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MSPglobal 2.0 National Training in Ghana

Accra, 29 and 30 January 2024



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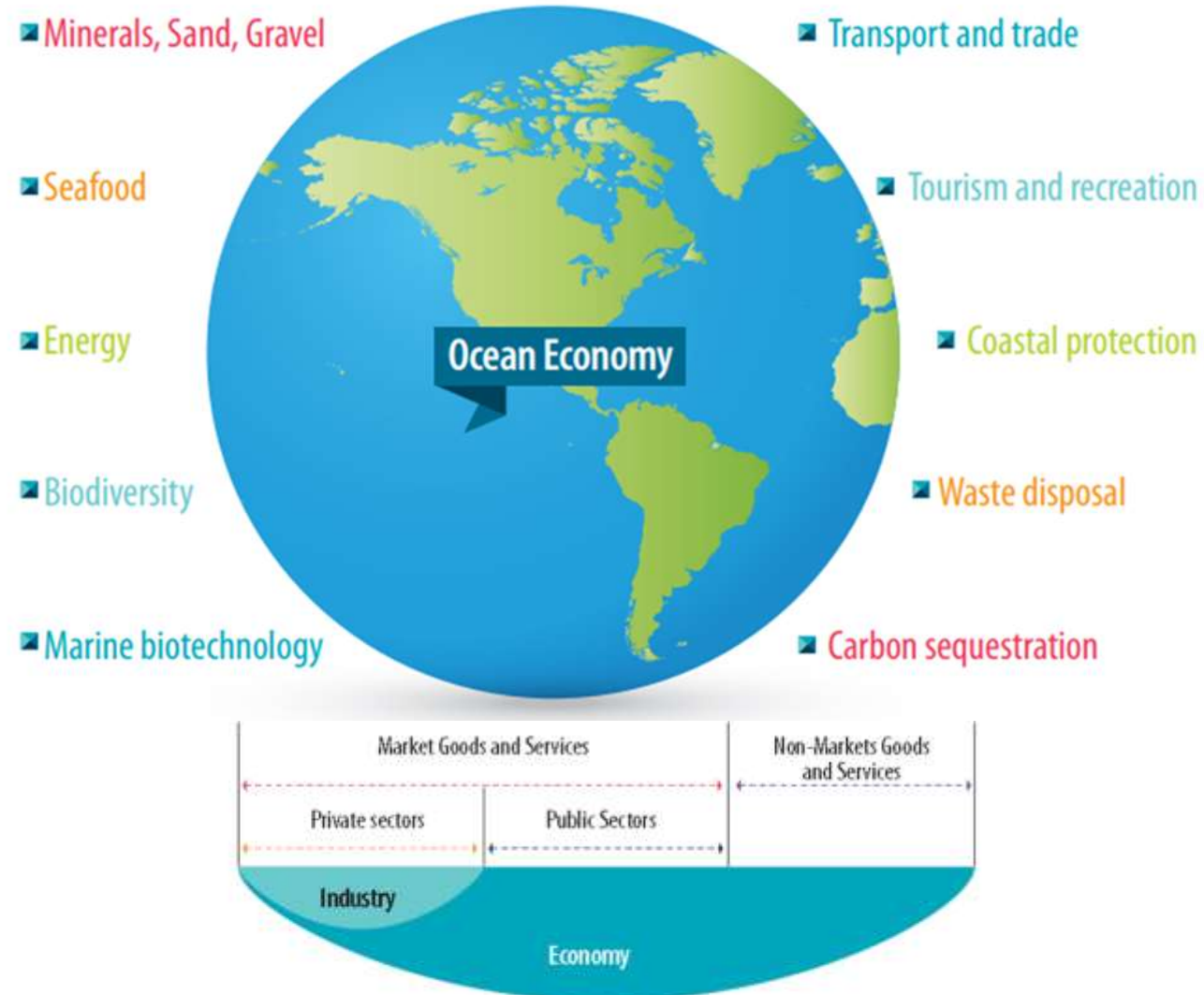
6. MSP & Sustainable Blue Economy

Joseph Kofi Ansong, IOC-UNESCO



Ocean Economy

Ocean Economy



BUT ocean resources are limited!!

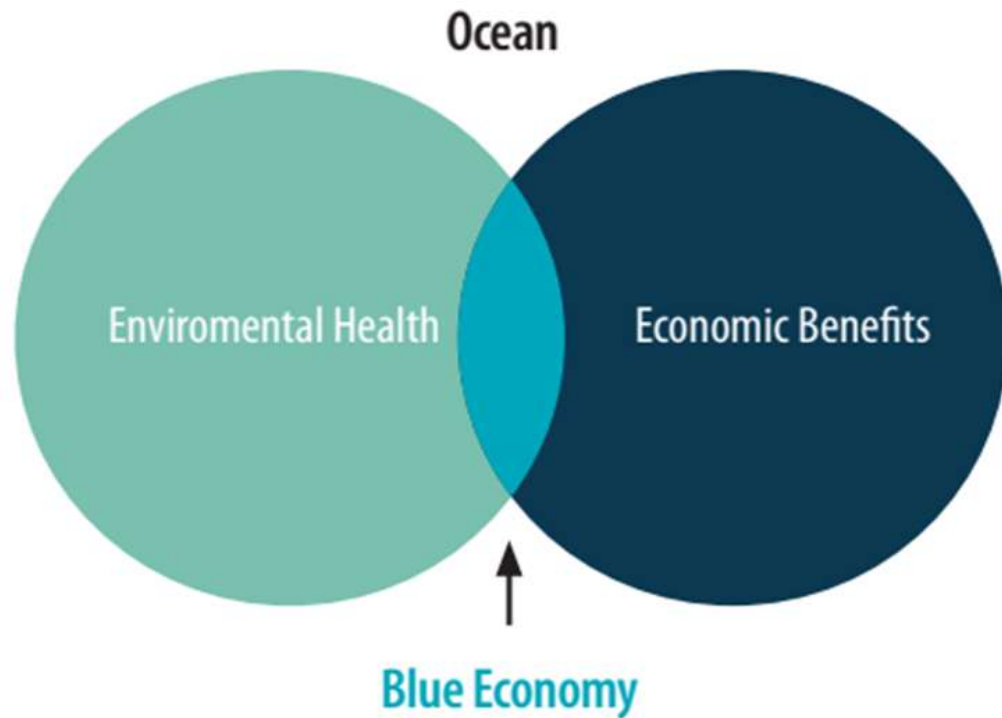




Blue Economy



Blue Economy



“With the **simultaneous growth** of the **ocean economy** and the **current rate of change to the ocean’s ecological systems**, the concept emerging worldwide over the last decade for a ‘green economy’ and ‘green growth’ has become a more widely used lens for viewing the risks and opportunities in the ocean.”

