

TURNING THE ECONOMY BLUE



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Editor: Francesca Predazzi

Blue economy perspectives in vulnerable countries

Pierre Failler

"The blue economy suggests a new way of looking at the economic development of aquatic and marine ecosystems and the creation of jobs."

An increasing number of coastal countries are betting on the blue economy to promote the sustainable development of their coasts. The blue economy is vital for the island nations of the Pacific, the Caribbean and Africa (ACP) because of their strong interdependence with the ocean. The blue economy is well understood to be about the sustainable use and conservation of the oceans.

In the African context it extends to inland waters because of the importance of lakes and rivers for national economies, livelihoods and food security. The blue economy is thus a set of human activities that organises, in an integrated, equitable and circular way, the production, distribution, exchange and consumption of goods and services resulting from the exploitation of aquatic resources, or the use of the support provided by aquatic environments. These activities also contribute to improving the health of aquatic ecosystems by introducing protection and restoration measures.

The blue economy is also a strategy for the development of the marine areas under national jurisdiction. Bangladesh, for example, initiated the process of developing a blue policy after the

expansion of its exclusive economic zone following two decisions by the International Tribunal of Arbitration on maritime boundaries with Myanmar on one side and India on the other.

The EU has promoted the blue economy since 2016 for the definition of policies and actions and for the implementation of a coordination mechanism. Maritime space and what it contains thus becomes an opportunity.

The blue economy is thus articulated around the valorisation of economic sectors and ecological components in a holistic way. By referring to the principles of the circular economy, it suggests a new way of looking at the economic development of aquatic and marine ecosystems and the creation of jobs. Given its inclusive nature, the blue economy is in line with the logic of the United Nations 2030 Agenda and embraces all of the Sustainable Development Goals (SDGs).

However, the blue economy remains at the conceptual stage for most countries, including island nations, because they have not developed institutional frameworks or deployed the necessary tools for its implementation.



"The implementation of blue economy strategies and policies requires an effective institutional arrangement, which can be defined as blue governance."

"Some countries such as the Seychelles, Barbados, Cabo Verde, Bangladesh and Kenya are leading by example."

Some countries, starting with the Seychelles, followed by Barbados, Cabo Verde, Bangladesh and Kenya are leading by example by setting-up a coordination mechanism with European support for the implementation of the blue economy.

Despite these efforts, the blue economy is mainly associated to the development of certain sectors such as coastal tourism or the exploitation of minerals from the seabed.

Given its holistic dimension, the only way to face challenges such as climate change and plastic pollution is through transformational change. The human, technical and financial resources that must be deployed to meet such challenges go beyond the sectoral scale.

As such, the implementation of blue economy strategies and policies requires the setting-up of an effective institutional arrangement, which can be defined as 'blue governance'. This relates to the processes of interaction and decision-making among the actors involved in a collective problem that would lead to the

creation, reinforcement, or reproduction of norms and institutions.

