



NEW ECONOMICS FOR SUSTAINABLE DEVELOPMENT

SUSTAINABLE OCEAN ECONOMY

INTRODUCTION

Covering almost three-quarters of the Earth's surface, oceans are of enormous importance to our economic, social, and environmental development. With around 40 per cent of the world population living on or near coastlines, ocean ecosystems protect coastal areas and regulate the climate¹, including by absorbing 90 per cent of the extra heat created by climate change, constitute a primary source of nutritious food to more than three billion people, and its energy supply to the world². In addition, the oceans provide a substantial source of income and well-being and offer great future potential for the 54 low and lower-middle income countries that have substantial coastlines or marine areas. In 2020, the export value of ocean-based goods and services was \$1.3 trillion, which represents about 6 per cent of global trade (total global trade in 2020 was \$23 trillion). Exports of ocean-based goods are estimated to be \$681.4 billion, and exports of ocean-based services \$628.2 billion, showing their importance as a key tradable cluster. Europe, Asia and the Americas are the leading exporters. These values remain below pre-pandemic estimate levels, but growth has been strong and trade in ocean-based goods is expected to continue to recover despite multiple subsequent and sometimes overlapping crises³.

Considering the importance of the ocean, this paper aims at framing the concept of the sustainable ocean economy and what it can bring to economic transformation, together with other approaches contributing to the building of thriving, sustainable and just economies, while proposing policy options to unleash the full potential of the sustainable ocean economy in its economic, social and environmental dimensions.

The sustainable ocean economy includes all ocean-based economic sectors operating and/or investing in sustainable systems (environmental, social, and economic systems). The sustainable ocean economy, sometimes called sustainable ocean economy, is different from

the ocean economy as it means shifting from a focus on the production unit and economic output to a people-centered vision of systems (including territorial systems) and wealth (including natural wealth) and well-being, and therefore on conservation, livelihoods, and jobs. While some definitions of the sustainable ocean economy extend it to inland waters, this policy brief will focus on oceanic sustainable ocean economy, among other to ensure consistency with the Sustainable Development Goal 14. Sustainable ocean economy activities can therefore include goods and services related to the sustainable:

- ♦ Harvesting of marine resources and their transformation and trade, such as seafood, pharmaceutical products, freshwater generation.
- ♦ Use of non-exhaustible natural forces – generation of off-shore renewable energy, such as wind, wave or tide energy.
- ♦ Commerce and trade in and around oceans – transport, coastal development, tourism, and recreation.
- ♦ The indirect contribution to economic activities and healthy environments – carbon sequestration, coastal protection, and the existence of biodiversity and biodiversity services.

While its significance is undisputed, discussions continue over how the sustainable ocean economy should be defined and what should be captured. A lack of clarity makes it difficult for governments and civil society organizations to evaluate trade-offs related to resource allocation, including coastal and marine areas, from traditional sectors to fast growing, yet less inclusive and sustainable, sectors of the ocean economy, or even, towards less sustainable segments within traditional sectors, from small-scale to large scale fisheries/aquaculture for instance. The annual socioeconomic damage to the oceans due to mismanagement due to policy incoherence or market failures is estimated at about \$1 trillion per year⁴.

Due to a limited knowledge of the sustainable ocean economy, which include elements that does not function in market environments, current valuations are understated. Services provided by blue ecosystems include the following: generation of oxygen to the atmosphere and land, carbon sequestration and coastal protection, ocean biodiversity and its future potential applications in medicine, all of which hold substantial value, not traditionally quantified⁵; non-services such as cultural and religious identity; and/or the value of the very existence of the ocean.

BOX 1

AN OCEAN OF INCLUSIVE SOLUTIONS TO OVERLAPPING CRISES

Investing in marine ecosystem restoration, conservation and sustainable use allows to regain presently lost socio-economic benefits (due to coastal pollution, overfishing, habitat loss, etc.). Hence, any ocean-based commercial activity, either in existing or new sectors (such as tide or wave energy or marine bioprospection), must be designed, planned, and implemented with sustainability as a core principle. Moreover, the sustainable ocean economy is critical to leave no one behind, especially in coastal communities that often lie in peripheric areas or islands, in sectors such as tourism or fisheries where most of the workforce are women and an important proportion are youth. Interestingly, in many cases, small scale investment and activities make a larger difference than unsustainable, massive investments in terms of sustainable job and income creation, while mitigating the impact on the ecosystems.

Through a sustainable development lens, the oceans' commercial value is intimately linked to its social impact – countless livelihoods around the world which do not rely on formal market exchanges are not sufficiently captured in official national accounts.