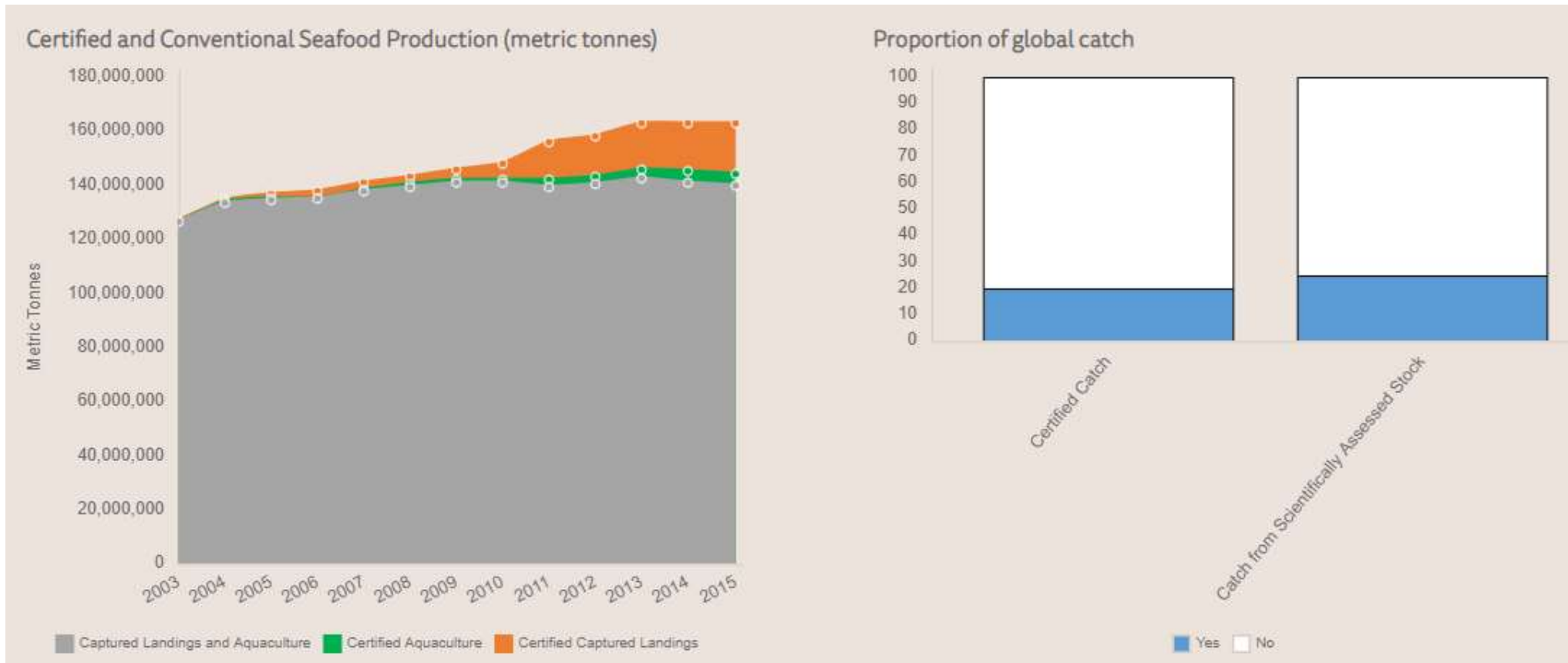
Source: The World Bank, 2016

“A sustainable ocean economy emerges when **economic activity is in balance with the long-term capacity of ocean ecosystems** to support this activity and remain resilient and healthy. Essentially, the blue economy concept is a lens by which to view and develop policy agendas that simultaneously enhance ocean health and economic growth, in a manner consistent with principles of **social equity and inclusion**.”

Ocean Economy vs. Blue Economy



Certified vs. Conventional Catch/Seafood Production





Benefits

- **Healthier Ocean**
- **Employment**
- **Human capacity development**
- **Innovation**
- **Sectoral diversity**