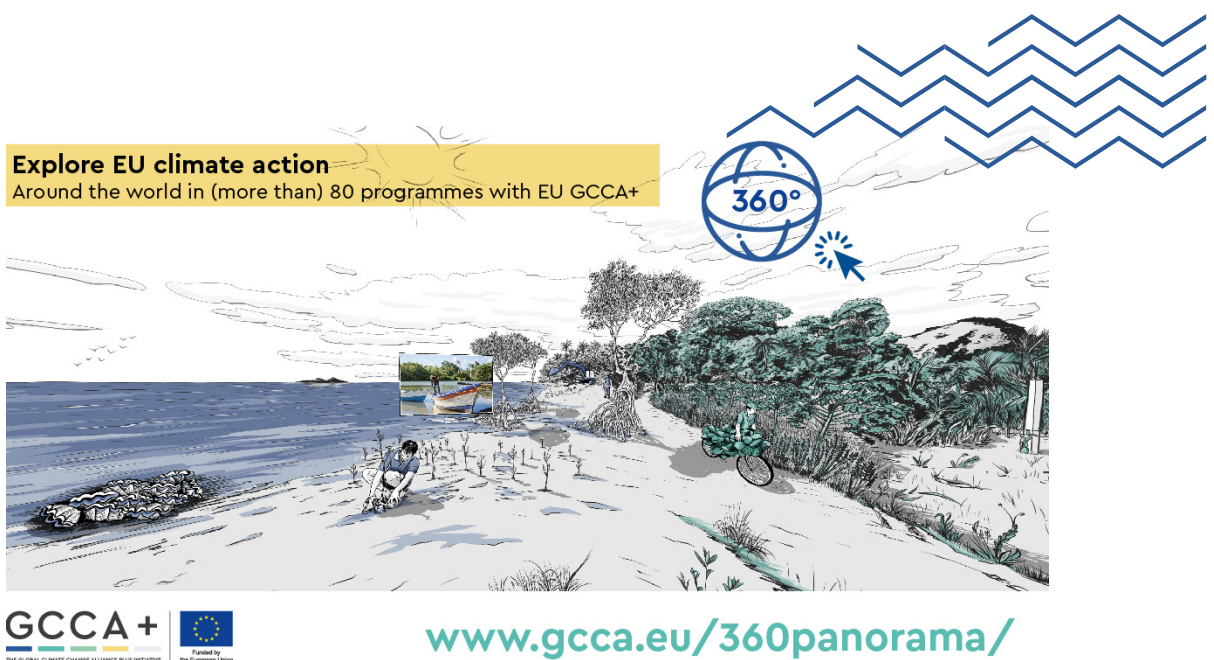
More precisely, it refers to the coordination, planning (including maritime spatial planning), monitoring (including blue accounting) and blue international standards (referring to the circular economy) of the blue economy activities.

A governance framework is thus required to build a multi-scale organisational scheme and foster long-term collaboration among national institutions and with regional ones. In the context of the global COVID-19 pandemic, national economies have been negatively disrupted.

Island economies were particularly impacted because of the shutdown of the tourism sector that, for instance, accounts for more than half of the Bahamas and other Caribbean islands' growth domestic product. In that regard, blue economy policies are an important aspect of island and coastal states' recoveries. They serve to guide government and stakeholder efforts to revitalise the economy in a resilient and sustainable manner while also enhancing natural and social heritage.

Explore EU climate action

A 360° online panorama of EU climate actions by the GCCA+ allows you to navigate across oceans, fields, forests, deserts and buildings and discover the many ways people can adapt to climate change.



Climate forward

Nature-based solutions for coasts and oceans



"Many countries have struggled to set clear targets for nature-based solutions within their Nationally Determined Contributions."

"GCCA+ recent support to integrated coastal action benefits the Dominican Republic, The Gambia, Senegal, Suriname, and Trinidad and Tobago."

The effectiveness of ecosystems in mitigating climate change is not a new discovery. Oceans, forests and soils have been recognised as natural carbon sinks for years. Oceans have a strong potential to absorb greenhouse gases. According to the International Union for Conservation of Nature (IUCN), 30 million tonnes of carbon dioxide (CO₂) are absorbed by the first few hundred metres of the surface of the seas and oceans, i.e. between a quarter and a third of what is emitted by human activities.

Nature-based solutions are implemented through activities aiming at the restoration, conservation or sustainable management of ecosystems. In the case of coastal areas and oceans, these include :

- Coastal restoration: flood and erosion control, storm protection, shoreline stabilisation;
- Sea level / under water conservation: protecting breeding and nursery habitats, wild plants and animal resources, leading also to improved carbon sequestration and reduced warming;
- Sustainable use and harvesting: fish and shellfish harvest, human well-being and cultural heritage.

Still, many countries have struggled to set clear targets for nature-based solutions within their Nationally Determined Contributions (NDCs). Only a few propose indicators for measuring impacts. Of the states with coastal ecosystems, fewer than one in five include them in their climate change mitigation measures, and many declared marine protected areas do not receive any support. Currently, only 15 % of land and 8 % of marine areas are protected, with differing monitoring requirements and management policies.

Countries benefitting from GCCA+ support to integrated coastal action between 2018 and 2024 include the Dominican Republic, The Gambia, Senegal, Suriname, and Trinidad and Tobago. All intend to make meaningful contributions to the NDCs through activities that mostly a local impact. Most GCCA+ projects promote the integration of local populations in the implementation of nature-based solutions and conservation actions as an effective way to combine conservation and development. This approach is only a first step and governments need to move forward in integrating climate issues and risks in national policies.

