ASEAN Blue Economy Implementation Plan for Sustainability and Prosperity

one vision
one identity
one community

ASEAN Blue Economy Implementation Plan for Sustainability and Prosperity

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Executive Summary

The *ASEAN Blue Economy Implementation Plan (2026–2030)* has been developed to operationalise the ASEAN Blue Economy Framework (ABEF), adopted by ASEAN Leaders in 2023. The Implementation Plan, and an accompanying implementation roadmap currently under development, aims to guide ASEAN Member States (AMS) in harnessing the full potential of the Blue Economy as a driver of inclusive, sustainable, and resilient growth.

This document is structured around five cross-cutting 'Blue outcomes' which provide the foundation for identifying broad, integrative activities and supporting initiatives that reflect the ambition of the Blue Economy to promote regional coherence and collaboration. The outcomes docus on growing **financial, physical, natural, human, and social capital** to achieve the overall vision of **ASEAN Blue Wealth.**

The draft Implementation Plan has been shaped by extensive feedback from AMS focal points and ASEC sectoral bodies, gathered through surveys, interviews, and virtual consultations. These insights have ensured that the activities and supporting initiatives outlined in this report are grounded in regional priorities and build on existing capacities and initiatives. While necessarily high-level at this stage, the strategies offer a clear framework for action and alignment which will be further articulated in a companion document, the *ASEAN Blue Economy Implementation Roadmap,* which is under development. The five Blue Outcomes and the associated activities and support initiatives are as follows:

Blue Outcome	Activities and supporting initiatives
Financial capital: Grow blue assets, investment and trade	Establish a Regional Blue Financing Facility
	Strengthen Blue Trade and Value Chains
	Support Blue SMEs and Start-Ups
	Blue Carbon & Biodiversity Market Development
Physical capital: Developing blue infrastructure and technology	Blue Infrastructure Investment Strategy
	Sustainable and resilient infrastructure development
	Pilot Blue Infrastructure Projects
Human capital: Developing blue skills, knowledge and abilities	Inclusive Workforce Development
	Innovation & Knowledge Hub
	Inclusive Enterprise Support
	Ecosystem and ocean literacy
Social capital: Forging strong relationships, trust and collaboration	Strengthen Regional Blue Economy Governance
	Develop and implement the ASEAN Blue Economy Index (ABEI)
	Create Regional Sandboxes & Knowledge Forums to support harmonisation across AMS, and between AMS, development partners and global ocean dialogue partners.
Natural capital: Caring for our blue resources and ecosystems	Sustainable Blue food production and management
	Coastal & Riparian Resilience, Recovery & Spatial Planning
	Enhanced environmental sustainability for Blue Economy Sectors

Together, the Implementation Plan and roadmap will provide both structure and flexibility—recognising the diversity of contexts across ASEAN and the need to respond to emerging challenges and opportunities. The roadmap will be designed as a **living framework**, evolving through continued engagement and evidence gathering, and ultimately serving as a practical tool to guide ASEAN's transition to a thriving and sustainable Blue Economy.

Glossary of Key Terms

Blue Economy – ASEAN defines the Blue Economy as an integrated, holistic, cross–sectoral, and cross stakeholder approach that creates value–added and value–chain of resources from oceans, seas, and fresh water in inclusive and sustainable way, making the blue economy the new engine for ASEAN's future economic growth. The ASEAN Blue Economy covers upstream downstream sectors, serving as an accelerator of the conventional marine sector such as fisheries, aquaculture, fish–only processing, and tourism and a catalyst for emerging sectors such as renewable energy, biotechnology, and marine and freshwater–based research and education as well as other emerging sectors from aquatic resources. (ASEAN Blue Economy Framework, 2023 p3–4)

Blue Accelerator Programme – A support initiative designed to fast–track promising blue economy projects through tailored technical assistance, impact–based grants, and investment readiness.

Blue Bond – A financial instrument used to raise capital for marine and ocean–based projects that support sustainability.

Blue Economy Zone – Designated areas focused on sustainable marine economic activities and innovation.

Blue Financing – Funding mechanisms that support sustainable ocean–based industries and conservation efforts.

Blue Trade – Trade in goods and services derived from ocean–based industries, emphasizing sustainability.

Blue carbon – Carbon captured and stored by marine ecosystems such as mangroves, seagrasses, and salt marshes.

Blue downstream industry – Industries that process and add value to marine resources after harvest or extraction.

Blue infrastructure – Marine and coastal infrastructure designed to support sustainable ocean–based activities.

Business incubator – Organizations (or a facility) that support the growth of startups and small businesses through resources and mentorship.

Carbon Capture & Storage – Technology that captures carbon dioxide emissions and stores them to reduce atmospheric impact.

Carbon credits – Tradable permits that represent the right to emit a certain amount of carbon dioxide.

Challenge – A barrier or difficulty that must be addressed to achieve sustainable development/ blue economy goals.

Circular Economy – An economic model focused on minimizing waste and maximizing resource reuse and recycling.

Climate resilience – The ability of systems and communities to adapt to and recover from climate–related impacts.

Climate risk – Potential negative impacts of climate change on ecosystems, economies, and societies.

Climate vulnerability – The degree to which a system or community is susceptible to climate change impacts.

Co–management – Shared governance of natural resources between governments, communities, and stakeholders.

Coastal & Riparian Resilience, Recovery & Spatial Planning – Integrated planning to enhance the resilience and recovery of coastal and riverine areas.

Ecosystem based management – An approach to managing natural resources that considers entire ecosystems and their interactions.

Fishing – The activity of catching fish and other aquatic organisms for food, trade, or recreation.

Green Economy – An economy that aims for sustainable development without degrading the environment.

Green Port – A port that adopts environmentally friendly practices to reduce pollution and enhance sustainability.

Logistics (including Shipping and Ports) – The management of transportation and distribution of goods via marine routes and infrastructure.

Low emission technologies – Technologies designed to reduce greenhouse gas emissions in industrial and energy sectors.

