecting, sorting, processing, and recycling waste in south and southeast Asian countries						
Hatch (Hatch, 2021)	To catalyze farmed and alternative seafood innovation through responsible investment, expertise and insights, supported by a strong, committed community.	*Sustainable aquaculture practices and technologies*	USD 8.4M	Not disclosed	Blue	Operating	Yes	EFishery
Swen Capital Partners' Blue Ocean Fund (Swen Capital Partners, 2021)	Venture capital impact fund to develop start-ups contributing to oceans healing by overfishing, pollution and climate change.	*Solutions to overfishing, pollution and climate change*	USD 136M	Not disclosed	Blue	Fundraising	No	#NA

Ocean 14 Capital (14 Capital, 2020)	Venture capital growth companies and technologies that offer sustainable solutions for our oceans including technologies for sustainable fisheries and aquaculture, marine conservation and waste management	*Sustainable technologies to oceans (overfishing, pollution, climate change, conservation…)*	USD 170M	European Investment Fund Alex Beard Niklas Zennstrom	Blue	Operating	No	#NA
Aqua spark (Aqua Spark, 2020)	A global investment fund that is developing this optimal aquaculture food system by investing in companies all along the aquaculture value chain working to solve industry challenges, with a shared vision of a sustainable future.	Sustainable aquaculture value chains	USD 180M	Not disclosed	Blue	Operating	Yes	eFishery
The Meloy Fund (Rare, 2019)	Impact Investment fund providing financing under diverse form (equity, debt or technical assistance) and technical services at fishers to incentivize the development of sustainable fisheries	Sustainable fisheries and aquaculture value chains	USD 20M	USAID, Jeremy & Hannelore Environmental Trust, JP Morgan & Chase	Blue	Operating	Yes	PT Sig Asia

Impact investments are made with the intention to generate positive, measurable social and environmental impact alongside a financial return. Impact investments target a range of returns from below market to market rate, depending on investors' strategic goals. The average global internal rate of return for impact funds is 6.4% (The Global Impact Investment Network, 2021).

The growing impact investment market provides capital to address the world's most pressing challenges in sectors that usually struggle to catalyse private capitals like marine conservation or small-scale communities Blue Economy MSMEs.

The ability of impact investors to provide market-like returns to their asset owners relies on their integration into blended finance programs. Indeed, they provide capital, hence traction to small businesses to support their scaling process. As a consequence, not only they invest in opportunities that cannot provide market returns at all regarding their scale, but also, it results in transaction costs that are not absorbed by most opportunities, hence altering even more an already fragile return.

Another key challenge for impact investment funds regarding marine conservation investments is their ability to assess their environmental impact in such a moving and uncertain environment as the ocean. Usually, it requires building capacity at a local level as well as additional capex and opex investments, increasing even more the upfront investment. Still, it is critical for impact funds as their business model relies on their capacity to generate a measurable positive impact on the environment and the society. Blending impact investors' funds with other financing instruments/sources is a way to decrease their risk exposure and ensure them a market-like return. Asset management companies are starting to realize how big of an opportunity the Blue Economy is and several funds are being launched. Mirova, Swen, Ocean 14, Aqua-spark, Hatch and many other AM companies created their own Blue Economy impact investment funds. The Mirova Sustainable Ocean Fund or Aqua-spark have invested in firms in Indonesia.

Blended Finance Facilities (Victurine, 2022)

Blended finance is a commonly used strategic source of development finance for the mobilization of additional finance towards sustainable development in developing countries (OECD, 2021). Blended finance uses public or philanthropic money to promote increased private capital to achieve development impact (FAO, 2020). Private investors in a blended finance structure may simply be seeking a market-rate financial return. Public finance can also be used to test the viability of innovative or potential sectors to de-risk the scheme and attract future private sector investments, thus leveraging small public sector funds attract future and larger private sector funding. Overall, the transaction expects to yield a positive financial return. Different investors in a blended finance structure will have different return expectations, ranging from concessional to market-rate. The public and/or philanthropic parties are catalytic. The participation from these parties improves the risk/return profile of the transaction in order to attract participation from the private sector (Convergence, 2018).

Blended finance is not just about financial structures or 'stacking' of different types of public and private capital, but the commingling of expertise and objectives between the public and private sector in a way that provides more and better financial returns and social/environmental outcomes than can be achieved through public or private investment alone (The United Nations, 2018).