INTERLINKAGES WITH OTHER SUSTAINABLE DEVELOPMENT ECONOMIC APPROACHES AND OUTCOMES

The sustainable ocean economy is but one piece of a paradigm shift that covers all areas of economic development and links growth with social and environmental outcomes. The interconnectivity between the main other sustainable development concepts is:

- ✦ For the **green economy**, the sustainable ocean economy is often considered as green economy principles applied to the seas, oceans, and inland waters. Consequently, both concepts share similar frameworks, methodologies and approach in the tools that are used to utilize, develop, and maintain green and blue assets. Moreover, since agricultural inputs and other contamination sources (such as mismanagement of solid waste in the case of plastics pollution) are the most important source of inland waters and ocean pollution and

degradation, a green economy is an important consideration for a sustainable ocean economy.

- ✦ For the **social and solidarity economy**, the sustainable ocean economy presents opportunities for small players in local economies and value chains, with a limited negative impact on the environment, and an optimized socioeconomic impact on local populations, especially poorest, most isolated communities living in coastal areas. Social and solidarity economy approaches can help better organize local economic fabrics into blue value chains and promote greater formalization of markets in areas like the craft and creative economy etc.
- ✦ A **circular economy** approach is fundamental for the sustainable ocean economy, so the ocean ceases to function as a means of waste management. As recent experience has shown overuse of this free good has led to the widespread misuse of this asset with the accumulation of plastics and other non-degradable waste, clogging rivers and degrading the natural capital of oceans. Greater integration between the circular and blue economies helps reduce the adverse impacts of waste disposal, particularly from the tourism sector⁶, on the sustainable ocean economy.
- ✦ For the **purple economy** (also known as care economy), blue bioresources products and services (with important implication in relation to right to genetic resources) are still largely untapped. They could reduce inequalities and offer business opportunities for the economic empowerment of women and girls, while advancing people and the ocean's health, having important implications on the rights to genetic resources. Ocean-based ecosystem services are also of critical importance for the care economy. The ocean is a primary cultural source and foundation for education and human capital building, and a largely untapped source of knowledge; these can represent an opportunity for better education systems, and for ocean-related jobs and entrepreneurship opportunities with the right skills set integrated within the curricula, and business models that include a blue factor.

The extent to which these economic concepts are interconnected means that decision makers need to also consider trade-offs both within the sustainable ocean economy and between the sustainable ocean economy and other economies. In addition, while climate change has and will continue to have serious detrimental impacts on sustainable ocean economy assets, ocean ecosystems offer both nature and technology-based solutions for climate change mitigation and adaptation measures. Holistic, integrated mechanisms, policies and solutions are therefore needed to keep balance for effective sustainable development.

THE (BLUE) WAY AHEAD: POLICY OPTIONS FOR A BLUE ECONOMIC TRANSFORMATION

The transition to a developed sustainable ocean economy will, for many countries, involve the development of new sectors (or new segment in existing sectors) and markets to unleash the potential of ocean-based production in different interlinked sectors while protecting livelihoods and bioresources. For instance, promoting blue biotechnology will imply accommodating new supply chains and linkages in and between supply chains, and the rebalancing of economic activities to integrate sustainable resource management and social cohesion in commercial objectives.

Policymaking and options for the sustainable development of the sustainable ocean economy needs to integrate economic, social, and environmental considerations; be influenced by the contexts which prevail within countries, while aiming for internationally agreed social and environmental standards.

To achieve this requires strategic investments in skills, the enhancement of or development of new institutions, modifications to existing and the development of new regulations – locally, regionally as well as globally – and a financial sector that ensures the right enabling environment for the sustainable ocean economy to flourish. All this needs to be underpinned by robust information that supports effective decision-making and avoids the excessive use and depletion of blue assets, which in may be irreversible.

While different pathways towards sustainable ocean economy development depend on the capacities and unique environmental, social and cultural conditions, national priorities and strategies, current and future economic activities, and the potential for innovation—all these are common steps that countries can adopt.

A SHARED UNDERSTANDING OF THE OCEAN'S VALUE

Accurately value the contribution of natural oceanic capital to welfare is essential if policymakers, investors, and other development actors are to make good decisions on the allocation of scarce blue resources in their economies. The absence of markets for many services provided by ocean systems - carbon sequestration, coastal protection, waste disposal and the existence of biodiversity are typically under-represented in the public agenda, and in policymaking and investment decisions, compared to commercial activities whose value is more easily quantifiable.