Marginalized groups – Communities that face social, economic, or political exclusion and require inclusive development strategies.

Marine biotechnology – The use of marine organisms and resources for biotechnological applications and innovation.

Marine industries – Economic sectors that rely on ocean and coastal resources, including fishing, shipping, and tourism.

Minerals & mining – Extraction of mineral resources from the seabed for industrial and economic use.

Nature based solutions – Strategies that use natural processes and ecosystems to address environmental and societal challenges.

Renewable energy – Energy derived from natural sources that are replenished, such as wind, solar, and tidal power.

Threats – Factors that pose risks to ecosystems, economies, or communities, such as pollution or overfishing.

Tourism – Travel and recreational activities that generate economic benefits, including coastal and marine tourism.

Value chain – The full range of activities involved in producing and delivering a product or service.

Abbreviations

ABEF	ASEAN Blue Economy Framework
ABEI	ASEAN Blue Economy Initiative
ACTF-BE	ASEAN Coordinating Task Force on Blue Economy
AEC	ASEAN Economic Community
AMS	ASEAN Member States
ANCORS	Australian National Centre for Ocean Resources and Security
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
ASEC	ASEAN Secretariat
BIMSTEC	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
CCS	Carbon Capture and Storage
GDP	Gross Domestic Product
IORA	Indian Ocean Rim Association
IUU	Illegal, Unreported, and Unregulated Fishing
MPA	Marine Protected Area
MSME	Micro, Small, and Medium Enterprises
PEMSEA	Partnerships in Environmental Management for the Seas of East Asia
PSSA	Particularly Sensitive Sea Areas
SDG	Sustainable Development Goals
SEAFDEC	Southeast Asian Fisheries Development Center
UNCLOS	United Nations Convention on the Law of the Sea
UN	United Nations
UNDP	United Nations Development Programme
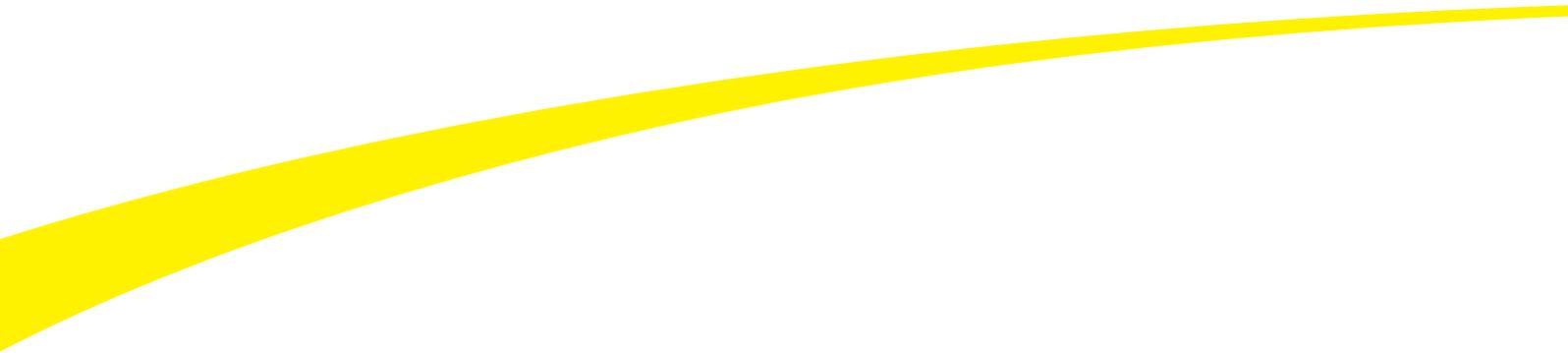
1. Introduction

The blue economy gained prominence in global governance and diplomacy after the 2012 United Nations Conference on Sustainable Development (Rio+20), when coastal and island nations advocated for the development potential of their ocean and coastal spaces. The blue economy is a complex and multifaceted concept, involving activities that span geographic areas and engage diverse stakeholders (including small-scale fishers, MSMEs, local and coastal communities), disciplines, and industries. This complexity becomes more evident during planning and implementing blue economy strategies at regional scales, where there is a need to consider the differing priorities and governance structures of multiple regions and countries. The blue economy is interpreted and localised differently across regions, shaped by each area's unique mix of interests, systems, and contextual understandings. In this context, developing a clear strategy and implementation plan is essential to align diverse interests, coordinate actions across sectors and borders, and ensure that blue economy initiatives are effective, impactful and sustainable.

Bright spots in the ASEAN Blue Economy

The blue economy has emerged as a vital pillar of sustainable development across ASEAN, offering a transformative pathway to economic resilience, environmental stewardship, and regional integration. With the adoption of the ASEAN Blue Economy Framework (ABEF) in 2023, member states have collectively committed to a cross-sectoral and inclusive approach to harnessing ocean and coastal resources.

Since the adoption of the ASEAN Blue Economy Framework (ABEF), progress among ASEAN Member States (AMS) has varied significantly. Some countries have advanced initiatives in blue economy sectors, yet there remains a lack of a coherent and comprehensive action plan at the regional level for implementing the framework to effectively and collaboratively advance initiatives that promote prosperous, inclusive, and sustainable development at the local, national and regional level. Predominantly, blue economy initiatives have stemmed from national agendas, with notable leadership from Brunei, Indonesia, and currently Malaysia during their periods of ASEAN chairmanship. For example, Indonesia has actively championed the development of the ASEAN Blue Economy during its tenure as chair of both ASEAN and the G-20. This initiative involved the establishment and facilitation of the ASEAN Blue Economy Forum along with the corresponding framework (ABEF) in 2023. Indonesia's proactive, lead-by-example strategy serves as a model to encourage other AMS to adopt similar initiatives.

