

GOAL



# BLUE ECONOMY DISCUSSION PAPER

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# INTRODUCTION

The Ocean covers 70 percent of the Earth's surface. It is our planet's largest biosphere, and home to up to 80 percent of all life on our planet. It generates 50 percent of the oxygen we need, absorbs 25 percent of all carbon dioxide emissions, and captures 90 percent of the additional heat generated from those emissions.

It is not just 'the lungs of the planet' but also our largest carbon sink - a vital buffer against the impacts of climate change <sup>(1)</sup>. Over three billion people depend on marine and coastal biodiversity for their livelihoods, and marine fisheries directly or indirectly employ over 200 million people. The fisheries and aquaculture sector are a vital source of livelihoods, nutritious food and economic opportunities, and play a key role in meeting one of the world's greatest challenges: feeding a population set to rise to 9.6 billion people by 2050. They are important in eliminating hunger, promoting health and reducing poverty <sup>(2)</sup>. The ocean is thus a critical link to global food security: it nurtures unimaginable biodiversity and produces food, jobs, and

the mineral and energy resources needed for life on our planet to survive and thrive.

The World Bank has also observed that every year, the ocean economy has an estimated turnover of between US\$3 and 6 trillion. This includes employment, ecosystem services provided by the ocean, and cultural services. This report notes that fisheries and aquaculture contribute \$US100 billion per year and about 260 million jobs to the global economy <sup>(3)</sup>. Our Ocean is thus undeniably essential for sustainable development, food security, well being and the survival of our planet. However, the science is clear that, particularly because of human activities including those related to climate change, our Ocean is facing

unprecedented threats. Its health and ability to sustain life could get worse as the world population grows and human activities increase, and will continue to worsen if we continue to exploit the Oceans unsustainably. A different vision for a sustainable management of the Oceans and marine coastal resources as defined by a sustainable blue economy is required; one that seeks to promote economic growth and preserve and improve livelihoods across a range of sectors, while ensuring the sustainable use of marine resources <sup>(4)</sup>. The United Nations Oceans Conference, co-hosted by the Governments of Kenya and Portugal, offers all stakeholders a critical platform for mutual engagement to seek to address existing and new challenges, that the COVID-19 pandemic has also laid bare, and which require concerted efforts to achieve solutions that are anchored in the SDG's <sup>(8)</sup>.

Informed by more than a decade of promoting the Blue Economy in the Latin America and Caribbean Region, GOAL's 'Resilience of the Blue Economy' programme aims to support the critical role of coastal communities to address the multiple challenges and opportunities present in the Blue Economy through an integrated 'Local Systems' approach; from improved livelihoods and increased incomes, food security, protection of biodiversity and ecosystems, inclusion, good governance, climate adaptation and mitigation to strengthened resilience <sup>(6)</sup>.

A critical local system for the Blue Economy is the small scale fisheries market system. GOAL Global argues that Sustainable fisheries are key to the future of global food security, climate change adaptation and poverty reduction and therefore advocates for:

1. Making fisheries sustainable and providing small-scale artisanal fishers access to marine resources and markets.
2. Promoting and strengthening sustainable ocean-based economies, as this is necessary to achieving an inclusive and resilient Blue Economy, particularly for Small Island Developing States.

Recognising that although fisheries are diverse both in terms of scale, specific value chains or species fished, end markets reached (local/national/export etc.) and political, environmental and cultural contexts, GOAL argues that for small scale fisheries to be resilient and inclusive, and to be significant in helping to address global food security issues, local systems need to enable:

1. Transparent and accessible market information supporting effective marketing strategies.
2. Relevant and accessible financial services
3. Relevant and accessible Business Development Services
4. Stable and equitable commercial relationships (between fishers, intermediaries, buyers and supporting service providers and suppliers).
5. Necessary infrastructure, equipment, knowledge and procedures in place to ensure quality, safety, market and food standards are met.
6. Clear legal and regulatory framework for fisheries market supported by strong market coordination and oversight from market actors.
7. Equitable participation of women, youth and vulnerable groups across fisheries as well as a focus on social responsibility to improve access to basic services at community level.
8. A functional traceability system adopted across the market system.
9. Scientific research and development that informs sustainable fisheries management, innovations and new technologies.
10. A Good Governance system for coastal marine resources based on participation and engagement of all stakeholders
11. Fishers employing Good and Responsible Fishing Practices
12. Early Warning Systems operational for principal hazards <sup>(6)</sup>



