

# Designing and Mapping the Blue Economy Company Index (BECdex) to the Sustainable Development Goals (SDGs) for Maritime Companies in the Coastal States

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**Abstract:-** This research aims to design a toolkit that helps governments in guiding and assessing maritime companies to implement blue economy principles for supporting the achievement of sustainable development goals (SDGs) in coastal states. Currently, there are 153 of 193 United Nations member states which are coastal. Coastal states are playing an important role in ocean economy development in the world while have been impacted by many environmental problems. The environmental, social, and economic aspects should be considered in blue economy business to reduce ecological scarcities and environmental risk, to improve food security, human well-being, quality jobs, poverty eradication, economic growth, also to ensure sustainable production and consumption. To support blue economy business in coastal states, a toolkit of the Blue Economy Company Index (BECdex) has been designed. BECdex would be able to assess and guide maritime companies to implement blue economy principles and achieve the relevant SDGs. Maritime companies are profit organizations that operating their business in blue economy sectors and taking place in the ocean and coastal areas. The methodology used in this research includes designing a structure of the index through selection, classification, and modification from the existing blue economy concepts to set the aspects, outcomes, principles, and indicators of BECdex and mapping the index to SDGs. Besides the index scoring formula had been created. BECdex can classify maritime companies into three categories of labeling, namely Excellent Blue Economy Company, Good Blue Economy Company, and Standard Blue Economy Company based on their implementation of BECdex indicators. The indexing will be conducted on a website. Finally, this toolkit is expected to be an innovative solution to encourage companies in blue economy sectors to

**voluntarily implementing the blue economy in supporting the achievement of SDGs in coastal states.**

**Keywords:-** Blue Economy Company Index; Coastal States; Maritime Company; Sustainable Business; Sustainable Development Goals.

## I. INTRODUCTION

The surface of the earth is covered more than two-thirds by seas and oceans. They play a significant role in economic growth, sustainable development, and livelihoods because they provide food, minerals, oxygen, control climate change by absorbing greenhouse gases, determine the weather, and serve as shipping and international trade routes [1].

The contribution of the world ocean-based economic sectors is approximately between USD 3-6 trillion annually with more than three billion people depend on marine and coastal resources for their livelihoods [2]. Despite their important role and support for the global economy, current patterns of marine and coastal development tend to be unsustainable for long-term growth [2].

A Coastal State is generally a state with a sea coastline [3]. Currently, there are 153 of 193 United Nations member states which are coastal. About 40 percent of the global population lives within 100 kilometers of the coast and more than 600 million people live in coastal areas that are less than 10 meters above sea level [4]. It is estimated that 70 percent of the world's population would reside within 200 kilometers of shoreline by 2025 [5].

Currently, some threats affecting pollution and imbalance marine ecosystems, such as marine debris, nutrient from land-based activities, oil spills, and climate change [4]. To manage and conserve marine resources and ecosystems sustainably for an economic growth, the blue economy with principles including waste minimization, resource efficiency, community involvement, and multiple revenues is needed [6].

If the blue economy is implemented and developed well and massive, job creation can be increased, social inclusion will be better, people's livelihood can be improved and various threats to the marine environment can be significantly reduced in the coastal states [7]. To strengthen the implementation of the blue economy in business to build a sustainable ocean economy that is globally competitive and to create synergy between government and private sectors, such a toolkit must be formulated.

The toolkit, which helps governments in guiding and assessing maritime companies to implement the blue economy principles for supporting the achievement of sustainable development goals, should also support the SDG targets so that the implementation of the toolkit can truly support the sustainable ocean economy development in the coastal states.

## II. LITERATURE REVIEW

### A. Blue Economy Definition

The term "Blue Economy" is widely used today. However, there are many different views of the blue economy definition. Based on the Law of the Republic of Indonesia No. 32 of 2014 on Marine Affairs, the blue economy is described as an approach to improve sustainable ocean management and conservation of marine and coastal resources and their ecosystems to attain economic growth with principles including resource efficiency, community involvement, waste reduction, and multiple revenues.