Governments and Civil Society Organizations must partner and **strive to raise awareness on the real**

value and role of marine and coastal ecosystems and biodiversity in human welfare and planetary health, as well as the role of marine and coastal livelihoods and coastal communities in preserving marine and coastal ecosystems and biodiversity.

Data collection⁷, methodological advancements, and robust analysis go hand in hand, requiring countries to build human as well as institutional capacity and capability – investing in the best available science, data, and technology - forging global partnerships to facilitate the cross-fertilization of ideas and access to best practice.

When policymakers **incorporate the full net benefits of the sustainable ocean economy**, considering ocean resources and services and their sustainability, including by integrating them in national accounting (see examples such as Natural Capital Accounting or proposals for Oceans National Accounts), only then can blue development pathways be ensured.

Research efforts and international cooperation, including to restore and promote traditional knowledge to capture the full value of the oceans, are critical to better understand ocean and coastal behaviors due to anthropogenic pressures and modifications linked to climate change.

PAVING THE WAY FOR THE BLUE TRANSITION

Improve the integration of ocean assets in national and local development strategies is an initial, critical step to ensure the emergence of a shared-vision among countries in prioritizing and identifying area-specific sectors. This includes mainstreaming the environmental, socio-economic, cultural and political aspects, prioritizing national, regional, and local development plans for longer-term SDG-related strategies, especially in marine participatory spatial planning, coastal management plans and urban planning.

Clear baselines need to be defined within a harmonized vision amongst multiple public and private stakeholders; and priority actions and investments must be determined, including the modalities and the roles of each player. A short-and medium-term roadmaps, along with a longer-term vision for the development of the sustainable ocean economy are necessary to enable the consistency of policy making, and public and private investments, resulting in sustainable development of priority sectors within the sustainable ocean economy.

Integrated ocean and coastal zone management provide guidance for sustainable ocean economy decision-making policy and resolve conflicts over ocean space—critical aspects of a coherent, efficient and sustainable sustainable ocean economy strategy.

These plans should be designed, implemented and monitored in a participatory manner, involving civil society organization, including community-based organizations, and the Academia. They can contribute to lessen administrative and sectorial boundaries by promoting an integrated approach. They should recognize tenure and access rights of local populations and indigenous groups. The participation of all social groups is critical. Equally important is socio-economic inclusion and coastal management among coastal communities in their role for coastal management and ocean health; ensuring the integration of qualitative knowledge, local processes and project ownership, and the equitable and gender-balanced distribution of benefits from ocean-based resources' sustainable use.

Benefits for **local coastal communities** should be clearly defined and closely monitored against SMART indicators. Participation should not be set as a one-off event consulting many members of a community at once, or alternatively, a very small group not necessarily representing the community's interests. Participation should include all planning and policy making processes, providing procedural clearance for important investments, for instance.

The private sector's role, including smaller players such as MSMEs and cooperatives, to align agendas, incentives, priorities, and investments with long-term goals, as well as a sustainable ocean economy approach, will create potential for sustainable and inclusive growth. Public and private stakeholders can explore the possibilities together for a sustainable ocean-based production that boosts job creation and livelihood; education and innovation; and well-being and ecosystem services. Private sector engagement can also help public and private stakeholders navigate together the trade-offs, externalities and impact of ocean-based sustainable production and consumption.

OCEAN LITERACY AND ENABLING GOVERNANCE

Develop adequate human and institutional capital at local, national and regional levels will foster a sustainable ocean economy to thrive while integrating social and environmental outcomes. Building national capacity is necessary and urgent to ensure countries are well equipped to unleash the potential of sustainable ocean economy, while protecting coastal and marine ecosystems and including coastal communities. Building the human capital necessary includes three levels: enhancing formal education and vocational training; providing relevant public and private agents with the right set of skill sets and tools for sustainable ocean resources management, harnessing the ocean potential to create jobs and income; and fostering knowledge and technology transfer, including international research and development cooperation, focused on South-South Cooperation.

This "soft" capacity building must go hand-in-hand **with upgrading the "hard" governance framework:** well-functioning institutions and checks-and-balances, smooth and efficient interinstitutional coordination and policy coherence across national, regional, local sectors and levels, including enhanced participation by citizens and communities. Institutional arrangements should include a conducive framework for nature-based solutions to adapt to climate change and prevent negative feedback loops, providing a clear role to coastal communities and incentives to private investments with a clear, solid sustainable ocean economy framework, sustained over time.

