



# **GREEN GROWTH APPROACH AND EFFICIENT USE OF OCEAN RESOURCES**

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13 DECEMBER 2021

# TOPICS OF DISCUSSION

- Green growth approach
- Implementation challenges
- Ocean economy
- Efficient management of ocean resources
- Sustainable financing



# GREEN GROWTH APPROACH

## SUSTAINABLE ECONOMIC, SOCIAL AND ENVIRONMENTAL GROWTH STRATEGY

- **EFFICIENT:** Sustainable use of natural resources
- **CLEAN:** Minimizing pollution and environmental degradation
- **RESILIENT:** Withstanding natural disasters and other shocks through sustainable management of resources and environment
- **INCLUSIVE:** Ensuring benefits of growth reaches the poor and vulnerable



# NATIONAL COMMITMENT TO GREEN GROWTH

- Bangladesh Delta Plan 2100
- Perspective Plan of Bangladesh: Vision 2041
- 8<sup>th</sup> Five Year Plan
- Mujib Climate Prosperity Plan 2100
- Paris Agreement and Nationally Determined Contributions



# WHY GREEN GROWTH?

TO ADDRESS THE CHALLENGES OF-

- **DEGRADATION OF FOREST RESOURCES**
- **LAND DEGRADATION**
- **LOSS OF BIO-DIVERSITY**
- **URBAN AIR POLLUTION**
- **WATER QUALITY**
- **CLEAN ENERGY**
- **EFFICIENT USE OF OCEAN RESOURCES**





# IMPLEMENTATION CHALLENGES

# 1. IMPROVED STRATEGIC FOCUS AND INSTITUTIONAL FRAMEWORK

Many protective laws and regulations are in place to adapt and mitigate the adverse effects of climate change. However, the results on the ground are less than satisfactory.

- Many of the earlier laws and regulations were mostly ad-hoc to meet international obligations.
- An integrated and coordinated **green growth strategy** to establish synergy among all these acts and policies and a systematic monitoring and evaluation framework to achieve the national green growth vision is needed.
- There is a need for broad-based policy framework involving fiscal, market-based, command-and-control, information-based, technology-specific, and other policy instruments for climate smart private investment, production, export and import decisions.

## 2. COORDINATION AMONG SECTORS AND STAKEHOLDERS

A clear roadmap and action plan outlining the roles and responsibilities of all sectors and stakeholders are needed

- Clear roles and responsibilities
- Broader coordination among relevant sectors and stakeholders
- A clear roadmap and action plan ensuring accountability
- Clarity on budget allocation



# 3. GREEN GROWTH FINANCING

Given the low tax effort, there is challenge in green growth financing

- Public investment in water is a mere 0.7% of GDP
- Stagnant private investment growth.
- Lack of enabling business environment causing inability to attract foreign direct investments.
- Fiscal environment unable to incentivize green financing from private sector.