The blue economy is an applied ocean-based economic model using eco-friendly technologies and infrastructure, innovative financing procedure, and proactive institutional adjustment for not only protecting our oceans and coasts but also improving its potential contribution to sustainable development, including improving human well-being and reducing ecological scarcities and environmental risks [8].

The blue economy encompasses not only ocean-based industries such as shipping, fishing, offshore wind, and marine biotechnology but also the natural assets and ecosystem services that the ocean provides, for instance, fish, shipping lanes, and carbon dioxides absorption.

Blue economy generates long-term benefits of the sustainable maritime resources utilization for small island developing states and coastal least developed countries. The blue economy concept is expected to boost economic growth, to promote social inclusion, and to improve livelihoods while at the same time ensuring the sustainability of the marine environments [9].

A blue economy provides economic and social benefits while securing oceans long-term sustainability and health. In other words, a blue economy is a sustainable ocean economy. It requires policymaking based on data and science, inter-sectoral coordination, and multiple stakeholders participation in decision-making; investments in skills, institutions, infrastructure and services; also the better use of existing funding streams [10].

Blue economy aims to construct an enabling condition for people employed in fisheries and aquaculture sector by creating sustainability standards to measure, report and market sustainable production practices, these acts play also a key role in promoting SDGs [11].

Based on the above explanation, it is concluded that blue economy can be defined as the sustainable use of marine resources to reduce ecological scarcities and environmental risk, to improve food security, human well-being, quality jobs, poverty eradication, economic growth, also to ensure sustainable production and consumption that encompasses all stakeholders in maritime sectors.

### B. Blue Economy and Sustainable Development Goals

Blue Economy plays a vital role in Sustainable Development Goals (SDGs). It is helping the realization of SDGs. Blue economy has linkages with several SDGs, such as life below water; climate action; responsible consumption and production; good health and well being; affordable and clean energy; zero hunger; industry, innovation, and infrastructure; sustainable cities and communities; and partnerships of the goals [12].

Blue Economy is highly associated with SDGs 14–17 based on content and stakeholders involvement review on published papers [13]. SDG 14 Life Below Water is the highest goal of SDGs linked to the blue economy since the blue economy directly deals with ocean and water resources. However, SDG 6 Clean Water & Sanitation is not highly linked to the blue economy while SDG 15 Life on Land and SDG 12 Responsible Consumption & Production are highly associated with the blue economy. In addition, stakeholders also frequently involve in SDG 3 Good Health & Well-Being and SDG 8 Decent Work and Economic Growth in the blue economy context.

### C. Blue Economy Sectors

The Indian Ocean Rim Association (IORA) Secretariat has identified the six priority sectors in blue economy as were recommended by the Council of Ministers' meeting (COMM) and revised by the Secretariat in consultation with the Member States, namely fisheries and aquaculture; seaports and shipping, offshore hydrocarbons and seabed minerals; renewable ocean energy; tourism; and marine biotechnology research and development [14].

Meanwhile, in the East Asian Seas (EAS) region, partner countries in Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) identified nine key industries as the key for growing a blue economy including fisheries and aquaculture; marine biotechnology;

tourism, resorts and coastal development; ports, shipping, and marine transport; renewable energy; coastal manufacturing; oil and gas; seabed mining; and marine technology and environmental services [8].

In Indonesia, the Law on Marine Affairs classifies blue economy sectors into two categories, namely marine resources utilization and marine resources enterprise. Marine resources utilization consists of the fishery, mineral resources and energy, small islands and coastal resources, and non-conventional resources sectors. Marine resources enterprise includes ocean industry, marine tourism, sea transportation, and marine construction sectors [6].