Marine conservation activities rely, among other things, on scalability and risk. Blended finance addresses those issues by providing sequenced financing and technical assistance to help projects scale and hedge private investors against default risk. The end goal being to catalyse private capital for marine conservation purposes.

To do so, blended finance facilities provide seed financing under the form of grants, as well as technical assistance. Once conservation projects are more advanced and ready to scale, they provide more advanced and tailored solutions such as concessional loans, first loss capital and loan guarantees.
While the rationale behind blended finance is to catalyse private investments by providing financial

incentives to impact and ESG investors, the overall outcome remains marine conservation and to have a significant environmental, economic, and social impact.

Blended finance might seem like a perfect solution to reconciliate marine conservation and financial return. However, it implies a number of critical prerequisites to have been addressed. These include a) the presence of an adequately sized and robust pipeline of investment ready projects representing adequate absorptive capacity; b) robust impact metrics and monitoring systems; c) the ability to target relevant investors; d) structural and legal capacity to address issuer, channelling options and legal costs; e) strong implementation and operational capacity to minimize transaction costs and f) strong coordination between private and public stakeholders. Critically, the pipeline must be consistent and large enough to cover the high transaction costs associated with developing blended finance facilities which can be both time and resource intensive.

As an example, the United Nations, alongside financial institutions and philanthropists, developed the Global Fund for Coral Reefs, a 10-year, $625 million blended finance vehicle that supports interventions for coral reef conservation and associated community resilience. It provides seed financing under the form of grants and technical assistance, as well as concessional finance and loan guarantees to help coral reefs conservation projects scale. The facility includes a member state and foundation funded $125 million grant window, as well as multi-lateral agencies funded concessional finance and loan guarantees. The fund also pools private capitals from impact investors, commercial banks, microfinance institutions and the GFCR Equity Fund.

Table 18 Actors in blended finance (Enclude, 2018)

Type of actors	Role
Public and philanthropic donors	• Providing grants for technical assistance • De-risk projects using several de-risking instruments • Convene different stakeholders • Advocates the sustainable development agenda • Increase sustainable development impact of investments
Private-philanthropic investors (Foundations, non-profits, impact investors with sub- commercial return expectations, etc.)	As these types of actors tend to have a higher risk-tolerance compared to other actors, they are better positioned to experiment in projects, sectors, and/or geographies with high potential developmental impact as well as influence capital flow through demonstrations and by taking subordinate positions
Multilateral Development Banks (MDBs) and Development Financial Institutions (DFIs)	• Signal the market about commerciality of certain investment opportunities through demonstrations • Provide large ticket sizes (compared to other public investors and private-philanthropic sources) • Mitigate risks by taking risk layers, providing guarantees, etc. • Is a critical intermediary to get institutional investors on board as they can meet the ticket size and risk-return expectations of institutional investors and get them on board
Private-commercial investors (Funds/PEs/VCs, impact investors with commercial return expectations)	• Hold the necessary resources to bridge the funding gap to achieve the SDGs • Can manage a large spectrum of investments, from small ventures to large size investments • Plays an important role in aggregation
Institutional Investors	• Hold on to the necessary resources to fill in the funding gap to achieve the SDGs • Due to large amount of capital held, they must deploy capital in large amounts, which limits their ability to invest in smaller propositions • Focuses more on less risky sectors and countries due to low-risk appetite
Banks (especially those based in emerging markets)	• Aggregating role at the national level • Often small-scale investments (or larger projects through scale syndicated loans) • Focus on less risky sectors due to low-risk appetite. Guarantee instruments in combination with TA often effective to demonstrate new business models