The economic significance of the blue economy is already evident in several AMS, where it contributes between 20 to 30 percent of national GDP (Ramli & Waskitho, 2023). This includes direct and indirect employment in key sectors such as fisheries, aquaculture, marine tourism, maritime transport, and emerging areas like renewable ocean energy, deep-sea mining, marine biotechnology, marine education and research (Randhawa, 2024). The region's strategic location, home to some of the world's busiest shipping lanes and rich marine biodiversity, further amplifies its potential as a global hub for ocean-based economic activity (Ramli & Waskitho, 2023).

In the past decade, the Southeast Asia region has seen significant growth in capture fisheries and aquaculture production. Many Southeast Asian countries rank among the top producers of fish globally. By 2022, the SEAFDEC Secretariat analysed the region fisheries data production (excluding Timor Leste) and estimated that Southeast Asian countries contribute approximately 21 percent of the world's fisheries and aquaculture production, driven by efforts in responsible fishing and sustainable management (SEAFDEC, 2025).

Policy momentum has been strong. ASEAN countries are signatories to key international agreements, such as the UN convention on the law of the Sea (UNCLOS), the UN sustainable development goals and UN Framework Convention on Climate change, as well as range of ocean related regional agreements including the 2017 IORA Jakarta Declaration, The 2014 APEC Xiamen Declaration, The 2012 PEMSEA Changwon Declaration. All AMS endorsed the ASEAN Leaders' Declaration on the Blue Economy in 2021, and many have since developed national strategies aligned with the ABEF. However, the blue economy is at different stages of development in AMS, meaning that while some are better positioned to seize opportunities, others risk being left behind.

A review conducted by ANCORS highlights the status of blue economy development and implementation for all AMS (Gopal & Wuwung, 2025). It demonstrates that countries such as Indonesia, Viet Nam, Brunei Darussalam and Cambodia have made notable progress in integrating blue economy principles into their development planning. Malaysia will shortly launch their national blue economy blueprint.

Sectoral advancements are also evident. Sustainable fisheries and aquaculture projects are being scaled up, with Cambodia's $93 million coastal fisheries initiative serving as a regional example (Ramli & Waskitho, 2023). Marine conservation efforts have expanded, with increased designation of Marine Protected Areas (MPAs) and restoration of critical habitats such as mangroves and coral reefs. Eco-tourism continues to grow, particularly in Thailand, Malaysia, and the Philippines, while interest in offshore renewable energy is rising in countries like Viet Nam and the Philippines. Maritime infrastructure is also evolving, with green port initiatives underway in Singapore and Malaysia. The implementation of Blue Economy Framework holds significant potential to contribute to community empowerment, particularly for women and marginalized groups through their active participation in MSMEs. Many MSMEs are women led, or community based, and they play vital roles as one of enablers in advancing Blue Economy implementation plan at the community level. Strengthening these roles will not only enhance inclusive economic growth but also contribute directly to promoting gender equality and social cohesion, in line with the ASEAN Gender Mainstreaming Strategic Framework; ASEAN Enabling Masterplan on Mainstreaming the Rights of Persons with Disabilities; and the Sustainable Development Goals (SDGs).

Regional cooperation has been a cornerstone of ASEAN's blue economy progress. AMS actively participate in multilateral platforms such as PEMSEA, IORA, and BIMSTEC, collaborating on issues ranging from illegal, unreported, and unregulated (IUU) fishing to marine pollution and sustainable fisheries management.

Taken together, these developments reflect a growing recognition across ASEAN that the blue economy is not only a source of economic opportunity but also a strategic lever for achieving long-term sustainability and inclusive growth.

Challenges for the ASEAN Blue Economy

Despite its promise, the ASEAN blue economy faces a range of structural and systemic challenges that could undermine its long-term viability and impact. These challenges span governance, environmental sustainability, financing, and social equity, and require coordinated responses at both national and regional levels.

One of the most pressing issues is **fragmented governance**. While many AMS have expressed commitment to the blue economy, our analysis highlights that many countries have not yet developed comprehensive national strategies that integrate ocean-based sectors under a unified framework (Wuwung et al., 2022). Institutional coordination remains weak, with overlapping mandates and limited cross-sectoral collaboration hindering effective implementation.

This obstacle includes the absence of a holistic and cross-pillar approach to maritime cooperation, given the complexity of sectoral bodies (ASEAN Secretariat, 2023 p38). Moreover, it should be noted that national interests and priorities among AMS can differ considerably, leading to a misalignment of priorities (and related capacity and resources), along with varying levels of acceptance and support for regional blue economy initiatives. For example, at the inaugural ASEAN Blue Economy Forum (ABEF) in 2023, Brunei underscored the significance of the fisheries and tourism sectors; Cambodia highlighted the necessity of developing ports and waterways, along with the potential for cross-border collaboration in coastal tourism and marine mineral extraction; the Philippines advocated for the crucial role of seafarers and the shipbuilding industry; meanwhile, Viet Nam emphasized the importance of ocean conservation, oceanographic research, and the cultural and historical values associated with maritime environments (Bappenas RI, 2023). A nationalistic focus has contributed to ongoing fragmentation, driven by sector-specific approaches to blue economy development and a lack of overarching alignment with the newly established guiding principles. These principles represent a shift toward integrated ocean governance that not only bridges ocean policy and blue economy initiatives but also places sustainability at the core of decision-making and long-term planning.

Environmental degradation continues to pose a serious threat. Overfishing, mangrove deforestation, and coral reef damage are widespread across the region. Marine plastic pollution is particularly acute, with several ASEAN countries among the top global contributors. Inadequate waste management systems and limited enforcement of environmental regulations exacerbate these issues, threatening both biodiversity (natural capital on which blue industries depend) and the sustainability of marine livelihoods. Unsustainable fishing, the physical alteration of coastlines that threaten fragile marine ecosystems and rapid urbanization and industrialization are all significant threats to the continued growth and development of national and regional blue economies.