The [Oceans Dialogue](#) launched in December 2020 led to the following recommendations:

- Strengthen the understanding that action for the oceans is action for the climate and that ocean finance is climate finance – and vice versa.
- Increase the ambition that includes ocean action and integrate ocean-based solutions into NDCs, National Adaptation Plans (NAPs) and other national processes.
- Hold regular dialogues within the United Nations Framework Convention on Climate Change (UNFCCC) process to continue to strengthen understanding and action on oceans and climate for further progress.

In 2021, the Nairobi Work Programme prepared [guidelines on coastal adaptation and nature-based solutions](#) for the implementation of NAPs. It aims at providing advice on accessing finance for the implementation of nature-based coastal and marine solutions to increase resilience to extreme climate events and other changes in climate patterns.

Geraldo Carreiro

Case study

Maldives and Barbados: waste and tourism entangled



Country:
Vulnerability (CRI Index):
EU GCCA+ Project:

Maldives
111th most vulnerable country
EU Support to implement the Nationally Determined Contributions (NDCs) related to Green House Gas emissions in the Maldives



Country:
Vulnerability (CRI Index):
EU GCCA+ Project:

Barbados
130th most vulnerable country
Capacity building for CO2 mitigation from international aviation



"Before COVID tourism accounted for 25.2 % of GDP in the Maldives and 36 % in Barbados."

The Maldives and Barbados are classified as Small Island Developing States (SIDS) and, before the COVID-19 outbreak, their primary source of income came from the tourism sector. For the Maldives tourism accounted for 25.2 % of its GDP in 2019, with more than a third of government tax revenue coming from tourism, according to the National Bureau of Statistics. The situation for Barbados is very similar: in 2019, travel and tourism was equivalent to 36.2 % its GDP.

Both the Maldives and Barbados also rely on tourism for their economic "renaissance". Barbados' Central Bank Governor, Cleviston Haynes, announced that tourism is vital to the relaunch of the economy after the COVID-19 disruption. The Maldives tourism recovery has been anchored on facilitating maximum safety and security measures for tourists, employees and the public.

The re-opening of the Maldives' borders, the growing numbers of scheduled airlines (more than 30) flying to the Maldives, most of them long haul, are all elements that represent a ray of hope for the economy.

Tourism is seen as a golden economic opportunity. However, tourism and the emissions from the whole tourism sector/stakeholders are not assessed using the Measurement, Reporting and Verification (MRV) exercise. They are only roughly quoted in the Maldives and Barbados updated NDCs. A growing number of tourists implies growing amounts of waste to be managed and increased emissions if no mitigation actions are considered. These higher volumes of waste threaten the quality of ecosystems on which tourism is based. Sustainable tourism requires governments to promptly address the issues related to the scarcity of disposal facilities and the risk of contamination of freshwater sources.

"Making tourism a sustainable one implies taking care of the whole tourism value chain, including waste."



"In 2019, SIDS produced an average of 2.3 kilograms of waste per person per day, much of it from the tourism sector."

Unfortunately, waste is a geographical/inherited problem for all SIDS. None is excluded. This is due to multiple factors such as a growing population, rapid development and increasing imports of goods, insufficient investments in waste management, the absence of integrated master plans, challenges in running a sustainable financial mechanism for waste (cost recovery with fees and levies) and weak data collection systems. As per the Organisation for Economic Co-operation and Development (OECD) in 2019, SIDS produced an average of 2.3 kilograms of waste per person per day, much of it from the tourism sector.

The Maldives in South Asia, and Barbados in the Caribbean, are examples of SIDS' efforts to manage waste in remote areas, with a scarcity of land, a paucity of appropriate technology, and challenges in realising viable waste management operations due to poor economies of scale, including recycling.

They are part of the Implementing Sustainable Low and Non-Chemical Development in Small Island Developing States (ISLANDS) programme aiming to address chemical and waste management in SIDS globally, with a focus on countries in the Caribbean, and the Pacific and Indian Oceans.

Both the Maldives and Barbados launched their solid waste management programmes to cope with their challenges and preserve both their ecosystems and economies. However, COVID-19 hampered the existing threats and delayed investments in infrastructure.

COVID-19 vaccination campaigns and international procedures to re-open touristic activities may relieve the Maldives and Barbados economies. However, national sanitary and key infrastructure measures will also be prioritised. Tourism will be used as a catalyst to address waste management problems.