Table 19 Examples of Blended Finance Facilities

Name	Objective	Activities	Size/Duration	Investors	Category	Presence in Indonesia
The UN Global Coral Reef (The United Nations Multi-Partner Trust Fund, 2022)	To mobilize action and resources to protect and restore coral reef ecosystems.	Technical assistance, capacity building, monitoring and evaluation support to coral reef MSMEs through the grant window De-risked coral reef MSMEs investment through the investment window	Since 2020 – USD 625 Million	Public investors (Governments of France, Germany and Canada), NGOS and foundations (Foundation Albert II of Monaco) Private investors	Blue	No
Blue Finance (Blue Finance, 2021)	To implement enhanced MPA management through blended finance and capacity building	Blended finance facility for the initial needs of MPAs, supported by MPAs management plans design and implementation in the context of a private-public partnership	Since 2021 – USD 3 Million	Blended Finance Facilities (The Global Coral Reef Fund) Impact investment funds (Mirova) NGOs (MAVA)	Blue	Yes
Tropical Landscape Finance Facility (The Tropical Landscape Facility, 2022)	To bring long-term finance to projects and companies that stimulate green growth and improve rural livelihoods.	The TLFF coordinates among government, private sector and communities to foster large-scale positive change in the country, by leveraging private capitals with public funds to finance sustainable land use, including agriculture and ecosystem restoration, as well as renewable energies.	Since 2016	Private investors (ADM Capital, BNP Paribas, PG Impact Investments) Multilateral agencies (UN Environmental Program, UN Women) NGOs (Birdlife, Livelihoods funds)	Green	Yes
SDG Indonesia One (The Asian Development Bank, 2022)	To support achievement of the country's sustainable development goals through an innovative transition financing instrument The facility will link funds provision to subprojects with clear green - a cross cutting theme across most SDGs - and financial bank-ability targets	The facility will leverage ADB and government funds to catalyze a multiple of green funds from private, institutional and commercial sources over time through de-risking financing	Since 2018	Multilateral agencies (The Asian Development Bank) Public investors (the Government of Indonesia Private investors	Green	Yes

PT Penjaminan Infrastruktur (PTPII) (Penjaminan & Infrastruktur, 2022)	The Government has set up an Infrastructure Guarantee Fund under the Ministry of Finance, to provide government guarantees for sustainable infrastructure projects (roads, bridges, waste management facilities…)	Provides guarantees designed to improve the credit worthiness of a project and result in a lower cost of financing, thereby ensuring that private capital is mobilized at scale to finance critical infrastructures for Indonesia.	Since 2009	The Government of Indonesia	Green	Yes
Asia Aquaculture Facility (Convergence , 2021)	To provide revenue-based financing for aquaculture farmers to engage in sustainable intensive aquaculture in Asia and support mangrove conservation.	Blended finance facility that will provide-revenue-based financing for sustainable aquaculture intensification through a debt fund, and support mangrove conservation and reforestation through a linked technical assistance facility	Since 2021	Convergence	Blue	Yes
Restauration Insurance Service Company (Convergence, 2021)	To support the restoration and conservation of mangrove forests across Southeast Asia. To design a novel approach of financing mangrove restoration and conservation by putting value on mangrove forests and showcasing the economic importance of the natural asset.	RISCO will utilize blended finance to fund mangrove conservation and restoration activities in partnership with local communities. Repayments to investors will be from two revenue sources: fees paid by insurance companies with exposure to coastal assets, for the risk reduction benefits of mangroves, and sale of blue carbon credits on voluntary carbon markets.	Since 2021	Convergence	Blue	Yes
The Blue SEA Finance HUB (The Asian Development Bank, 2022)	To support the development of a Blue Economy at a South-East Asia scale through blended finance and capacity building	Identification and structuring blue economy sovereign projects Capacity building at a government and public institutions level on blue finance Scaling a pipeline of blue economy MSMEs	Under design – USD 300 Million	The Asian Development Bank (ADB) The United Nations Development Program (UNDP)	Blue	Yes

Debt for Nature Swaps (WWF, 2011) :

Debt-for-nature swaps allows debtor countries to receive substantial discounts on the debt owed to its creditors in exchange for investments towards conservation and enacting environmental protection measures.
Even though it is a controversial practice, there is a growing interest in this financing instruments, especially with the development of two debt-for-nature swaps under the Seychelles and Belize's Blue Bonds.
The Belize Blue Bond is a $546 million dollars debt-for-nature swap due in 2034. The new loan enables Belize to repurchase and retire existing external commercial debt, create significant annual cash flows for conservation through 2040, and establish an endowment to fund conservation thereafter. The bond is made of a $364 loan repayment component and the remaining $178 million will be used to finance marine conservation, especially investing $23.4 million within a marine conservation independent trust fund, to reach the Aichi target of 30% of marine areas under protection by 2030.

