



FINANCING THE BLUE ECONOMY

INVESTMENTS IN SUSTAINABLE BLUE SMALL-MEDIUM
ENTERPRISES AND PROJECTS IN ASIA AND THE PACIFIC

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Poverty-Environment Action
for Sustainable Development Goals



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UN 
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programme

ADB



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6 ADB Avenue, Mandaluyong City, 1550 Metro Manila, Philippines
Tel +63 2 8632 4444; Fax +63 2 8636 2444
www.adb.org

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ISBN 978-92-9269-603-0
Publication Stock No. TCS220281-2
DOI: <http://dx.doi.org/10.22617/TCS220281-2>

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On the cover: A swirling tornado of barracuda in blue water above a warm, tropical coral reef (photo by Richard Whitcombe/Adobe Stock Photos).

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Preface

While our understanding of the ocean's properties is still limited, we know it is the planet's largest carbon sink. Marine ecosystems such as coral reefs, mangroves, seagrass meadows, and salt marshes, along with seaweed production sites, effectively sequester carbon dioxide. The High Level Panel for a Sustainable Ocean Economy estimates that ocean-based mitigation options could reduce greenhouse gas emissions by nearly 4 billion tonnes of carbon dioxide equivalent per year by 2030 and by more than 11 billion tonnes annually by 2050—exceeding current emissions from all coal-fired power plants worldwide.¹

Investing in the sustainable blue economy is thus critical to the survival of our world and humanity. Indeed, it has accordingly been prominently placed on the global agenda to help achieve the objectives of the Paris Agreement and the Sustainable Development Goals (SDGs), particularly SDG 14: Life Below Water. Progress on this front, as on so many others, has been curtailed significantly by the coronavirus disease (COVID-19) pandemic. Trillions of dollars are needed to preserve marine ecosystems; decarbonize ports and the global shipping fleet; produce new, sustainable, nutritious forms of food, seaweed, phytoplankton, and other aquaculture; and invest in offshore energy and other ocean-based renewable energy technologies.

But where will this funding come from? And how can it be best invested? Those are the questions this knowledge product tackles in the context of the developing countries of Asia and the Pacific and their small and medium-sized enterprises (SMEs).

This report, and its associated knowledge web portal, is a collaborative knowledge between the Asian Development Bank (ADB) and Poverty-Environment Action for Sustainable Development Goals, a joint initiative of the United Nations Development Programme and the United Nations Environment Programme. This partnership creates a unique and vital synergy. ADB has been a leader in putting the health of the ocean at the heart of sustainable agendas through its \$5 billion Action Plan for Healthy Oceans and Sustainable Blue Economies. The Action Plan's Oceans Financing Initiative has already deployed \$2.4 billion of capital to projects supporting this objective, and ADB recently issued a novel blue bond to

¹ O. Hoegh-Guldberg et al. 2019. [The Ocean as a Solution to Climate Change: Five Opportunities for Action](#). Washington, DC: World Resources Institute.



attract institutional capital to the cause. For its part, Poverty-Environment Action works at the nexus of poverty, gender, and the environment. It promotes an integrated, sustainable approach to development that brings poverty, gender, environment, and climate objectives into national and subnational plans, policies, budgets, and public and private finance.

Financing the Blue Economy embodies these combined strengths and perspectives. It complements and builds on previous and ongoing ADB efforts by looking at new financing possibilities for the blue economy—specifically for the SMEs closely addressing ocean health, community needs, and climate risk.

The report finds that the blue financing gap—which needs to be closed to sustainably transition to the blue economy—is most effectively resolved by supporting local actors. This approach is in line with traditional ADB initiatives that support an enabling environment through infrastructure development, as well as Poverty-Environment Action efforts to align finance and investment with poverty, environment, and climate objectives. The goal is to support the actors that will benefit from infrastructure, including their development and operations through additional sources of financing.

SMEs with annual revenues of less than \$10 million dominate their respective local and country economies. Yet the SME landscape is fragmented and these businesses lack access to capital, making them the “missing middle” in sustainable blue economy development. This knowledge product takes aim at this problem. It proposes SME sector priorities in the blue economy, analyzes the financing gap, presents tools and resources to better understand how to develop new financial connections between international capital and local actors, and recommends the establishment of a new blended finance platform—SME BlueImpact Asia—to help fill an estimated \$2 trillion gap in blue economy SME financing in developing Asia.

Addressing the blue financing gap needs every bit of support it can get; it is hoped that this new platform will successfully present research to give new insights to financiers, development institutions, and local actors on how to develop new financing relationships to support ocean health.

Acknowledgments

This report was prepared by the Asian Development Bank (ADB) and a joint initiative of the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP), Poverty-Environment Action for Sustainable Development Goals, under the guidance of Thomas Kessler, Principal Finance Specialist, Sustainable Development and Climate Change Department (SDCC), ADB; and Jonathan Gilman, Regional Development Coordinator, UNEP, Asia and the Pacific Office.

The team, led by D. Michael Adams, President, Ocean Assets Institute, included Nicola Lei Ravello, Founder and Managing Director of White Stag Investing; Asad Maken, Public Finance and Governance Specialist, UNDP; and Rhadika Lal, SDG Finance Policy Advisor and Team Lead, UNDP Bangkok Regional Hub. Invaluable support and collaboration were provided by Junkyu Lee, Chief of the ADB Financial Sector Group; Qingfeng Zhang, Chief of the ADB Rural Development and Food Security (Agriculture) Thematic Group, and the Environment Thematic Group; with guidance from Deborah Robertson, Environment Specialist, SDCC. The document also benefited from peer reviewer inputs and feedback from Christine Engstrom, Director, Private Sector Financial Institutions Division, Private Sector Operations Department; Shiu Raj Singh, Financial Sector Specialist, Pacific Liaison and Coordination Office in Sydney, Pacific Department; and Melissa Walsh, SDCC consultant and Program Manager for the ADB Oceans Financing Initiative.

We are grateful for the assistance and expert guidance provided by the following: René Benguerel, BlueYou Group; Graham Clark, Asia Affinity; Dennis Fritsch, UNEP Finance Initiative; Sameer Narula, August One; Nicholas Pascal, BlueFinance; Fred Puckle-Hobbs, SeaGreen; Kah Meng, Funding Societies; Chai Kien Poon, Funding Societies; and Eugene Wong, Sustainable Finance Institute Asia. We also acknowledge Eric Van Zant, editor, and Nita Congress, editor and designer, for their efforts.

Abbreviations

ADB	Asian Development Bank
COBSEA	Coordinating Body on the Seas of East Asia
COVID-19	coronavirus disease
DMC	developing member country
GDP	gross domestic product
SDG	Sustainable Development Goal
SMEs	small and medium-sized enterprises
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme

Executive Summary

This report summarizes opportunities and presents potential solutions for mobilizing and aligning investment for a sustainable blue economy in Asia and the Pacific. It quantifies the financing gaps involved and outlines strategies to realize a sustainable blue economy. Improving environmental sustainability can improve livelihoods and gender equality, among other Sustainable Development Goal (SDG) objectives. It supports and builds on existing initiatives within the Asian Development Bank (ADB), Poverty-Environment Action for SDGs, the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), regional and maritime groups, and national programs.

The report's five sections are complemented, supplemented, and completed by three sets of files located on a web-based knowledge portal; these can be accessed through the hyperlinks provided throughout the text. This web-based repository of underlying data and information will facilitate updates, allowing the provision of the most accurate and current government, multilateral bank, and industry standards, principles, and guides.

Section 2: Blue Economy Priorities. Defining and measuring the blue economy helps stakeholders and decision makers set priorities for development and protection of marine resources. The blue economy for ADB developing member countries (DMCs) is defined as comprising 16 market segments in three focus areas. Not all of these market segments offer similar opportunities either for development priorities or for each country. To determine their relative significance—and thereby maximize the impact of development capital by ensuring that financing serves as many sustainable objectives as possible—the blue economy market segments were assessed against (1) sustainable development criteria and (2) criteria indicating their relevance to specific countries. This analysis found the priority segments to be marine and river ecosystems; aquaculture, mariculture (a subsector of aquaculture; marine aquaculture), and algaculture; marine energy segments; non-point source pollution management and wastewater management; and green ports and shipping. Every blue economy segment has standards and metrics that are used to establish, finance, and monitor project performance. The matrix of sustainability metrics developed for this knowledge product can be used by different stakeholders to identify and locate the appropriate standard for any given blue economy segment or sustainability issue.



Section 3: Blue Economy Finance Gaps. The original research underlying this section estimates the capital requirements for each of the blue economy segments and for each country to achieve the Sustainability Development Goals by 2030. A summary calculation puts the total blue finance gap over that period for the Asia and Pacific region at \$5.5 trillion. However, gaps vary widely by market segment, as do the calculations and assumptions. Beginning with low-investment market segments such as marine and river ecosystems and coastal resilience will enable capitalizing on early successes. Establishing blended finance structures and enhancing the regulatory environment for blue economy sectors such as resilient ports, green ports, and marine offshore wind renewable energy will attract private investors and help unlock their full potential. Concurrently, all partners should collaborate to prevent pollution from reaching the ocean in the first place.

The investment amounts required may appear considerable, but the blue economy is full of synergies and trickle-down impact potential that can go a long way toward closing the financing gap to sustainability. It is the opportunity to exploit these synergies that provides the rationale for the present cooperation between ADB and Poverty-Environment Action.

Section 4: Blue Economy Investors. This section looks at how to attract the private capital—the investors—needed to fill the blue economy finance gaps delineated in section 3. Many different types of investors could finance these gaps (private insurers; infrastructure investors; venture capitalists; global financiers; environmental, social, and governance (ESG)/impact investors; corporate investors; etc.). A broad range of factors influences why they each might want to do so (time horizon, risk return, liquidity, asset class, location, co-investors, sustainability features of the investments, etc.). And they could use a wide variety of tools and mechanisms to make their blue economy investments.

Blended finance can play an important role—especially in lower-return, sovereign-backed infrastructure projects—as public capital sources offering loan guarantees, first-loss facilities, and other de-risking tools to compensate for emerging market risk. For higher-return and impact-oriented investors, however, SMEs continue to offer the most opportunities. Surveys show increasing demand for private equity opportunities in Asia and the Pacific. For high-growth market segments (e.g., aquaculture, marine digital technologies), blended finance is generally not required to attract private capital. For natural capital projects and market segments facing higher structural risks (such as fishing), de-risking is often necessary to raise sufficient long-term capital aligned with the Sustainability Development Goals. These examples illustrate the breadth of challenges facing blue SME opportunities in the region.

It is critical to understand the different needs and preferences of all investor types, as each can play a role in the blue economy, especially in blended finance transactions. Knowing these needs and preferences will naturally lead to matchmaking between blue market segments and investors. Knowing these needs and preferences will allow targeting of the right investors through the creation of appropriate investment vehicles, such as funds, bonds, and project financing structures; this will significantly improve the bankability of projects.

Awareness of these needs and preferences will enable entities and programs ranging from Poverty-Environment Action, ADB, UNEP, UNDP, and regional intergovernmental governance framework to tailor initiatives that support the integration of poverty and environment into private investor and banking operations.

Section 5: Recommendations and Next Steps. This section provides clear, prescriptive recommendations advancing funding of the blue economy, based on this report's analysis of the investments needed and the investors available to make them. It provides recommendations for future action by all major stakeholder groups: financiers, governments, industry, development banks, donors, coordinating bodies, and other partners. Specifically, it covers (1) policy recommendations for financiers, (2) enabling conditions to be provided by governments, (3) the SME BlueImpact Asia platform and current SME investment opportunities, and (4) coordinated actions by all stakeholders.

The SME BlueImpact Asia platform is the culmination of these actions and the linchpin connecting them. Its goal is to identify, support, and finance blue SMEs that have a positive impact on the marine environment and coastal communities in the region. It is a starting point for tackling the estimated \$2.0 trillion blue SME finance gap for the region, with a target of cofunding \$1.5 billion across more than 250 blue SMEs by 2030.

The SME BlueImpact Asia pipeline will also be used to enrich the portfolio of ADB and sovereign blue bonds, ADB Ventures, the ASEAN Green Catalytic Finance Facility, and other regional finance initiatives. It will feature a service arm and an investment arm, for which candidates have been identified to manage them. Also identified are four blue SME investment opportunities. Each opportunity highlights the potential roles development banks and funders can play to mobilize sustainable investment from the private sector, which can be replicated and therefore scaled throughout the blue economy. These and many other projects will be available on the SME BlueImpact Asia platform.

The SME BlueImpact Asia platform will play a critical role in growing the blue economy, as this section has amply demonstrated. Its impact will be amplified by the efforts of ADB and its partner organizations—notably Poverty-Environment Action, UNDP, and UNEP—matched by additional technical assistance from development partners and funding from private financiers and industry.



Gender-based finance is needed for many blue projects driven by women. Photo: ADB, Viet Nam.

SECTION 1

Introduction

In Asia and the Pacific, the ocean ecosystem has employed, fed, powered, and transported the region's teeming coastal millions for centuries in what can be called a **blue economy**.

The ocean's preeminence in the region is clear. Its seafood complex employs more than 60 million people, and some 80% of global fish production (wild catch and aquaculture) is based in Asia.¹ Shipping, dominated by Asian fleets and shipyards, powers over 80% of global trade. Ports are gateways for development and maritime innovation (17 of the world's 20 largest ports are in Asia), with the Maritime Silk Road of the People's Republic of China boosting the fortunes of smaller ports.² Marine renewable energy is growing from a nascent to mainstream clean power source. Beyond cultural heritage and its role as our life-support system, the ocean is a primary source of economic value for the region. As such, any efforts at reducing poverty and broadening economic inclusion will further bolster the blue economy.

