

The Blue Economy in Brunei Darussalam

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Key Messages:

- To achieve the country's blue economy goals, a framework would have to be prepared encapsulating objectives, targets, strategies, implementing custodians and strategies. For Brunei Darussalam, its blue economy objectives are industrial development, sustainability, and food security.
- The main strategies under industrial development include establishing new blue economy activities particularly in the fisheries and marine tourism sectors, trade facilitation as well as tourism promotion. Examples of the key indicators are gross value added, physical outputs, and exports.
- The blue economy and sustainability are very much compatible goals. The sustainability-related strategies comprise the deployment of ocean-based renewable energy, marine pollution reduction, and maritime transport decarbonisation. The main targets are represented by the share of renewable energy, energy intensity, and ocean plastic waste.
- The food security objective would be achieved by the improvement in the food value chain as well as food safety and storage facilities. These would be indicated by the levels of greenhouse gas emission and self-sufficiency rate.

Brunei Darussalam needs new drivers to diversify the economy due to its one-dimensional nature. At the same time, the country is facing other challenges such as environmental degradation and climate change, which have been highlighted in other strategic documents. Hence, this policy brief proposes strategies for developing the blue economy in Brunei. The strategies are categorised into three key areas: industrial development, sustainability, and food security.

These areas, along with their respective indicators, are encapsulated in the blue economy framework, consisting of goals, key areas, key indicators, strategies, and custodians. The framework should be documented in a master plan, administered by a council. Two sets of cross-cutting and area-specific strategies are recommended: (i) a combination of structural reforms, policies, and legislation; and (ii) programmes and projects. The implementers comprise government ministries and departments, statutory boards, higher learning institutions, and research institutions as well as government-linked companies.

Rationale for the Blue Economy in Brunei Darussalam

Despite being a high-income nation, Brunei Darussalam faces several economic challenges. These include stagnant economic growth, mainly because of lack of sectoral development, apart from the hydrocarbon industry. Between 2013 and 2022, Brunei's real gross domestic product (GDP) contracted at an average annual rate of 0.4% (International Monetary Fund, 2023) – the only country with a negative growth rate in the Association of Southeast Asian Nations (ASEAN) region (Table 1). Consequently, the country had the highest total and youth unemployment rates in ASEAN in 2021. Brunei also has high levels of labour underutilisation.

Due to the lack of economic diversification, government revenues are strongly influenced by the prices, production, and exports of crude petroleum and liquefied natural gas (LNG). Despite a surge in GDP since late 2019 due to the establishment of new energy downstream activities, these companies have been given pioneer status and are exempted from paying corporate income tax. Hence, the government's revenue base remains narrow and large fiscal deficits have ensued. The government experienced budget deficits in seven out of the last 10 years (International Monetary Fund, 2023) registering the largest deficit, of 21.7% of GDP, in 2017 (Figure 1). To counter the above issues, government authorities have announced several strategic directions with the launching of several plans such as the Brunei Economic Blueprint and the Digital Economy Masterplan.

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Table 1: Average Annual GDP Growth Rates (2013–2022) and Labour Underutilisation Indicators (2021),*
Brunei Darussalam vs Other ASEAN Member States

Country	Average Annual GDP Growth Rate, (% change 2013–2022)	LU1 (unemployment rate, total %)	LU1 (unemployment rate, youth %)	LU2 (unemployment + time-related underemployment, %)	LU3 (unemployment + potential labour force, %)	LU4 (unemployment + time-related underemployment + potential labour force, %)
Brunei Darussalam	-0.4	4.9	16.3	12.3	8.6	15.7
Cambodia	5.5	0.6	1.8	0.4	3.3	2.2
Indonesia	4.3	4.4	16.1	7.1	9.6	11.0
Lao PDR	5.2	1.3	3.3	11.9	2.0	12.5
Malaysia	4.1	4.6	15.6	6.2	5.8	8.2
Myanmar	3.6	2.2	6.4	3.0	2.0	3.4
Philippines	5.0	2.4	7.3	13.4	10.4	16.1
Singapore	3.3	3.6	9.1	6.1	7.7	8.1
Thailand	1.9	1.4	7.0	1.6	1.7	1.9
Viet Nam	6.1	2.2	7.2	2.2	2.9	3.1

ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product.

* 2021 or latest available data.

LU1 = Unemployment, LU2 = Unemployment + Time-related underemployment, LU3 = Unemployment + Potential labour force, LU4 = Unemployment + Time-related underemployment + Potential labour force.

Unemployment = Those who are part of the labour force, who are out of work and are actively seeking employment.

Time-related underemployment = Those who are part of the labour force, want and are available to work additional hours given the opportunity.