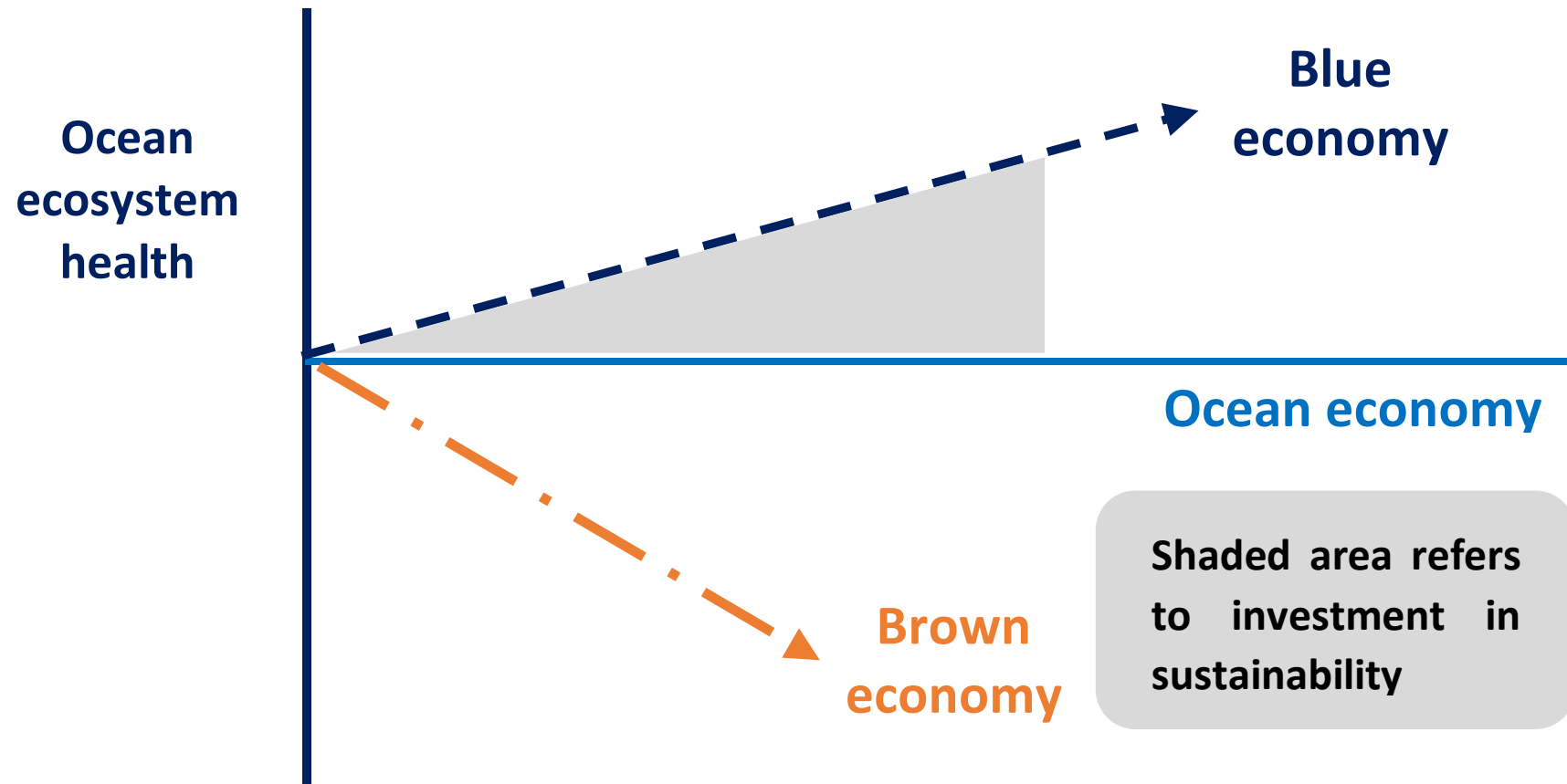
# OCEAN ECONOMY AND BLUE ECONOMY

**OCEAN ECONOMY** encompasses all economic activities involving ocean-based industries, and the assets, goods, and services of marine ecosystems.

**BLUE ECONOMY** refers to the sustainable economic model where coastal, marine, and all aquatic ecosystem resources are explored.