*D. Defining Maritime Company*

The maritime company takes place in ocean and seas, and all the sectors that impacted by it. There are no obvious boundaries in classifying maritime companies. However, European Commission in 2018 reported that there were six established blue economy sectors and seven emerging sectors operated by companies and industries [15]. The established sectors include marine living resources; port activities; offshore oil and gas; maritime transport; shipbuilding and repair; and coastal tourism. The emerging sectors include blue biotechnology; marine renewable energy; deep-sea mining; coastal and environmental protection; desalination; defense and security; marine

research and education.

Based on the literature review, it is suggested that the definition of maritime companies are profit organizations that operating their business in blue economy sectors and taking place in the ocean and coastal areas.

*E. Coastal State Definition*

A Coastal State is generally defined as a state with a sea coastline [3]. Currently, there are 153 of 193 United Nations member states which are coastal. According to UNCLOS 1982, the sovereignty of a coastal State includes land territory, internal waters, in the case of an archipelagic State, namely archipelagic waters, and territorial sea. This sovereignty extends to the air space over the territorial sea as well as to its bed and subsoil [16].

**III. METHOD**

*A. Designing a Structure of the Index*

The index structure of BECdex is designed with the components of outcomes (Table 1), principles (Table 2), and indicators in environmental, social, and economic aspects that can be applied to all blue economy sectors which arranged by the selection, classification, and modification mechanism from the existing blue economy concepts.

TABLE 1 : DESIGNING THE OUTCOMES OF BLUE ECONOMY COMPANY INDEX

	<b>IORA Jakarta Declaration on Blue Economy in 2017 [17]</b>	<b>World Bank [10]</b>	<b>Blue Economy Project: Scoping Study by MAVA [18]</b>	<b>Indonesia Law No. 32 of 2014 on Marine Affairs</b>	<b>Blue Economy Company Index (BECdex)</b>
O u t c o m e s	Ocean’s Health	Ecosystem Protection	Reduced Ecological Scarcities		Reduced Ecological Scarcities
			Reduced Environmental Risk		Reduced Environmental Risk
		Social Welfare	Improved Human Well-Being		Improved Human Well-Being
	Job Creation	Improved Livelihood	Employment Generation		Quality Jobs
	Poverty Alleviation		Poverty Eradication		Poverty Eradication
	Food Security	Food Security			Food Security
	Economic Growth	Increased Growth	Economic Growth	Economic Growth	Economic Growth
	Trade and Investment	Current Account Deficit Reduction			
		Sustainable Consumption and Production		Sustainable Production and Consumption	

TABLE 2: DESIGNING THE PRINCIPLES OF BLUE ECONOMY COMPANY INDEX

	<b>Sustainable Blue Economy Principles by WWF [19]</b>	<b>Blue Economy Project: Scoping Study by MAVA [18]</b>	<b>Indonesia Law No. 32 of 2014 on Marine Affairs</b>	<b>Index of State of Sustainability Initiatives [11]</b>	<b>Blue Economy Company Index (BECdex)</b>
P r i n c i p l e	Restores protects and maintains the diversity productivity, resilience, core functions, and intrinsic value of marine ecosystems	Biodiversity Protection/ Restoration/ Enhancement		Biodiversity	Biodiversity Conservation
	Plan, manage, and effectively govern the use of marine space and resources, applying inclusive methods and ecosystem approach			Ecosystems	
	Based on clean technologies, renewable energy, and circular material flows	Reduced or No Waste	Waste Reduction	Waste and Water Management	Pollution Control
		Low Carbon			
	Maritime and land-based economies are interlinked and the threats facing marine environments originate on land	Environmentally Inspired		Greenhouse gas and Energy	Energy and Water Management
				Worker’s Health and Safety	Safe and Healthy Working Environment
	Inclusive	Social Inclusion	Community Involvement	Community Involvement	Social Inclusion
	Well-informed, precautionary, and adaptive				
	Holistic, cross-sectoral, and long-term				
	Actively cooperate, sharing information, knowledge, best practices, lessons learned, perspectives, and ideas, to realize a sustainable and prosperous future for all				
	Provides social and economic benefits for current and future generations	Social Equity		Human Rights	Social Equity
				Labor Rights	Labor Rights Protection
				Employment Conditions and Benefits	
				Minimum Wage	Wage Standards Fulfillment
Living Wage					
Premiums	Tax and Insurance Compliances				
Develop and apply standards, guidelines, and best practices			Written Contracts		
Accountable and transparent					
Based on clean technologies, renewable energy, and circular material flows	Circular Economy	Multiple Revenue		Competitive and Circular Economy	
Set clear, measurable, and internally consistent goals and targets	Competitiveness				
	Resource Efficiency & Sustainable Use	Resource Efficiency			