Drivers of Growth



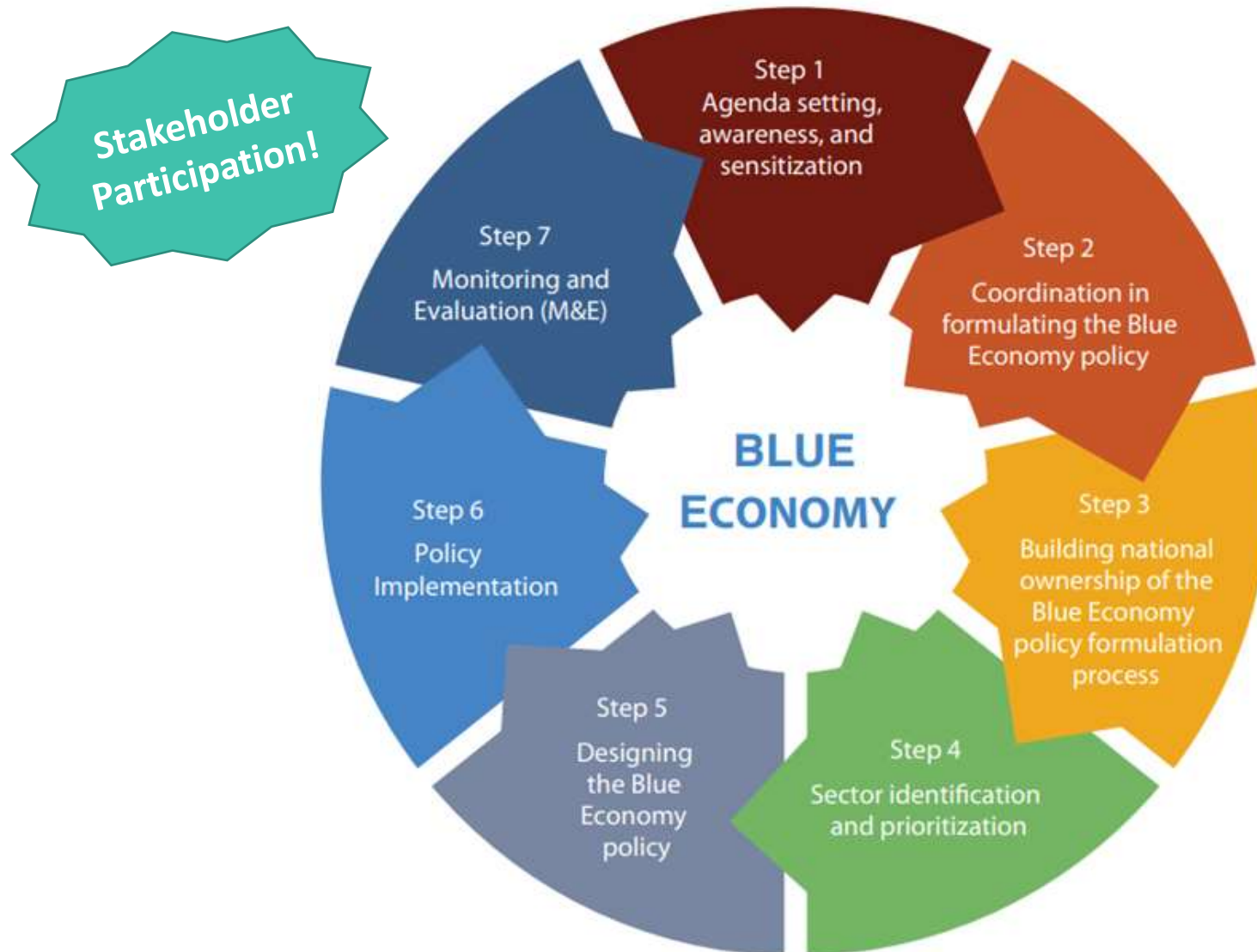
Activity	Subcategories (Related Sectors)	Drivers of Growth
Harvesting and trade of marine living resources	Seafood harvesting (Fisheries; Trade of seafood products; Aquaculture)	Demand for food and nutrition, especially protein
	Use of marine living resources for pharmaceutical products and chemical applications (Marine biotechnology and bioprospecting)	R&D and usage for health care, cosmetic , enzyme, nutraceutical, and other industries
Extraction and use of marine nonliving resources (non-renewable)	Extraction of minerals (Seabed mining)	Demand for minerals
	Extraction of energy sources (Oil and gas)	Demand for energy sources
	Freshwater generation (Desalination)	Demand for freshwater
Use of renewable non-exhaustible natural forces	Generation of off-shore renewable energy (wind, wave, and tidal energy)	Demand for alternative energy sources

Drivers of Growth



Activity	Subcategories	Drivers of Growth
Commerce and trade in and around the oceans	Transport and trade (Shipping and shipbuilding; Maritime transport; Ports and related services)	Growth in seaborne trade ; transport demand; international regulations; maritime transport industries
	Coastal development (National planning ministries and departments; private sector)	Coastal urbanization ; national regulations
	Tourism and recreation (National tourism authorities; private sector; other relevant sectors)	Global growth of tourism
Indirect contribution to economic activities and environments	Carbon sequestration (Blue carbon)	Climate mitigation
	Coastal Protection (Habitat protection; restoration)	Resilient growth
	Waste disposal for land-based industry (Assimilation of nutrients; solid waste)	Wastewater Management
	Existence of biodiversity (Protection of species; habitats)	Conservation

Towards a Blue Economy Policy



Challenges to delivering a blue economy



Threats to ecosystem services

- Pollution
- Marine litter
- Climate change
- Eutrophication
- Habitat destruction
- Overexploitation of living resources
- Invasive species

Governance issues

- Lack of resources
- Lack of governance integration
- Lack of sectoral collaboration
- Lack of transboundary collaboration

Sectoral issues

- **Fisheries:** overexploitation of resources and illegal, unreported and unregulated (IUU) fishing
- **Offshore renewable energy:** environmental impacts, spatial use conflicts and social acceptance
- **Seabed mining:** environmental impacts and spatial use conflicts
- **Tourism:** environmental and social impacts of mass tourism and non-regulated recreational activities
- **Maritime transport:** environmental impacts such as air pollution, releases of ballast water containing aquatic invasive species, historical use of antifouling agents, oil and chemical spills, underwater noise pollution and collisions with marine megafauna

Source: UNESCO-IOC, 2021b.

Source: : UNESCO-IOC/European Commission, 2021

Factors promoting a blue economy



Actions



- 1) Value the contribution of marine natural capital to welfare
- 2) Use of the **best available knowledge** to shape long-term decision making
- 3) **Weigh the relative importance of each sector of the blue economy** and decide which ones to **prioritise** based on accurate valuation of its national capital, natural, human and productive
- 4) Anticipating and adapting to the impacts of **climate change**
- 5) Target **financial instruments** for Blue Economy
- 6) Effective implementation of **UNCLOS**
- 7) Effective inclusion and active **participation** of all societal groups
- 8) Establish **partnerships to enhance capacity building**

9) *Develop MSP plans*

Blue Economy & SDG14



SDG 14 Target	Blue Economy Sector or Activity
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	- Sustainable Fisheries (reduce pollution from fishing vessels, such as discarded fishing gear) - Aquaculture (mollusks can remove nutrients) - Sustainable ports - Waste disposal management
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	- All (effective management)
14.3 Minimize and address the impacts of ocean acidification , including through enhanced scientific cooperation at all levels	- Renewable energy - Clean shipping - Blue Carbon