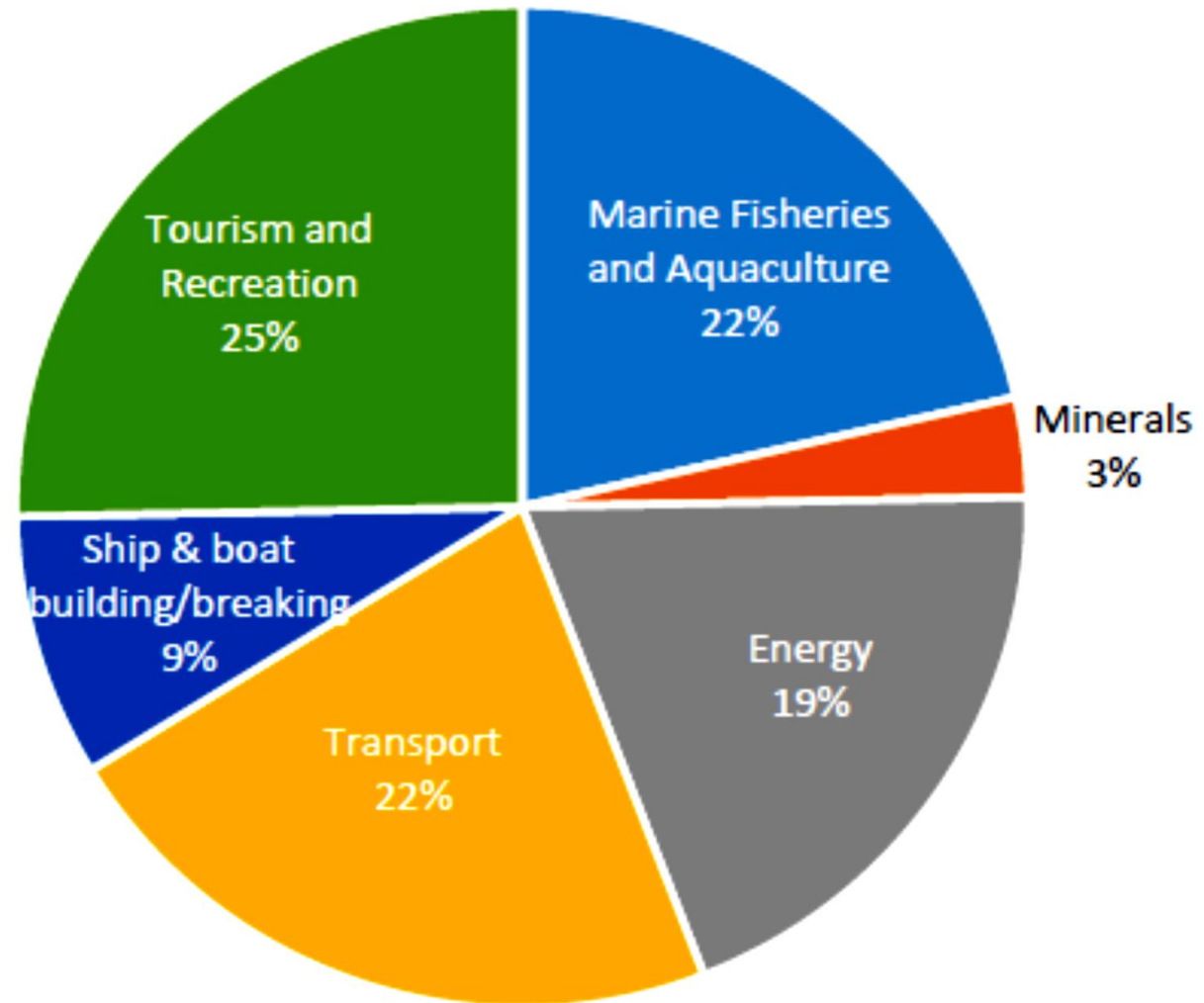
# ASSOCIATION AMONG BLUE ECONOMY, OCEAN ECONOMY, AND BROWN ECONOMY



**Blue Economy is the sustainable development of Ocean Economy**

# COMPOSITION OF OCEAN ECONOMY

Ocean economy had a contribution of US\$6.2 billion in GVA to the Bangladesh economy in 2015, which is approximately 3 per cent of GDP (P.G. Patil et al, 2018).



Source: Patil, 2019

# EFFICIENT USE OF OCEAN RESOURCES

As a developing country rich in coastal resources, ensuring efficient use of marine properties can boost economic growth, strengthen food security and increase job opportunities.