# THE SUSTAINABLE BLUE ECONOMY

According to Wu Hongbo, the former Secretary-General of the Ocean Conference and Under-Secretary-General of the United Nations Department of Economic and Social Affairs (UN DESA), a sustainable Blue Economy is a long-term strategy aimed at supporting sustainable economic growth through oceans-related sectors and activities, while improving human well-being and social equity and preserving the environment (5). The Blue Economy has diverse components, including established traditional ocean industries such as fisheries, tourism, and maritime transport, but also new and emerging activities, such as offshore renewable energy, aquaculture, seabed extractive activities, and marine biotechnology and bioprospecting. A number of services provided by ocean ecosystems, and for which markets do not exist, also contribute significantly to economic and other human activity such as carbon sequestration, coastal protection, waste disposal and the existence of biodiversity (7). Although the term “Blue Economy” (BE) can be used in different ways, it is often understood as

comprising the range of economic sectors and related policies that together determine whether the use of oceanic resources is sustainable (2). The BE aims to promote economic growth, improve life and social inclusion without compromising the oceans’ environmental sustainability and coastal areas since the sea’s resources are limited and their physical conditions have been harmed by human actions (3). Kathijotes (4) states that the objective of BE models is to transfer resources from scarcity to abundance and address the issues that cause environmental problems. The UN DESA & World Bank argue that activities to achieve a sustainable Blue Economy should:

1. provide social and economic benefits for current and future generations,
2. restore, protect, and maintain the diversity, productivity, resilience, core functions, and intrinsic value of marine ecosystems, and
3. be based on clean technologies, renewable energy, and circular material flows that will reduce waste and promote recycling of materials (5)

In their recent publication, Lee et al. <sup>(4)</sup> link the BE and the UN Sustainable Development Goals (SDGs) and conclude that the goals that are linked to the BE are: underwater life <sup>(14)</sup>, land ecosystems <sup>(15)</sup>; peace, justice, and stable institutions <sup>(16)</sup> and alliances to achieve the objectives <sup>(17)</sup>.

Therefore working together towards achieving a sustainable Blue Economy is undeniably

essential for sustainable development, food security and humankind <sup>(5)</sup>. Active cooperation and partnerships are needed within and amongst public and private sectors to steer the concept of Blue Economy regionally and internationally, with special recognition of the needs of local communities, and in line with existing global, regional and local commitments



## SUSTAINABLE FISHERIES

**Sustainable fisheries (as a sub sector) are an essential component of a prosperous Blue Economy, with marine fisheries contributing more than US\$270 billion annually to global GDP.**

A key source of economic and food security, marine fisheries provide livelihoods for the 300 million people involved in the sector and help meet the nutritional needs of the 3 billion people who rely on fish as an important source of animal protein, essential micronutrients, and omega-3 fatty acids <sup>(18)</sup>.

The role of fisheries is particularly important in many of the world's poorest communities, where fish are a critical source of protein, and the sector provides a social safety net. Women represent the majority in secondary activities related to marine fisheries and marine aquaculture, such as fish processing and marketing. In many places, employment opportunities have enabled young

people to stay in their communities and have strengthened the economic viability of isolated areas, often enhancing the status of women in developing countries. For billions around the world (many among the world's poorest) healthy fisheries, the growing aquaculture sector, and inclusive trade mean more jobs, increased food security and well-being, and resilience against climate change <sup>(19e)</sup>.

While the impacts of climate change are being felt throughout the ocean realm, they are particularly acute for fisheries, the fish stocks they target and the marine coastal ecosystems on which they depend <sup>(19f)</sup>.