Climate vulnerability is another critical concern. Coastal communities and infrastructure are increasingly exposed to sea-level rise, ocean acidification, and extreme weather events. These impacts not only endanger ecosystems but also disrupt economic activities such as tourism, fisheries, and transport. It is also noted that coastal hazards have tremendous impact on social, cultural, and natural assets and vital resources of low-lying coastal communities. In response, ASEAN Member States have made significant efforts to assess these risks and to integrate climate adaptation measures into their national action plans, as well as disaster risks reduction (DRR) and management strategies. Building on these efforts, there has been notable progress in promoting greater recognition of gender perspectives and the inclusion of vulnerable groups in climate change adaptation initiatives. Both national and regional DRR plans and policies increasingly acknowledge the need for targeted interventions to support those most at risk, including women, children, the elderly, persons with disabilities, and indigenous or ethnic minority communities.

Financing and innovation gaps further constrain progress, particularly for Micro, Small and Medium Enterprises (MSMEs). Many blue economy sectors remain underfunded, especially emerging areas like marine biotechnology and offshore renewable energy. Access to blue finance is limited, and private sector engagement is still nascent. In addition, data gaps in marine resource inventories, pollution tracking, and fisheries management impede evidence-based policymaking and monitoring.

Socioeconomic inequities also persist. Coastal populations often lack access to the development planning and decision-making process. This may cause them to have limited access to education, health, infrastructure, and alternative livelihoods, making them vulnerable to environmental and economic shocks and excluding them form evolving new and innovative opportunities that could bridge the inequality gap. Gender and social inclusion are not yet mainstreamed adequately in blue economy planning, limiting the potential for equitable benefit-sharing and community empowerment.

Without stronger **coordination**, ASEAN risks duplicating efforts, missing development and funding opportunities, and failing to meet its sustainability targets. The absence of robust monitoring and evaluation systems makes it difficult to track progress and adapt policies effectively. Addressing these challenges will require a concerted effort to strengthen governance, mobilise investment, build capacity, and ensure that the blue economy delivers benefits for all.

2. Objectives and Vision of the Implementation Plan

The ASEAN Blue Economy Implementation Plan incorporates a strategic vision aligned with ASEAN's long-term ambitions as outlined in the ASEAN Community Vision 2045 and articulated in the *ASEAN Blue Economy Framework* (ABEF). The ABEF builds on the momentum of the ASEAN Leaders' Declaration on the Blue Economy, which was adopted at the 38th ASEAN Summits in October 2021. Under Indonesia's ASEAN chairmanship in 2023, the Framework was formalized as a comprehensive guide to operationalize that vision. It reflects a shift from sectoral approaches to integrated, cross-sectoral cooperation, aligning with global sustainability goals.

Whilst recognizing the diversity of approaches and definitions, the ASEAN Blue Economy Framework defines the blue economy as follows:

> *ASEAN defines the Blue Economy is an integrated, holistic, cross-sectoral, and cross stakeholder approach that creates value-added and value-chain of resources from oceans, seas, and fresh water in inclusive and sustainable way, making the blue economy the new engine for ASEAN's future economic growth. The ASEAN Blue Economy covers upstream downstream sectors, serving as an accelerator of the conventional marine sector such as fisheries, aquaculture, fish-only processing, and tourism and a catalyst for emerging sectors such as renewable energy, biotechnology, and marine and freshwater-based research and education as well as other emerging sectors from aquatic resources.* (ASEAN Blue Economy Framework*, 2023 p3-4)*

The Framework positions the blue economy as a new engine of growth aligned with global commitments like the UN SDGs and UNCLOS. The frameworks objectives are to:

- Drive inclusive & sustainable growth - supported by a cross-sectoral and stakeholder approach and value chain creation.
- Build a shared understanding of the blue economy and provide a foundation for regional action to maximise economic potential and support collaboration across key domains - from ecosystem protection and IUU fishing to blue innovation, climate resilience, and value chain development.
- Provide a non-binding foundation for continuous dialogue and coordination among ASEAN Member States and partners.

The development of the *ASEAN Blue Economy Implementation Plan* (hereafter the Plan) adopts the definition, guiding principles and objectives of the ASEAN Blue Economy Framework (ABEF) and seeks to extend and build on the strategies it contains. The following guidelines have directed and supported the development of the Plan.

The Plan aims to:

- promote ASEAN economic integration;
- encourage ASEAN-wide coordination on knowledge mobilization, data sharing and technology transfer;
- recognise the unique circumstances of each AMS, while supporting long-term impactful development prospects of both ocean-related and water-related sectors in the region;
- build on the foundation of the ABEF and national level BE initiatives;
- maximise mutually beneficial opportunities and address shared challenges across AMS and stakeholder groups;
- add value to existing regional initiatives and avoid duplication of effort or activity;
- be actionable, scalable and outcome focused;
- provide short term, immediately actionable strategies as well as longer term strategic actions; and
- address all three guiding principles of the ABEF (value addition, sustainability & inclusivity).

3. Activities and supporting initiatives of the ASEAN Blue Economy Implementation Plan (2026-2030)

The ASEAN Blue Economy Framework (ABEF) sets out the overarching vision and strategic direction for achieving a resilient, inclusive, and sustainable blue economy across the region. As a foundational document endorsed through regional dialogue, it articulates ASEAN's ambition to harness marine and freshwater resources for long-term prosperity. Building on that ambition, the ASEAN Blue Economy Implementation Plan translates the ABEF into action. In order to do so we proposed a series tangible desired outcomes that signify success and which collectively contribute to the overarching ambition of growing **ASEAN Blue Wealth**. These desired outcomes form the foundation of the Plan which supports the design of pathways toward achieving them through a companion implementation roadmap.