- **TRADITIONAL USES**

Fisheries, Shipping, coastal tourism

- **NEW SECTORS**

Offshore gas exploration, salt production and offshore renewable energy

- **USE OF COASTAL REGION**

Industrial expansion including renewable power plant, deep-sea port, LPG-LNG terminal



# SUSTAINABLE FINANCING

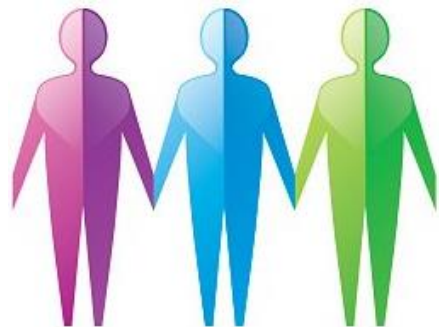


# SUSTAINABLE FINANCING THROUGH ISSUING BONDS



**Green bonds**

raise capital for projects with dedicated environmental benefits



**Social bonds**

raise capital for projects with dedicated social benefits



**Sustainability bonds**

raise capital for projects with a mix of social and environmental benefits



**Blue bonds**

raise capital for projects with marine or ocean-based benefits

**FIRST ISSUED IN  
2007**

**FIRST ISSUED IN  
2010**

**FIRST ISSUED IN  
2012**

**FIRST ISSUED IN  
2018**

Source: GED, June 2021

# BLUE BOND

- Promoting Blue economic needs large investment.
- Blue investments financed through blue bonds should be used to promote the implementation and achievement of sustainable development goals, in particular SDG 14 and related SDGs (i.e. 1,2, 6, 13 and 15), that contribute to good governance of the ocean and coastal habitats, deliver long term value to marine and coastal ecosystems, reduce carbon emissions or strengthen resilient livelihoods.
- Blue bonds proceeds are to be used in marine projects, such as promoting biodiversity and supporting economies reliant upon healthy and sustainable fisheries.
- It served the dual purpose of stabilizing the country's credit rating and investing in its economy, which is closely tied to the ocean.
- Only two blue bonds have been floated till date- the Seychelles Blue Bond and Nordic Sea Blue Bond.

# BLUE BOND: PRE-REQUISITES



PIPELINE OF  
ACCEPTABLE LARGE  
PROJECTS



GROWING  
AWARENESS OF  
MARKET ACTORS



ADEQUATE  
MONITORING AND  
VERIFICATION  
PROCEDURE



ADEQUATE IMPACT  
MANAGEMENT  
PROCEDURE

# WAY FORWARD

## **Accurate Valuation and Projection of the Blue Economy**

- Global studies have identified lack of accurate data of the Blue economy (both at the aggregate and Blue economy sector level) is one of the key constraints for raising funds for moving the sector forward.
- Measurement of the Blue economy through developing the Blue economy 'satellite account' (BESA) – a method proposed in the System of National Account (SNA) – and fits well with the SNA endorsed national account measurements such as the Supply and Use Table (SUT) and Input-output Table (IOT).
- Once integrated within the wider SNA, satellite accounts will provide time series data on ocean-related activities and assist government and industry in identifying the direct and indirect benefits of activities within the Blue Economy.

# WAY FORWARD

## IDENTIFICATION OF BLUE PROJECTS

- Currently there is no existing framework nor universally adopted principles to guide which investments would support a Sustainable blue economy – that is, ‘blue’ investments.
- There are also gaps in understanding and scale as significant ocean contributions to the economy are not reflected in market prices or GDP (Rashid et al, 2020).
- Following international practices (e.g. Indonesia, Seychelles, and Norway), Bangladesh may focus on following few areas:  
**Sustainable fisheries (including aquaculture and mariculture), Plastic pollution prevention, Coastal tourism/eco-tourism, Renewable energy, and Education and research (including data).**

# MARINE FISHERIES

## CHALLENGES

- Barriers to implementation of regulations: Coastal poverty, inadequate incentives and logistic support, lack of alternative occupations, political interference and a lack of awareness.
- Illegal entry by foreign vessels leads to illegal, unreported and unregulated (IUU) fishing
- Noncompliance leads to fishery degradation.