Making tourism sustainable implies taking care of the whole tourism value chain, including waste. It involves anticipating and acting to mitigate the effects of natural hazards, the degradation of ecosystems and the negative impacts on society and economic capacity. Tourist resorts and managing companies play an active role in improving solid waste collection, reticulation systems, treatment and disposal facilities (both public and private) as they are both actors and beneficiaries of tourism recovery.

"Both the Maldives and Barbados launched their solid waste management programmes."



Monica Bonfanti

Case study

Bangladesh: untapped potential of the marine environment



Country:
Vulnerability (CRI Index):
Eu GCCA+ Project:

Bangladesh
13th most vulnerable country
Eu GCCA+ Project: Local Climate Adaptive Living Facility (LoCAL II)



"The EU-Bangladesh collaboration contributed to the formulation of a national vision and governance framework on the blue economy and to its implementation."

"Key actions in the Bay of Bengal include biotechnologies for the exploitation of algae and the development of offshore fisheries, as well as the establishment of oceanographic research capacities."

Between 2012 and 2014, disputes over the maritime boundaries with Myanmar and India were favourably settled for Bangladesh, resulting in the expansion of its territorial waters by more than 30 %. This achievement offers a wide range of new economic opportunities for jobs and growth around sectors such as marine fisheries, marine aquaculture, tourism, the exploitation of natural resources, trade and energy.

Thus, since 2014, the Government of Bangladesh has initiated discussions with stakeholders on adopting the concept of blue economy across relevant policies and plans with the idea of exploiting the untapped potential of the marine environment.

The EU provided a two-year (August 2016–July 2018) technical assistance programme entitled 'EU-BGD joint collaboration on Blue Economy', which was implemented by the Maritime Affairs Unit, Ministry of Foreign Affairs. The programme contributed to the formulation of a national vision and governance framework in the field of the blue economy, and to its implementation in a broader partnership that included government, the private sector, academia, and other stakeholders.

It has created a working environment where the cooperation between ministries is central, in the same way that the collaborative work with research and educational institutions and the private sector is at the heart of the blue economy implementation scheme.

The EU-Bangladesh blue economy initiative has also enhanced the partnership with the World Bank for the definition of the key actions to set-up in the Bay of Bengal, such as the development of biotechnologies for the exploitation of algae and the development of offshore fisheries, as well as the establishment of oceanographic research capacities. Furthermore, it has led to collaborations between institutions from Bangladesh and Europe, with some university agreements signed since the programme's end in July 2018.

This has ultimately led to the development of an ongoing research collaboration and the development of online training courses on the blue economy. Two special issues of a scientific journal on the blue economy in Bangladesh were published following the common research activities in 2019 and in 2021.

Pierre Failler

Story

Pacific youth and the blue economy



"In the Cook Islands local youth were trained in safe free diving techniques to remove an infestation of crown-of-thorns starfish which destroy the coral reef."

"In Palau the beach monitoring activity is aligned with the school curriculum, which provides for sustainability and learning."

"Small specific on-the-ground actions repeated over time and in many different locations contribute to a blue economy."

The Pacific Ocean, which covers 30 % of the Earth's surface, is the source of life for Pacific Island countries, which depend on it for food, income and employment. Yet this critical resource is under threat from the impacts of climate change, marine pollution and over-exploitation.

The EU-funded Global Climate Change Alliance Plus Scaling up Pacific Adaptation (GCCA+ SUPA) project is working closely with ten Pacific Island countries to address these threats by scaling up specific climate change adaptation measures that put people at the centre of development. While the challenges are daunting, the project adopted a focussed approach to implement specific measures, one step at a time.

In the Cook Islands, major declines in marine resources have been experienced in recent decades. Outbreaks of crown-of-thorns starfish, which can rapidly destroy coral reef ecosystems, have been detected in the southern Cook Islands.

During a visit to Mauke in 2021 to engage with youth and adults on the application of traditional knowledge to marine resource management, local youth were trained in safe free diving techniques to remove an infestation of crown-of-thorns starfish.

More than 119 crown-of-thorns starfish were removed and outreach efforts are underway to make this activity part of a regular monitoring and eradication programme. The project is also expanding the infrastructure and technical capacity of the Aitutaki Marine Research Station to support proactive measures such as clam aquaculture.