The designing process of Blue Economy Company Index (BECdex) indicators through selection, classification, and modification of 28 indicators of the environmental aspect, 28 indicators of the social aspects, and 5 indicators of the economic aspect from the State of Sustainability

Initiatives (SSI) project document on fisheries and marine aquaculture [11]. The process was also conducted toward 2 indicators of the domain of blue economy importance degree and 2 indicators of the domain of blue economy impact degree on the Blue Economy Development

Index (BEDI) document [20].

*B. Mapping the Index to Sustainable Development Goals*

The index is mapped to Sustainable Development Goals based on the linkages between index indicators and SDG targets. The mapping process is based on the identification of SDG targets that could be supported by the index indicators.

**IV. RESULT AND DISCUSSION**

*A. Structure of the Index*

The structure of BECdex consists of 3 aspects, 8 outcomes, 10 principles, and 50 indicators which are mapped to SDG targets as shown in Table 3.

The aspects include environmental, social, and economic. The environmental aspect comprising of biodiversity conservation, pollution control, also energy and water management principles. The social aspect comprises of safe and healthy working environment, social inclusion, social equity, and labor rights protection principles. The economic aspect consists of wage standards fulfillment, tax and insurance compliances, as well as competitive and circular economy principles. These principles are expected to

achieve 8 outcomes including food security, reduced ecological scarcities, reduced environmental risk, improved human well-being, quality jobs, poverty eradication, economic growth, and sustainable production and consumption.

*B. Scoring Formula of the Index*

The index scoring formula is created by entering the number of achieved index indicators of a company with rounding rules as follows:

$$Score = \frac{n}{N} \times 100$$

n = Number of achieved indicators of a company  
 N = The sum of indicators on the index (50 indicators)

Based on the index score, a company can be classified into three categories, namely Excellent Blue Economy Company, Good Blue Economy Company, and Standard Blue Economy Company. The minimum score to be achieved as a Blue Economy is 70 as shown in Table 4.

TABLE 3: THE BLUE ECONOMY COMPANY INDEX STRUCTURE

Aspect	Outcome	Principle	Indicator
Environmental	Food Security and Reduced Ecological Scarcities	Biodiversity Conservation	1. Conformity to Marine Spatial Plans
			2. Marine Ecosystem Restoration/Protection
			3. Prohibition of Destructive Practices
	Food Security and Reduced Environmental Risk	Pollution Control	4. Water-related Ecosystem Restoration/Protection
			5. Clean Water System
			6. Wastewater Management
			7. Waste Disposal
			8. Waste Management Plan
			9. Greenhouse Gas Accounting
			10. Greenhouse Gas Reduction
			11. Single-Use Plastic Reduction
			12. Water-use Management Plan
			13. Energy-use Management
			14. Energy-use Reduction
			15. Renewable and Clean Energy Utilization
Social	Improved Human Well-Being	Safe and Healthy Working Environment	16. Access to Education
			17. Access to Residence and Sanitary Amenities at Work
			18. Access to Safe Food and Drinking Water at Work
			19. Access to Medical Care and Insurance at Work
			20. Safety Working Conditions
		Social Inclusion	21. Healthy Working Conditions
			22. Community Consultation
			23. Local Hiring
			24. Local Culture and Product Promotion
			25. Access to Natural Resources