Strengthening **regional governance mechanisms and regional cooperation** will be essential to overcome shortcomings linked to limited fiscal space and institutional capacities at national level to protect the ocean and unleash its full potential for thriving, sustainable blue economies. Fostering scientific collaboration and technology transfer will demand proactive policies and regulatory frameworks, including loosening intellectual property rights on innovation. A fixed number of R&D subsidies, to be defined by each country, could be dedicated to ocean-based solutions.

BOX 2

"OCEAN LAW" ENFORCEMENT AT HIGH SEAS:

While the UNCLOS clearly defines the States responsibilities in implementational and enforcement procedures, it is very challenging for many countries, whatever their size and level of income, to ensure law enforcement in their Exclusive Economic Zone, many a time much bigger than their land area. Monitoring and preventing illegal activities on the high seas is even more challenging, and makes necessary joint forces, including from national navies, and pool-funding. Engaging in negotiations on an international instrument on the preservation of biodiversity in areas beyond national jurisdiction will also be critical.

OCEAN COALITIONS FOR THE EMERGING FUTURE

Ensure policy coherence and build multi-stakeholder, public-private partnerships to transition blue economies.

Aligning sectoral and territorial policies, strategic planning, State budgets, external public finance, tax incentives and subsidies, public procurement practices, is a sine qua non for blue economic development.

Policy coherence must extend to **labour markets to incentivize blue jobs**; environmental and industrial policies for sustainable fisheries, aquaculture, and seabed mining; trade policies to regulate maritime transport; and food and waste management systems as well as apply at all levels of governance: local, national, regional, and global.

Setting the **legal and policy framework and incentives** is critical to direct public and private investments towards sustainable ocean economy. Beyond intersectoral, governmental coherence, strategic partnerships for the sustainable ocean economy will involve national and local authorities, civil society, the academia, and the private sector, including small businesses.

Integrating sustainable ocean economy principles and incentives in **regional and global trade agreements** can also boost partnership building at international level.

CATALYSING BLUE FINANCING FOR SUSTAINABLE DEVELOPMENT

Develop a smart set of fiscal incentives (corporate taxes, subsidies, public procurement standards, taxonomy) will boost transition towards sustainable business models. Making the best out of domestic revenues and existing development finance should remain a priority. However, equitable insurance and guarantees schemes, including for small businesses and households, blended finance, debt-for-environment swaps, blue bonds, conservation trust funds, revolving loans funds, carbon credits, contingency recoverable grants, parametric insurance, risk pooling and crowdsourcing diaspora financing, and other instruments based on public-private partnerships, can be a success to leverage finance for the sustainable ocean economy.

Smarter fiscal incentives – through taxes, levies, subsidies, and other fiscal and de-risking measures – will boost resource mobilization and catalyze investments, counteracting distorted incentives while promoting new investments and consumption into activities that do no harm to sustainable ocean economy assets. In sustainable ocean economy assets and services, where markets do not yet exist, taxing complements, and subsidies substitute these services to help preserve and maintain the longevity of assets.

In a context of multiple, overlapping crises, where many countries' bargaining power remains low in negotiating Foreign Direct Investments, and public debt is high, **applying the principles of due diligence and debt sustainability** is essential. Countries that are unable to generate revenues from the blue resources in their jurisdictions, appropriate licensing arrangements may be installed to allow these resources to be used by others and benefit local population.

With sufficient fiscal space, profit generating governments and investors will have greater scope to **develop and maintain their blue assets**, and to **promote shared prosperity** through greater development expenditures. Integrating sustainable standards into ocean-related public procurement and expenditures, promoting the development of environmental, social and governance standards for new blue investments, and widening responsible banking criteria to cover blue activities, will enable the flow of resources to new activities that lessen the impact on blue capital, promoting adaptation that builds greater resilience.

Access to ocean-based climate finance can increase fiscal space for public investment in the sustainable ocean economy and catalyze investment at the same time, requiring capacity to build reliable project pipelines and data collection for evidence-based climate change impact assessments.



Endnotes:

- 1 UNCTAD, *Ocean Economy*, 2021. Projected to rise to US\$3trn by 2030.
- 2 The Ocean contributes almost one-third of hydrocarbons extracted, is home of countless offshore wind farms, and is the primary, sustainable source of wave and tide energy, still at an early stage of development but considered as high potential.
- 3 UNCTAD 2023 *Trade and Environment Review: building a sustainable and resilient oceans economy beyond 2030* (forthcoming).
- 4 UNDP.
- 5 There have been some efforts to quantify the value of the non-market services such as the work of Robert Costanza, in 1997.
- 6 80% of litter in the ocean is from land-based sources.
- 7 Utilizing the pilot work from UNSTATS System of Economic-Environmental Accounting.

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