## WAY FORWARD

- We need a system to protect sea species such as Mollusks, Coral species etc, by systematically analyzing appropriate zones by horizontal-vertical calculation
- Provide technology to aquaculture farmers which will help them in a) artificial seed propagation, b) nursery, c) Supply the shrimp seed to Hatchery



# MARICULTURE

## OPPORTUNITIES

- Using seaweed to prepare cake, Jelly, soup, roll, salad, organic manure in the agriculture sector
- Potential for Seaweed for Export
- Improvement of fish catching and manufacturing system in fresh and marine ecosystem
- Diversify agricultural output and livelihoods in coastal region

## CHALLENGES

- Coastal waves and high tides make seaweed culture infeasible as opposed to other aquaculture
- Lack of demand in domestic market for many diverse resources
- Lack of comprehensive research and analysis to determine action plan
- Vessel Tracking and Monitoring System (VTMS) with satellite communication links need to be installed in fishing vessels for better management, monitor and control.

# COASTAL ECOTOURISM

## OPPORTUNITIES

- Potential to become a hotspot for being an ecotourism destination in South Asia
- Unique natural resources of global significance such as the world's largest mangrove forest, the largest unbroken sea beach, a unique landscape set in the world's largest alluvial delta.

## CHALLENGES

- Unsustainable tourism caused severe environmental degradation.
- Lack of public investment; mostly private investment is seen in this area.
- Lack of awareness and knowledge around ecotourism and this needs to be addressed through capacity building at all levels – consumers, tour operators, private businesses and local communities.
- Lack of proper management to reduce marine pollution

# MARINE PLASTIC POLLUTION

## CHALLENGES

- Lack of awareness and education around waste and plastic disposal
- Lack of solid waste management plan at the local and regional government level including better segregation of waste and reducing the amount of plastic getting into our waste stream as well as inadequate plastic recycling facilities.
- Transboundary issues related to plastic pollution

## WAY FORWARD

- Technological and local innovation, positive incentives and investment in the sector to encourage recycling, reusing and regeneration of plastic.
- Encouraging segregation of plastic waste among the users and increasing the capacity of municipalities to collect the maximum possible quantity of solid waste compared to the real generation of solid waste.
- Awareness raising drive for segregating plastic waste by users should be increased at all levels.

# COASTAL RENEWABLE ENERGY

## OPPORTUNITIES

- Renewable energy only contributes 3% of energy to the national grid, but there has been a lot of expansion in the sector in the past 5 years.
- Most of the coastal islands of Bangladesh are not connected to the national grid and many are being designated for renewable energy projects
- Wind Turbines are suitable for small Islands

## CHALLENGES

- Lack of electricity in coastal areas: a lot of coal plants are being made at the moment. Coal will make 35% and renewable will make 10% - 15%.
- Knowledge gap amongst policy makers as to whether renewable energy can guarantee electricity RELIABLY.
- Lack of space for solar and peak hour being in the night-time, we need storage (battery), making it a very costly alternative.

# GLOBAL GOALS, ACHIEVED LOCALLY

[Best practices in ecosystem based oceans management report series](#) gives indications of potential benefits of developing sustainable Ocean economy

- **Reducing climate displacement**
  - **Building resilience of local communities against natural disasters and help with disaster risk reduction.**
  - **Facilitate sustainable co-existence of industries and maintaining bio-diversity, keeping pollution in check in coastal regions.**
- **UN FAO sponsored use of local economy-wide impact evaluation (LEWIE) method (i.e. local SAM) analysis suggest large gains for local economy through localized investment – multipliers (more than 2.5)**