Blue Challenges

Employment across blue economy sectors, especially by small and medium-sized enterprises (SMEs), is the lifeblood of coastal communities. Yet decades of mismanagement, exploitation, and pollution have damaged marine ecosystems. Traditional fisheries and aquaculture are contaminated and overfished. Plastic waste plagues tourism and marine health. Agricultural, industrial, and sanitary effluents harm marine ecosystems and communities. Climate change batters coastlines with rising seas and increasing storm intensity.

Disrupted marine ecosystems have resulted in economic losses and threatened human health. Worse still, the coronavirus disease (COVID-19) pandemic and the lockdowns to control it have imperiled the blue economy and coastal communities in and around the region, as well as hampering progress toward—and financing of—the Sustainable Development

¹ Food and Agriculture Organization of the United Nations. [The State of World Fisheries and Aquaculture 2020](#).

² UNEP Finance Initiative. 2021. [Turning the Tide: How to Finance a Sustainable Ocean Recovery](#), shipping and ports chapters.

Goals (SDGs).³ The case is undeniably strong for better managing ocean resources with a long-term perspective. The challenges and risks must be addressed with a **comprehensive blue economy strategy** that engages finance, science, governments, and industry.

SMEs with revenues between \$500,000 and \$10 million represent 90% of the main economy in the region and employ 70% of its population. Although SMEs are active in all blue sectors, they currently lack adequate direct finance and support. Even local banks are reluctant to lend to SMEs because of their typically insufficient collateral and credit history. While large public projects are well supported by governments, the Asian Development Bank (ADB), and other development finance institutions, local SMEs do not have direct access to this type of financing. On the smaller or micro end of the spectrum—enterprises generating less than \$500,000—microfinance lenders serve this market. Encouraging and funding blue SMEs would therefore drive the sustainable transition of the blue economy from its core, promoting widespread adoption of sustainable practices across the entire economy.

Multilateral banks generally do not serve SMEs, preferring instead to focus on the top-down approach of sovereign loans, infrastructure, and project finance. This is also true of private institutional investors who only consider large tickets (\$50 million) for the same reasons: The cost of due diligence, allocation goals, monitoring, risk management, and perceived effectiveness of large-scale versus smaller investments. While allocations to local banks, microfinance platforms, and regional programs are steps in the right direction, none take the bottom-up approach and long-term view of a dedicated SME finance initiative. This was the conclusion of the European Commission after studying the blue economy challenges, leading to the establishment of BlueInvest, a model for the SME BlueImpact initiative described in this report.

This is the set of interwoven issues that this knowledge product, **Financing the Blue Economy: Investments in Sustainable Blue Small-Medium Enterprises and Projects in Asia and the Pacific**, sets out to address.⁴ Its resources are aimed at countries in Asia and the Pacific that are ADB developing member countries (DMCs) and member states of the United Nations (UN) with direct blue economy exposure, with coastlines on either the Pacific Ocean or Indian Ocean (Table 1.1).

SME Financing Solutions

A systemic approach is needed for SME funding. The overall blue financing gap for the 28 countries the report covers is estimated at \$5.5 trillion, with SMEs comprising as much as half of that total. If blue SMEs cannot gain access to private and blended finance, coastal communities cannot be fully engaged in protecting the marine ecosystems upon which the

³ In 2020, private sector SDG investments to developing countries fell by more than one-third, hindering SDG progress made since 2015. (UNCTAD. 2021. *Investment Trends Monitor*. April.)

⁴ This knowledge product includes the present report and the associated online materials.

Table 1.1 Countries Covered by This Knowledge Product, by Region

Pacific		Southeast Asia	South Asia	East Asia
Cook Islands (C)	Papua New Guinea (B)	Cambodia (A)	Bangladesh (B)	People's Republic of China (C)
Federated States of Micronesia (A)	Philippines (C)	Indonesia (C)	India (B)	
Fiji (C)	Samoa (A)	Lao People's Democratic Republic (A)	Maldives (A)	
Kiribati (A)	Solomon Islands (A)	Malaysia (C)	Pakistan (B)	
Marshall Islands (A)	Timor-Leste (B)	Thailand (C)	Sri Lanka (C)	
Nauru (A)	Tonga (A)	Viet Nam (C)		
Niue (A)	Tuvalu (A)			
Palau (B)	Vanuatu (A)			

Note: Letters in parentheses refer to ADB lending group categorization. Group A = concessional assistance-only countries; Group B = ordinary capital resource (OCR) blend countries; Group C = regular OCR-only countries.

Source: ADB. 2019. [Operations Manual Policies and Procedures](#). Manila.

region's prosperity—and the global climate—depend. SMEs therefore need to be aggregated and de-risked in order to gain access to capital. Funding large public sustainable infrastructure projects to support the development of economies also remains essential.

Global demand for sustainable private sector investments is strong. The blue economy may thus attract new sources of capital to the region by creating bankable projects and well-structured investment vehicles. ADB is in a unique position to leverage the region's blue assets by integrating them into its lending strategies.

A significant portion of the blue financing gap could be met by a blended finance platform for SMEs. The report therefore proposes the **SME BlueImpact Asia** platform, partially modeled after Europe's successful [BlueInvest](#) platform,⁵ to identify and aggregate bankable SME projects for matched public-private funding. This self-sustaining investment platform would fund impactful blue enterprises, in full recognition of the importance of the blue economy to livelihoods in developing Asia and the Pacific.

Purpose and Context of the Knowledge Product

The report summarizes opportunities and presents potential solutions for mobilizing and aligning investment for a sustainable blue economy in Asia and the Pacific. It quantifies the financing gaps and outlines strategies to realize it. Improving environmental sustainability can improve livelihoods and gender equality, among other SDG objectives. The urgency for policy makers to make this connection in the wake of the COVID-19 pandemic, along with

⁵ BlueInvest, operated by the European Union's Maritime Forum, is one example of a regional accelerator on which SME BlueImpact Asia is based. Other examples include the [Atlantic Smart Ports Blue Acceleration Network](#), Canada's [B4 Change Accelerator](#), the Port of Seattle's [Maritime Blue Accelerator](#), and the World Port Accelerator [Port XL Accelerator](#).

undertaking integrated environmental and economic measures, is articulated in a recent article by [Poverty-Environment Action for Sustainable Development Goals](#), a joint initiative of the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP).⁶ The number of people living in extreme poverty has increased by 17%, triggering a “perfect storm” of reduced financial resources and increased destruction of the environment as poor communities and unconstrained industries cope with survival.

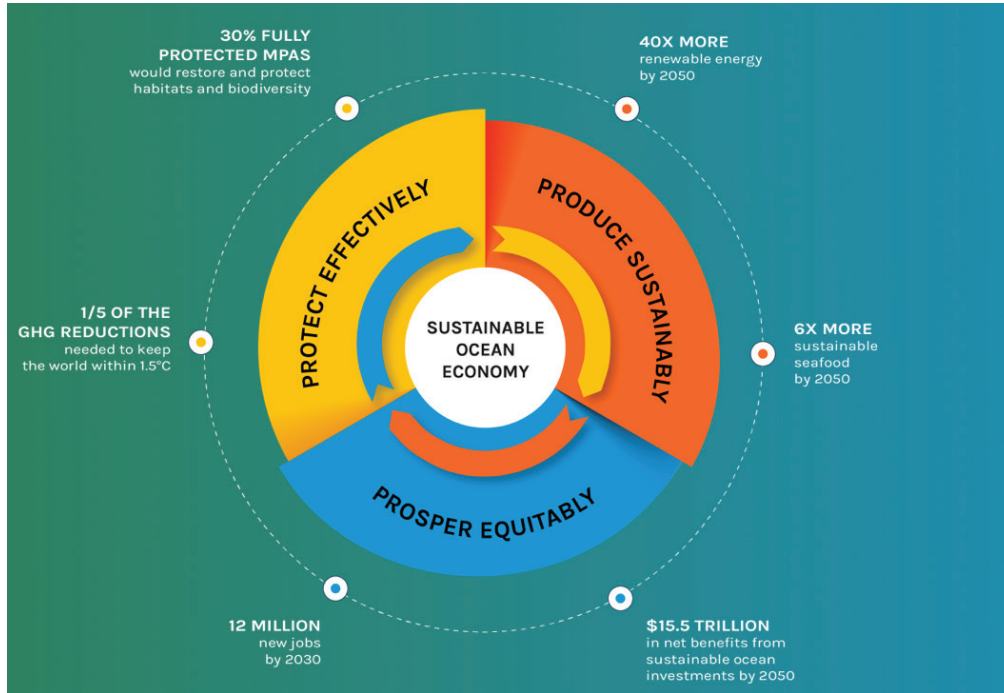
This report supports and builds on existing initiatives within ADB, Poverty-Environment Action, UNDP, UNEP, regional and maritime groups, and national programs. The most relevant of these are described below. All of these initiatives, and the report’s recommendations, are informed by the 2030 aspirations set out by the High-Level Panel for a Sustainable Ocean Economy (Figure 1.1).⁷

- **ADB’s Action Plan for Healthy Oceans and Sustainable Blue Economies** represents a commitment to raise \$5 billion for ocean health and the blue economy, inclusive of ADB and partner resources. The initiative focuses on four flagship programs: (1) coastal resilience and nature-based solutions, (2) plastic-free oceans and circular economy, (3) sustainable seafood, and (4) ocean finance. The program works to mainstream ocean health into traditional development sectors, such as ports and shipping, and to support emerging blue economy subsectors, such as sustainable aquaculture. The ocean finance flagship is working to increase the amount and efficacy of financial capital invested in healthy oceans and sustainable blue economies. Innovative finance instruments are being developed, including coral reef insurance and [blue bonds](#), and new finance facilities are being created, including the [Blue Southeast Asia Finance Hub](#), the [Blue Pacific Finance Hub](#), as well as SME Blue-Impact recommended in the knowledge product. All ADB ocean investments adhere to the ADB [Ocean Finance Framework](#) (2020).
- The joint **UNDP-UNEP Poverty-Environment Action for Sustainable Development Goals** is a global program for 2018–2022. It builds on the deep experience of the UNDP-UNEP Poverty-Environment Initiative, which pioneered integrated approaches to mainstreaming poverty-environment linkages in national development planning and budgeting processes. In addition, Poverty-Environment Action draws on the tools and experience of UNEP’s and UNDP’s blue economy-related work. In collaborating with ADB on this knowledge product, Poverty-Environment

⁶ Andreas Antoniadis, Alexander S. Antonarakis, Jonathan Gilman, Isabell Kempf, Anne Juepner, and Kerstin Stendahl. 2021. [The Poverty-Inequality-Environment Frontier in the Age of Crises](#). *Journal of Sustainable Development*. 29 (3). 481–84.

⁷ The [High Level Panel for a Sustainable Ocean Economy](#) is a coalition of governments and international organizations that aims to put sustainability at the heart of the ocean and showcases how its well-being is necessary to address any other sustainable objectives. The panel includes major actors like the United States, Canada, Mexico, Australia, Norway, and other coastal countries. It recently launched an action plan to raise the ambition of sustainable oceans solutions and offer them technical and financial assistance.

Figure 1.1 2030 Goals for a Sustainable Ocean Economy

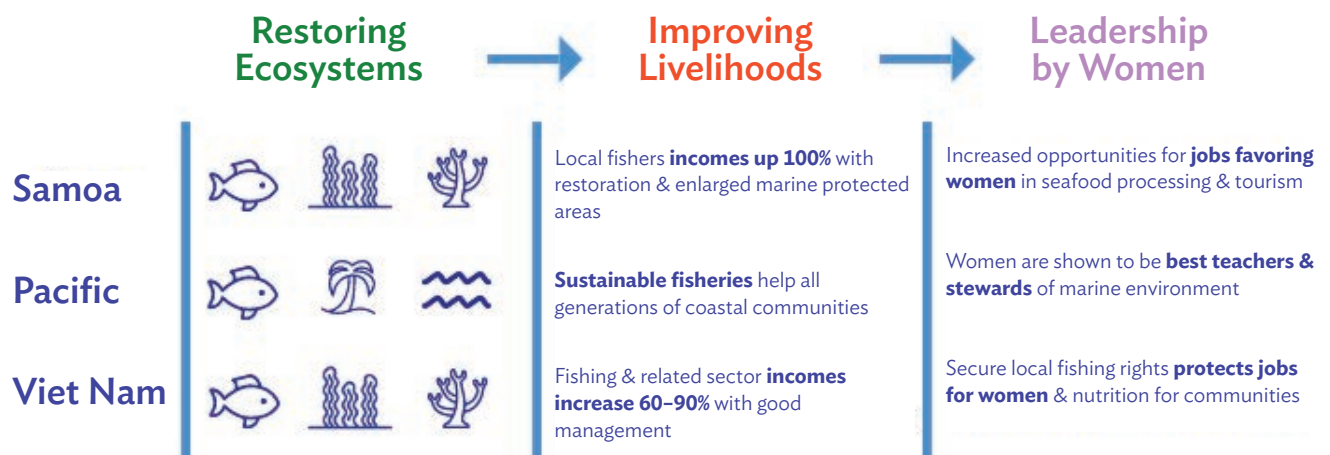


Source: [High Level Panel for a Sustainable Ocean Economy](#).

Note: GHG = greenhouse gas; MPA = marine protected area.