# KEY CHALLENGES TO ACHIEVING A SUSTAINABLE BLUE ECONOMY

The major human impacts on the Blue Economy include, among others, the following:

- a) **Unsustainable extraction from marine resources**, such as unsustainable fishing because of technological improvements coupled with poorly managed access to fish stocks and rising demand. The FAO estimates that approximately 57 percent of fish stocks are fully exploited, and another 30 percent are over-exploited, depleted, or recovering (18). Fish stocks are further exploited by illegal, unreported, and unregulated fishing, which is responsible for roughly 11-26 million tons of fish catch annually, or US\$10-22 billion in unlawful or undocumented revenue.
- b) **Physical alterations to and destruction of marine and coastal habitats and landscapes** due largely to coastal development, deforestation, and mining. Coastal erosion also destroys infrastructure and livelihoods. Unplanned and unregulated development in the narrow coastal interface and nearshore areas has led to significant externalities between sectors, suboptimal siting of infrastructure, overlapping uses of land and marine areas, marginalization of poor communities, and loss or degradation of critical habitats.

- c) **Marine pollution**, for example in the form of excess nutrients from untreated sewerage, agricultural runoff, and marine debris such as plastics.
- d) **Impacts of climate change**, for example in the form of both slow-onset events like sea-level rise and more intense and frequent weather events. The long-term climate change impacts on ocean systems are not yet fully understood. It is however clear that changes in sea temperature, acidity, and major oceanic currents, among others, already threaten marine life, habitats, and the communities that depend on them.
- e) **Unfair trade** - Exclusive Economic Zones (EEZ), areas in which a state has sovereign rights over exploration and use of marine resources, are crucial to the economies of small island developing states and often dwarf their corresponding land mass and government's administrative capacity. (In Tuvalu, for instance, the EEZ is more than 26,000 times the size of the land mass.) In the case of fishing agreements allowing access to an EEZ, there is usually a low appropriation of fisheries export revenues by national operators and insufficient transfer to national stakeholders of specific fishing knowledge by foreign fishing companies, so the potential for national exploitation of those resources is reduced in the long run.
- f) **Loss of mangrove forests**, for instance, threatens profits from seafood harvests in excess of US\$4 billion per year. In Belize, mangrove-rich areas produce on average 71 percent more fish biomass than areas with fewer mangroves <sup>(10)</sup>

In light of the challenges facing SIDS and vulnerable coastal communities, mobilising action through partnerships within local systems can be looked upon as a way to enhance global ocean action and scaling up solutions anchored in the SDG's.





# GOAL GLOBAL - BUILDING RESILIENCE OF THE BLUE ECONOMY

GOAL Global's work with vulnerable indigenous and Afro-descendent communities in five countries in Latin America and the Caribbean (Colombia, Honduras, Haiti, Guatemala and El Salvador) has over the last decade sought to demonstrate how true sustainability may progress the resilience of the Blue Economy using an innovative Local Systems Approach.

The LAC region is home to an indigenous and Afro-descendent population of fishing communities who are dependent on marine coastal resources. The future of their food security and livelihoods depends on a resilient Blue Economy. However, industrial fishing and unsustainable practices threaten the marine coastal resources and the livelihoods of local communities.

GOAL's work in the region consequently focuses on building the capacity of local actors based

on their role within local systems that are critical to the resilience of their Blue Economy.

Through this approach GOAL has partnered with a broad range of local actors; community leaders and community-based organizations, fishing associations and cooperatives, larger fishing businesses and logistics / export agencies, government and other regulatory agencies, indigenous authorities, input supplies, environmental agencies, and academic institutions, among others. Coastal indigenous and Afro-descendent



communities in Honduras for example, are highly vulnerable to extreme weather events including hurricanes, flooding, tidal surges, and drought. The mangrove corridors along the north coast of Honduras provide a natural protection against these hazards, but these are suffering from extreme degradation due to over-exploitation, the destruction of these corridors for firewood and building, expansion of agriculture particularly related to the production of African Palm and urban growth. In addition, approximately 80 industrial fishing boats exploit coastal waters for lobster and shrimp meant for export markets primarily in the US. Apart from overfishing these two species, such activities result in significant encroachment to waters designated for small scale fishers using extremely damaging practices which effectively plough the seabed, extracting 90% plus by-catch which goes to waste. Industrial lobster fishing also includes the highly contentious and exploitative practice of lobster diving which has resulted in over 400 deaths and has left at least 3000 youths from indigenous and Afro-descendent communities permanently disabled <sup>(19 e, f)</sup>