The volume of plastic debris entering the world's oceans and impacting marine life, water quality and industries such as tourism is one of the most serious environmental challenges of this century. The scale of the issue is intimidating.

Palau in the northwest Pacific is famous for its pristine marine environment, which attracts divers from all over the world and provides food and livelihood for Palauans. With the support of the GCCA+ SUPA project, and other initiatives, students, teachers and residents are embarking on a long-term initiative to address plastic pollution.

Plastic litter is regularly sampled from the beaches using established protocols, sorted into micro, meso and microplastic groups, counted, and the results shared with the Big Microplastic Survey, a worldwide monitoring programme pioneered by the University of Portsmouth in the UK.

Understanding the nature of the problem is the first step to effective coordinated solutions. In Palau the monitoring activity is aligned with the school curriculum, which provides for sustainability and learning. Additionally, beach clean-ups are conducted after each monitoring visit.

Small specific on-the-ground actions such as these, repeated over time and in many different locations can foster worldwide environmental stewardship and contribute to a blue economy.

***Gillian Cambers
Zhiyad Khan
Jovesa Naisua***

GCCA+ SUPA

Intra-ACP in focus

Women and Fiji's blue economy study



By profession Roslyn is a high school teacher specialising in the area of chemistry and food science. Her contribution towards enhancing academic teaching and learning at the high school level had been immense for over a decade. Roslyn is working on examining and documenting the role of women in small-scale fisheries in the Tailevu and Serua coastal communities of Fiji. She is examining the impacts of climate change on small-scale fisheries, particularly on food insecurity in these Fijian coastal communities.

The overriding issue is that for small-scale fisheries, food security and livelihood cannot be effectively managed, improved, and transformed if women are not precisely represented in statistics, research, and decision-making. Through her contribution, Roslyn hopes to provide recommendations for future researchers and policymakers to better understand gender equity in small-scale fisheries and how it can be integrated into better coastal resource management and policy planning to increase food security and resilience in Fiji.

Roslyn is very involved in climate action, especially with young people. She participated virtually in COP26 as an observer supporting the Fiji Delegation in Glasgow. Through her virtual participation, Roslyn was able to attend some of the bilateral and multilateral discussions.

In reviewing the outcomes of COP26, Roslyn points out that 'despite not being able to bring together nations to meet the goals of the Paris Agreement, the "[Glasgow Climate Pact](#)" has yet again set the groundwork for scaling up of climate actions'.

Jean-Rémy Daue

*Intra-ACP GCCA+ Support Facility
Communication & Knowledge Management
expert*



Roslyn Dass-Nand is a Masters student funded by the EU and the Intra-ACP GCCA+ Pacific Adaptation to Climate Change and Resilience Building (PACRES) Programme. She is also a climate change activist at the University of the South Pacific. Her interests are the blue economy, food security and gender equity. Roslyn's Masters study focuses on integrating gender equity into small-scale fisheries to improve food security and resilience in Fiji.

