

# Decarbonization opportunities and challenges in the Blue Economy

UNCTAD Trade and Development Board

High Level Segment: 19 June 2023, 3 p.m.

“We urgently need to reduce emissions, enhance adaptation measures and ensure climate justice. And developing countries must have the resources to adapt and build resilience against climate disaster.”<sup>1</sup>

Many developing countries have joined the call to achieve net-zero emissions by 2050 - required to achieve the Paris Agreement target of keeping global warming to no more than 1.5°C - in line with the principle of common but differentiated responsibilities and respective Capabilities. Many of them have incorporated decarbonization and adaptation pathways in their Nationally Determined Contribution (NDCs) aiming for progressively lower carbon economies. These include small island developing states (SIDS), least developed countries (LDCs), and lower middle-income countries, more vulnerable and disproportionately affected by climate change despite having contributed minimally to global emissions.

Decarbonization also could offer development opportunities, including technological advancement that could spur structural economic transformation, job creation, enhance productive capacity and trade diversification, improved energy and food security, and reduced vulnerability to commodity price volatility. However, developing countries face challenges in mitigation, adaptation, and transitioning to low-carbon economies, including financial and fiscal constraints, inadequate infrastructure, and limited access to new technologies, knowledge, and capabilities. Along with effective domestic policies most developing countries need international cooperation to succeed in their climate goals.

While NDCs could include economy-wide measures, such as increasing the share of renewable energy within the energy matrix, most pledges and specific commitments focus on sectoral mitigation and adaptation efforts. As climate considerations are starting to be integrated into countries’ trade policy, decarbonization and adaptation strategies in sectors of export interest to developing countries are increasingly critical to maintain and expand competitiveness and sustainable economies. However, the decarbonization of energy-intensive value chains will require significant investment in resilient infrastructure, sustainable technologies, and capabilities.

Climate change affects all sectors of the economy, including ocean-based sectors or the Blue Economy<sup>2</sup>. Some of the negative effects of climate change in these sectors include decreased productivity of fisheries, ocean acidification, increase in water temperatures, rise in sea level, and extreme weather events. Therefore, decarbonization of the ocean economy is central for its sustainability. Ocean economy sectors of export interest to developing countries include sustainable fisheries, sustainable maritime transport, sustainable coastal and marine tourism and ocean energy production.

---

<sup>1</sup> UN Secretary-General António Guterres’ remarks to the side event on the International Year of Glaciers’ Preservation, 22 March 2023.

<sup>2</sup> In this note we use blue and sustainable ocean economy interchangeably.

## **1. Sustainable fisheries**

More than half of world fisheries exports come from developing countries and about 60 million jobs depend on fisheries and aquaculture. While fish is the animal protein with the lowest carbon footprint per kg, the fisheries sector is intensive in fossil fuel. Emissions from fishing and aquaculture sectors can be estimated between 1.3 to 2 per cent of CO<sub>2</sub> global emissions (UNCTAD, 2023 based on 2018 data).

Climate change increase risks of food insecurity and of management conflict among fishers. The industry must thus adapt to climate change, while putting in place measures to mitigate emissions. Sustainability of fisheries, increasing renewable energy use and energy-efficiency, would require improved data for evidence-based policy making and potentially set targets for emission reductions in the fisheries sector, which would require more granular emissions data per country or sector.

## **2. Sustainable Maritime transport**

Maritime transport is critical for global trade as around 80 per cent of global merchandise trade by volume is carried by sea. Yet, maritime transport is a large contributor to global GHG emissions. The International Maritime Organization (IMO) has thus set targets to reduce GHG emissions from international shipping. While needed, it raises concerns as mitigation measures to meet this target may further aggravate their challenging situation of higher trade costs, including higher freight rates and lower shipping connectivity for SIDS and LDCs. Despite these challenges, decarbonizing pathways in maritime transport through multilateral frameworks can offer opportunities to advance emission reduction faster than through solely national efforts. For instance, discussions are being held around multilateral economic measures, such as a levy on emissions from shipping, that could generate funds to support the most vulnerable economies.