A thematic analysis of the ABEF and complementary ASEAN initiatives, national-level efforts, and relevant regional activities, especially the *ASEAN Community Vision 2045 – Our Shared Future* strategic plan, the ASEAN Strategy for Carbon Neutrality, the Framework for Circular Economy for the AEC and the *ASEAN Connectivity Strategic Plan 2026-2030* was undertaken in order to identify shared desired outcomes across these diverse initiatives. Common objectives were grouped using guidance from key sustainable development literature, particular the Sustainable Livelihoods approach (Allison & Ellis, 2001; Allison & Horemans, 2006). These were cross referenced with the Sustainable Development Goals (SDGs) to ensure a comprehensive coverage of these globally accepted goals.

This process resulted in the articulation of **five draft blue outcomes** (Fig 1). These five outcomes are:

- Growing blue assets, investment and trade (**Financial capital**): which includes the economic assets which underpin the ASEAN Blue Economy
- Developing Blue Infrastructure and technology (**Physical capital**): which refers to the infrastructure and technology which enables blue economy development
- Developing blue skills, knowledge and abilities (**Human capital**): which refers to the people who work in, engage with and live within the blue economy
- Forging strong relationships, trust and collaboration support (**Social capital**): which speaks to the connections and collaborations which exist across the region, between AMS, between sectors and between sectors of the community
- Safeguarding blue resources and ecosystems (**Natural capital**): which refers to the ecosystem values and environmental assets which support the blue economy

The Blue Outcomes serve as a practical mechanism for linking the strategic priorities outlined in the ABEF with the enabling conditions necessary for effective implementation. They translate high-level strategies into tangible, actionable initiatives that leverage key enablers to drive progress.

**Figure 3.
Blue Outcomes
and connection
to the Sustainable
Development Goals**

In the subsequent sections, the blue outcomes, activities and supporting initiatives to be implemented in the period 2026–2030 will be further detailed. These activities and initiatives are intentionally designed to be **cross-cutting and inclusive**, rather than sector-specific or limited to individual countries. The sections below detail the ways in which these activities and initiatives will contribute towards integrated approaches which promote collaboration across sectors and borders. However, some preliminary insights are provided into how the implementation roadmap will adapt these broad strategic directions to meet the specific needs and contexts of priority sectors.

These proposed strategies contribute to the attainment of the Objectives and Strategic Measures outlined in the AEC Strategic Plan 2026–2030, with the specific mapping of alignment presented in **Annex 1.**

3.1 Financial capital: Grow blue assets, investment and trade

The financial capital blue outcome seeks to grow the economic assets which underpin the ASEAN Blue Economy. A common challenge across all blue economy sectors and ASEAN Member States is securing appropriate investment and financing to support industry development. While the potential for growth is significant, many sectors face barriers in accessing the capital required to scale operations, adopt new technologies, and transition to more sustainable practices.

Enhancing value addition across the region will also require more streamlined and resilient value chains. Strengthening these linkages, both within and between countries, can improve market access, reduce inefficiencies, and support the development of higher-value products and services.

There are existing initiatives that offer a foundation for addressing these challenges. Notably, the ASEAN Blue Economy Innovation (ABEI) project, led by UNDP, provides targeted support for micro, small and medium enterprises (MSMEs) and startups operating in the blue economy space. Leveraging and scaling such initiatives could unlock new financial opportunities and foster innovation across emerging sectors.

The ASEAN region currently draws significant monetary and non-monetary benefits from its rich natural resources. This could be strengthened and consolidated through a harmonised and standardised approach to blue carbon and biodiversity markets. Without consistent methodologies and verification systems across ASEAN, it will be difficult to ensure that carbon and biodiversity credits are credible, traceable, and compatible with international markets. This lack of alignment risks undermining investor confidence and limiting the region's ability to fully participate in emerging environmental finance mechanisms.

Priority activities and supporting initiatives:

1. **Establish a Regional Blue Financing Facility:** Establish a dedicated ASEAN facility to channel blue finance, designed to de-risk investments and mobilise blended finance for scalable, sustainable blue economy projects. The facility should enhance regional accountability, transparency, and inclusivity in the allocation of blue finance, underpinned by an operational framework that ensures usability and supports stakeholder engagement at all levels.
2. **Strengthen Blue Trade and Value Chains:** Expand regional market access and enhance value-added processing by developing resilient, sustainable blue economy supply chains across ASEAN.
3. **Support Blue SMEs and Start-Ups:** Support innovation and entrepreneurship by providing incubation, mentorship, and funding pathways (e.g. micro financing) for blue economy businesses across ASEAN, while also strengthening and empowering the local economies and marginalised communities.
4. **Blue Carbon & Biodiversity Market Development:** Promote the development of blue carbon and biodiversity markets to fund aquatic ecosystem conservation and restoration, supported by the ASEAN Taxonomy for Sustainable Finance.

Opportunities for growth in financial capital exist in the following priority sectors:

- Blue Carbon/Conservation
- Ocean based renewable energy
- Logistics (including Shipping and Ports)
- Aquaculture
- Bioprospecting
- Carbon Capture & Storage (CCS)
- Minerals & mining

Specific **sectoral actions** which will be explored in the roadmap might include expanding downstream processing capabilities and value-added activities for fisheries and aquaculture products; developing an ASEAN Blue Bond Framework to attract investment in sustainable projects such as mangrove restoration and ocean renewable energy development; and expanding access to micro-financing for small-scale and community-led blue economy initiatives, especially for women and other marginalised or underrepresented groups and communities.

3.2 Physical capital: Developing blue infrastructure and technology

The physical capital blue outcome seeks to support the strengthening of the infrastructure and technology which enables blue economy development. Infrastructure development is a critical enabler of the ASEAN Blue Economy, yet it presents a complex set of challenges that require coordinated regional responses. Many of the infrastructure investments needed, such as port upgrades, renewable energy installations, marine research facilities, and coastal protection systems, require significant capital outlays that may be difficult for individual AMS to manage independently. This underscores the importance of regional collaboration, pooled financing mechanisms, and strategic partnerships to share costs and risks.

A further challenge lies in the need to make strategic investment decisions that not only address current infrastructure gaps but also anticipate future needs. These decisions must be informed by robust data and long-term planning to ensure that infrastructure investments are resilient, inclusive, and aligned with the broader goals of the blue economy.