Blue Economy & SDG14



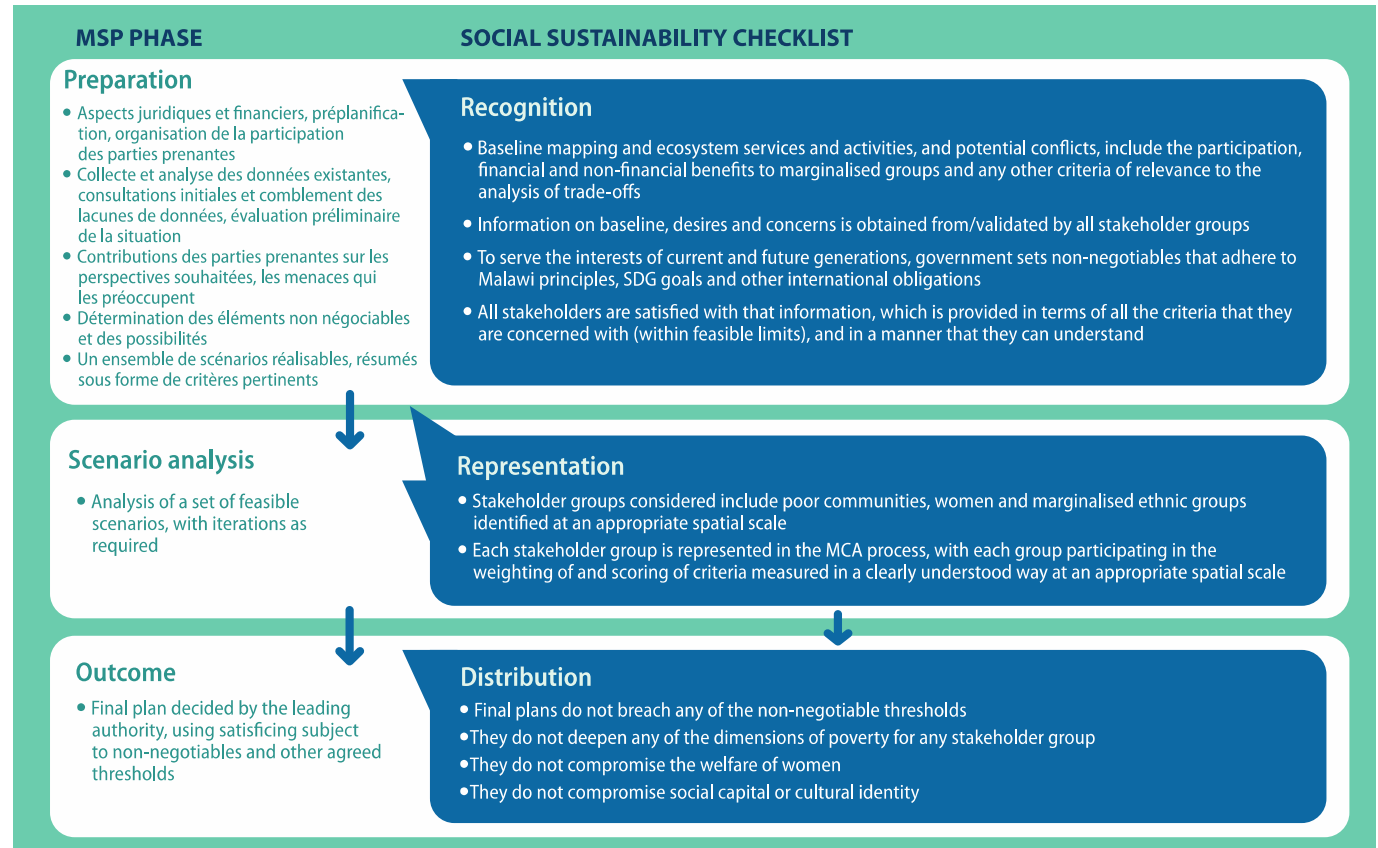
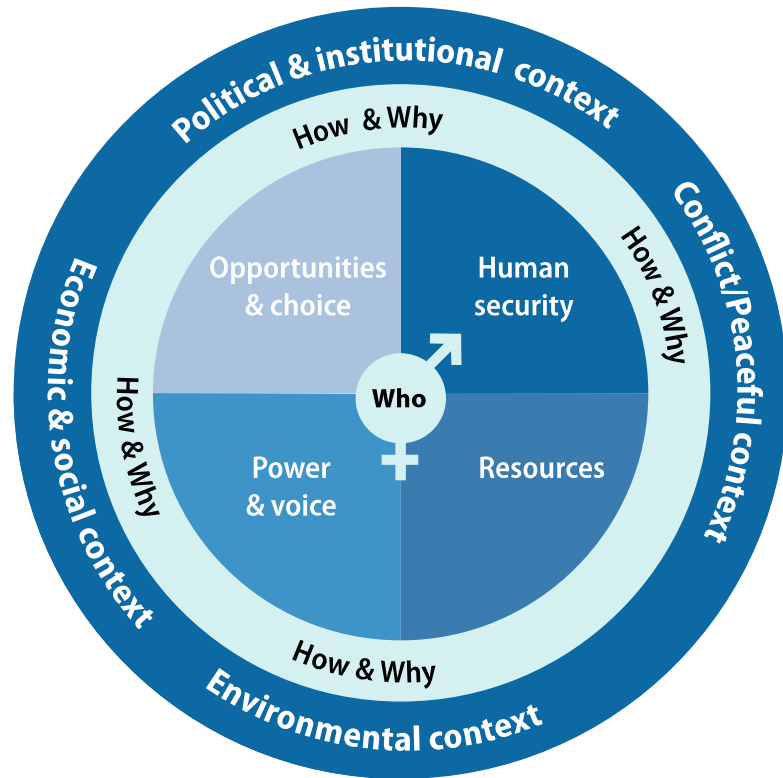
SDG 14 Target	Blue Economy Sector or Activity
14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics	- Sustainable Fisheries
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	- Sustainable tourism (can provide financing for MPAs)
14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing , eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation	- Sustainable Fisheries

Blue Economy & SDG14



SDG 14 Target	Blue Economy Sector or Activity
14.7 By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism	- Sustainable Fisheries - Sustainable Aquaculture - Sustainable Tourism
14.A Increase scientific knowledge, develop research capacity and transfer marine technology , taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries	- Bioprospecting and Biotechnology (Capacity building and technology transfer to developing countries)
14.B Provide access for small-scale artisanal fishers to marine resources and markets	- Sustainable Fisheries

Poverty and gender considerations in Blue Economy and MSP



Social justice considerations in Blue Economy and MSP

Social inclusion needs to be seen as an inherent part of MSP to contribute to the implementation of the SDGs in marine and coastal areas. The key elements of social justice are:

- **Recognition:** The acknowledgement of and respect for pre-existing governance arrangements and history, as well as the distinct rights and diversity of needs, worldviews, livelihoods, lifestyles and knowledge.
- **Representation:** The level of participation and inclusiveness of decision-making; timing and quality of inclusion into decision-making.
- **Distribution:** Fairness in the distribution of benefits, risk and harms of decisions, as well as access to resources, with a particular emphasis on vulnerable groups.