## **3. Sustainable coastal and marine tourism**

Sustainable coastal and marine tourism is another large ocean economy sector, offering opportunities for significant backward and forward linkages with the entire economy. The export value of coastal and marine tourism was about 1.1 trillion in 2018 (UNCTAD, 2020). Tourism is a critical sector of the international economy. In 2019 the tourism sector represented 29 per cent of the world's services exports and about 300 million jobs globally.<sup>3</sup> This sector is highly vulnerable to climate change and other crisis as the pandemic demonstrated. It is an important contributor to GHG emissions representing 5 per cent of all man-made emissions in 2016 and are expected to increase by 25 per cent by 2030 (UNWTO 2021). That is why in 2021 at the UNFCCC COP 26, UNWTO launched the Glasgow Declaration on Climate Action in Tourism where signatories committed to halve harmful emissions by 2030 and reach Net Zero as soon as possible before 2050. To achieve these goals and maintain the assets on which tourism thrives – the beauty and integrity of ecosystems - many countries will need to adapt to climate change and transition to sustainable practices.

---

<sup>3</sup> [https://unctad.org/system/files/official-document/ditcinf2020d3\\_en.pdf](https://unctad.org/system/files/official-document/ditcinf2020d3_en.pdf)

## 4. Ocean Energy

Decarbonization of the electricity sector is one of the leading strategies to reduce emissions, and the blue economy has a major contribution to make. The deployment of offshore or underwater renewables, including tidal, underwater turbines, windmills and the use of marine-based biofuels can produce benefits for the whole economy, including tourism, shipping, aquaculture, and agriculture. Notably, they can play a significant role in harnessing the benefits of the blue economy for sustainable development in SIDS.<sup>4</sup> As countries accelerate their investments and deployment of renewable energy sources, concerns regarding the resilience and security of their renewable energy supply chains start to emerge, particularly regarding the minerals supply. As a response, several stakeholders have started to explore how to secure access to critical minerals to the transition, including ocean-based sources.

### Conclusion and Questions

Effective ocean economic policies will need to be accompanied by international cooperation to achieve the energy transition. Many NDCs pledges are conditional on technical and financial cooperation and mobilization of resources. UNCTAD<sup>5</sup> has called for a “Blue Deal” to bridge the ocean investment and financing gap. For instance, developing countries endowed with critical minerals for the energy transition will need technology and know-how to add value to these minerals before exports. Enabling domestic policies and international cooperation could support in increasing domestic resource mobilization, scale up investment and access to debt relief and/or debt swaps for climate or nature schemes.

Against this background, the High-level Panel will discuss the issues, present lessons learned from different countries and ocean economy sectors and explore policies areas that could help developing countries on their decarbonization pathways.

### Questions:

- What is the role of the multilateral trade system to advance decarbonization goals?
- What are the priorities for decarbonization within major blue export sectors?
- Which are the key levers and stumbling blocks to accelerate decarbonization and adaptation within ocean-based value chains?
- Which have been the most successful incentives, interventions, and practices in reducing emissions and improving energy and natural resources efficiency in key ocean-based export sectors of developing countries?
- How can we finance decarbonization pathways in the blue economy, particularly in developing countries?

---

<sup>4</sup> <https://www.irena.org/News/articles/2022/Apr/Ocean-Renewables-Powering-the-Blue-Economy>

<sup>5</sup> UNCTAD 2023. “*Trade and Environment Review 2023: Building a sustainable and resilient ocean economy beyond 2030*”.

## Draft Programme

### Opening

**Welcome remarks:** The President of the Trade and Development Board

**Introduction and setting the scene:** Rebeca Grynspan, Secretary-General of UNCTAD

### Panel presentations

**Fisheries and blue foods:** Mr. Daniel Voces, Managing Director of Europêche (confirmed)

**Maritime Transport:** Mr. Harry Conway, Chair, Marine Environment Protection Committee (MEPC) of the International Maritime Organization (IMO), Representative of Liberia to the IMO (confirmed)

**Sustainable coastal and marine tourism:** Ms. Jacqueline Mora-Baez, Deputy Minister of Tourism, Dominican Republic (TBC)

**Ocean energy:** Ms. Nathalie Almonacid, Coordinator of R&D / Energy Marine Map (EMMAP), Energía Marina SpA y MERIC (Marine Energy Research and Innovation Center), and Board Member, Pamec Energy Association (confirmed)