In addition, there is a pressing need to build technical and institutional capacity to support the planning, delivery, and maintenance of blue economy infrastructure. This includes a need to strengthen and enhance the availability and quality of data to support evidence-based planning, implementation, and maintenance of Blue Economy infrastructure. Many AMS face constraints in terms of expertise, regulatory frameworks, and access to innovative technologies. Demonstrating proof of concept through pilot projects and scalable models will be essential to build confidence, attract investment, and guide future infrastructure development across the region.

Priority activities and supporting initiatives:

1. **Blue Infrastructure Investment Strategy:** Create a coordinated ASEAN strategy to de-risk investments and mobilise blended finance for scalable, sustainable blue economy projects. This strategy should establish the necessary operational framework to ensure usability and accountability and support meaningful engagement and alignment among key stakeholders at all levels.
2. **Sustainable and resilient infrastructure development:** Identify blue infrastructure gaps and opportunities through a regional feasibility and value chain assessment, especially for port, renewable energy and digital infrastructure, including the integration of risk mitigation measures to ensure sustainable development of climate resilient blue infrastructure.
3. **Pilot Blue Infrastructure Projects:** Launch demonstration projects and capacity development programs to showcase scalable, sustainable physical and digital infrastructure models.

Opportunities for growth exist in the following priority sectors:

• Logistics (including Shipping and Ports)
• Ocean based renewable energy
• Aquaculture
• Fisheries

Specific sectoral actions which will be explored in the roadmap might include developing an ASEAN Community of practice on the opportunities for ocean based renewable energy development; establishing maritime waste recycling facilities at ports or coastal areas to support the circular economy; accelerating adoption of energy-efficient cold chain technology and an integrated ASEAN-wide traceability system for fishery products in the region; expanding downstream processing capabilities and value-added activities for fisheries and aquaculture products; and developing ASEAN regional digital fisheries monitoring capabilities.

3.3 Human capital: Developing blue skills, knowledge and abilities

The strength of the ASEAN Blue Economy is dependent on the people who work in, engage with and live within it. Significant challenges remain in ensuring that the region's workforce is equipped to meet the demands of a rapidly evolving ocean-based economy. Across AMS, there is a widespread need to build capacity and upskill workers to respond to the digital, environmental, social, and economic transformations that lie ahead. This includes not only technical and vocational training but also the development of new competencies in areas such as marine science, sustainable resource management, and blue innovation.

A key barrier to progress is the limited exchange of knowledge and expertise across the region. Strengthening mechanisms for information sharing—between countries, sectors, and institutions—is essential. This includes fostering collaboration between the public and private sectors, as well as engaging with international initiatives such as the UN Decade of Ocean Science for Sustainable Development, which offers valuable opportunities for research partnerships and capacity building.

There is also a pressing need to coordinate research efforts across ASEAN to address shared knowledge gaps and avoid duplication. Collaborative research agendas can help align national priorities with regional goals, while also attracting international support and investment.

Finally, supporting local and coastal communities to participate meaningfully in the blue economy is critical. This includes enabling community-led enterprises, supporting entrepreneurship in emerging blue sectors, engaging the community in relevant research activities, and ensuring that the benefits of blue economy growth are equitably distributed. Empowering these communities will not only strengthen social resilience but also unlock new sources of innovation and economic activity.

Priority activities and supporting initiatives:

1. **Inclusive Workforce Development:** Deliver targeted education and training programs across all ASEAN member and partner countries to support learning and diverse workforce development at all stages of life. These programs should be inclusive and accessible, with particular attention to equitable participation by youth, women and marginalised communities.
2. **Innovation & Knowledge Hub:** Establish an ASEAN Blue Innovation Network to drive collaborative research, technology development, and cross-country knowledge exchange, whilst positioning ASEAN within global ocean dialogues.
3. **Inclusive Enterprise Support:** Support small-scale enterprises and community-based models in priority sectors, with targeted programs for women and youth to promote inclusive and equitable blue growth.
4. **Advance ecosystem and ocean literacy and strengthen compliance to safeguard natural capital:** Improve ecosystem and ocean literacy across all stakeholder groups to foster locally relevant innovation, stewardship and reducing reliance on enforcement.

Significant opportunities to strengthen the human capital which underpins and supports the blue economy exist, particularly in the following priority sectors:

*   Fishing
*   Aquaculture
*   Tourism
*   Logistics (including Shipping and Ports)
*   Renewable energy
*   Minerals & mining
*   Marine biotechnology
*   Blue downstream industry

Specific sectoral actions which will be explored in the roadmap might include joint training and simulation exercises around maritime response to disaster management and emergency preparedness and response; enabling women and youth involvement in small scale enterprises including fisheries and aquaculture post harvest and supply chains; developing an ASEAN Ecotourism Passport to promote and connect small-scale tourism operators across the region, guiding travellers to authentic, sustainable experiences; and organizing scientific forums, joint training for students, and meetings with blue economy business actors.

3.4 Social capital: Forging strong relationships, trust and collaboration

The social capital blue outcome seeks to strengthen the connections and collaborations which exist across the region, between AMS, between sectors and between sections of the community. Strengthening social capital is essential to the successful implementation of the ASEAN Blue Economy, yet several challenges persist, particularly around coordination and institutional clarity. A key issue is the lack of dedicated support for the ACTF-BE to effectively deliver on the ABEF and operationalise the implementation plan. Current arrangements rely heavily on existing ASEC sectoral bodies, many of which are already operating at full capacity. This raises concerns about the ability to sustain long-term implementation efforts.

Effective coordination across AMS is also critical, but remains difficult due to differing national priorities, institutional structures, and resource constraints. While the ACTF-BE provides a valuable central mechanism to guide and harmonise regional efforts, limited opportunities for engagement and resourcing risk fragmented implementation and missed opportunities for synergy and shared learning.