As debt sustainability challenges in the Belt and Road Initiative (BRI) countries continue to mount, we argue that debt-for-nature swaps (instead of debt-for-resources and debt-for-equity swaps) are an important tool to facilitate the restructuring of current debt and support green recovery and development (WWF, 2011).

The US forgive $28.5 million in debt to Indonesia for forest preservation efforts in Kalimantan, Indonesian Borneo. In terms of marine conservation, one such project could be a fund to finance the conservation of coral reefs in Bird's Head Seascape, a region of West Papua, Indonesia, that is home to the highest marine biodiversity in the world (Conservation International, 2016). To ensure the seascape's impacts on biodiversity, fisheries, livelihoods, and food security are long- lasting, the debt for nature swap could be a great solution.

Table 20 Examples of Debt for Nature Swaps in Marine

Name	Objective	Activities	Size	Investors	Category	Status	Presence in Indonesia
The Seychelles Blue Bond (The World Bank, 2018)	To support the fisheries sector transition and improve oceans' health while developing the Blue Economy sector	Grants and loans issuance by the Blue Grant Fund and Blue Investment Fund to: Expand the MPA network Improve the governance of priority fisheries Support the development of a Sustainable Blue Economy	USD 20 Million	World Bank; Private Placement: Calvert Impact Capital; Nuveen, and Prudential	Blue	Issued in 2018 – 10 years	No
The Belize Blue Bond (The Nature Conservancy, 2021)	To reduce its debt burden and generate an estimated US$180M for marine conservation, in support of Belize's commitment to protect 30% of its ocean, strengthen governance frameworks for domestic and high sea fisheries, and establish a regulatory framework for coastal blue carbon projects	USD 553 Million debt restructuring Marine protected areas expansion and enhanced management	USD 364 Million – 20 years	Credit Suisse The US Development Finance Corporation	Blue	Issued in 2021 – 20 years	No

Ecological Fiscal Transfers

Ecological Fiscal Transfers (ETFs) are being discussed in Indonesia in recent years since the announcement of government support in August 2019. ETFs are designed to provide compensation that discourages the conversion of high conservation value sites for commercial and industrial use. They are used to redistribute government tax revenues to protect sites of ecological importance, compensating regional or local governments for environmental conservation efforts (Kieft, 2021). Together with civil society networks, the Asia Foundation promoted the introduction of EFTs through three schemes namely Ecology-based Provincial Budget Transfers (TAPE), Ecology-based District Budget Transfers (TAKE) and the Ecology-based National Budget Transfers (TANE). So far, the TAPE and TAKE concepts have been adopted in six regions and currently being considered in other regions (Pattiro, 2021). The TAPE and TAKE concepts are crucial for the successful implementation of an EFT approach, taking advantage of the financial assistance schemes (*Bantuan Keuangan* – bankeu) that already exists between provinces and districts, and between districts and villages (Rusandi, 2020)[9]. The ETF scheme, which is being implemented mainly in the terrestrial ecosystems currently could offer a useful instruments for financing marine conservation as well.

Coral Reef Insurance

Starting in June 2021, initiated by the ADB, to enable large-scale finance to increase the climate resilience of coastal businesses, communities, and livelihoods in selected countries of Asia and the Pacific, through an innovative coral reef financing and insurance model. The project component includes: (1) Coral reef risk reduction and financial model for Indonesia (2) Extension of model to Philippines and Solomon Island (3) Knowledge, learning and monitoring through technical assistance as its financing type and SCCF-A and LDFC as their trust fund with the total project cost is $ 5,251,712 (The Global Environmental Fund, 2021).

Investments are identified through regular consultations between ADB and its Developing Member Countries (DMCs). These culminate in periodic Country Partnership Strategies and are supported by Country Operational Business Plans (COBPs), which are essentially pipelines of planned investment projects, both lending and non-lending.