Examples



Example: Africa

- *African Union's 2050 Africa's Integrated Maritime Strategy*



VISION

*“The overarching vision of the 2050 AIM Strategy is to foster increased **wealth creation** from Africa’s oceans and seas by developing a sustainable thriving **blue economy** in a **secure** and **environmentally sustainable** manner.”*

Africa Blue Economy Strategy - ABES (2019)



The thematic areas of the ABES include:

1. *Fisheries, aquaculture, conservation and sustainable aquatic ecosystems*
2. *Shipping/transportation, trade, ports, maritime security, safety and enforcement*
3. *Coastal and maritime tourism, climate change, resilience, environment, infrastructure*
4. *Sustainable energy and mineral resources and innovative industries*
5. *Policies, institutional and governance, employment, job creation and poverty eradication, innovative financing*



Africa Blue Economy Strategy

Example: Africa



Africa is developing fast and Blue Economy can support and sustain its rapid and sustainable development.

Key objectives:

- 1) Exploring individual and collective leadership challenges
- 2) Encouraging multisectoral collaboration toward joint transformation action
- 3) Producing prototypes of transformative actions
- 4) Stimulating a network of change agents

Example: South Africa



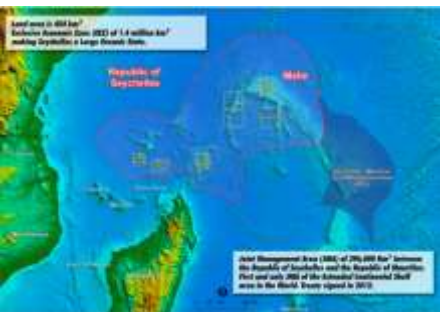
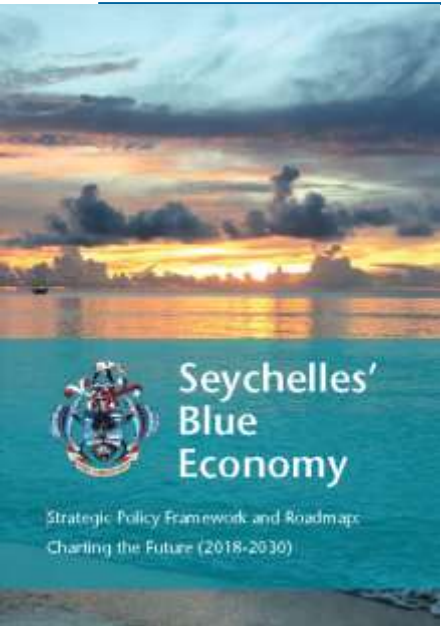
Under the National Development Plan, there is the programme **Operation Phakisa** (means “hurry up” in Sesotho) to fast track the implementation of solutions for priority programmes.

Ocean Economy is one of these programmes and focuses on:

- Marine Transport and Manufacturing
- Offshore Oil and Gas Exploration
- Aquaculture
- Marine Protection Services and Ocean Governance
- Small Harbours work stream
- Coastal and Marine Tourism

It is supported by a **maritime skills development plan**.

Example: Seychelles



Vision: *“To develop a blue economy as a means of realizing the **nation’s development potential** through **innovation, knowledge-led approach**, being mindful of the **need to conserve** the integrity of the Seychelles marine environment and heritage for **present and future generations**”*

Key pillars:

- **Economic diversification & resilience** - to reduce economic vulnerability and reliance on a small number of sectors and to increase the % GDP derived from marine sectors
- **Shared prosperity** – Creation of high value jobs and local investment opportunities
- **Food security and well-being**
- **Integrity of habitats and ecosystem services**, sustainable use, and climate resilience

Example: Seychelles

Principles

- ✓ Economic efficiency
- ✓ Sustainability
- ✓ Social equity
- ✓ Good governance
- ✓ Resilience
- ✓ Research and innovation
- ✓ Partnerships