Another major challenge is the absence of standardised metrics and performance indicators to measure progress. Establishing a consistent framework for monitoring the health of the blue economy, potentially through ocean accounting methodologies, will be vital to track outcomes, assess impact, and inform adaptive management. Indonesia has established the Indonesian Blue Economy Index which provides a model on which a regional approach could be based.

Finally, fostering innovation and continuous improvement will require shared learning platforms that enable collaboration across sectors, countries, and stakeholder groups. This includes public–private partnerships, regional knowledge exchanges, and engagement with international communities. Understanding relevant initiatives that are closely linked to the implementation of ABEF is also important.

For instance, ASEAN Centre for Biodiversity and its partners have identified the importance of coordinating access to national and regional data for informed decision-making, including through the development of a regional, science-based decision-support platform. Utilising existing resources and building these networks will help unlock new ideas, support capacity development, and ensure that the blue economy evolves in a way that is inclusive, resilient, and responsive to emerging challenges.

Priority activities and supporting initiatives:

1. **Strengthen Regional Blue Economy Governance:** Enhance ASEAN Blue Economy governance arrangements to support effective coordination and cooperation across sectors and member states, as well as institutional integration and accountability. Strengthen coordination mechanisms through the establishment of clear mandates, implementation responsibilities and reporting lines.
2. **Develop and implement the ASEAN Blue Economy Index (ABEI):** Adopt a standardized regional index and ocean accounting system to measure progress across economic, environmental, social, and governance dimensions of the blue economy.
3. **Create Regional Sandboxes & Knowledge Forums to support harmonisation across AMS, and between AMS, development partners and global ocean dialogue partners:** Facilitate innovation and shared learning through regional and international sandboxes and forums focused on education, research, community empowerment, transboundary management and policy experimentation.

Whilst the social capital outcome is relevant and critical to all blue economy sectors, particular opportunities exist in the following sectors:

• Blue Carbon
• Conservation Management
• Logistics (including Shipping and Ports)
• Renewable Energy
• Fisheries

Specific **sectoral actions** which will be explored in the roadmap might include dedicated collaboration clusters or sub groups of AMS and development partners around strategic priorities – such as Blue Carbon, restoration and conservation, as well as transboundary Marine Spatial Planning.

3.5 Natural capital: Caring for our blue resources and ecosystems

The natural capital blue outcome focuses on enhancing, restoring, and protecting the ecosystem values and environmental assets that underpin the ASEAN Blue Economy. Protecting and enhancing natural capital is central to the long-term success of the ASEAN Blue Economy. However, several challenges must be addressed to ensure that ecosystems continue to provide the environmental services and economic value upon which the region depends.

Fisheries and aquatic food production are consistently regarded as high priority sectors across the region. Yet a number of challenges threaten the viability and health of the regional fisheries and aquaculture operations at small and industrial scales. Managing IUU fishing and overfishing and enhancing the sustainability of aquaculture operations is critical to ensuring healthy ecosystems and healthy populations within the region.

There is also a growing need for integrated approaches to conservation and pollution management, particularly in transboundary marine areas. Fragmented efforts across jurisdictions can lead to inefficiencies and missed opportunities for ecosystem-scale impact. Ecosystem-based management and nature-based solutions offer effective pathways to address these challenges holistically. Strengthening understanding of ecosystem values and functions can promote voluntary compliance and community stewardship, reducing dependence on enforcement mechanisms. To effectively address shared challenges such as plastic pollution, habitat degradation, disaster resilience, and biodiversity loss, coordinated action must be adequately resourced and strategically aligned.

Finally, the region must respond urgently to the climate crisis by accelerating the transition of established sectors toward carbon neutrality and circular economy models. This includes reducing emissions from fisheries, shipping, and tourism, while promoting sustainable resource use and waste reduction. Achieving this transition will require not only policy alignment and investment but also innovation and collaboration across multi-stakeholders, sectors and borders.

Activities and supporting initiatives:

1. **Sustainable Blue food production and management:** Maintain and restore fish stocks through science-based and ecosystem-based fisheries management, protect critical habitats, and promote sustainable harvest practices. Support the growth of sustainable aquaculture to ensure long-term food security, biodiversity conservation, and resilience of aquatic ecosystems.
2. **Coastal & Riparian Resilience, Recovery & Spatial Planning:** Strengthen coastal and riparian resilience through nature-based solutions, coordinated nature restoration and improved marine protection. Enhance water quality management, ecosystem-based management and spatial allocation through integrated tools such as Integrated Coastal Management and Marine Spatial Planning.
3. **Enhanced environmental sustainability for blue economy sectors:** Accelerate the transition to low-emission, circular and restorative blue economy operations through targeted investments, technology adoption, and regional standards that are inclusive and realistic.

As with social capital, all sectors have a role to play in improving environmental sustainability. However, particular opportunities exist within key sectors to not only strengthen ecological outcomes but also improve economic efficiency and gain market advantage through the adoption of more sustainable practices.

These sectors include:

- Blue Carbon
- Conservation Management,
- Tourism
- Logistics (including Shipping and Ports).

Specific sectoral actions which will be explored in the roadmap might include building on the ASEAN, Japan, and UNDP Blue Carbon and Finance Profiling Project to finalise regional natural capital valuation and mapping and support the development and implementation of Blue Carbon projects in priority sites across the region. Other actions might include the establishment of ASEAN Blue Corridors to enable regional cooperation which supports the establishment of Marine Protected Areas and Particularly Sensitive Sea Areas (PSSAs) in significant marine ecosystems in the region as well as the identification and establishment of green shipping corridors within the ASEAN region.

4. Key Outcome Indicators

Detailed performance indicators – and implementation responsibilities and timeframes - will be identified in the *Blue Economy Implementation Roadmap*. The following proposed indicators are illustrative examples of the types of indicators that may be included to measure regional progress towards the Blue Outcomes.