Action is integrating poverty, environment and gender dimensions into the ADB initiatives noted above (Figure 1.2). Stakeholders can apply a variety of its tools in a blue economy context including budget tagging; climate public expenditure reviews; gender-responsive climate change budget guidance; [A Handbook to Strengthen Planning and Budgeting Processes](#); and case studies in the Philippines, Indonesia, and other countries in the region.

Figure 1.2 Poverty-Environment Action Cases in Asian Blue Economy Development



Source: Ocean Assets Institute.

- ⑥ **UNEP Finance Initiative's Sustainable Blue Economy Finance Principles** were unveiled in 2018, providing a framework for financing a sustainable ocean economy.⁸ The principles were developed by the European Commission, WWF, the World Resources Institute, and the European Investment Bank. Today, this platform brings together financial institutions to work with scientists, corporations, and civil society to direct the flow of capital toward activities that directly contribute to SDG 14 (Life Below Water), including through a biennial [Regional Roundtable for Sustainable Finance in Asia](#). In early 2021, the UNEP Finance Initiative released three influential reports supporting the Sustainable Blue Economy Finance Principles: [The Rising Tide](#), [Turning the Tide](#), and [Diving Deep: Finance, Ocean Pollution and Coastal Resilience](#).

Knowledge Product Organization

This report's five sections are complemented, supplemented, and completed by three sets of files located on a web-based knowledge portal; these can be accessed through the hyperlinks provided throughout the text. This web-based repository of underlying data and information will facilitate updates, allowing the provision of the most accurate and current government, multilateral bank, and industry standards, principles, and guides.

The remaining four sections are as follows:

- ⑥ **Section 2** delineates and prioritizes blue economy areas of focus and the specific market segments of the blue economy; it also introduces a comprehensive suite of references and metrics linked to key sustainability standards for all blue economy market segments.
- ⑥ **Section 3** computes sustainable investment gaps by market segment to offer a better sense of the financing needed and the depth of opportunities available.
- ⑥ **Section 4** reviews types of financial and corporate investors, focusing on their preferences and current appetite for blue economy projects in Asia and the Pacific. It offers a toolbox of financial mechanisms to best attract the right kind of investor to any given project, widening financing options to support development finance.
- ⑥ **Section 5** provides policy recommendations that aim to create an enabling environment for financing of the blue economy and concrete investment propositions to kick-start a new wave of sustainable investments. Its primary recommendation is development of SME BlueImpact Asia, a platform aimed at institutionalizing the connection between private markets and blue economy SMEs.

⁸ UNEP Finance Initiative. 2018. [UNEP FI's Sustainable Blue Economy Finance Principles \(SBEFP\)](#).

Throughout this document, supporting material is referenced and can be accessed through links to an online portal including:

- ⑥ **Tables.** Data, in-depth analysis, and good practice guidance covering all aspects outlined in the report are provided in PDF format online. Assumptions are clearly stated, allowing different stakeholders to change parameters according to their needs.
- ⑥ **Reports, commentaries, and guidance.** For further reference, the complete set of data and information researched in preparing the knowledge product is provided in PDF format online. These materials should be particularly valuable for those wishing to see the full depth of information used to reach conclusions and to validate and test other assumptions.
- ⑥ **Dossiers.** Investment analysis is provided in PowerPoint for three bankable blue SME projects, two potential private sector fund managers, and the SME BlueImpact Asia platform. The full investment dossiers may be accessed only with the permission of ADB and UNDP-UNEP.



Infrastructure finance is needed to scale up clean marine energy. Photo: ADB, Lao People's Democratic Republic.

SECTION 2

Blue Economy Priorities

Defining and measuring the blue economy helps stakeholders and decision makers set priorities for development as well as for the protection of marine resources. In its Ocean Finance Framework,¹ ADB has identified focus areas and associated market segments of the blue economy. Based on this and previous classifying work by the ADB Oceans Financing Initiative,² the blue economy for ADB DMCs is defined as comprising 16 market segments in three focus areas (Table 2.1).

Not all of these market segments offer similar opportunities either for achieving development priorities or for each country. To determine their relative significance—and thereby maximize the impact of development capital by ensuring that financing serves as many sustainable objectives as possible—the blue economy market segments were assessed against (1) sustainable development criteria and (2) criteria indicating their relevance to specific countries. These analyses are discussed in the next two subsections. The final subsection acknowledges the complexities entailed in blue economy investment; to this end, it presents a summary matrix of all the criteria, standards, and metrics associated with the blue economy market segments.

Sustainable Development Analysis

Each market segment was assessed against a set of impact and financial criteria drawn from ADB and Poverty–Environment Action priorities. Each segment was scored as high, medium, or low on the following eight items:

- Relevance to the ADB Action Plan for Healthy Oceans and Sustainable Blue Economies
- Positive social impacts on poverty, gender, and health
- Positive environmental impacts
- Potential for market scalability
- Capacity for innovation and growth
- Ability to benefit from regional governance frameworks
- Opportunity for SMEs
- Capacity to attract private investment

¹ ADB. 2021. “ADB Ocean Finance Framework.” Internal document.

² ADB. 2020. [Explainer: The Role of Ocean Finance in Transitioning to a Blue Economy in Asia and the Pacific](#).

The [BLUE MARKET SEGMENTS HEATMAP](#) shows the sustainable development criteria scores for all 16 segments. [DEFINING THE BOUNDARIES: METHODOLOGY](#) explains how the segments were scored.

Table 2.1 Blue Economy Focus Areas, Market Segments, and Objectives

Focus Area	Market Segment	Objective
Ecosystem and natural resource management	Marine and river ecosystems	Sustainably manage, conserve, or restore the health and resilience of coastal, marine, and river ecosystems
	Fishing	Improve environmental sustainability and socioeconomic benefits derived from seafood value chains
	Fisheries	
	Seafood processing and distribution	
	Aquaculture and mariculture	
	Algaculture	
Pollution control	Solid waste management	Reduce marine debris and impacts to marine life, coastal livelihoods, and human health
	Resource efficiency and circular economy	
	Non-point source pollution management	Reduce pollution (nutrients, sediments, chemicals) of coastal and/or marine environments
	Wastewater management	Reduce volume and damage to coastal and/or marine environment from wastewater pollution
Sustainable development and infrastructure	Coastal and marine tourism	Improve environmental, economic, social, and cultural sustainability of coastal and marine tourism
	Coastal resilience	Enhance resilience of coastal communities to damage from natural hazards and climate change impacts
	Community infrastructure	Improve coastal community infrastructure to enhance amenity, recreational, and cultural values
	Green ports and shipping	Increase sustainability of maritime infrastructure and transport
	Offshore wind renewable energy	Increase marine renewable power to Asian Development Bank developing member countries communities and enterprises
	Marine tidal, wave, geothermal renewable energy	

Source: Ocean Assets Institute.

Overall, every market segment is relevant to ADB's **Healthy Oceans Action Plan**, and most have positive **social** and **environmental impacts**. Most also have strong **innovation and growth** potential. Ability to **benefit from regional governance** varies, suggesting political interventions will be needed to improve the economics of these areas. The segments generally provide **opportunities for SMEs**, except wastewater management and some of the sustainable development and infrastructure segments. Capacity to attract **private sector investment** also varies, suggesting the need for blended financing tools to improve project bankability in the ecosystem and natural resource management and pollution control focus areas. Each market segment includes a range of SME blue economy projects that are bankable, scalable, and replicable across Asia and the Pacific, some examples of which are showcased in section 5.

The assessment yielded a blue score for each segment, indicating that some segments are more promising than others in their investment potential.

The analysis delved deeper, referencing sustainability objectives by International Standard Industrial Classification of Economic Activities code, geographic limitations, primary SDGs and SDG targets supported, and primary ADB operational priorities supported. Examples of private and public investments by segment were also provided.

Based on their scores and the in-depth analysis conducted, the following are the priority segments for achieving maximum impact on the social (gender, poverty, health) and environmental agendas of ADB and UNDP-UNEP. All of these hold a high potential for innovation, regulatory collaboration, local employment, and private investment.

- ⑥ Restoring and protecting **marine and river ecosystems** is the highest priority, with a goal to unlock natural regenerative processes and trigger positive feedback loops that will greatly benefit all the other segments.
- ⑥ **Aquaculture, mariculture, and algaculture** are the most promising areas in terms of economic benefits and of strengthened food security. These segments have the potential to be financially sustainable and should be further encouraged to initiate rapid growth. **Fishing and fisheries**, however, face the twin pressures of overfishing and climate change. Scale is possible by strengthening and aggregating regional fishery management schemes coordinating sustainable quota policies; but key policy safeguards are needed to attract investors: secure tenure, predictable quotas, sustainability certifications on sourcing, and labor/community impacts. Nominal prices are expected to increase during 2020–2030, driven by increased incomes, production, and distribution channels.
- ⑥ Marine energy segments can serve the energy needs of the region and should be focused on. **Marine offshore wind** is now a mainstream technology and is growing most rapidly in Asia. **Tidal and other marine power sources** are ready for larger-scale development.
- ⑥ Pollution control depends on scaling technologies that prevent, collect, and recycle waste from land and sea sources. **Non-point source pollution management** and **wastewater management** are often overlooked as an area of investment, but readily lend themselves to innovation and efficiency measures that can be highly attractive for all stakeholders.

See the individual market segment analyses for further explication of these conclusions:

MARINE AND RIVER ECOSYSTEMS

FISHING AND FISHERIES

SEAFOOD PROCESSING AND DISTRIBUTION

AQUACULTURE AND MARICULTURE

ALGACULTURE

POLLUTION CONTROL (covers solid waste management, resource efficiency and circular economy, non-point source pollution management, and wastewater management)

COASTAL AND MARINE

TOURISM

COASTAL RESILIENCE

COMMUNITY INFRASTRUCTURE

GREEN PORTS AND SHIPPING

MARINE RENEWABLE ENERGY (covers marine offshore wind renewable energy and marine tidal, wave, geothermal renewable energy)

- ⑥ **Green ports and shipping**, a market segment dominated by Asia, are the twin engines of global trade and local connectivity, benefiting from digital technologies³ and global that can speed the transition to sustainability. Green port infrastructure development is boosted by the People’s Republic of China’s Maritime Silk Road and several sustainable infrastructure funds. For shipping, most investments required for the sector’s transition to lower emissions will be for alternative fuel supply chains—creating many opportunities for investors and even service providers in the SME category.

These priority market segments should be further evaluated in light of long-term trends, including COVID-19. Certainly, the economic slowdown resulting from the pandemic has significantly cut into SME markets, and disrupted supply chains and livelihoods. In particular, tourism faces a historic challenge in recovering from the collapse of international travel; structural deficiencies portend contraction and losses, although ecotourism provides significant opportunities. One general conclusion about all market segments, regardless of their blue economy status, is that extractive and unsustainable industries face multiple challenges, and that economic growth favors those that contribute to sustainable development.

Country/Region Analysis

The relevance of and opportunities in each segment were measured across the 28 target DMCs. This was done by assessing each country on a high-medium-low scale for each segment and deriving a country blue score. Thus, for the coastal and marine tourism segment, the assessment determined if this was a key industry in the particular country or had a moderate or small impact on that country’s economy. Several segments were assessed for whether they represented major or minor needs for a given country.

The analysis found that the **ecosystem and natural resource management** focal area and the **coastal and marine tourism** and **coastal resilience** market segments present opportunities that are relevant to each country. This is not surprising, given the importance of the ocean to coastal communities. The **pollution control** focus area and the **green ports and shipping** market segment are more relevant to large countries.

Based on their blue scores, the countries with the greatest potential in terms of blue economy investment opportunities and sustainability are **India, Thailand, Viet Nam**, the

See the [COUNTRY PRIORITIES HEATMAP](#) for country scores by market segment.

³ Digital technologies are transforming all blue economy industries; examples include blockchain apps (especially for fishers, fish farmers, seaweed farmers), which provide traceability, quality control, aggregation for direct sales to large buyers, immediate payment, and increased income shares to local producers; logistics software that improves port functionality, shipping efficiency, supply chain efficiency, increases direct sales from local producers, and lowers inventory demands; shipping software that enables improved fuel efficiency, route selection, and competitive pricing for local shippers; energy software that enables clean energy delivery to coastal hotels, ports and municipalities; and fishing software that enables reduced by-catch, and compliance with sustainable certification programs and quota management systems.

People’s Republic of China, the **Philippines**, **Indonesia**, **Malaysia**, and **Pakistan**. It should be noted that the criteria favor larger countries due to their more developed infrastructure, as opposed to small island developing states. However, the latter depend more on the blue economy and may have niche advantages. For example, artisanal fishing and aquaculture products often command premium prices and sustainability labels, as do ecotourism resorts as compared to larger establishments. These examples underscore the importance of supporting SMEs to finance sustainability throughout the blue economy. Also, for the country rankings, sector weights may be calculated by priority level. It is necessary to consider both country and sector blue economy analyses to gain an accurate picture of priority areas for investment.

Individual countries were analyzed rather than regions, which gave some countries a higher score than would a regional approach. For example, some small island developing states are Parties to the Nauru Agreement,⁴ giving them a higher ranking on the seafood value chain sector than they would have otherwise. In scoring the countries on a regional basis, however, the Pacific region has a lower score than either Southeast Asia or South Asia. This implies that the Pacific region could aggregate resources and projects to attract investment, achieve scale, and compete effectively with the other regions.

Blue Economy Metrics

This subsection—and its associated matrix on the knowledge web portal—drills deeper into the blue economy segments discussed above so decision makers and stakeholders can better understand what is entailed in developing a sustainable, bankable project in a given market segment.