Potential labour force = Those who are outside of the labour force and either looking for employment but are not available or available but are not seeking jobs.

Green numbers indicate the highest/lowest number in the categories when a high/low figure is considered more desirable for the economy. Red numbers indicate the opposite situation.

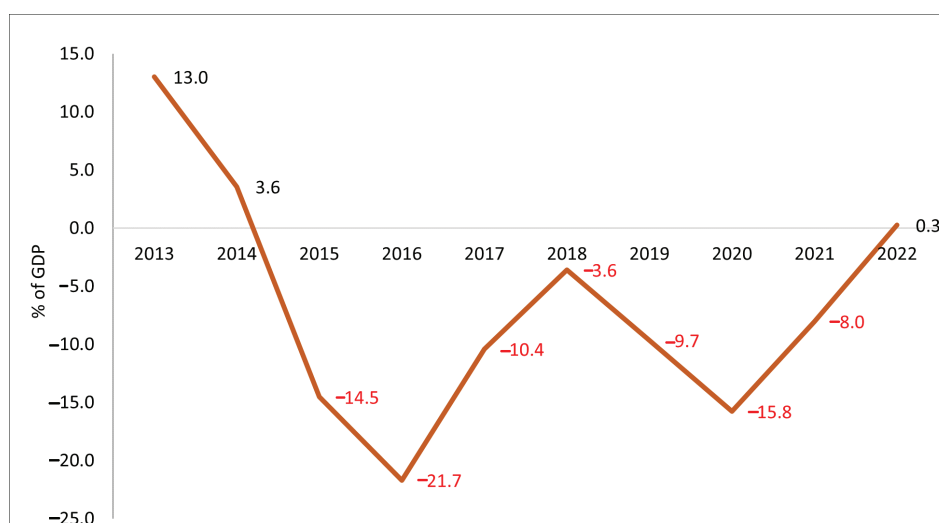
Sources: IMF's World Economic Outlook Database April 2023, Department of Economic Planning and Statistics, and the International Labour Organization.

<https://www.imf.org/-/media/Files/Publications/WEO/WEO-Database/2023/WEOApr2023all.ashx> (accessed on 8 April 2023)

<https://deps.mofe.gov.bn/DEPD%20Documents%20Library/DOS/DOS%20Time%20Series/Gross%20Domestic%20Product/Yearly/Yearly%20-%20Gross%20Domestic%20Product%20Growth%20Rates%20by%20Type%20of%20Expenditure%20at%20Constant%20Prices.xlsx> (accessed on 10 April 2023)

<https://ilostat.ilo.org/topics/unemployment-and-labour-underutilization/> (accessed on 2 March 2023)

Figure 1: Brunei's Fiscal Balance, 2013–2022*



GDP = gross domestic product.

* 2022 data are based on International Monetary Fund estimates.

Source: IMF's World Economic Outlook Database April 2023.

<https://www.imf.org/-/media/Files/Publications/WEO/WEO-Database/2023/WEOApr2023all.ashx> (accessed on 8 April 2023)

The government has also embraced global trends such as digitalisation, carbon neutrality, sustainable development, and food security. It has demonstrated its convictions by developing strategic documents and announcing its commitments to the international community.

These factors have presented Brunei with both challenges and opportunities. The government’s policy direction will focus on finding major growth sectors that will create meaningful jobs for the growing labour force as well as alternatives and significant sources of net foreign exchange earnings and fiscal revenues. The blue economy could provide the economy with a new growth driver while achieving some of the country’s other objectives such as sustainability and food security.

Blue Economy Framework

The blue economy would be multidimensional and serve different national objectives. At the same time, some of its strategies would intersect and overlap with existing ones. Hence, a ministerial council would have to be established to align the various blue economy-related outcomes and policies. This has been common practice in recent years with the country’s other national agendas, such as digitalisation and climate change. The council would also be responsible for overseeing new strategies that would support the development of the country’s blue economy.

Figure 2 shows how the main components and elements in the framework might look. The main objectives of the blue economy could be grouped into three areas: industrial development, sustainability, and food security. The figure also illustrates the key strategic documents that would have to be referred to. At the highest national level, the reference points would be the Wawasan Brunei (Brunei Vision) 2035 (Prime Minister’s Office, 2007) the five-year 11th National Development Plan (Department of Economic Planning and Statistics, 2020), and the United Nations Sustainable Development Goals (SDGs).