Aspect	Outcome	Principle	Indicator
		Social Equity	26. Freedom of Association
			27. Non-Discrimination
			28. Collective Bargaining
			29. Women’s Labor Rights
			30. Youth Employment
			31. Employment of Persons with Disabilities
	Quality Jobs	Labor Rights Protection	32. No Forced Labor
			33. Minimum Age and No Child Labor
			34. Equal Remuneration
			35. Seasonal and Part-time Workers Employment
			36. Fair Contract for Employees
			37. On Time Payment of Wages
			38. Legal Working Hours
			39. Paid Pregnancy, Parental, and Sick Leave
Economic	Poverty Eradication	Wage Standards Fulfillment	40. Retirement Benefits
	Economic Growth	Tax and Insurance Compliances	41. Minimum Wage
			42. Living Wage
	Sustainable Production and Consumption	Competitive and Circular Economy	43. Premiums
			44. Tax Compliance
			45. Retribution Payment
			46. Agreement with Traders/Customers
			47. Product Recycling and Reuse
			48. Innovation and Technological Intervention
			49. Local Micro-, Small- and Medium-Sized Enterprises Development
		50. Digital Transformation	

TABLE 4: CLASSIFICATION OF BLUE ECONOMY COMPANY CATEGORIES

Category	Score
Excellent Blue Economy Company	90 – 100
Good Blue Economy Company	80 – 88
Standard Blue Economy Company	70 – 78
Not a Blue Economy Company	0 – 68

A company should also meet 70 percent of BECdex indicators in each aspect to be classified as a Blue Economy Company. In detail, at least 11 of 15 indicators of the environmental aspect, 18 of 25 indicators of the social aspect, and 7 of 10 indicators of the economic aspect.

*C. Mapped Index Indicators to Sustainable Development Goals*

The index structure has not only been designed but also has been successfully mapped to sustainable development goals (SDGs) as shown in Table 5. There are 17 goals and 49 targets would be supported by the BECdex indicators.

The SDG 8 is the goal that has the most targets that can be supported to be achieved through the implementation of BECdex followed by SDG 6, SDG 14, and SDG 15.

TABLE 5: MAPPED INDEX INDICATORS TO SUSTAINABLE DEVELOPMENT GOALS

Aspect	Indicator	SDG Target
Environmental	1. Conformity to Marine Spatial Plans	14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans
	2. Marine Ecosystem Restoration/Protection	14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information
		14.C Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of The Future We Want
		15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species
		15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species
	3. Prohibition of Destructive Practices	15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts
		15.A Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems
	4. Water-related Ecosystem Restoration/Protection	14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics
	5. Clean Water System	15.7 Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products
	6. Wastewater Management	6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers, and lakes
	7. Waste Disposal	6.3 By 2030, improve water quality by reducing pollution, eliminating dumping, and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
	8. Waste Management Plan	12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse
	9. Single-Use Plastic Reduction	14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution
	10. Greenhouse Gas Accounting	13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
	11. Greenhouse Gas Reduction	13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities		
12. Water-use Management Plan	6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water, scarcity and substantially reduce the number of people suffering from water scarcity	
	6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate	
13. Energy-use Management	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix	
	7.3 By 2030, double the global rate of improvement in energy efficiency	
14. Energy-use Reduction	7.B By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support	
15. Renewable and Clean Energy Utilization		