Table 21 Summary Table by Sector

Sector / Vehicle	Strength	Weakness	Opportunity for blue economy
Banking sector	Large amount of funds not disbursed yet	Loan, as the main instruments for banks to disburse funds, is not flexible	Can issue private blue bond
State Owned Enterprise	Well established and cover a lot of areas from infrastructure to financial services	Different SOE have different mandates that may not be suitable for marine conservation related activities	Can issue private blue bond, but mandates my limit the eligible projects
LPMUKP	Anchored to the MMAF, directly supporting small scale fisheries	Still depend on loan instruments, and not yet venture into innovative financing	Great understanding on small scale fishermen characteristic can provide learning for other institutions
Public Trust Funds	Coordinated under specific ministries, directly supporting ministries' KPI	Specific mandates limit their flexibility	More than one public trust funds can work together
Capital Market	Mature market, diverse instruments available	Lack of awareness on blue sector or marine conservation	Potential for innovative blue financing instruments
Philanthropy	Directly targeted at marine conservation and/or building capacity	Limited funding potential compared to other instruments, not directed as capital to business activities	Can be used to encourage private investments
Private companies grant (CSR)	Directly targeted at community development	One off funding, not continuous, 'charity type'	Can be used to encourage business activities at the community level

Sharia Financing	Large user base, large amount of funds	Not previously tested for fisheries or marine conservation	Large amount of funds potentially used for marine conservation, but need to develop the proper sharia method
Meloy Fund	Large amount of fund, and a degree of flexibility un using it for attracting investments.	Businesses have to have a good quality business plan to be able to access or considered	Funds used for community based business can accelerate local economic growth.
Blue Abadi Trust Fund	Large amount of funds relative to the specific region targeted.	Fund can only be used in a very specific region: The Birdhead's Seascape.	Funds can be used as seed funding, or as investment for small-scale community-based business.

ANNEX - 2
Marine and Coral Reef Financing Examples (Indonesia & Global)

2.1 Sources of Finance

2.1.1 Fees, levies and penalties

Name	Objective	Activities	Size	Payers/ Investors	Category	Status	Presence in Indonesia
The Bonaire National Marine Park visitation fees (Blue Seeds, 2020)	To improve the management of Marine Protected Areas (MPAs) in the National Park	Visitor fees collection USD 25 per non-diving tourists a year USD 45 per diving tourists a year	USD 760,000 a year (low estimate)	Tourists, with a premium on divers	Blue	Operating since 1992	No
The Palau Pristine Paradise Environmental fee (Pristine Paradise Palau, 2021)	To finance a wide range of activities: $10 for the Fisheries Protection Trust Fund $12.50 to State Governments $25 to meet security and maintenance costs for the international airport and/or to support the Civil Service Pension Plan $30 Green Fee ($15 Protected Area Network $15 Water and Sewer) $22.50 to the National Treasury.	Visitor fees collection USD 100 per international tourists a year	USD 9.5 Million a year	International tourists	Blue and Green	Operating since 2018	No

The Raja Ampat Environmental Services entry fees (Atmodjo, 2017)	To fund Marine Protected Areas (MPAs) management	Fees collection USD 43 per year for international tourists USD 30 per year for locals	USD 420,000 – USD 600,000 a year	International and local tourists	Blue	Operating since 1997	Yes
Tropical Landscape Finance Facility / Michelin Concessions	To support forest restoration and conservation of 45,000 hectares in pressured areas through financial assistance to Michelin	Financial support: loan facility Concession granting	USD 95,000,000	Capital markets Michelin	Green	Operating since 2018	Yes
The Brijuni National Park concession fees (Blue Seeds, 2020)	To improve the management of the National Park through self-financing	Concession fees collected on tourism activities such as boat tours, diving and kayaking	USD 186,000 a year	Tourism companies undertaking activities within the area	Blue	Operating since 1982	No
Conservation International's Guyana Conservation Concession (Conservation International)	To prevent logging in a highly pressured but critical forest area	Concession fees collected on Conservation International (CI)	USD 200,000 in the first year Annual market rate payments the 30 following years	Conservational International	Green	Operating since 2002	No