Every blue economy segment has sustainability standards and metrics that are used to establish, finance, and monitor project performance. The blue economy metrics identified for this knowledge product can be used by different stakeholders to identify and locate the appropriate standards for any given blue economy segment or sustainability issue. Stakeholders may also use the standards to showcase the potential benefits and risks of a particular blue economy project. These benefits can then be leveraged to increase their bankability to environmental, social, and governance investors. These global standards apply to the entire range of projects: SMEs, ecosystems, and infrastructure.

Not surprisingly, the matrix shows that established market segments such as **fishing, aquaculture, solid waste management**, and **green ports and shipping** have the most comprehensive sets of associated standards. Emerging market segments such as **algaculture, marine and river ecosystems, marine energy**, and **coastal resilience** have few

See [BLUE ECONOMY METRICS](#) for a summary matrix of criteria, standards, and metrics by market segment.

See [GUIDE TO BLUE ECONOMY METRICS](#) for guidance in using the matrix.

⁴ The [Parties to the Nauru Agreement](#) controls the world’s largest sustainable tuna purse seine fishery. Agreement members include the Federated States of Micronesia, Kiribati, the Marshall Islands, Nauru, Palau, Papua New Guinea, Solomon Islands, and Tuvalu.

formal standards. For these segments, the matrix links to case studies as a source of best practice guidance. Project developers are urged to familiarize themselves with all metrics in order to attract private investors, minimize operational risks, and increase the bankability of their projects.

Many financial and industry leaders actively seek environmental and community benefits in order to comply with their new sustainable investment mandates or as a new source of value for their portfolios. The tools and guidance in the metrics aim to help create bankable and sustainable blue economy projects. The monitoring, reporting, and verification process also requires the referencing of these metrics. Because of the linkages among standards, even across segments, it is important to consider the full combination of case studies and metrics from finance, industry, and policy sources together with SDG, ADB, and Poverty-Environment Action targets. The matrix is a valuable tool that matches and makes accessible key metrics for each blue economy segment and each stakeholder.



Nature-based finance initiatives like the Global Fund for Coral Reefs play a vital role in marine ecosystem restoration. Photo: ADB, the Philippines.

SECTION 3

Blue Economy Finance Gaps

Section 2 has established the priority blue economy segments, the ones that will generate the “most bang (sustainability) for the buck.” This section looks at how many “bucks” are needed: what precisely is the blue economy finance gap?

The original research that underlies this section estimates the capital requirements for each of the blue economy segments and in terms of each DMC that would effectively contribute towards achieving blue economy–related Sustainable Development Goals by 2030. **A summary calculation puts the total blue financing gap over that period for the Asia and Pacific region at \$5.5 trillion.** However, gaps vary widely by market segment, as do the calculations and assumptions, as discussed below. On a regional basis (Table 3.1), the largest gaps are in South Asia (\$2.3 trillion), Southeast Asia (\$2.1 trillion), and the Pacific (\$1.1 trillion). The breakdowns provided by market segment and DMC in the knowledge web portal resources not only provide an idea of what resources are needed, but also the depth of opportunities in each segment and country to make the transition to a sustainable blue economy.

This section describes the methodology and assumptions used to determine and prioritize financing gaps, presents highlights of the finance gap analysis by market segment, and preliminarily indicates some ways in which these gaps could be addressed.

Measuring the Gap

The blue financing gap is here defined as the financing needed to transition to a sustainable blue economy and help achieve related SDGs and targets. This financing can be seen as a pipeline of investments necessary to achieve sustainable practices across the area—and presents a range of opportunities for private investors (Box 3.1). To quantify these levels, the investments necessary for this achievement and for sustainability standards in any given market segment up to 2030 were calculated, and capital already committed to this end (from either the private or the public sector) was identified. The difference between these two amounts was defined as the financing gap for that market segment. This estimate provides a

The SDG targets supported can be found in the

BLUE ECONOMY METRICS

TABLE.

Table 3.1 Finance Gap by Region: Investments Needed by 2030 to Meet the SDGs (million \$)

Themes	Segments	Pacific	SE Asia	South Asia	Totals	Blue Economy Score
Ecosystem and Natural Resource Management	Marine & River Ecosystems	121	44	51	216	23
	Fishing	22	200	2,001	1,427	15
	Fisheries	14	-27	28	15	15
	Seafood Processing & Distributions	930	4,775	3,429	9,134	19
	Aquaculture & Algalculture	1,001	9,782	9,843	20,626	23
Pollution Control	Solid Waste Management	80,500	145,000	47,400	272,900	17
	Resource Efficiency And Circular Economy	9,000	58,600	69,900	137,500	20
	Non-point Source Pollution Management	26,300	87,100	463,800	577,200	21
	Wastewater Management	13,900	97,000	150,400	261,300	23
Sustainable Coastal and Marine Development	Coastal and Marine Tourism	1,776	1,396	773	3,945	14
	Coastal Resilience	1,700	3,600	6,340	11,640	23
	Resilient Ports	881,000	1,510,000	1,280,000	3,671,000	22
	Green Ports	8,858	63,641	22,086	94,585	22
	Green Shipping	2,171	5,649	5,532	13,352	22
	Marine Offshore Wind Renewable Energy	25,200	151,800	235,900	412,900	22
	Marine Tidal, Wave, Geothermal Renewable Energy	100	500	800	1,400	22
Total		1,052,593	2,139,060	2,298,283	5,489,140	

Note: Community infrastructure market segment is included in resilient ports and tourism infrastructure. Some market segments have been reframed from the categorization in Table 2.1 because investment costs were either grouped or split. Resilient ports, which includes the community infrastructure market segment, is accorded its own category so as to assess the amount needed for ports' adaptation to climate change; this is not the same segment as green ports, which focuses on sustainable and green technologies within the port complex.

Source: Ocean Assets Institute.

Box 3.1 Why Invest in the Sustainable Development Goals from a Business Perspective?

Often, the investments financing Sustainable Development Goal projects are seen as dead costs; this is a misconception. The economy needs to come to terms with planetary boundaries, and transitioning to sustainability is the sole path to undertake to avoid market, social, and ecological collapse from the effects of climate change and biodiversity loss. These investments, while unavoidable, represent business opportunities for the private sector to participate in the transition and to ensure the sustainability of their long-term business models. A clear example is financing adaptation for resilient ports in the Pacific, as this has become an imperative for their survival. These investments thus become growth opportunities for any private investor willing to participate in this effort. Investors can be further incentivized when attractive financial structures are put in place, such as—depending on the market segment—investment guarantees, sustainability-linked loans, or climate insurance. Which tools are better suited to which segments is further discussed in section 4.

measure of what remains to be achieved and how much more resources are needed to transition to a sustainable blue economy.

For most market segments, gap analysis data are derived as an estimated percentage of gross domestic product (GDP) based on references or production statistics, and then converted

Full methodologies and assumptions can be found in the market segment analyses on the knowledge web portal; see

[FINANCE GAP BY MARKET](#)

[SEGMENTS - CONSOLIDATED.](#)

to monetary data. For example, if estimates indicate that fixing the water and sanitation infrastructure of a given country may require an investment equal to 15% of its GDP, that information is used to calculate the sector gap, which then yields the country and sector totals for the region.¹ Using a percentage of GDP is preferable, since percentages may not change much (until major investments are made) whereas GDP figures change every year. Science-based data such as the Ocean Health Index were used to show the current health and likely future state of many blue economy natural capital market segments.² Last, and perhaps most importantly, industry and investor data were used to identify the cost of desired investments in Asia and the Pacific's maritime market segments, thus clearly linking the analysis to a guide for pipeline development.

Prioritizing the Gaps

To make the blue economy finance gap analysis meaningful and, ultimately, relevant for SME investment, the estimates need to be examined in light of the priorities identified in section 2. In this way, those segments with the highest relevance to ADB and Poverty-Environment Action priorities can be targeted, as the investment landscape is highly nuanced. For example, some market segments have low financing needs and high relevance; others have high financing needs and high relevance. These priorities should not be rank ordered, as efforts are needed across the entire area, as Box 3.1 notes. However, understanding these differences across market segments can help prioritize first efforts and capitalize on first successes to raise more interest down the road. Additionally, the economics of the various segments require different types of support and prioritization; this is elaborated on in the next subsection.

The heatmap in Table 3.1 provides an at-a-glance impression of the landscape: how much is needed and where best to target preliminary efforts. It presents the financing gaps for each market segment across Asia's subregions,³ and the blue economy scores derived from the market segment sustainable development analysis in section 2. The table provides an overview of the resources that need to be unlocked to reroute a given segment and subregion onto a sustainable path. It also shows how relevant a given market segment is to the general goals of the blue economy as delineated by ADB and Poverty-Environment Action.

Note that these financing gaps are rough estimates, enabling a general approximation of the size of each space and their relative differences. This approach allows rapid identification

¹ For example, estimates were used from the Food and Agriculture Organization of the United Nations as to how much of a nation's GDP is invested in sustainable agriculture. Those estimates were then translated into absolute terms for the GDP of a given country.

² The [Ocean Health Index](#) measures key elements from all dimensions of the ocean's health to guide decision makers toward sustainable use of the ocean.

³ Investment gaps were grouped across subregions to present a clear view of the main challenges across the region and because little granularity was available for every country.

and monetization of investment needs and helps define a priority list for investment. The methodology applied and its findings reported here are best estimates only.

To create bankable projects in new segments such as **marine and river ecosystems** and **coastal resilience**, several project development initiatives are now active, namely: Blue Natural Capital Finance Facility, Blue Finance, and the Global Fund for Coral Reefs. Establishing blended finance structures and enhancing the regulatory environment for blue economy sectors such as **resilient ports**, **green ports**, and **marine offshore wind renewable energy** will attract private investors and allow their full potential to be unlocked. Concurrently, all partners should collaborate to prevent pollution from reaching the ocean in the first place through appropriate regulatory frameworks and strengthening sustainable consumption and production within private sector entities.

Highlights of the Analysis

Investment needs vary considerably across the blue economy focal areas and market segments. Some segments have greater needs in reaching sustainability than others; they thus represent the areas with the greatest potential for sustainable investment and will need to attract the largest pools of capital. Of those segments with the highest financing needs, **resilient ports** tops the list, as it faces existential threats from rising seas and storms.⁴ **Non-point source pollution management** comes second; the financing gap here represents the amount needed to put agriculture on a sustainable path in Asia and the Pacific and thereby reduce the volume of harmful effluents that end up in the ocean. **Marine offshore wind renewable energy** comes third; the financing gap in this market segment represents the investment needed to realize the full potential of this technology in countries in the region, in line with what is being done in Europe and the People's Republic of China. Insurance gaps are not taken into consideration in this analysis, but are equally significant, especially in the case of coastal and port resilience.⁵

Lower investment needs do not necessarily mean that a market segment should be accorded a lower investment priority, however. For example, the investment needs for **marine and river ecosystems** are small compared to the potential gains they would trigger for social and environmental goals. These ecosystems support many other blue economy market segments with vital functions, such as the following:

- Mangroves provide natural barriers for **coastal resilience**.

⁴ This analysis distinguishes between resilient ports and green ports as two distinct investment needs. The former involves infrastructure and engineering challenges; the latter entails renewable energy and wastewater innovation. The data available allowed for such granularity.

⁵ The insurance industry refers to a protection gap—the amount of uninsured damages due to disaster events. In 2019 alone, economic losses due to natural hazards amounted to \$232 billion, yet only \$71 billion were indemnified by various types of insurance products and solutions.

- ⑥ Sustainable agriculture can reduce use of agro-chemicals and contribute to **non-point source pollution management**.
- ⑥ Tackling the plastic waste crisis is essential for healthy marine ecosystems under **solid waste management** and **resource efficiency and circular economy**.⁶
- ⑥ Healthy reefs promote **coastal and marine tourism**.
- ⑥ Healthy fish stocks and breeding grounds enhance **fisheries**.
- ⑥ Water (wetlands) filtration aids in **wastewater management**.

A relatively modest investment in marine and river ecosystems will bring significant value to the environment and the economy; this is evidenced in Table 3.1, where an investment of \$216 million is associated with a high blue economy score. The same logic applies to **coastal resilience**, which also has a high blue economy score and a relatively low financing gap of \$11 billion. Because rising seas threaten the very survival of some island nations in the Pacific, addressing coastal resilience benefits not just multiple market segments, but countries' entire economies. Both marine and river ecosystems and coastal resilience could be supported, for example, by direct investments from insurance companies, as the protection they offer against climate casualties is in line with the insurers' business. Blue Carbon Resilience Credits designed by AXA XL through the Ocean Risk and Resilience Action Alliance are an example of such financial innovation. They are designed to capture the carbon sequestration benefits and the resilience capacity of coastal wetlands like mangroves forests. **Aquaculture** is another promising market segment, with a high blue economy score and investment needs of \$20 billion. For this segment, guarantees and start-up acceleration could generate substantial growth and meet several SDGs simultaneously (food, water, and oceans).

Other market segments—**green ports, green shipping, marine offshore wind renewable energy**—are specific to the blue economy and need special attention. They have high blue economy scores and investment levels ranging from \$1.4 billion to \$412 billion. Their potential for scalability makes them a rich investment opportunity for the global community of investors. **Offshore wind** has particular potential, given its proven implementation in Europe, its increasingly favorable economics, and its ability to provide clean energy as well as sanctuary spaces for fisheries. Catalytic funders, such as multilateral development banks and other development partners, could foster loan syndication to attract private creditors' capital to the segment, as in the case of Ørsted in Taipei, China.⁷ **Green** and **resilient ports** could be a source of opportunities for infrastructure investors; **green shipping** could be sponsored by corporations desiring carbon-free supply chains. This sort of matchmaking between sectors and different types of investors is further developed in section 4.