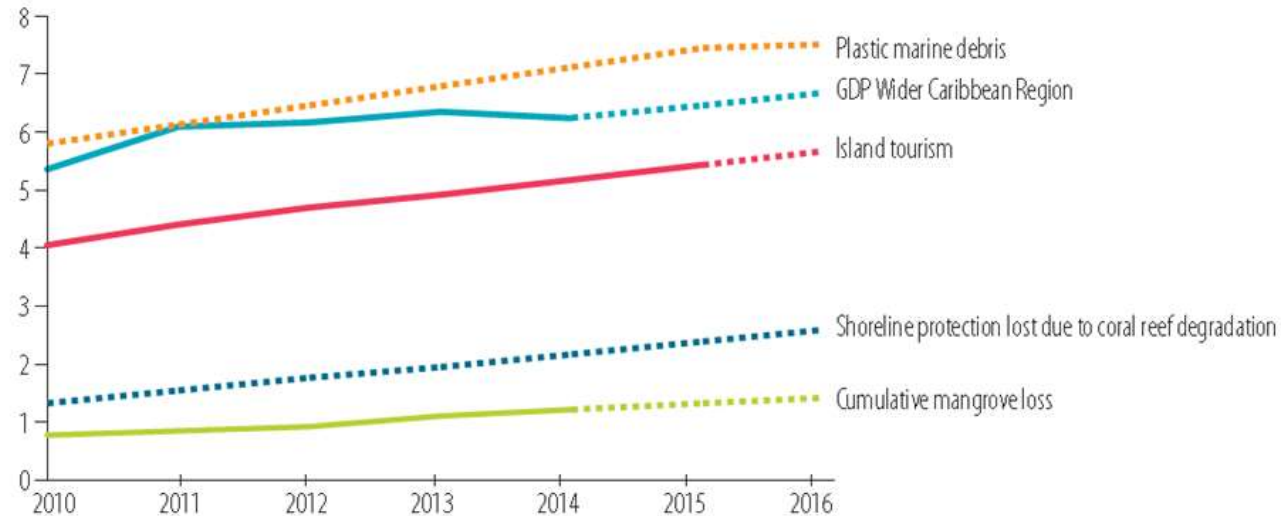


Example: The Caribbean

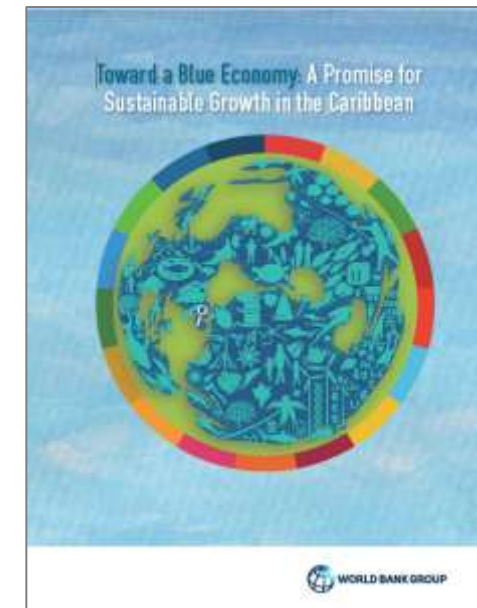
OECD described three future scenarios to 2030:

- Unsustainable growth in the region's ocean economy
- Business-as-usual growth (and decline in the natural capital)
- Transition to a blue economy

Figure 3.3. Decoupling Economic Growth and Degradation of the Caribbean Sea

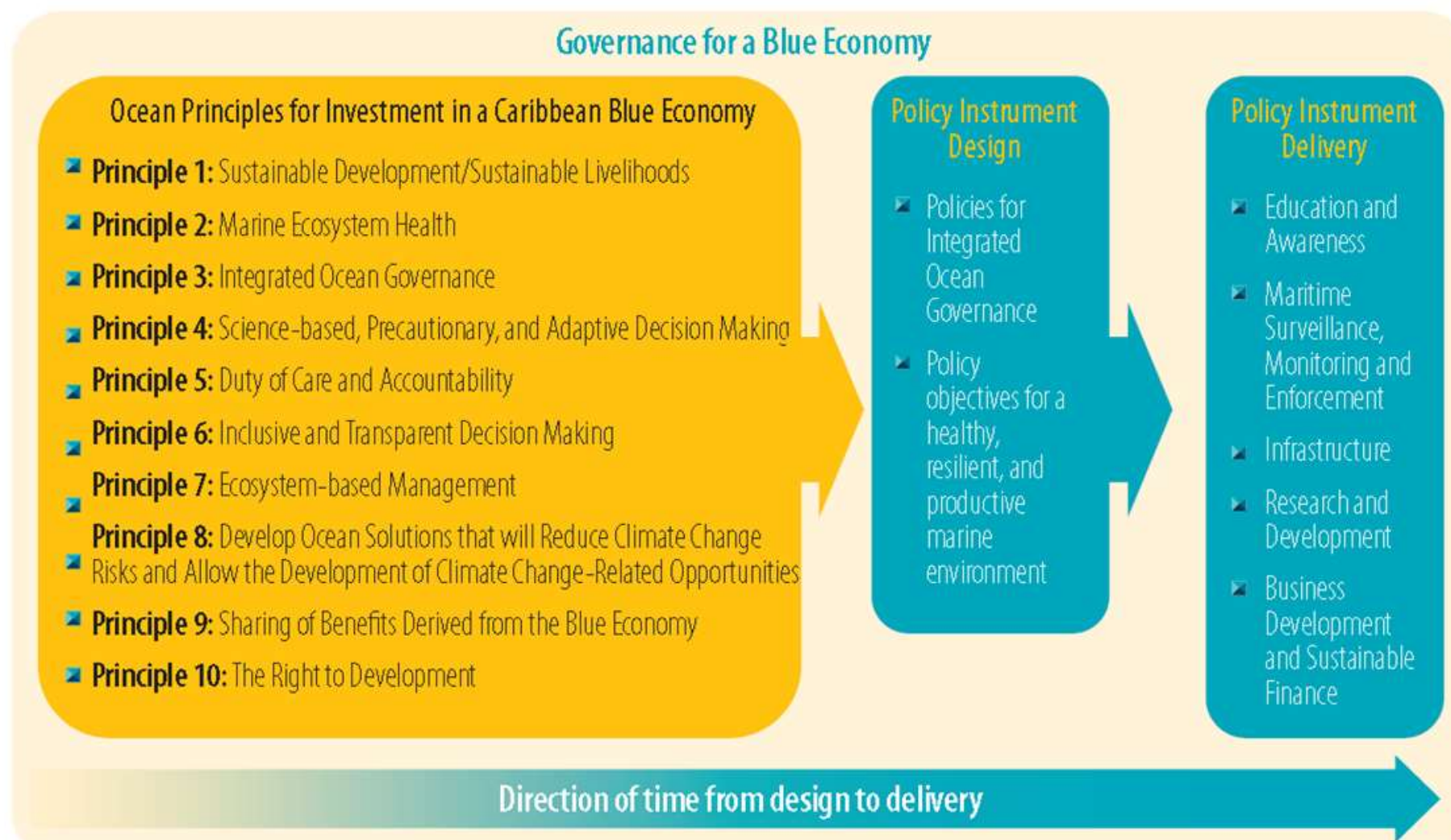


Source for GDP growth: (World Bank 2016); projected growth based on 2005–2014 period; Plastic marine debris projections based on Jambeck et al. (2015); past and projected Island Tourism (WTTC 2015); trend in shoreline loss due to reef degradation (Burke et al. 2004) and cumulative mangrove loss (Hamilton and Casey 2016). Units for the data were adjusted so that all of the line graphs would be between 0 and 10 in the period.
Note: Plastic marine debris is measured in units of 100,000 tons; GDP is measured in trillions of current U.S. dollar; Island tourism is measured in 10s of billions of U.S. dollars; Shoreline protection is shown as an index; Cumulative mangrove loss is measured in 100 square kilometers;



Example: The Caribbean

Figure 4.2. Summary of Potential Policy Framework for a Caribbean Blue Economy



Example: Indonesia

NATIONAL STRATEGIC INTEREST OF THE REPUBLIC OF INDONESIA



**National
sovereignty,
defence and
security**

Outermost islands
Marine border areas
etc.