In terms of the three strategic areas, the main references are the Brunei Darussalam Economic Blueprint (Ministry of Finance and Economy, 2020) – industrial development; the Brunei Darussalam National Climate Change Policy (Climate Policy Drafting Committee, 2020) – sustainability; and the Ministry of Primary Resources and Tourism Strategic Plan (Ministry of Primary Resources and Tourism, 2020) – food security. Other relevant documents are the Energy White Paper (Energy Department, 2014), the Ministry of Transport and Infocommunications Strategic Plan (Ministry of Transport and Infocommunications, 2020), Brunei Darussalam Central Bank’s Financial Sector Blueprint (Autoriti Monetari Brunei Darussalam, 2016),¹ and the Ministry of Development’s Strategic Plan (Ministry of Development, 2018).

Figure 2: Blue Economy-Related Development Agendas and Strategic Documents in Brunei Darussalam



MOD = Ministry of Development, MPRT = Ministry of Primary Resources and Tourism, MTIC = Ministry of Transport and Infocommunications.
Source: Author’s research.

¹ Known previously as Autoriti Monetari Brunei Darussalam (AMBD).

The Brunei Darussalam blue economy framework is explained further in Table 2. The table highlights the different layers and components of the framework from

goals/objectives to sectors/key areas, indicators, and strategies/policy directions.

Table 2: Proposed Brunei Darussalam Blue Economy Framework

Goals/Objectives	Sectors/Key Areas	Key Indicators	Strategies/Policy Directions and the Main Custodians	
			Cross-cutting	Sector or Area-specific
Industrial development	Fisheries	<ul style="list-style-type: none"> Real & nominal gross value added (B\$ million) Physical output (metric tons) Value of exports (\$ million) Volume of exports (metric tons) 	<ul style="list-style-type: none"> Establishing new and amending current legislation to support sectoral development and the use of new technologies (PMO, MPRT, MFE, MOD, MTIC, AGC) Attracting more foreign companies to set up their businesses in Brunei (BEDB, MFE, Darussalam Assets DA) Improving the infrastructure, including industrial sites, places of interest, energy facilities, and transport networks (MOD, MFE, MPRT, PMO, MTIC, P Cube PC) Introducing fiscal incentives in the form of productive subsidies and tax breaks (MFE) Providing different stages of financing for MSMEs and large businesses (MFE, DARE, BDCB) Increasing R&D activities in blue economy-related spaces (MTIC, CREATES, UTB, UBD) Enhancing human capital development in the blue economy sectors (MPEC, MOE) 	<ul style="list-style-type: none"> Providing support for local companies to be export-ready (MPRT, MFE, DOF) Establishing new blue economy-related activities, particularly those that would generate high-paying jobs for the local labour force (MPRT, MFE, DOF, CSPS)
	Marine-based tourism	<ul style="list-style-type: none"> Real & nominal gross value added (B\$ million) Physical output (number of tourists) 		<ul style="list-style-type: none"> Marketing and promotion of local tourist activities (MPRT, Tourism Board TB)
Sustainability	Ocean-based renewable energy	<ul style="list-style-type: none"> Share of renewable energy in the total power generation mix (%) 		<ul style="list-style-type: none"> Deploying ocean-based renewable energy (PMO, DOE, Darussalam Assets DA)
		<ul style="list-style-type: none"> Energy intensity (tons of oil equivalent per \$ million) 		
	Marine pollution	<ul style="list-style-type: none"> Ocean plastic waste (metric tons) 	<ul style="list-style-type: none"> Reducing the level of marine pollution (MOD, CCC, JASTRE) 	
	Maritime-based transport	<ul style="list-style-type: none"> Greenhouse gas emission (metric tonnes of CO2 equivalent) 	<ul style="list-style-type: none"> Decarbonising the maritime transport sector, especially through the introduction of low-carbon fuels (MTIC, CCC) 	
Food security	Fisheries	<ul style="list-style-type: none"> Self-sufficiency rate (%) 	<ul style="list-style-type: none"> Improving the domestic marine-based food value chain (MPRT, DOF, MFE, Darussalam Assets DA) 	
			<ul style="list-style-type: none"> Upgrading food storage and safety (MPRT, DOF, MFE, Darussalam Assets DA, BDFA) 	

AGC = Attorney General's Chambers; BDCB = Brunei Darussalam Central Bank; BDFA = Brunei Darussalam Food Authority; BEDB = Brunei Economic Development Board; CCC = Climate Change Council ; CO2 = carbon dioxide; CREATES = Council for Research and Advancement in Technology and Science; CSPS = Centre for Strategic and Policy Studies; DARE = Darussalam Enterprise; DOE = Department of Energy; DOF = Department of Fisheries; JASTRE = Department of Environment, Parks and Recreation; MFE = Ministry of Finance and Economy; MOD = Ministry of Development; MPEC = Manpower Planning and Employment Council; MPRT = Ministry of Primary Resources and Tourism; MSMEs = micro, small, and medium-sized enterprises; MTIC = Ministry of Transport and Infocommunications; PMO = Prime Minister's Office; R&D = research and development, UBD = Universiti Brunei Darussalam, UTB = Universiti Teknologi Brunei.