Social	16. Access to Education	4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs, and entrepreneurship
	17. Access to Residence and Sanitary Amenities at Work	6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations 11.1 By 2030, ensure access for all to adequate, safe, and affordable housing and basic services and upgrade slums
	18. Access to Safe Food and Drinking Water at Work	2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round. 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all
	19. Access to Medical Care and Insurance at Work	3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality, and affordable essential medicines and vaccines for all.
	20. Safety Working Conditions	8.8 Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular, women migrants, and those in precarious employment
	21. Healthy Working Conditions	
	22. Community Consultation	16.7 Ensure responsive, inclusive, participatory, and representative decision-making at all levels
	23. Local Hiring	10.2 By 2030, empower and promote the social, economic, and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion, or economic or other status
	24. Local Culture and Product Promotion	8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products
	25. Access to Natural Resources	1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance
	26. Freedom of Association	16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements
	27. Non-Discrimination	10.2 By 2030, empower and promote the social, economic, and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status
	28. Collective Bargaining	16.7 Ensure responsive, inclusive, participatory, and representative decision-making at all levels
	29. Women's Labor Rights	5.A Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance, and natural resources, in accordance with national laws
	30. Youth Employment	8.6 By 2020, substantially reduce the proportion of youth not in employment, education, or training
	31. Employment of Persons with Disabilities	8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
	32. No Forced Labor	8.7 Take immediate and effective measures to eradicate forced labor, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labor, including recruitment and use of child soldiers, and by 2025 end child labor in all its forms
	33. Minimum Age and No Child Labor	
	34. Equal Remuneration	8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
	35. Seasonal and Part-time Workers Employment	
36. Fair Contract for Employees	16.6 Develop effective, accountable, and transparent institutions at all levels	
37. On Time Payment of Wages	8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value	
38. Legal Working Hours		
39. Paid Pregnancy, Parental, and Sick Leave		
40. Retirement Benefits	1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable	



Economic	41. Minimum Wage	1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions 10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average
	42. Living Wage	1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day
	43. Premiums	8.8 Protect labor rights and promote safe and secure working environments for all workers, may including migrant workers, in particular women migrants, and those in precarious employment
	44. Tax Compliance	8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries
	45. Retribution Payment	
	46. Agreement with Traders/Costumers	16.6 Develop effective, accountable and transparent institutions at all levels
	47. Product Recycling and Reuse	12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse
	48. Innovation and Technological Intervention	9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending 12.A Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production 8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high value added and labor-intensive sectors
	49. Local Micro-, Small- and Medium-Sized Enterprises Development	8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services
50. Digital Transformation	9.C Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020 17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology	

**V. CONCLUSION**

The Coastal States are playing an essential role in ocean economy development in the world while have been impacted by many environmental problems. Blue Economy as the sustainable use of marine resources that encompasses all stakeholders in maritime sectors can be a solution to reduce ecological scarcities and environmental risk, to improve food security, human well-being, quality jobs, poverty eradication, economic growth, also to ensure sustainable production and consumption.

Blue Economy Company Index (BECdex) has been designed as a toolkit that helps governments in guiding and assessing maritime companies to implement the blue economy on their business for supporting the achievement of SDGs.

BECdex consists of 3 aspects, 10 principles, 50 indicators, and 8 outcomes which are mapped to SDG targets. The aspects include social, economic, and environmental. The principles comprising biodiversity conservation, pollution control, energy and water management, safe and healthy working environment, social inclusion, social equity, labor rights protection, wage standards fulfillment, tax and insurance compliances, as well as the competitive and

circular economy.

There are 17 goals and 49 targets would be supported by the BECdex indicators. The SDG 8 Decent Work and Economic Growth is the goal that has the most targets that can be supported to be achieved through the implementation of BECdex followed by SDG 6 Clean Water & Sanitation, SDG 14 Life Below Water and SDG 15 Life on Land.

The practice of BECdex will provide some advantages for governments, companies, societies, and environment. Governments will be assisted to guide and asses blue economy implementation by maritime companies in their business also assisted to accelerate the achievement of SDG targets in their respective coastal states, especially economic growth. Companies will get an appreciation and recognition of their efforts to implement blue economy principles to support sustainable development and can brand themselves as ocean-friendly companies with the label of Blue Economy Company. Societies will have the increased decent work, improved prosperity, social equity, and social inclusion. Oceans, seas, and coasts will be healthier. To ease and accelerate maritime companies join the BECdex practice, the indexing will be conducted on a website.

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