2.1.2 Payment for ecosystem services

Name	Objective	Activities	Size	Customers/ Investors	Category	Status	Presence in Indonesia
BlueIndo (Blue Carbon Projects, 2018)	To provide innovative financing sources for mangrove conservation	VCS REDD+ credits sale	Not displayed	Private companies on the voluntary market Governments	Blue/Green	Operating	Yes
Delta Blue Carbon Project (Indus Delta Capital, 2021)	To provide innovative financing sources for the largest mangrove restoration program on Earth (Pakistan based)	VCS REDD+ credits sales	USD 710 Million within 30 years	Private companies on the voluntary markets Governments, especially the Pakistan's one	Blue and Green	Operating since 2022	No
Blue Carbon Project Gulf of Morosquillo (Sea Forest Life, 2022)	To provide innovative financing sources for mangroves conservation in Morosquillo, Colombia	VCS REDD+ Credits sales	USD 5 Million within 30 years	Private companies on the voluntary markets Governments	Blue and Green	Operating since 2021	No
Vanga Blue Forest (Plan Vivo, 2020)	To provide innovative financing sources for mangrove conservation and restoration in three villages (Vanga, Jimbo and Kiwegu) in Kenya	Plan Vivo Credits sales	USD 702,600 within 20 years	Private companies on the voluntary markets Governments	Blue and Green	Operating since 2020	No

2.1.3 Biodiversity Offsets

Name	Objective	Activities	Size	Customers/ Investors	Category	Status	Presence in Indonesia
Old Florida Mitigation Bank (Ecosystem Investment Partners, 2022)	To finance wetland ecosystems conservation and restoration through a biodiversity offset banking scheme	Financing/ Credit issuance to wetland conservation and restoration projects in the Pasco County Credit sales to stakeholders willing to offset their negative impact on wetlands	Not disclosed	Private companies Landowners	Blue/Green	Operating	No
The Australian Biodiversity Offset Scheme (NSW Governement, 2016)	To finance biodiversity conservation and restoration through a biodiversity offset fund	Financing / Credit issuance to biodiversity conservation and restoration projects in Australia Credit sales to stakeholders willing to offset their impact on biodiversity	Not disclosed	Private companies Landowners	Blue and Green	Operating since 2016	No
The Pilabara Environmental Offset Fund (CSIRO, 2021)	To finance vegetation and species habitat conservation through a biodiversity offset fund in the Pilabara region (Australia)	Financing / Credit issuance to vegetation and species habitat conservation and restoration projects in Pilabara Credit sales to stakeholders willing to offset their impact on vegetation and species habitat	USD 90 Million within 40 years	Private companies Landowners	Green	Operating since 2014	No

2.2 Blue Finance instruments

2.2.1 Parametric Insurance

Name	Objective	Activities	Investors	Category	Status	Presence in Indonesia
The Mesoamerican Reef Insurance program (MAR Fund, 2020)	An insurance program to fund prompt, community-led repairs at four pilot reef sites along the Mesoamerican Reef (MAR)	Hurricane risk modelling Cost-effective covering coral reef related risks to coastal communities	The Mesoamerican Reef Fund Willis Tower Watson	Blue	Operating since 2021	No
The Quintana Roo coral reef insurance (The Nature Conservancy, 2020)	An insurance program that pays out if winds reach a specific velocity known to damage reefs	Cost-effective coral reef degradation coverage	The government of Quintana Roo The Coastal Zone Management Trust	Blue	Operating since 2019	No
The Flood resilience parametric insurance (Victurine, 2022)	A coral reef flood resilience parametric insurance through nature-based and integrated solutions.	Support climate risk modeling using probabilistic open-source multi-hazard tools Cost-effective coral reef degradation coverage	The Asian Development Bank (ADB) The Global Environment Fund (GEF) The Asia Pacific Climate Fund (ACliFF)	Blue	Under inception	Potential

2.2.2 Environmental Impact Bonds

Name	Objective	Activities	Size	Investors	Category	Status	Presence in Indonesia
The DC Water Environmental Impact Bond (The United States Environmental Protection Agency, 2016)	To fund green infrastructure (GI) projects to capture and infiltrate runoff through a success-based investors' payment mechanism	DC Clean Rivers' project infrastructure financing	USD 25 Million	Goldman Sachs Urban Investment Group Calvert Impact Capital	Blue/Green	Issued in 2016 – 30 year	No

The Wildlife Conservation Bond (The World Bank, 2022)	To fund Black Rhinoceros conservation in two South-African National parks through a success-based investors' payment instruments	Black Rhinoceros conservation	USD 150 Million	Global Fixed Income Mackenzie Investments AllianceBernstein	Green	Issued in 2022 – 5 years	No