In effect industrial fishing has been unsustainably exploiting fishing grounds designated for small scale fishers and exploiting youths from coastal communities. Previously the practice of lobster diving was undertaken by local communities by free diving, but this has been entirely displaced by industrial fishing since the 1970s.

GOAL argues that sustainable fisheries are key to the future of global food security, climate change adaptation and poverty reduction. Marine-coastal areas, and in particular fisheries, are of increasing environmental, social and economic importance. By 2025, an estimated 75% of the world's population will live in coastal zones, deepening the challenge of promoting sustained economic growth, improvement and diversification of livelihoods, conservation of biodiversity, fighting against climate change and protecting functional habitats for ancestral peoples. Approximately 90% of fishers globally are small-scale or 'artisan' and are responsible for 50% of all catches. Small-scale fisheries are a critical source of employment, income, food security and nutrition, with 3 billion people relying on fish as an important source of protein. However, the dynamics of the fishing sector

continue to generate worrying levels of poverty as a result of the weaknesses of the business market system and the lack of state public policies that make the contributions of fisheries and marine-coastal ecosystems invisible to local and national economies.

Evidence shows that overfishing, the loss of key habitats such as wetlands and mangroves, uncontrolled urbanization, among other factors, puts the social, economic, environmental, and cultural productivity of artisanal fisheries at risk. Nonetheless, evidence demonstrates that these trends can be reversed, and blue growth provides enormous potential to improve fishers' livelihoods, conserve marine coastal areas and ensure food security <sup>(6,19e.)</sup>.

Centred on building environmental, social, and economic resilience, GOAL's Resilience of the Blue Economy programme in the LAC Region leverages the potential of critical local market systems to create incentives for social inclusion and environmental conservation.

The 'Resilience of the Blue Economy' programme aims to support the critical role of coastal communities to address the multiple challenges and opportunities present in the Blue Economy through an integrated 'Local Systems' approach; from improved livelihoods and increased incomes, food security, protection of biodiversity and ecosystems, inclusion, good governance, climate adaptation and mitigation to strengthened resilience through their 12-point framework as mentioned above.

With support from partners including Irish Aid, the European Union, the Nordic Development Fund, USAID, the Inter-American Development Bank and the International Union for the Conservation of Nature, GOAL supports livelihoods opportunities and improves governance of marine coastal resources for indigenous and afro-descendent communities across almost 1,500km of coastline in the LAC region, supporting more than 5,000 fishers and their families directly to have improved food and economic security as well as increased resilience to climate related hazards.



## GENERAL CONSIDERATIONS

Based on its over ten years of working in the Blue Economy space, GOAL argues that a sustainable Blue Economy should be considered in relation to:

- The global food security crisis
- Supporting SIDS and vulnerable indigenous and afro-descendent communities
- Localization and empowering local communities to manage marine coastal resources
- Investment for 'Deal flow' and developing initiatives and evidence base for scaling
- Funding to strengthen enabling environments for Blue Economy investment
- Research in local systems for the Blue Economy and supporting Local systems approaches
- Mobilising actions to propel Innovation
- Acknowledging the role of women and youth in transforming the Blue Economy

# RECOMMENDATIONS

The Blue Economy is one of the most critical opportunities to sustainably address and transform the current state of and future food insecurity crisis. The goal is to make the Blue Economy in vulnerable regions and among corresponding communities more resilient. As such, GOAL outlines the following recommendations