**Economic
growth**

Free trade zones
Mega cities
Urban areas
etc.



**Natural
resources/
high
technology**

National fish stocks
Renewable energy
etc.



**Environmental
functions**

Conservation areas
Marine biota migration
Spawning grounds
Sensitive areas
etc.

Important and strategic values

SPATIAL STRUCTURE PLAN

Multisectoral approaches for economic growth
and network system of marine infrastructures

Marine growth centre



Marine and fisheries growth center



Center of marine industry

Network system of marine infrastructures



Sea port system (including fishing port)

SPATIAL PATTERN PLAN

Distribution of spatial allocation of marine areas
(based on important and strategic values)

Public utilisation (zones)



Tourism



Sea ports and
fishing ports



Energy



Defence & security

Conservation



Coastal and small
islands conservation
areas



Maritime
conservation areas



Marine conservation
areas

Sea lanes



Shipping lanes



Submarine
pipes/cables



Marine biota
migration routes

Direction for provincial MSP

Main activities that
should be detailed
in provincial MSP

SPATIAL UTILISATION DIRECTIONS

Main programme
indications

Priority
programmes

CONTROL OVER SPATIAL UTILISATION

Zoning
regulations

Permit
system

Example: Central America



The Organization of the Fisheries and Aquaculture Sector of the Central American Isthmus (OSPESCA) have developed the 'Regional Strategy for Blue Growth' in the Central American Integration System (SICA). The SICA Council of Ministers for Fisheries and Aquaculture activities approved this strategy and committed to the sustainable development of the maritime sectors according to objectives to become green, competitive, innovative and inclusive. The strategy was developed based on four pillars:

1. Knowledge-based smart blue region
2. Growth supported by integrated governance mechanisms
3. Investment in the development of a new, competitive and innovative blue economy
4. Growth promoted from equal opportunities.



Example: Tunisia



The Tunisian Maritime Cluster, which was created on 25 October 2019 by the President of Tunisia. It seeks to bring together all the players in the maritime ecosystem, including industry, services and maritime activities (public and private sectors):

- aquaculture,
- renewable energy,
- scientific research,
- marine biotechnologies,
- fisheries,
- maritime safety,
- oil and gas and among others.



Source : UNESCO-IOC/European Commission, 2021

The initiative has led to other **regional clusters** such as the Maghrebini Maritime Cluster. To promote **synergies** between the **cluster and the MSP process**, several members of the cluster are involved in the development and implementation of the **MSP and the ICZM strategy**.

Example: European Union



The new approach for a sustainable blue economy in the EU communication: Transforming the EU's Blue Economy for a Sustainable Future (COM/2021/240) seeks to merge environmental protection with economic goals to deliver a sustainable blue economy. MSP is identified as a priority to achieve this goal.



Transformation areas:

- I. climate neutrality and zero pollution,
- II. circular economy and waste prevention,
- III. biodiversity and investment in nature,
- IV. climate adaptation and coastal resilience,
- V. Responsible food systems

Example: The Ocean Panel (TOP)

The main goal of TOP is to bring about **transformation** in achieving a sustainable ocean economy.

The TOP have defined **5 key areas for transformation**: Ocean Wealth, Ocean Health, Ocean Finance, Ocean Equity and Ocean Knowledge.

These key areas for transformation can inform actions for the blue economy. Each of TOP countries have therefore committed to **sustainably managing 100% of their national waters by 2025** through sustainable ocean plans



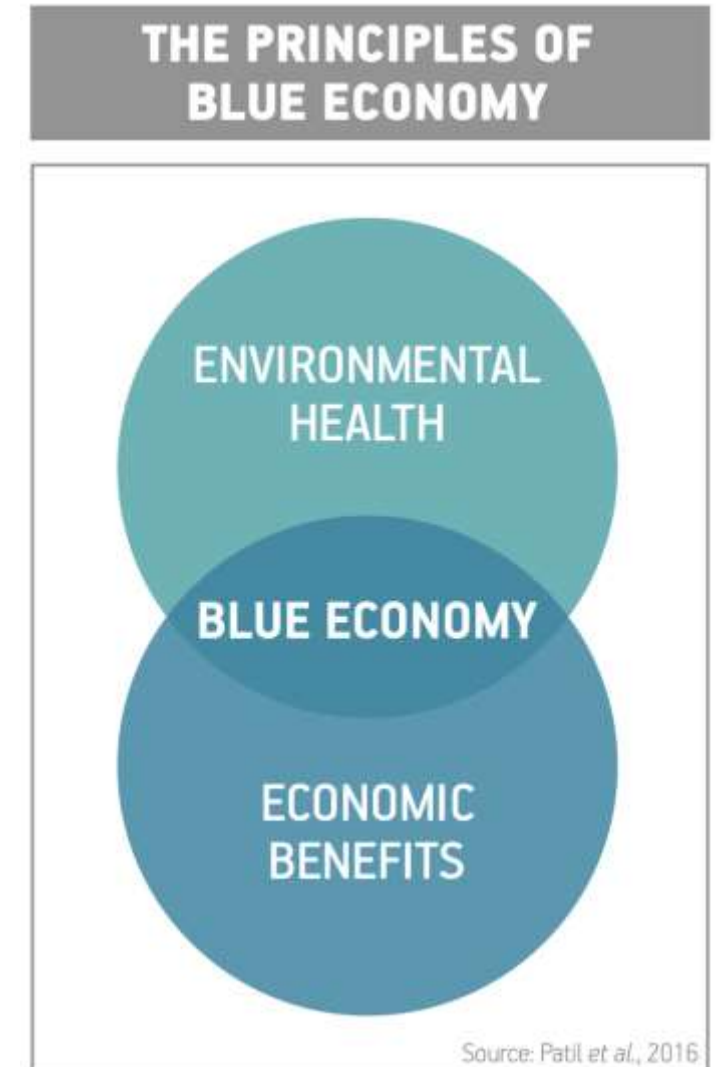


Blue Economy, MSP and sectors

Synergies between Blue Economy and MSP

The MSP process is a key mechanism to **implement BE vision and objectives** through **defining the location of human activities** via iterative stages of pre-planning, assessment, planning, stakeholder engagement implementation, monitoring and evaluation.