2.2.3 Debt-for-Nature Swaps

Name	Objective	Activities	Size	Investors	Category	Status	Presence in Indonesia
The Seychelles Blue Bond (The World Bank, 2018)	To support the fisheries sector transition and improve oceans' health while developing the Blue Economy sector	Grants and loans issuance by the Blue Grant Fund and Blue Investment Fund to: Expand the MPA network Improve the governance of priority fisheries Support the development of a Sustainable Blue Economy	USD 20 Million	World Bank; Private Placement: Calvert Impact Capital; Nuveen, and Prudential	Blue	Issued in 2018 – 10 year	No
The Belize Blue Bond (The Nature Conservancy, 2021)	To reduce its debt burden and generate an estimated US$180M for marine conservation, in support of Belize's commitment to protect 30% of its ocean, strengthen governance frameworks for domestic and high sea fisheries, and establish a regulatory framework for coastal blue carbon projects	USD 553 Million debt restructuring Marine protected areas expansion and enhanced management	USD 364 Million – 20 years	Credit Suisse The US Development Finance Corporation	Blue	Issued in 2021 – 20 years	No

ANNEX - 3
The Blue Finance Advisory Committee

The committee's main roles are as follows:

1. Provide strategic plan and review the implementation
2. Responsible for formulating general and technical policies for the Blended Finance Mechanism, including asset allocation and overall evaluation.
3. Supporting the program in coordinating the funds with Ministry/Agency, development partners, civil community organizations, private sectors, and other financial institutions in order to manage the implementation of the program and their activities.

The structure of the Steering Committee consists of two organs, there are;

1. Board of Steering (BoS)
2. Board of Technical Team (BTT)

The members of BoS is Echelon 1 or equal from Ministry or Donor or others Institutions or strategic partner in marine and fisheries. The main rules of Board of Steering are follows (1) provides policy direction, consideration, advice, and opinion to the Board of Technical Team in the implementation of innovative funding development collaboration activities to support the achievement of Sustainable Development Goals (SDG's) Number 14 hereinafter referred to as Sustainable Blue Financing; (2) provide direction to the Technical Team in the implementation of Sustainable Blue Financing.

BTT member consist of Director level or echelon 2 or equal from Ministry or Donor or other Institutions or strategic partner. The roles of BTT consist of (1) provide technical input on the implementation of Sustainable Blue Financing to SBFI Management (2) facilitate the implementation of Sustainable Blue Financing program both in the center and in the region; and (3) monitor the performance of sustainable blue financing program activities related to the implementation of program policies that have been agreed by the Board of Steering.

The member of SBFC (BoS and BTT) will at least consist of:

A. Bappenas
B. Ministry of Finance:
C. Ministry of Marine Affairs and Fisheries
D. The Indonesia Financial Services Authority (OJK)
E. Represent from Academic
F. Represent from Business
G. Represent from Donor or Development Partner (if any).

With the intention of streamlines Sustainable Blue Financing as part of national goal, Bappenas will take a lead as Coordinator of the Steering Committee. Bappenas play role as coordinator with details as follows: To coordinate and formulate policies in the fields of development planning, national development strategy, providing direction to sectoral, cross-sectoral, and cross-regional policies, national and regional macro-economic framework, engineering design of facilities and infrastructure, framework of regulations, institutions, and funding, and in the field of monitoring, evaluation, and controlling of the national development implementation with regards SBFI. Second, to coordinate the seeking out of domestic and foreign sources of financing, and in the allocation of funds. Also, to coordinate and synchronize the implementation of policies national development planning and budgeting and the preparation of construction designing of facilities and infrastructure of SBFI. Finally, to coordinate strategic activities in the handling of urgent and large-scale problems, in accordance with the specially assigned tasks

Ministry of Finance (MoF) play role minimum as follow; Formulating, stipulating, and implementing policies in terms of budgeting, taxes, customs and excise, treasury, State assets management, fiscal balance, and budget financing and risk management to support SBFI. Also, managing State properties/assets that are under the responsibility of Ministry of Finance to support SBFI; Holding education, training, and competence in terms of State finance; and providing substantial support to entire elements of organization in the Ministry of Finance

The line Ministries will play role to play role as: Formulating, stipulating, and implementing policies in terms of internal or in region. OJK plays role as bridging with private sector, Banks and financial institution non-Bank to support SBFI. Donor as part who provide funding to support SBFI will be give advice to BTT about the progress. Represent from Academic and Business Association mainly mission provide advice or input to coordinator of BFSC.