⁶ Eighty percent of marine plastic waste comes from land-based sources; it increases by 8 million metric tons per year (potentially doubling this rate by 2025) and causes vast damage to marine ecosystems and human health. (Encourage Capital. 2017. [Sea of Opportunity](#).)

⁷ See Ørsted. 2019. [Ørsted Signs Guaranteed Green Loan Facility for Greater Changhua Projects](#). Press release. 20 June. Ørsted has been ranked as the world's most sustainable energy company.

Pollution control is the focus area with the greatest scalability potential. Investment needs in its market segments range from \$137 billion to \$577 billion; however, their investment economics are quite favorable and would not require much ADB or other public finance support. For example, large consulting firms such as McKinsey & Company and Boston Consulting Group are investing in **resource efficiency and circular economy** as profitable sustainable practices in supply-chain management. On the other hand, addressing the **solid waste management** market requires international and regional cooperation as waste knows no frontier across rivers, coastlines, and oceans. Governments, multilateral development banks, the UN, and other development partners need to continue their efforts to develop and strengthen cooperation on transboundary pollution. Grant-based technical assistance is required to increase awareness and understand the science of the interdependence of ecosystems and the need for investments in well-designed projects to address issues of impact beyond borders at the regional level. Finally, **non-point source pollution management** and **wastewater management** have significant market depth for infrastructure investment and could find strong support from multilateral development banks and other development partners aiming to meet their sector-specific sustainable finance objectives in line with those of the Healthy Oceans Action Plan. This kind of synergy is further discussed in the next subsection.

The best approach lies in taking a comprehensive view of the blue economy landscape, **targeting each market segment with a tailored solution to attract different sources of finance from different interests and investors**. Focusing on the entirety of the landscape and connecting each segment with a new source of capital allows as much resources as possible to be redirected to the blue economy and its transition to sustainability. It is akin to rerouting all the underground pipes of a city so as much water as possible can flow through and reach all citizens. This type of investor-market segment matchmaking is the focus of section 4.

Addressing the Gap through Synergies and Collaboration

The investment amounts required may appear considerable, but the blue economy is full of synergies and trickle-down impact potential that can go a long way toward closing the financing gap to sustainability. It is the opportunity to exploit these synergies that provides the rationale for the present joint cooperation between ADB and Poverty-Environment Action.

To begin with, synergies between sector and thematic operations targeted under ADB's Strategy 2030 Key Operational Priorities will significantly contribute to the **Healthy Oceans Action Plan** and other ADB initiatives. For example, most effluents in non-point source pollution are saline, chemical, or organic in nature, sourced from unsustainable agricultural and industrial practices. The efforts under ADB's Rural Development and Food Security (Agriculture) operations to bring this segment onto a sustainable path supports the Healthy

Oceans Action Plan by reducing the contaminated water that goes from watersheds to the ocean. The same argument pertains to ADB water sector operations for water and wastewater infrastructure investments and reducing their respective pollution. The approaches recommended here add blue benefits to sustainable agriculture and water projects, which increase their attractiveness to financiers and environmental stakeholders.

Similar collaboration potential exists at the nexus of water and energy by improving efficiency and reducing waste. Promoting **marine energy** and decarbonization of **shipping** improves the quality of ocean water, because carbon emissions drive ocean acidification. The resulting loss of plankton, at the base of the ocean food chain, is expected to cost the world \$1.2 trillion in natural capital per year until 2100.⁸ Cooperation across ADB departments and with other stakeholders is beneficial in pursuing financing synergies and enabling regulatory frameworks and tracking the benefits of collaboration. Governments, working through national and intergovernmental action such as the Coordinating Body on the Seas of East Asia (COBSEA) and with relevant development partners, can also further strengthen enabling policies and regulations that facilitate sustainable investments for a blue economy.

Global initiatives provide useful models. Europe, for example, is promoting **green ports** as maritime accelerators, leveraging their strategic position across all blue sectors and promoting benefits from the local to the national level. In America and Australia, regenerative agriculture is shifting from a focus on harvest yield to restoring crop and ecosystem quality—a practice that has proved profitable in the long term. Investing in such initiatives, and scaling up programs like the [Sustainable Rice Platform](#)⁹ which reduces agricultural chemical use, can contribute toward helping close blue financing gaps due to their exponential potential. These exemplify the kinds of investments ADB and Poverty-Environment Action seek to promote through their partnership to achieve economic and environmental benefits.

⁸ *The Economist*. 2018. [The Known Unknowns of Plastic Pollution](#). 3 March.

⁹ The platform is a joint initiative by UNEP and the [International Rice Research Institute](#), an agricultural research and training organization headquartered in Los Baños, Laguna, in the Philippines and with offices in 17 countries employing about 1,300 staff.



Funding waste management facilities is essential for healthy coastal communities and island economies. Photo: ADB, Fiji.

SECTION 4

Blue Economy Investors

Blue economy projects compete with all other sectors for capital from the universe of investors. This section looks at **how to promote the private sector operations and businesses as well as attract the private capital—the investors—needed to fill the blue economy finance gaps** delineated in section 3. There are many different types of investors (private investors; insurers; infrastructure investors; venture capitalists; global financiers; environmental, social, and governance/impact investors; corporate investors, etc.) that could finance these gaps, a broad range of factors influencing why they each might want to do so (time horizon, risk return, liquidity, asset class, location, co-investors, sustainability features of the investments, etc.), and a wide variety of tools and mechanisms they could use to make their blue economy investments.

Offering the right kind of product tailored to specific investor preferences will maximize the inflows brought to finance the sustainable transition of the blue economy space. The information presented in this section is geared to thus **leveraging investor interest**; it will help developers and financiers prepare bankable projects and appropriate financial instruments. Further, it will naturally match different blue segments and investors: this “tailored matchmaking” will enable bridge building between the blue economy and the global financial community.

The section begins with a brief **overview of the current market environment** to gain a better understanding of investors’ appetite for new investments. This information is drawn from several recent investor and financier surveys. Next, the **landscape of investors** is summarized to understand their different appetites in blue opportunities and benefits, highlighting corporate investors in particular. Building on this understanding of the complexities and difference in investors’ needs, the final section looks at how to map and **match investors** to various blue economy market segments of most interest to them through a set of financial tools.

All segments of capital markets and maritime industries are considered in this section. Real-world examples of relevant and innovative blue economy financing tools are presented throughout.

See [GUIDE TO INVESTORS - MATCHMAKING on the knowledge web portal for a summary connecting the most appropriate investors to different blue economy focus areas and market segments](#).

Investor Perspectives

Preqin, the private equity research firm, surveyed more than 500 investors in June 2020 and again in February 2021 during the COVID-19 pandemic regarding plans for infrastructure, private equity and debt, real estate, and hedge funds.¹ Notwithstanding an estimated 5% contraction of global GDP in 2020, a majority of investors foresaw no change in allocations over the long-term; only 10% of investors expected to reduce their allocations. Preqin's February 2021 update continued to be surprisingly bullish. Note, however, that these data are dominated by allocations to developed markets and did not anticipate the multiple waves of the pandemic; this is evident in the 2021 updates to the baseline 2020 survey data from multiple sources. Following are relevant findings from the Preqin survey.

Private equity, debt and infrastructure are the most important asset classes for the blue economy. Investors favoring these assets will increase their investments over the next year; this is a positive sign for the blue economy in the region. However, natural resource investments (both unsustainable ones in fossil fuels/mining and sustainable ones in sustainable agriculture/timber) will receive less capital since the commodity outlook remains negative and regulatory interest is growing. But rising seafood demand, for instance, should support increased opportunities, tempered by COVID-19 impacts such as slower restaurant and resort sales.

Investors remain bullish on Asia-Pacific. Importantly, infrastructure investors are most positive toward Southeast Asia and the Pacific. Many note that the Belt and Road Initiative (including the Maritime Silk Road) of the People's Republic of China is driving investment opportunities in the region (see Figure 4.1). For ports and the urban/coastal infrastructure on which the blue economy depends, this finding is encouraging. The landscape is also supported by ADB's forecast of \$26 trillion needed by 2030 for the region's infrastructure; this includes infrastructure that could support the blue economy.

For blue economy investments, the UNEP Financing Initiative's October 2020 survey for the Sustainable Blue Economy Finance Principles is highly relevant. Over 100 **financiers responded with their views and plans for the blue economy investments.** Major risks they perceived included climate change, ecosystem loss, and regulatory changes. They cited the following preferred financial instruments: corporate, trade, and project finance; working capital loans; insurance; guarantees; and, increasingly, green bonds. Respondents cited climate change, government support, and the role of new technologies in reducing impact and solving environmental problems as significant nonfinancial considerations.

Figure 4.1 Investor Allocations to ADB Regions



Source: Preqin 2020.

¹ Preqin. 2021. [Global Private Equity and Venture Capital Report](#).

[WaterEquity](#) is an example of a successful blended finance structure, where the fund successfully managed to attract credit and equity investors to finance microloans in emerging markets for people's own water infrastructure. [WaterEquity](#) is a fund manager in the water space, with a series of funds that de-risk and aggregate portfolios for private investors. It offered a "senior tranche" to credit investors, at lower rates but with higher financial security; equity investors could participate in a "junior tranche," which is riskier but more attractive financially. This example shows how multiple sources of private financing can be obtained to support development when provided with the right opportunity.

Responsible Investor's 2019 Blue Economy Investment report identified **three major hurdles for institutional investors**: lack of investment-grade projects, internal expertise, and offerings by asset managers. Although first movers in specialty blue economy finance themes are creating model funds and impact projects, more progress needs to be made in overcoming these obstacles. New blended finance facilities like the [Global Coral Reef Fund](#) are showing the way by raising private capital with the support of philanthropic and governmental finances to support coral redevelopment.²

According to the Global Impact Investor Network, the **impact universe** in 2020 comprised 1,720 investors with impact allocations estimated at \$715 billion. Investments in Asia and the Pacific represented 16% of this total, growing at 20% per year.³ As blended finance strategies continue to develop, the impact investment trend is well-poised to be a key driver of blue economy finance.

These findings are very positive for the blue economy, and every segment can potentially attract this capital by advertising its blue benefits. Impact investors differentiate by type of impact—i.e., social or environmental returns. The Blue Economy Metrics presented in section 2 helps frame blue projects and their benefits by key metrics to attract this source of financing. However, emerging market risks—such as undeveloped supply chains, unsecure legal tenure, and political regime changes—are deterrents that keep impact investing at only 2% of global investment activity.⁴ Reducing these risks is the task of multilateral banks, development finance institutions, and philanthropic entities, using tools such as blended finance, infrastructure investment, insurance, enabling conditions, and financing platforms for SMEs.

Blended finance can play an important role—especially in lower-return, sovereign-backed infrastructure projects—as public capital sources offering loan guarantees, first-loss facilities, and other de-risking tools to compensate for emerging market risk. For higher-return and impact-oriented investors, however, **SMEs continue to offer the most opportunities**. Surveys show increasing demand for private equity opportunities in Asia and the Pacific. For high-growth market segments (e.g., aquaculture, marine digital technologies), blended finance is generally not required to attract private capital. For natural capital projects and market segments facing higher structural risks (such as fishing), de-risking is often necessary to raise sufficient long-term capital aligned with sustainability goals. In addition to de-risking portfolios with blended finance, however, SME opportunities still need to be screened, aggregated, and structured to achieve scale (e.g., \$50 million plus) required by most private investors. Hence the role of SME BlueImpact Asia.

² See Gina Gambetta. 2020. [A Deep Dive into Investing in the Blue Economy](#). Responsible Investor blog post. 15 October.

³ Marsh & McLennan Insights. 2019. [Impact Investing in Asia](#).

⁴ UNDP. [SDG Investor Platform](#).

Investor Types and Preferences

Investors can be broken down into two main types: financial and corporate; both may advance sustainability goals, but need to be understood and approached differently.

Financial investors include private equity investors, private debt investors, insurers, and venture capitalists. Table 4.1 summarizes specific types and preferences in the financial community. Capital from financial investors is essentially passive, as they act as limited partners in funds and investors in bonds.

Corporate investors, on the other hand, seek a measure of control over a given operation, with a majority stake or wholly-owned investment. Corporate investors, such as multinational companies investing in local projects in their supply chains, are often first movers in riskier sectors and developing countries, as they have the resources to control risk and a strategic interest in partnering with SMEs and governments.

Corporations can also be sources of financing for the region. Unlike their financial counterparts, companies usually take an active role in managing projects in the blue economy, with a range of equity interest from 10% to 100%. This type of investor can be greatly incentivized by initiatives in the region and can contribute heavily to achievement of the SDGs. Large industry players collaborate with SMEs through joint ventures, direct equity stakes, and two-way technology transfers.

Table 4.2 summarizes the different types of corporate investors, their respective preferences for sustainability, and their respective advantages and disadvantages. Note that there is an important distinction between public and private corporations. Public companies have much more to answer to in the public sphere and may therefore be more inclined to respond to or promote new sustainable initiatives, therefore providing finance for them. Private companies, on the other hand, tend to pursue their own agendas, but can nonetheless be a partner or a source of financing for projects that align with their interests. State-owned entities, conglomerates, utilities, and nonprofits are complex organizations with their own values, structures, and agendas; similarly, they can be a source of financing if a project aligns with their preferences. Research into their preferences is advised to determine their interest and to develop a financing relationship; the objective is to understand how and why they would invest in a sustainable blue project.