Source: Author's research.

The first component is goals/objectives, which consist of industrial development, sustainability, and food security. Industrial development in the blue economy context would cover activities such as the capture industry and aquaculture as well as marine tourism. In the context of Brunei, these would have to be aligned with other strategic documents, particularly the Brunei Darussalam Economic Blueprint. The suggested key indicators include real and nominal gross value added, physical outputs, and the value and volume of exports.

The second objective is sustainability. This is multidimensional and in the blue economy framework would be mostly associated with ocean-based renewable energy, marine pollution, and maritime-based transport. Some of these areas are covered by the SDGs, particularly SDG14 (Life Below Water) and to a lesser extent SDG7 (Affordable and Clean Energy). The objective is also linked to the Brunei Darussalam National Climate Change Policy, especially its fourth strategy – increasing the country’s renewable energy to at least 30% of the total power generation mix. The climate change policy includes the decarbonisation of land transport via the promotion of electric vehicles, but no policy measures are in place in terms of maritime transport. Examples of the main indicators are the share of renewable energy in the total power generation mix, energy intensity, ocean plastic waste, and greenhouse gas emissions. The main goal of the climate change policy is to reduce greenhouse gas emissions by 50% by 2035.

The last objective is food security. Although this is an important national agenda, it is not explicitly mentioned in any of the strategic documents. However, it could supplement the Ministry of Primary Resources and Tourism’s strategic role in developing the fisheries sector. Although food security also includes other areas such as affordability and diversity of imports, the focus within the blue economy is towards self-sufficiency. Hence, the main indicator would be the self-sufficiency rate.

Recommended Strategies

The blue economy framework would comprise strategies/policy directions as well as the main champions and implementers. The strategies are divided into those that cut across different areas and those that are sector-specific. These were compiled after stocktaking the existing policies and analysing the gaps:²

² Based on studying official government documents and

1. Legislation: Several legal documents would have to be prepared to cover the new blue economy-related sectors and activities.
2. Foreign direct investment: Several foreign companies are investing in the fisheries sector in Brunei. Some of these companies have agreed to create joint ventures with government-linked companies and local businesses. However, more efforts are required, particularly in bringing in new renewable energy technologies and expertise.
3. Infrastructure development: The country’s physical assets need upgrading, particularly the industrial, tourism, and energy infrastructure. Due to austerity measures (Department of Economic Planning and Statistics, 2023), the government’s capital expenditures declined from around B\$1.5 billion in fiscal year (FY)2012/2013 to B\$0.2 billion in FY2021/2022. Despite various administrative changes, not much progress has been made in terms of public–private partnerships.
4. Fiscal reforms: The government does not have a medium-term fiscal framework, and the fiscal policy is mainly procyclical. For new industries to be developed, the Ministry of Finance and Economy must introduce tax and subsidy reforms, e.g. revising fuel subsidies as well as giving tax and subsidy incentives to support the blue economy.
5. Research and development (R&D): Brunei has one of the lowest gross expenditures on research and development (GERD), especially amongst high-income nations.³ Hence, more resources need to be directed to R&D.
6. Human capital development: The country is still lagging in some of its education and labour market indicators. Another issue is the weak linkages between education and industries.
7. Export facilitation: This has been a challenge for government authorities over the years, with limited success in penetrating foreign markets.
8. Developing new blue economy-related activities: The Brunei Darussalam Economic Blueprint mentioned the blue economy and stated that new economic drivers would be identified in the future. Hence, this strategy would be very relevant to several government authorities.

international reports, as well as interviews and discussions with senior government officials.

³ Brunei Darussalam was ranked 81st in the world according to the Global Innovation Index Report 2022 (Dutta et al., 2022).

9. Marketing and promotion: Apart from improving tourism facilities, marketing is essential for developing the sector.
10. Renewable energy: In the short term, ocean-based renewable energy will probably be in the form of off-shore wind farms. More R&D and foreign direct investment are needed to deploy more advanced technologies.
11. Marine pollution reduction: Brunei has one of the highest levels of waste generation per capita in ASEAN, and this has affected the country's marine environment. Hence, the strategy needs to be two-pronged and would involve a combination of policy and capital investment.
12. Decarbonisation of maritime transport: The focus would primarily be on incentivising the usage of low-carbon fuel.
13. Marine-based food value chain management: This would entail better end-to-end facilitation of the marine-based food sector, from the supply of raw materials to the distribution of processed products.
14. Food storage and safety: The country's food storage facilities need to be improved. In terms of safety, it is a matter of continuing the efforts made by the recently established Brunei Darussalam Food Authority.

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