ANNEX - 4
Results from the Focus Group Discussions and Interviews

Event	Key Takeaways
Focus Group Discussion (FGD) **22 October 2020** Participants: 1. WB 2. Directorate of Marine and Fisheries, Bappenas 3. ICCTF 4. Deputy 1, CMMAI 5. Directorate of KKHL, MMAF	1. WB is building up from the Oceans for Prosperity report as foundation for the blue finance initiative. Furthermore, WB's future projects in the ISOP program will benefit greatly from blue financing schemes accompanying the project funding. 2. Bappenas has a particular interest on blue finance for help in achieving the RPJMN targets in the fisheries and marine sector, especially with the projected gap of more than 75 percent in financing the sectors. 3. CMMAI have also started work with UNDP as part of the blue economy initiative, that will result in a Blue Financing Strategic Document. 4. Recommendations from the FGD: a. There is urgent need to establish a cross-ministerial coordination effort. Can start new or building from existing entities. b. Using the Blue Financing Strategic Documents from CMMAI as starting point. c. Need to start discussion with the private sector, financial sector, and NGOs.
Focus Group Discussion (FGD) **4 November 2020** Participants: 1. WB 2. Directorate of Marine and Fisheries, Bappenas 3. ICCTF 4. OJK 5. PT. SMI 6. Bank BNI 7. Bank BRI 8. Bank Mandiri 9. Bank CIMB NIAGA Syariah 10. BLU LPMUKP 11. Harta Samudra (fishery company) 12. ANOVA (fishery supply chain company)	1. OJK has developed 2 phases of Sustainable Finance Roadmap, as guideline for our planned Blue Finance Roadmap. Furthermore, the fisheries and marine sector will be one of OJK's priority sector for monitoring in 2021. 2. Financiers must look at the uncertainties in marginal return and the perceived high risk of the fisheries and marine sector. Currently, financiers can only finance businesses that have clear off-takers and tried-and-true business model. 3. Banks have always been interested to finance fisheries and marine related business activities due to the large customer base. However, the perceived risks, as well as no clear guidance and regulation from OJK for this sector, hinders them from moving forward with financing the sector. 4. From the representatives of the private sector, they also admit that getting financing or loan from banks or conventional source of finance is difficult, even from a relatively large fishing company such as Harta Samudra or ANOVA. Because of that, they are usually looking for individual financing sources, or from their savings. 5. Recommendations from the FGD: a. Maintain communication with the regulator, in this case mainly OJK. b. Mapping the financial services institutions that have perceived high risks in the fisheries and marine sector. c. Building on or learning from the micro credit schemes that government have disbursed (e.g., KUR). d. Exploring fishermen specific banking products. e. Exploring possibilities of a blue bond, or other thematic bond to support fisheries and marine business activities, particularly small-scale fishing. f. Improve data availability and quality for small-scale fisheries and business activities relevant with marine conservation. g. Banks should also explore to improve the capacity of their sustainability division. Currently, the capacity and scale of sustainability division within banks are varied, and that becomes an indicator of seriousness of banks to enter this sector.

Discussion with IFC **25 February 2021**	1. WB's Blue Finance effort should align with what OJK has been working on. Start with the POJK 51/2017, POJK 60/2017, OJK's Sustainable Finance Roadmap, and other planning for sustainable finance. 2. The title 'blue finance' may generate confusion, even among the established sustainability financing players. Our suggestion is to engage in discussions as this is a part of the sustainable finance agenda, and not as a whole different agenda. 3. Need to explore possibilities of expanding green sukuk to be able to finance fisheries and marine projects.
Discussion with Bahana Securities **26 July 2021**	1. Projects on the ground need to present themselves better. Have to have good business model, good financial projection, good production and management plan, in order to attract financing. 2. Companies such as Bahana Securities can help in smoothing out the presentation, making these on the ground project more bankable in front of financiers. However, they need to have a good baseline to work with in the first place. 3. One the help or assistance that securities company can provide is to identify potential financing instruments and potential financing sources, as they are quite familiar with the risk profile of most actors in the market. 4. However, fisheries and marine pose a new challenge as the risk profile have not been often identified or established, potentially limiting interests in financing it. 5. Large scale instruments such as the KIK-EBA that is potential to be used in the blended finance scheme is a good instruments but would require a portfolio of at least IDR 500 billion to start.

ANNEX - 5
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