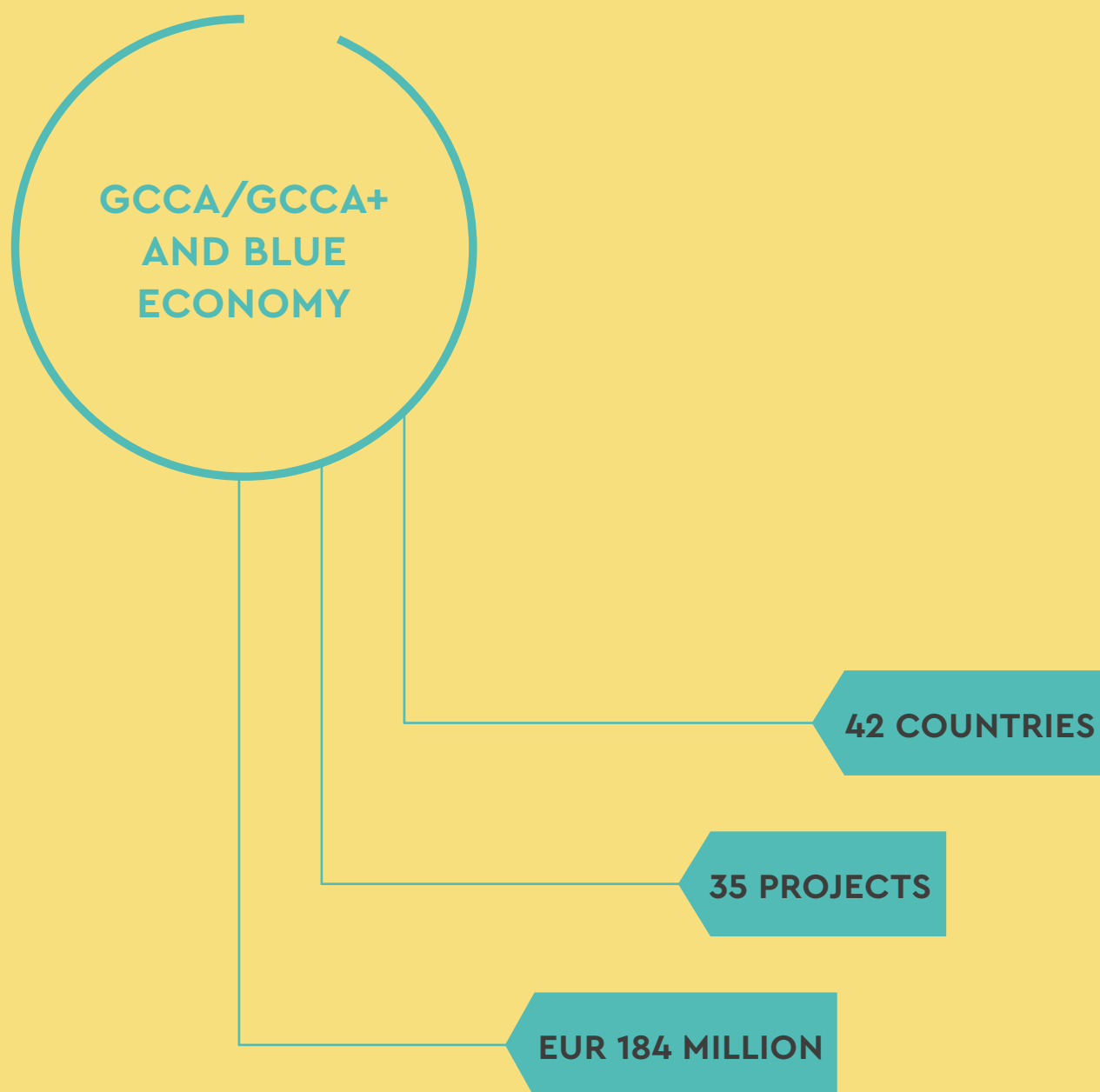
To support this study, Roslyn published an article in the [Women in Fisheries Newsletter](#) (#34) and noted the lack of information on the role of women in the small-scale fisheries sector. Fisheries data are documented for direct, formal and paid fishing activities, which are mostly carried out by men.

Activities carried out by women are unpaid, informal and indirect, and as such are not recognised and reported. This paints an incomplete picture of women's role in small-scale fisheries, undervaluing their contribution towards food security, small-scale fisheries resource management and building resilience in the Pacific Island countries.