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**GOAL considers a sustainable Blue Economy as an opportunity to addressing the global food security crisis and for building sustainable partnerships through local systems, as a way forward to scale up ocean action.**

GOAL therefore argues in favour of building partnerships through a local systems approach for ocean action and scaling solutions, particularly those relating to partnerships in support of Small Island Developing States and vulnerable indigenous and Afro-descendant coastal communities

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**GOAL supports a focus on localization and putting the management of marine coastal resources into the hands of local communities.**

In our work, this local systems approach has driven successful management of natural resources ensuring equitable access to natural resources and incentivizes improved management. This is highlighted in GOALS

current work in using the Resilience for Social Systems (R4S) approach. The Resilience Approach for Social Systems (R4S) is a tool to analyse the resilience of critical socio-economic systems and proposes recommendations for their strengthening in order to build more inclusive and resilient societies <sup>(21)</sup>.

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**GOAL further supports the importance given to all integral dimensions of the Blue Economy and the necessity of fostering global and transnational cooperation towards a macro-regional approach.**

To this end, GOAL emphasizes the need for improved and strengthened cooperation among organisations and countries through existing frameworks, initiatives, and programmes. This is highlighted through GOALS own approach of delivering programmes in Emergency Response, Food & Nutrition Security, Resilient Health and Sustainable Livelihoods across 14 different nations, with programmes like the 'Resilience of the Blue Economy' and delivered with diverse partners throughout the LAC region. GOAL also promotes Global Citizenship, recognising that we all share responsibility for a better world.

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In relation to the above on local systems, GOAL believes that authorities responsible for Research, Development and Innovation at national level should support further developments in the Blue Economy.

GOAL suggests that stakeholders seeking to actively contribute to a sustainable Blue Economy, should develop a dedicated Research and Innovation Strategy. GOAL believes in investing and supporting innovation related to the Blue Economy.

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GOAL believes that access to programs and facilities (such as GOAL's Programme Innovation Lab) for innovative ideas in operational environments is essential to proofing performance, survivability, and reliability of solutions;

it is necessary for the selection of "winning" ideas. This makes the creation and establishment of living laboratories, for the testing of ideas and co-creation of solutions in operational environments, necessary.

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GOAL stresses the importance of a local systems approach – the involvement and participation of all relevant stakeholders in this co-creation, implementation and evaluation process.

GOAL supports, through its projects, the reinforcement of closer linkages between research, development and innovation actors, also through innovative territorial solutions based on inclusive and co-design approaches.

GOAL therefore advocates, in close cooperation with the main regional actors, for an innovation alliance to enhance and streamline efforts ongoing both at transnational and territorial levels building on innovation to move towards a sustainable Blue Economy, as exemplified through its local systems approach.

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In response to the lack of Deal Flow, GOAL emphasizes the need for an increased number of investment opportunities available to organisations in recognition of the significant investment potential and social impact investment interest in the Blue Economy.

GOAL believes in the need for funding to support the development of partnerships and initiatives that can be presented for financing and then eventually scaled.

There is the need for funding for the development and co-production of ideas and deals that can be presented for funding. This includes providing support for pilot interventions that can build evidence bases and create opportunities for larger investment.

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GOAL believes in funding local systems approaches that provide sustainable solutions originating from Research and Innovation (R&I) and thereby ensuring successful diffusion.

Such approaches encompass the alignment of policy objectives, the coordination of policy and implementation instruments, programmes and the synchronisation of funding and investments.



## CONCLUSION

GOAL's work on the Resilience of the Blue Economy in the Latin America and Caribbean Region has consequently over the last decade been a journey that has sought to demonstrate how true sustainability in the Blue Economy may be achieved through a local systems approach and innovation.

Based on its experiences and engagements with key stakeholders, particularly local communities, GOAL's stance that an inclusive and resilient Blue Economy for Small Island Developing States and vulnerable indigenous and afro-descendent coastal communities, can be achieved by combining increased investments in local systems and innovation with strategic and creative alliances, that also capitalize collective action for our shared ocean.



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