Blue Outcome	Performance Indicator
Financial Capital	Volume of investment mobilised
	Number of patents or businesses incubated
	Number of blue businesses established by youth, women or marginalised communities
	Volume/value of blue carbon credits issued or traded annually
Physical Capital	Blue infrastructure projects completed
	Number of interoperable systems/platforms, data-sharing agreements, smart infrastructure deployments.
	ASEAN Blue Economy Zones or pilot projects implemented
	Number of operational physical assets (e.g., observation stations, buoys, drones) used for marine ecosystem monitoring and enforcement
	Proportion of coastal communities connected to sustainable transport, energy and digital infrastructure
	Proportion of coastal and marine infrastructure (e.g., ports, harbors, aquaculture facilities) built or upgraded using universal, sustainable and climate-resilient design standards
	Number of ASEAN Member States actively using digital coastal and marine spatial planning tools (e.g., GIS-based platforms, satellite data integration, or decision-support systems) to manage coastal and ocean resources
	Number of ASEAN Member States actively contributing to and accessing shared marine data platforms (e.g., oceanographic databases, fisheries monitoring systems, or regional early warning systems)
Human Capital	Number of accredited blue economy programs and enrolment and graduation rates (disaggregated by gender, age, disability status and other socio-economic background) in marine-related fields
	Number and funding levels of regional level blue economy research and development initiatives

Blue Outcome	Performance Indicator
Human Capital	Number of active blue economy MSMEs, including engagement of women youth and other marginalised communities
	Proportion of marine sector professionals from each ASEAN Member State who have participated in ASEAN-led capacity-building programs, workshops, or knowledge-sharing platforms
	Number of collaborative technology innovation projects among ASEAN Member States focused on blue economy sectors
Social Capital	Number of coordinated policies or joint action plans adopted
	Frequency of updates and reporting and number of policies or budgets referencing the index
	Number of active regional forums or networks and participation rate by country or stakeholder group
	Proportion of blue economy initiatives with mechanisms for cross-regional collaboration and knowledge exchange
	Proportion of blue economy initiatives with formal mechanisms for stakeholder engagement, including representation from Indigenous peoples, youth, women, aging populations, disabled persons, and other marginalised group
	Number of ASEAN Member States that have formally adopted national blue economy strategies incorporating the core principles of the ASEAN Blue Economy Framework
Natural Capital	% of fisheries under formal fisheries management regimes including ecosystem-based or co-management arrangements
	Area (km²) of coastline restored or protected using nature-based solutions
	% of marine infrastructure using low-emissions technologies
	% of waste reused or recycled in marine industries

5. Conclusion

The ASEAN Blue Economy presents a transformative opportunity to drive inclusive, sustainable, and resilient growth across the region. Through the ABEF, AMS have articulated a shared vision that integrates environmental stewardship, economic innovation, and social equity. The draft implementation plan builds on this foundation by translating strategic goals into actionable initiatives across five interconnected domains: financial, physical, natural, human, and social capital. While significant strengths exist, particularly in policy alignment, sectoral momentum, and regional cooperation, key challenges remain in areas such as infrastructure financing, institutional coordination, workforce capacity, and environmental integrity.

The next phase of development will focus on developing the implementation roadmap through a series of targeted activities. These include a regional stocktake to assess progress toward desired outcomes, an expert foresighting exercise to identify emerging risks, and a comprehensive SWOT analysis to inform strategic goal-setting. The first draft of the roadmap – which will be designed to be a living document - will synthesise these inputs into a coherent framework for implementation, supported by pilot initiatives, monitoring tools, and mechanisms for stakeholder engagement.

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Annex A: Connections with the AEC Strategic Plan

The ASEAN Economic Community (AEC) Strategic Goal 2—A Sustainable Community—emphasises the importance of mainstreaming climate-responsive policies across all dimensions of regional development. This goal aligns closely with the objectives of the ABEF, which positions the blue economy as a new engine of inclusive and sustainable growth. The draft implementation plan operationalises this ambition by translating strategic measures into actionable initiatives across five Blue Outcomes: financial, physical, natural, human, and social capital.

Strategic Measure 2.7.1 under the AEC Strategic Plan focuses on fostering value-added production and strengthening value chains derived from ocean, sea, and freshwater resources. This measure is directly supported by activities within the ABEF Implementation Plan under the financial capital outcome, including efforts to strengthen blue trade, support MSMEs and startups, and develop blue carbon and biodiversity markets.

Strategic Measure 2.7.2 under the AEC Strategic Plan promotes sustainable and inclusive development of the blue economy. The implementation plan responds through physical capital activities such as resilient infrastructure development, human capital initiatives supporting inclusive enterprise growth, and natural capital strategies that enhance coastal resilience and environmental sustainability.

Strategic Measure 2.7.3 under the AEC Strategic Plan addresses cooperation on combating illegal, unreported, and unregulated (IUU) fishing. This aligns with the social capital outcome within the implementation plan, particularly efforts to strengthen regional governance mechanisms and improve coordination across AMS.

Strategic Measure 2.7.4 under the AEC Strategic Plan calls for enhanced collaboration on science, technology, and innovation. The implementation plan supports this through financial capital initiatives for SMEs and startups, human capital activities focused on workforce development and innovation hubs, and social capital mechanisms such as regional sandboxes and knowledge forums to foster cross-sectoral learning.

Strategic Measure 2.7.5 under the AEC Strategic Plan ensures effective implementation of the economic aspects of the ABEF. The implementation plan outlines a suite of enabling activities, including the establishment of a regional blue financing facility (financial capital), development of a blue infrastructure investment strategy and pilot projects (physical capital), and governance and performance monitoring tools such as the ASEAN Blue Economy Index (social capital).

Together, these strategic measures and corresponding activities demonstrate a strong alignment between the AEC's sustainability agenda and the ASEAN Blue Economy Implementation Plan. By embedding climate-responsive and inclusive approaches across all capital domains, ASEAN is well-positioned to lead the transition toward a resilient, low-carbon, and innovation-driven ocean economy.

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