Corporate Investment Mechanisms

Corporations invest in the blue economy with seven mechanisms. These types of investments can become financial vectors for development banks to leverage and bridge more resources to the blue economy. By understanding all the different corporate interests in blue benefits, a bank can design financial mechanisms and policy measures that attract maritime industry resources. Following is a brief summary of these mechanisms, with proposed actions for development banks and impact investors.

See [INVESTOR INTEREST IN THE ASIA-PACIFIC BLUE ECONOMY](#) on the [knowledge web portal](#).

One key form of collaboration between corporate investors and governments is public-private partnerships (PPPs), wherein a government entity typically gives a private sector entity license to build or operate infrastructure or to support it financially. PPPs are mutually beneficial for both sides, in that the government gains best business practices from the private sector, and the company gains a new investment opportunity.

Table 4.1 Understanding the Financial Community

Type	Summary	Preferred Vehicles	Time Horizon
Pension funds	Invest on behalf of policyholders to pay future benefits	Green bonds and infrastructure funds; face risk and liquidity constraints	10–30 years
Insurance companies	Invest premium payments from policyholders to fund future claims	Green bonds, project and infrastructure funds; also sell risk management tools	10–30 years (for life insurance-based)
Sovereign wealth funds	Invest national savings from economy	Green bonds, loans, projects, infrastructure funds	Any
Commercial banks	Lend to small and large businesses	Loans, some green bonds and projects	3–10 years
Investment banks	Invest in/arrange large transactions	Any transaction required by institutions	Any
Private equity firms	Invest client capital in private companies	Own funds or direct deals	3–5 years (average)
Wealth managers	Invest client capital in funds and markets	Listed securities and funds	1–5 years (average)

Source: Ocean Assets Institute.

Table 4.2 Understanding Corporate Investors

Type	Summary	Direct Investment Advantages	Direct Investment Disadvantages
Publicly listed	Invest on behalf of public shareholders	Higher visibility makes for higher environmental, social, and governance accountability; easier to engage for sustainability <i>For all types:</i> Provide growth, jobs, technology with varying levels of host nation equity participation	Pressure to meet quarterly/annual earnings goals means that sustainability may be sacrificed for short-term gain <i>For all foreign investor types:</i> May repatriate all profits rather than reinvest and hire locally
Privately held	Invest on behalf of limited partners and debt financiers	Longer investment horizon; may pursue sustainability, free of short-term shareholder pressures	Less public visibility may mean less responsiveness to sustainability and engagement campaigns
State-owned	Invest sovereign capital to achieve national goals	National goals and values may be compatible with the host-investee state, making for a reliable partner	National goals may not be compatible: e.g., in many developing countries, state-owned enterprise procurement rules are not promoting or are compatible with environmental, social, and governance investments ^a
Single industry	Active in only one industry	Deep expertise to share with companies in host state	May seek to dominate with vertical (value chain) and horizontal (regional) acquisitions
Conglomerate	Active in multiple industries	Multiple sector investments/servicing under one primary counterparty; may be easier to manage	Influence/control of multiple sectors may risk loss of economic sovereignty by host state
Utility	Infrastructure services	Provide essential services/expertise without large capital investment by host nation	Risk loss of economic sovereignty in strategic areas
Nonprofit	Mission-driven organization	Provide technical expertise aligned with host goals	Goals/values not aligned; lack of technology transfer

^a UNCTAD. 2020. [Scaling Up Voluntary Sustainability Standards through Sustainable Public Procurement and Trade Policy](#).

Source: Ocean Assets Institute.

Strategic ventures. Companies partner directly with start-ups and other innovators to gain access to new technologies at a lower cost, in exchange for operational and market support. Corporate investments in blue venture capital funds give them an inside view of a portfolio of potential game changers. There are several ways development banks can promote blue investment through this vector. One is to be a dealmaker by connecting investors and corporations in priority sectors. Another is to provide default guarantees or credit-default swaps on venture capital investments, off-taking the risk through first-loss protection for a small or null premium.

See [CORPORATE INTEREST IN THE ASIA-PACIFIC BLUE ECONOMY on the knowledge web portal](#).

Corporate social responsibility investments. Companies invest in environmental or social projects to increase their reputational capital and goodwill in society. These investments are increasingly being made along a company's supply chain from a strategic and coherent perspective. An example is the food company Mars, which is investing in coral reef restoration to provide sanctuaries for tuna, which is one of the main resources in its supply chain of pet foods.⁵ Development banks can increase companies' awareness of the benefits of nature-based solutions and payments for ecosystem services (see Box 4.1). This financial vector is particularly suited for **ecosystem and natural resource management** market segments.

Box 4.1 What Are Nature-Based Solutions and Payments for Ecosystem Services?

Nature-based solutions refer to the sustainable management and use of nature for tackling socio-environmental challenges. They tend to be low cost and effective, and thus may be extremely attractive from an operational investment point of view. **Payments for ecosystem services** are incentives offered to farmers, fishers, or land-owners in exchange for managing their land or marine assets to provide some sort of ecological service.

Offsetting externalities. Companies invest in positive impact projects to compensate for their externalities, and thereby increase their reputational capital. One such strategy is to buy licensed carbon-offsetting contracts to become carbon neutral (see Box 4.2). The blue economy offers significant opportunities in this regard with mangroves, seaweed farms, and seagrass forests five times more effective at sequestering carbon than forests. Development banks could license and issue blue carbon certificates and quantify their benefits on several dimensions: carbon sequestration, water filtration, and coastal protection. This financial vector is particularly suited for **ecosystem and natural resource management** market segments.

Efficiency expenditures. Companies invest in blue economy-linked projects to increase the efficiency of their supply chains—for example, a company can invest in a decentralized water treatment unit to reduce its factory's pollution and reuse its water. Development banks can supplement foreign direct and domestic investment to sponsor the adoption of such new

⁵ Mars. 2019. [Taking Responsibility to Rebuild Coral Reefs](#).

Box 4.2 What Are Carbon Credits and Offsets?

Carbon credits and offsets are novel financial instruments that monetize the carbon sequestration capacity of a natural area (land or sea) and sell it to a corporation or financial institution that wants to compensate for its carbon emissions or increase its reputation. These credits provide new sources of financing to project developers for nature conservation and protection. They are widely promoted as an instrumental tool for achieving the sustainable transition of the global economy and transfer resources to developing countries to invest in their natural capital. Blue carbon refers to carbon credits that are specific to the sea, such as mangroves, salt marshes, or seaweeds. They are a nascent part of the market, but their fivefold sequestration capacity makes them a powerful resource to combat climate change and increase revenues to conservation finance.

technologies, thereby giving a boost in the market for wider adoption. Banks can also create sustainably linked loans to companies in relevant market segments to finance these expenditures—for example, with covenants or coupons based on water quality. Such loans make interest payments dependent on project impact and thereby incentivize companies to improve the sustainability of their operations over the long term. Companies are discouraged from adopting short-term, cost-cutting perspectives, and the loan arrangement serves as quality insurance to improve counterparty risk for the issuer. This financial vector is particularly suited for **pollution control** market segments.

Expansion expenditures. Companies invest in blue economy-linked projects to increase the integrity and diversity of their supply chains. For example, a seafood processor can invest in a marine-protected area to ensure the sustainability of its fish resources. Development banks can finance and originate the project financing as well as gather a consortium of interested parties to expand these projects. As with other investment vectors, development banks can offer attractive financing, loan guarantees, and philanthropically sponsored issuance to finance these projects at lower costs and improve the creditworthiness of companies in the region's countries. This financial vector is particularly suited for **energy** market segments within the **sustainable development and infrastructure** focal area for companies seeking to gain energy independence as well as the **green ports** market segment for companies' energy and pollution expenditures.

Collective initiatives. Companies often participate in sustainable coalitions for brand awareness and reputational capital. Such coalitions can be a source of exchange and advice on new practices; for example, the Ellen MacArthur Foundation and UNEP lead the Global Commitment, which has united more than 500 organizations behind a common vision of a circular economy for plastics.⁶ Development banks can support these initiatives and bring weight to their mission—not only with capital but with influence on national policy and

⁶ Ellen MacArthur Foundation. 2018. [Water and the Circular Economy](#).

infrastructure decisions. They can also design sustainability-linked loans and impact bonds (including blue bonds; see Box 4.3) with sustainability metrics. This mechanism can be applied to all market segments across the blue economy.

Box 4.3 What Are Blue Bonds?

Large projects and national strategies focused on blue economy sectors may be financed in global bond markets with blue bonds, a recent derivation of green bonds covering marine assets. Sustainable finance encompasses both green and blue bonds. ADB developed a [Green and Blue Bond Framework](#) (2021) that adheres to both the voluntary International Capital Markets Association Green Bond Principles and the UNEP Finance Initiative Sustainable Blue Economy Finance Principles. Under this framework, ADB issued its [maiden blue bond](#) as a dual tranche private placement valued at \$300 million in September 2021 and recently launched the [ADB Blue Bond Incubator](#) to support sovereign and corporate blue bonds.

Other issuers may choose to be certified by the [Climate Bonds Initiative](#), which recently published the only bond standards presently available for the blue economy. All standards underscore the importance of achieving positive environmental impacts and providing transparency to investors. Major blue themes include climate, energy, coastal resilience, and maritime industries. Insurance and catalytic finance features are often included in green and blue bonds. Issuers are usually sovereigns, multilateral banks, and large infrastructure projects. The most common practice today is for green bond issues to include blue economy projects; pure blue bonds are smaller in number and size. As investor awareness of ocean issues and opportunities increases, more blue and green/blue bonds are expected.

Concessionary capital. When economics are not aligned, companies may benefit by following concessionary funding of target projects where risk is reduced in order to achieve impact goals. For example, the World Bank has announced a program to assist shipping owners with concessionary finance to adopt cleaner fuels as the maritime sector seeks to decarbonize.⁷ Similarly, development banks and philanthropic partners may cofinance high-impact projects that corporations then join and scale up. Development banks can use this vehicle to target the most pressing areas for ocean health and reduce risk for corporate partners.

The above discussion underscores how **sustainable objectives often coincide with business interests**. This synergy can be leveraged by development institutions to increase financing for SDG achievement. For example, sustainable and corporate objectives may be linked through regional and global initiatives—such as Poverty-Environment Action and the Sustainable Blue Economy Finance Initiative—that seek to alleviate poverty, increase opportunities for women, and restore the marine environment.

⁷ World Bank. 2021. [Charting a Course for Decarbonizing Maritime Transport](#).

Table 4.3 gives examples of such cases for poverty, gender, and environmental considerations, and shows a company can gain reputation, increase its sales, and reduce its regulatory risks when participating in the common good. Development institutions should seek to better leverage these synergies and to create tailor-made mechanisms as described above to increase financing to sustainable projects in the blue economy.

Table 4.3 Aligning Corporate Actions with Poverty, Equity, and Sustainability Goals

Common Good Goal	Corporate Action
Alleviate poverty with opportunities for the poorest in DMC communities	Improve reputation and community support by employing, and training as needed, workers from poorer and more vulnerable communities in seafood processing, aquaculture, tourism, ecosystem management, energy, and waste management utilities
Promote gender equality as the missing piece in both sustainable development and climate action	Increase sales by designing products and servicing to meet the needs/budgets of women in DMCs, as they make the majority of purchasing decisions for home-based needs, from seafood to energy
Protect the environment with nature-based development solutions and marine conservation	Reduce costs, regulatory, climate, and community risks by developing nature-based solutions to production, climate resilience, and community needs

Note: DMC = developing member country.

Investor Matchmaking

Fostering the blue economy is predicated on two principles: obtaining the needed financing from investors, and ensuring this funding is used to meet sustainable objectives. The key to maintaining this balance between commerce and compassion, between bankability and sustainability, between greed and need, and between short- and long-term thinking is **understanding participant needs and preferences**.

It is critical to understand the different needs and preferences of all investor types, as each can play a role in the blue economy, especially in blended finance transactions. Knowing these needs and preferences will naturally lead to matchmaking between different blue market segments and investors. Knowing these needs and preferences will allow the right investors to be targeted through the creation of appropriate investment vehicles, such as funds, bonds, and project financing structures—which will significantly improve the bankability of projects. And knowing these needs and preferences will enable entities ranging from Poverty-Environment Action, UNEP, UNDP, and regional intergovernmental governance frameworks such as the Association of Southeast Asian Nations (ASEAN), the Regional Seas Programmes,⁸ the Pacific Regional Environment Programme, and the South Asia Co-operative Environment Programme to tailor initiatives that support the integration of poverty and environment into private investor and banking operations.

⁸ The Regional Seas Conventions and Action Plans provide intergovernmental frameworks to address the degradation of the oceans and seas at a regional level and cover the North-West Pacific, North East Pacific, Pacific East Asian, and South Asian regions.

The tool proposed in this knowledge product, a **Guide to Investors - Matchmaking**, connects each blue market segment with funding mechanisms and investor types. These pairs can be seen as building financial bridges between the global investor community and the individual market segments of the blue economy. Given the dominance of SMEs across the economic landscape and their influence on community decisions, it is vital to **integrate sustainability goals in local business projects and their sustainable agendas**. In this way, the region can achieve widespread prosperity without the systemic risks of collapsing fisheries, polluted seas, eroding coastlines, and endangered coastal communities.

While there are many sources of private sector finance to be unlocked, project developers and public financiers must begin with the end in mind: **aligning the project with the most appropriate private sector investors and corresponding financing vehicles**. In this regard, the recent issuance of blue bonds from [the Seychelles](#), the Nordic-Baltic countries, and ADB illustrates a growing trend in using thematic investments by multilateral development banks and governments to attract financing for managing natural resources. These sorts of initiatives are to be emphasized and further explored in light of the growing interest of corporate and traditional investors in participating in sustainable projects.