MSP allows the adoption of **Ecosystem-Based Management (EBM) approach** which supports the implementation, monitoring and evaluation of management by developing indicators for ecological, economic and social objectives



Types of established and emerging maritime uses

Uses	Mobile	Fixed	Others
Established	• Coastal and maritime tourism and recreation • Fisheries • Shipping	• Coastal aquaculture • Marine Protected Areas (MPAs) • Oil and gas • Pipelines and cables • Ports • Sand and gravel mining	• Coastal communities • Military defence and security • Maritime and underwater cultural heritage • Scientific research
Emerging	• Dynamic marine protected areas (DMPAs)	• Carbon sequestration through carbon capture and storage • Deep sea mining • Desalination plants • Offshore aquaculture • Offshore renewable energy (wind, tidal, solar and wave energy) • Other effective area-based conservation measures (OECMs)	• Marine bioprospecting

Sector needs and challenges related to MSP



Ocean multi-use and types

Ocean multi-use is the intentional joint use of the same ocean space and/or of resources in close geographic proximity by two or more activities in at least one of the following four dimensions: spatial, temporal, provisioning and functional.

Recommendations for	Type 1 Multi-purpose/ multi-functional	Type 2 Symbiotic use	Type 3 Co-existence/ Co-location	Type 4 Subsequent use/ repurposing
Policy (macro-regions/nations/ regions)	Provide financial incentives and sureties for development of new technologies and combinations	Mainstream and include multi-use concept on all relevant policy levels	Clarify rights and responsibilities of different users to ocean space	Adopt clear legal frameworks and clarify liability rules (between current and future platform users), allowing for better management of expectations and predictability
Regulation (nations/regions)	Develop and deploy joint licensing procedures for multi-use development throughout entire life cycles	Identify and apply site selection criteria to establish viable multi-use sites in managed waters	Ensure that effective cooperation and mediation mechanism are in place between representatives of all sectors (i.e. working groups)	Develop general suitability criteria as to which sites and types of installations are suitable, for which type of reuse
Research (academia/industry)	Identify and address gaps in current knowledge about safety, benefits and drawbacks and create decision support systems	Identify operational overlaps allowing for the sharing of cost for supporting services and infrastructure	Gather and communicate data about compatibility of uses	Carry on time series research about long-term local impacts of maritime infrastructure and installations to ecosystems
Industry (corporations/ associations)	Develop pilot sites to showcase and advance new technology in the field	Formulate exemplary benefit and cost sharing agreements between involved actors	Facilitate industry wide capacity building regarding opportunities and operations	Suggest suitable investment mechanisms to facilitate re-use of installations after initial lifespan

Source: Schupp et al., 2019.

Source: : UNESCO-IOC/European Commission, 2021

Example: Denmark



Geographical location of Horn Rev 1 and 2

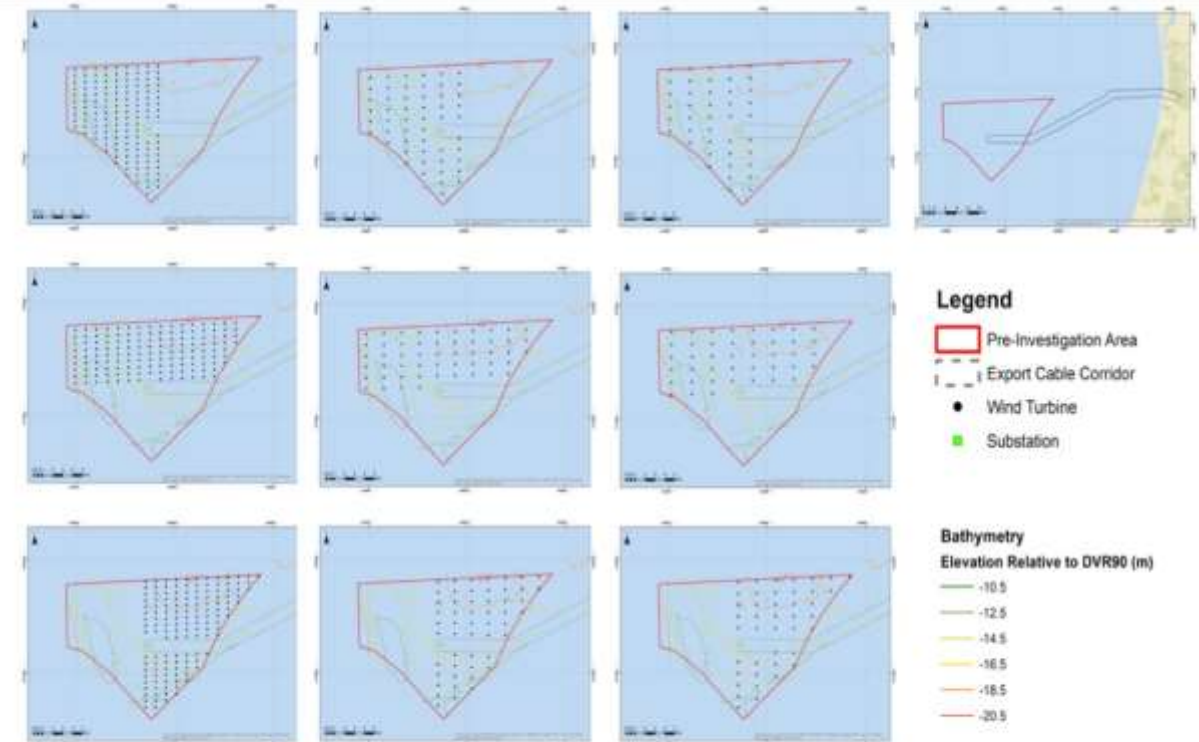


Figure 1.3. Potential layouts for 3MW (left column), 6MW (middle column) and 10MW (right column) for wind turbines across the pre-investigation area. Bathymetry was collected by Energinet.dk in July and August 2012 (Randall, 2013a, b)

Location of Horn Rev 3



THE BLUE ECONOMY

Thank You!



IOC-UNESCO

7, Place de Fontenoy

75352 PARIS 07 SP

MSPglobal@unesco.org

mspglobal2030.org

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