See [GUIDE TO INVESTORS - MATCHMAKING on the knowledge web portal](#)



Decarbonizing fleets is a major investment opportunity that requires blended finance. Photo: ADB, Maldives.

SECTION 5

Recommendations and Next Steps

This section provides recommendations for moving forward in funding the blue economy, based on this report’s analysis of the investments needed and the investors available to make them. It provides concise road maps for future and further action by all major stakeholder groups: financiers, governments, industry, development banks, donors, coordinating bodies, and other partners. Specifically, it covers the following:

- Policy recommendations for financiers
- Enabling environment to be provided by governments
- The SME BlueImpact Asia platform and current SME investment opportunities
- Action steps for coordination for all stakeholders

The **SME BlueImpact Asia** platform is the culmination of these actions and the linchpin connecting them. Its goal is to identify, support, and finance blue SMEs that have a positive impact on the marine environment and coastal communities in the region. SME BlueImpact Asia is part of the solution to the estimated \$2 trillion blue SME finance gap for the region to mobilize blended funding for blue SME projects.

Policy Recommendations for Financiers

Policy frameworks are needed to support enterprises and investments in the sustainable blue economy. For a global overview of actions needed by ocean financiers, the UNEP Financing Initiative’s recent publication [Turning the Tide: How to Finance an Sustainable Ocean Recovery](#) is an excellent resource. While financiers are the primary audience for “Turning the Tide” and the Sustainable Blue Economy Finance Principles, policy makers should refer to these resources when designing initiatives and regulations to engage the support of financiers of the blue economy.

Enabling Environment

Structural inefficiencies in the blue economy often prevent private capital from being part of the solution. This is true, for example, for the solid waste management sector where the economics of recycling are not yet attractive and are subject to different national laws across a supply chain. Such circumstances make the investment case in new solutions difficult for companies and their investors to undertake on their own. Governments play a large role in tackling these types of barriers. In developing countries, for example, where procurement represents a significant portion of GDP, public finance through sustainable public procurement could boost the blue economy through infrastructure projects and publicly owned assets such as fisheries and marine protected areas.

Specifically, governments can create an enabling environment for blue economy public and private financing by putting the following six conditions in place:

The [GUIDE TO POLICY RECOMMENDATIONS](#) on the [knowledge web portal](#) is a tool for policy makers seeking to support blue growth with favorable regulatory, tax, and infrastructure environments.

- ⑥ **Corporate governance.** Investors will go where corporate governance (the rules, practices, and processes used to manage a company) supports integrity and secure investments.¹ The elements of good corporate governance include the following:
 - Independent directors
 - Audited financial statements
 - Adherence to the rule of law
 - No tolerance of fraud or corruption, including bribery
 - Adherence to best practice standards
 - Accountability and transparency to regulators and investors

The International Finance Corporation notes that national and industry policies supporting good governance have succeeded in attracting needed investment.

- ⑥ **Compliance and standards.** Each blue economy market segment is governed by a set of international standards developed by industry, finance, and governments. Governments can defer to these standards, insisting on compliance from projects and companies within their jurisdiction. Furthermore, regulations and standards are dynamic, as new industries (e.g., algaculture), new technologies (e.g., alternative fuels), and emerging pathways (e.g., climate) shape the blue economy. Governments and regional initiatives need to stay ahead of these changes by promoting a culture of best practice and transparency.
- ⑥ **Jurisdiction and enforcement.** In spite of the dynamic landscape, private investors often cite the need for a stable and consistent regulatory environment.

See [BLUE ECONOMY METRICS](#) for a summary matrix of criteria, standards, and metrics by market segment.

¹ International Finance Corporation. 2017. [Attracting Investment Facilitated by Good Corporate Governance in Mongolia](#). For further information, see the [G20/OECD Principles of Corporate Governance](#).

Enforcement requires public investment in personnel and technical assets. Consistent enforcement of sustainable fishing, for instance, requires science-based quotas, secure tenure, and active policing against illegal fishing. This suite of measures protects the entire seafood supply chain so public and private investor interests, as well as local community welfare, are safeguarded. A good example of this is the Parties to the Nauru Agreement [Vessel Day Scheme](#) which sets a total allowable effort limit on the number of days fishing vessels can be licensed to fish in the agreement's exclusive economic zones in a year. Each country is allocated a share of the total allowable effort for use in its zone each year, and countries may trade days to maintain annual targets. Policing the vast exclusive economic zones of island states for compliance can be facilitated by regional cooperation, satellite monitoring, and initiatives such as [Global Fishing Watch](#).

- ⑥ **Property rights and secure tenure.** Local business owners and foreign investors need assurance that their property rights cannot be violated by political decisions or unfair business practices. Secure tenure, for example, is required for local fishermen to access fisheries, according to science-based quotas.² Although priority should be given to local businesses (for property rights, business licenses, and quotas), foreign investors and companies also need the assurance that their investments are secure.
- ⑥ **Supporting sustainable infrastructure.** This is both a prerequisite for investment and a private capital opportunity in itself. Private investors (especially infrastructure funds) seek projects that have been de-risked by an appropriate level of public or bilateral funding, proper governance, and ownership rights. For instance, the transition to green ports—with most assets owned by governments—often requires blended finance to attract private investment to capital expenditures for clean onshore power, waste management, and digital upgrades. Blended finance may take the form of direct subsidies, concessional or preferential loans, and loss guarantees.³ Infrastructure cooperation is needed between governments and ADB departments (e.g., for energy, agriculture, transportation, and water). Governments will look to development bank/institution regional leadership and to regional initiatives such as [Partnerships in Environmental Management for the Seas of East Asia \(PEMSEA\)](#) and [COBSEA](#) to support their development agendas. These actions can be informed by the guidance provided in this report.
- ⑥ **Concessionary finance.** National and regional development banks must place blue economy opportunities on the agenda, given the positive impact for communities, resource management, and economic development. For high-impact, traditional market segments such as fishing and tourism, concessionary finance is needed to

² Environmental Defense Fund, Prince of Wales's International Sustainability Unit, and 50in10. 2016. [Towards Investment in Sustainable Fisheries: A Framework for Financing the Transition](#).

³ Global Maritime Forum. 2020. [First Wave: Blueprint for Commercial-Scale Zero-Emission Pilots](#).

speed the transition to sustainable practices. For technology-led market segments like aquaculture and mariculture, marine energy, and green shipping, public finance is needed for pilot projects and to bring the cost structure to parity with traditional but unsustainable practices. In both cases, **private investors will follow when public finance reduces the risk profile of these essential blue economy investments**. Blended finance vehicles drive an increasing percentage of investments in the developing world and for each of the SDGs.⁴

SME BlueImpact Asia

SME BlueImpact Asia is an envisaged platform to leverage public, philanthropic, and private capital to fill the \$2 trillion SME and natural capital financing gap in developing Asia's blue economy. This report recommends launching a pilot to prove the concept and activate the key features. SME BlueImpact Asia embraces all regions and all blue economy market segments—a better approach than making an early bet on a single segment or country.

Why SMEs? Capital comes to developing countries seeking three major themes: growth SMEs, infrastructure sovereign projects, and microfinance lending. The dominant instruments, along with benefits and challenges, are summarized in Figure 5.1. Relative to infrastructure and microfinance, SMEs offer vital benefits and a range of financial instruments, yet lack the aggregating platforms of the other two major avenues of development finance. Further, most opportunities for jobs, growth, and gender equality—regardless of market segment or region—are driven by SMEs rather than infrastructure projects.⁵

In 2019, the European Commission studied blue economy challenges and opportunities, identifying barriers to sustainable growth for key private stakeholders.⁶ The Commission concluded that the central importance of SMEs, and their relative lack of finance, requires a dedicated SME financing platform to support blue growth. Consequently, [BlueInvest](#) was established, with funding and support from the European Investment Fund and the European Investment Bank.⁷

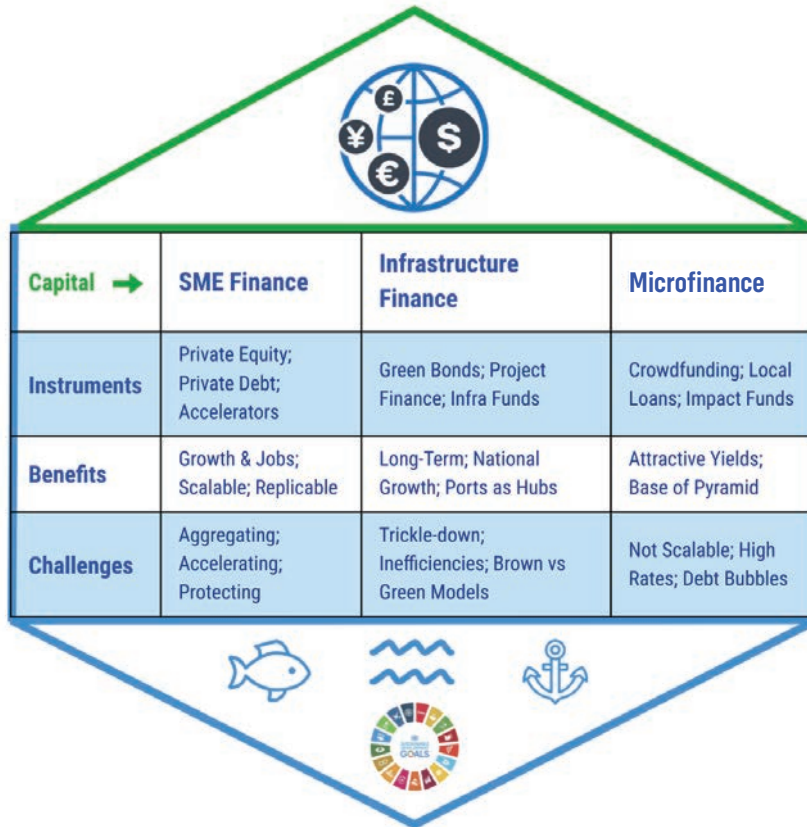
⁴ For more on this, see the [Convergence website](#); Convergence is a global network for blended finance.

⁵ International Labour Organization. 2019. [Small Businesses and Self-Employed Provide Most Jobs Worldwide](#).

⁶ European Commission. 2019. [The EU Blue Economy Report: 2019](#).

⁷ From the [BlueInvest website](#): “As of 2021, rather than continuing with its grants scheme, the European Commission is blending EMFAF [European Maritime, Fisheries and Aquaculture Fund] contributions from InvestEU and EIF [European Investment Fund]/EIB [European Investment Bank] aiming to leverage upwards of €100 million a year in the period 2021–2027. Matched by other funds from intermediaries such as Venture Capital Funds this could result in up to EUR 2,7 billion of risk finance to be offered to the market and to be invested in into innovative and sustainable blue economy companies.”

Figure 5.1 Competing for Development Capital



Note: SME = small or medium-sized enterprise.

How will BlueImpact work? Building a pipeline of eligible projects is the first step to creating an effective platform. A format and process for such a pipeline is under development, integrating SDGs and other key metrics from finance, industry, and civil society and international organizations. Private investors generally perceive emerging market risk, especially for private enterprises, as being higher than most other investment categories.⁸ Even for high-growth market segments such as those identified in section 2, investors face structural risks in emerging markets, including property rights, legal uncertainty, currency risk, and the rule of law.

The success of the Action Plan for Healthy Oceans and Sustainable Blue Economies requires a dedicated platform for blue SMEs across the region with catalytic capital, pipeline development, and private investor engagement. The SME BlueImpact Asia pipeline will also be used to enrich the portfolio of ADB and national blue bonds, ADB Ventures, the ASEAN Green Catalytic Finance Facility, and other regional finance initiatives.

Following the BlueInvest model, SME BlueImpact Asia will have two arms:

⁸ Steve Rocco. 2021. [Investors Are Finally Waking Up to the SDGs, But Risk Remains the Elephant in the Room](#). Geneva Solutions blog post. 1 February.

- ⑥ **Service arm.** A managed service provider will launch and manage all aspects of the platform, reporting to the founding organizations to ensure alignment with financial and sustainability goals. By Year 3, after a pilot period of two years, the managed service provider is expected to be self-sustaining, with all program costs covered by revenue sharing in the investment program and platform memberships. Features and activities of the service arm include the following.

 - **Pipeline development** comprises (1) establishing partnerships with deal sources (fund managers, banks, industry groups, ports, maritime clusters, regional initiatives and local governments), and (2) following a process of financial discipline and impact criteria.
 - **Investment readiness** is the goal of a program of coaching and mentoring SMEs by financial and industry experts.
 - **Investor engagement** on behalf of approved SMEs, including aggregating projects in custom portfolios and vehicles to scale.
 - **Screening fund managers and banks** helps further due diligence, prior to allocating funds on a matching basis, thereby leveraging private capital markets.
 - **SME pitch events** enable selected SMEs to make presentations to qualified investors, primarily in virtual events.
 - **Community forum** brings blue finance stakeholders together to share experiences, contacts, and opportunities.
 - **Digital platform management** to ensure the platform reaches all stakeholders across the region.

- ⑥ **Investment arm.** Following the European model, SME BlueImpact Asia could feature either a fund of funds or holding company structure⁹ to leverage catalytic capital for blue SME investment strategies on a 1:1 matching capital basis.¹⁰ The two recommended approaches are profiled in Table 5.1, with pros and cons of each according to SMEs, investors, and ADB and other catalytic funders. Finding the best alignment between these three stakeholders is the key to success, enabling the scaling of the SME BlueImpact Asia platform. Over time, the average ratio of catalytic funds to total funds using blended finance in developing countries is 4:1.¹¹ Investments from the SME BlueImpact Asia platform may start with a 1:1 ratio, then grow to 4:1 as the program raises more capital with positive returns after Year 3.

⁹ A fund of funds, often referred to as a multi-manager fund, designates a fund that does not lend or invest directly in a project, but invests in a portfolio of other funds. A holding company structure in this context refers to an offshore entity that holds assets selected by an ADB-led committee, managed by the BlueImpact service provider.

¹⁰ The European Commission concluded that the blue SME funding gap can only be filled by engaging private fund managers under a blended finance platform. Ninety percent of the annual financing needs for SDG targets must come from private sources, and SDG 14 is the least funded of the 17 SDGs.

¹¹ Convergence. [Blended Finance](#).

Table 5.1 Pros and Cons of SME BlueImpact Asia Vehicles

Pros and Cons	Holding Company	Fund of Funds
SME pros	<ul style="list-style-type: none"> • Good alignment with SME financial plans due to flexible holding period • Best rates possible due to de-risking and portfolio economies 	<ul style="list-style-type: none"> • SMEs receive equity funding from regional managers, limited by fund terms • Favors high-growth tech winners
SME cons	<ul style="list-style-type: none"> • Must commit to readiness program and credit checks (same as for direct deals) 	<ul style="list-style-type: none"> • Possible misalignment due to 4-year holding • Most Asian SMEs are not tech winners • Affordable loans needed
Investor pros	<ul style="list-style-type: none"> • Alignment of investors-SMEs • Tax-efficient jurisdiction • Best for investors that will not buy other funds • Highly scalable: potential to list on exchange 	For private equity fund managers, allocation by ADB comes with terms for portfolio selection and matching capital
Investor cons	<ul style="list-style-type: none"> • Some investors prefer funds (lockups 8–10 years) • Offer liquidity provision after Year 4, or sale to new or current investor 	Fewer investors are reached by this structure (only clients of selected fund managers)
ADB as catalyst pros	<ul style="list-style-type: none"> • Control: Lead investment committee and governance • Leverage with catalytic funding • Quick implementation 	<ul style="list-style-type: none"> • ADB decides allocations, governance, terms • For BlueInvest Europe, European Investment Fund is pari-passu investor providing no blended finance
ADB as catalyst cons	None; optimal way to ensure desired impacts, scalability, and returns through flexible, aligned structure	Time to: <ul style="list-style-type: none"> • Identify enough specialty managers • Negotiate investment and matching criteria • Identify risk associated with SMEs

Source: Ocean Assets Institute.

Note: ADB = Asian Development Bank; SMEs = small and medium-sized enterprises.

How will this vehicle be managed? Initially, two modes of financing may be envisioned for allocations: private equity and private debt. There could be various fund managers in the market that can support operations of SME BlueImpact Asia, and some of them were consulted in the preparation of this knowledge product:

- [August One](#) is just one successful early-stage equity investor and manages Singapore’s maritime accelerator. Its accelerator program could support the development of a blue SME portfolio.
- [Funding Societies](#) is an example of a leading fintech platform lending to Southeast Asian SMEs, with a good track record since 2015 for its credit process. It could be appropriate for blue SMEs seeking short-term loans and trade finance—especially in the COVID-19 recovery.

The allocation of funding to SMEs also could be facilitated through local development and commercial banks as financial intermediaries, which is a lending modality well utilized by ADB. Also, direct matching of investors to individual blue SME projects will be possible through the development of a digital finance platform.

Examples of SME BlueImpact Asia Investment Opportunities

Following an initial call for applications to blue SMEs based in DMCs, 15 applicants were screened against financial, ADB, and Poverty-Environment Action metrics. The goal was to identify four scalable and replicable SME-based projects with merit on both sustainability and financial criteria. The projects had to be deemed bankable, targeting social and environmental impacts, and currently engaged in a financial round (raising less than \$10 million). Three finalists selected by the project team cover a variety of blue economy market segments: seafood processing, sustainable marine parks, seaweed production, and blockchain technology supporting the seaweed industry.

Short summaries of the selected blue SME investment opportunities follow. Each opportunity highlights the potential roles development banks and funders can play to mobilize sustainable investment from the private sector, which can be replicated and therefore scaled throughout the blue economy. These and many other projects will be available on the SME BlueImpact Asia platform:

- **MARI Oceans.** This scalable, high-impact seaweed-growing business is managed by experienced impact business manager [Asia Affinity](#). Seaweed is a high-growth segment of the aquaculture industry (projected to grow from \$20 million to \$85 million in the next five years) with many uses: food, fertilizer, health care, fuel, and pollution control. It is also carbon-negative (like mangroves) and provides jobs and nutrition for coastal communities without depleting fisheries or creating harmful waste streams. [MARI Oceans](#) is an Indonesian seaweed cooperative with four pilot sites that are currently engaging hundreds of farmers. The business model is scalable in Indonesia and replicable across Asia.
- **Sea Green.** This innovative firm, also developed by Asia Affinity, provides a holistic approach to commercial infrastructure for the entire seaweed value chain. [Sea Green](#)'s blockchain solution enables full traceability and product management while increasing farmer incomes by aggregation for direct sales. Additional features of this project include mangrove restoration, blue carbon, microfinance/insurance for farming communities and waste-to-energy at the local level. Sea Green's technology is not only scalable globally but also horizontally, with potential applications for multitrophic aquaculture.

See the [MARI OCEANS INVESTMENT DOSSIER](#) on the [knowledge web portal](#).

See the [SEAGREEN INVESTMENT DOSSIER](#) on the [knowledge web portal](#).

- **BlueFinance Philippines.** This bankable ecosystem project is led by veteran marine organization BlueFinance and the Blue Alliance consortium of local communities, nongovernment organizations, and scientific groups. The project protects and restores nine marine protected areas in the Philippines, generating revenues from fee-based access to areas. It features protection of coral reefs, mangroves, and fisheries. This is a new model for natural capital preservation, sustainable tourism, and inclusiveness—with a potential to be replicated across 1,000 marine protected areas in the region. BlueFinance has a track record of success with this business model in the Caribbean and Pacific. The project confirms the observations made earlier in this report, namely that marine ecosystems can be restored and protected with relatively low investment, which generates substantial benefits to the environment and income streams for communities. Impact investors will find this attractive, especially if supported by a loan guarantee and an implementation grant. In the future, this and other projects from the SME BlueImpact Asia pipeline may be included in blue bond portfolios and vehicles like the Global Fund for Coral Reefs. For now, the opportunity is timely to showcase a sustainable ecosystem model and boost ecotourism as the region continues to face the twin challenges of pandemic recovery and climate change.

See the [BLUEFINANCE PHILIPPINES INVESTMENT DOSSIER](#) on the [knowledge web portal](#).

Action Steps for Coordination

Establishment of the SME BlueImpact Asia platform creates a high-impact opportunity for the various present and potential stakeholders in Asia's blue economy to coordinate, collaborate, innovate, participate, and share and support. National and local governments, development banks, UN agencies, regional groups such as COBSEA, nongovernment and civil society organizations, as well as finance and industry stakeholders can all benefit from such enhanced collaboration and thereby help achieve blue economy goals. National and local governments, as well as civil society and academia, can also benefit. With SME BlueImpact Asia in place,

- DMC port and coastal infrastructure programs benefit from the support of local SMEs.
- Small island developing states and coastal nations benefit from cofinance of SME-based resilience strategies.
- COBSEA member states and other regional initiatives benefit from the SME pipeline.
- Maritime clusters and industries benefit from participation in the SME readiness programs.

Ten steps are recommended to enhance stakeholder coordination, which also would need to be applied through mechanisms such as BlueImpact Asia:

- 1. Share knowledge and contacts.** More knowledge-sharing events and (tools) involving the above stakeholders, such as periodic webinars and pitch events, should be planned to stimulate sharing of research and projects. SME BlueImpact Asia's online platform, for example, is designed to receive and share knowledge from all stakeholders. The platform also facilitates matchmaking and exchanges among government, industry, and financial institutions.
- 2. Better aggregate investments.** To attract private capital and scale up opportunities, projects must be grouped together in investment vehicles whenever possible. One starting point for such a process is the standardized information and readiness program featured on the SME BlueImpact platform. Financial institutions of all kinds will use the platform to collaborate in portfolio construction and investment offerings.
- 3. Develop the pipeline of projects.** It is a common complaint that there are not enough bankable blue economy projects, but this is actually an issue of visibility and organization across multiple sectors and countries. Efforts are needed to actively develop this pipeline of projects. The SME BlueImpact Asia offers one way forward. It will regularly call on maritime clusters, accelerators, industry groups, financial institutions, and governments for projects. Agreements with pipeline partners will be forged. This is an attractive opportunity to showcase innovations and accelerate the sustainability transition of local enterprises.
- 4. Perform due diligence.** Screening projects and SMEs across governance, environmental/social, and financial, for example, can enable investors to identify project worth considering. (Further due diligence prior to investment is the responsibility of interested parties.) SME BlueImpact Asia enables investors to identify projects worth considering because they meet these basic criteria. Stakeholders may share notes to speed up the process and collaborate on portfolio structuring.
- 5. Support SMEs and projects.** Project managers often need assistance from a wide variety of skill sets, including technical, marketing, legal, financial, and human resources. SME BlueImpact Asia offers stakeholders these skills as a referral source to project managers, which also enables stakeholders to collaborate across countries and sectors in ways they may not have previously.
- 6. Improve the enabling environment.** As a precondition for blue growth, governments and authorities need to provide a supportive regulatory environment, complemented by fiscal and industry policies. Governments need to act in concert to present a united front to industry and financiers as well as strengthen regional inter-governmental mechanisms such as Partnerships in Environmental Management for the Seas of East Asia and COBSEA.
- 7. Coordinate tax/fiscal policy.** A key enabling condition is the tax and fiscal regime of each nation, especially in sustainable development. Incentives may be given with tax policy and national spending. Counterproductive subsidies that encourage over-fishing and extractive and fossil fuel industries must be ended. It is optimal for regions

to coordinate their fiscal policies and make a concerted offer to industry that supports only sustainable development.

- 8. Help expand research and development (R&D) funding.** Many maritime sectors are in the early stages of development, requiring research funding and technical expertise to progress. Regional coordination is the best way to achieve economies of scale and advance blue economy innovation, with accelerators and maritime clusters. Models from Europe include the [European Marine Energy Centre \(EMEC\)](#) for marine energy, [JPI Oceans](#) for applied marine research, and—of course—[BlueInvest](#). In developing Asia, COBSEA and Partnerships in Environmental Management for the Seas of East Asia have made a good start with a number of maritime issues with support from industry, finance, and national governments.
- 9. Expand capacity building and training regionally.** Many countries have limited pools of talent to responsibly grow their blue economies. Training programs and capacity development are often too complex for one nation to undertake. Regional initiatives should therefore step in to expand workforce skills.
- 10. Raise awareness of blue economy opportunities.** Lack of understanding is a chief obstacle to community and government support of a sustainable blue economy. Governments and other stakeholders need to identify what resources need to be protected and what jobs need to be created and opportunities seized. SME BlueImpact Asia and its outreach to stakeholders provides an educational forum to raise awareness, highlighted by inspiring case studies in the region and globally.

Way Forward

The blue economy holds a wealth of opportunities for inclusive and sustainable growth across the nations of developing Asia. The tools and guidance provided by this blue economy knowledge product will speed the transition to healthy oceans and coastal communities.

The SME BlueImpact Asia platform could play a critical role in growing the blue economy. Its impact could be amplified by the support of DMCs and the efforts of ADB and its partner organizations—notably Poverty-Environment Action, UNDP, and UNEP—matched by additional assistance from other development partners and funding from private financiers and industry. While governments need to continuously support the enabling environment for blue economy public and private financing, ADB may consider providing a sustainability-linked loan and a credit guarantee, while UNDP-UNEP may offer technical assistance or grant funding to ease implementation. These instruments, and the SME BlueImpact Asia platform generally, provide the catalytic and aggregating incentives private investors in emerging markets demand. For larger ADB and sovereign financings, the SME BlueImpact Asia pipeline enriches the opportunity set for each country involved. Given the stresses on ocean resources and coastal communities today, this knowledge product recommends that SME BlueImpact Asia begin a pilot phase with the support of ADB, UNEP, and UNDP.

Financing the Blue Economy

Investments in Sustainable Blue Small–Medium Enterprises and Projects in Asia and the Pacific

Small and medium-sized enterprises (SMEs) dominate local and national economies, yet their limited access to capital makes them the “missing middle” in sustainable blue economy development. This collaborative report proposes SME sector priorities in the blue economy, analyzes the financing gap, and shares tools and resources to support new financial connections between international capital and local actors. It recommends the establishment of a new blended finance platform—SME BlueImpact Asia—to help fill the estimated \$2 trillion SME blue economy financing gap in developing Asia.

About the Asian Development Bank

ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 68 members—49 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

About the Poverty–Environment Action for the Sustainable Development Goals

The joint United Nations Development Programme–United Nations Environment Programme (UNDP–UNEP) Poverty–Environment Action for the Sustainable Development Goals (2018–2022) project promotes an integrated approach that brings poverty, environment and climate objectives into the heart of national and subnational plans, policies, budgets, and public and private finance to strengthen the sustainable management of natural resources and to alleviate poverty. Poverty–Environment Action is made possible through the support of the European Union and the Governments of Austria, Norway, and Sweden.



Poverty-Environment Action
for Sustainable Development Goals



ASIAN DEVELOPMENT BANK

6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines
www.adb.org