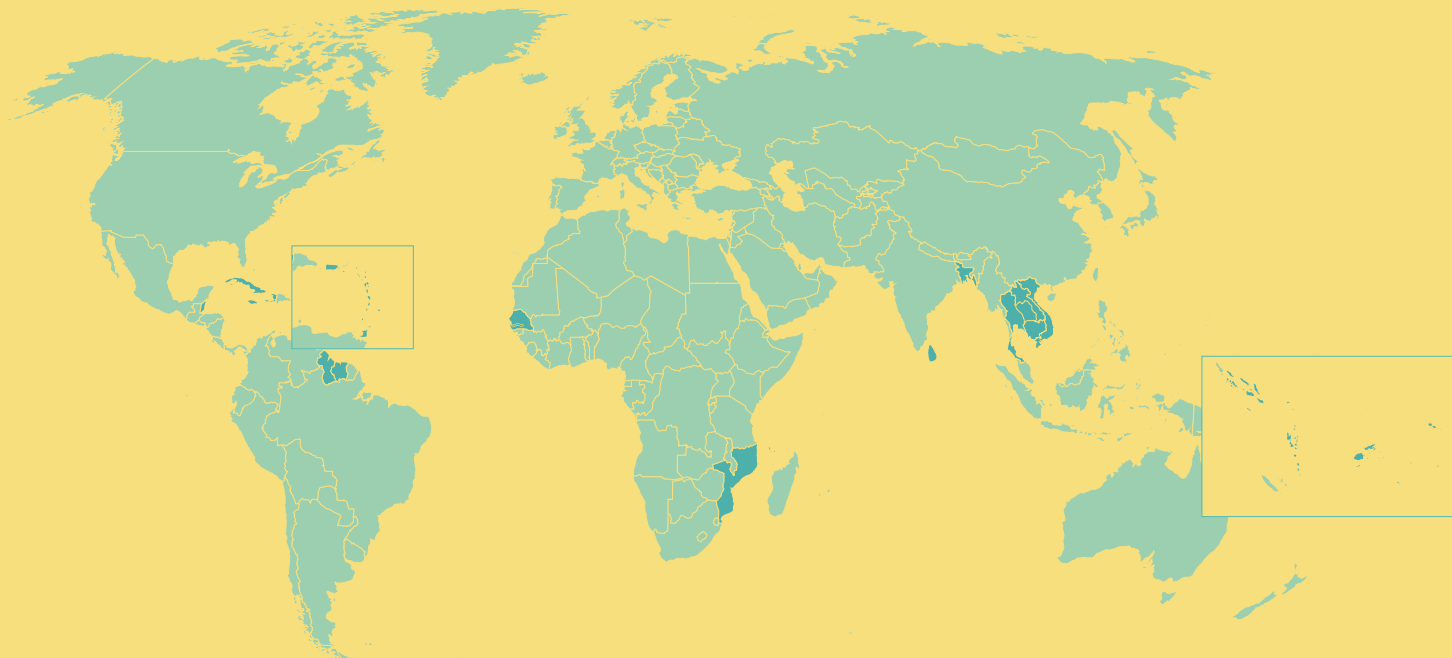
"Activities carried out by women are unpaid, informal and indirect, and as such are not recognised and reported."

"Food security and livelihood cannot be effectively managed, improved, and transformed if women are not precisely represented in statistics."

THE EU GCCA+ BAROMETER















COUNTRIES OF INTERVENTION



BANGLADESH, BELIZE, CAMBODIA, COMOROS, CUBA, EASTERN CARIBBEAN (ANTIGUA AND BARBUDA, COMMONWEALTH OF DOMINICA, GRENADA, MONTSERRAT, ST KITTS AND NEVIS, ST LUCIA AND ST VINCENT AND THE GRENADINES), GUYANA, HAITI, JAMAICA, LAO, LOWER MEKONG RIVER (CAMBODIA, LAOS, THAILAND, VIETNAM), MALDIVES, MOZAMBIQUE, PACIFIC SPC (FIJI, PALAU, FEDERATED STATES OF MICRONESIA (FSM), RMI, NAURU AND KIRIBATI, COOK ISLANDS, NIUE, TONGA AND TUVALU), SAMOA, SENEGAL, SEYCHELLES, SOLOMON ISLANDS, SRI LANKA, SURINAME, THAILAND, THE GAMBIA, TOBAGO, TRINIDAD, VANUATU, VIETNAM

SOME EU GCCA+ ACTIVITIES SUPPORTING BLUE ECONOMY

Projects	Action	Countries* / Regions**
 17	INSTITUTIONAL STRENGTHENING FOR BLUE ECONOMY RELATED THEMATICS	BELIZE, CAMBODIA, COMOROS, CUBA, GUYANA, HAITI, JAMAICA, LOWER MEKONG, PACIFIC SPC, SENEGAL, SEYCHELLES, SRI LANKA, SURINAME, THE GAMBIA
 17	DISASTER RISK MANAGEMENT	BANGLADESH, BELIZE, CAMBODIA, CUBA, DOMINICAN REPUBLIC, EASTERN CARIBBEAN, HAITI, JAMAICA, MOZAMBIQUE, PACIFIC SPC, SAMOA, SEYCHELLES, SOLOMON ISLANDS, SURINAME, THE GAMBIA, VANUATU
 16	MANGROVE RESTORATION AND PROTECTION	BELIZE, CUBA, DOMINICAN REPUBLIC, GUYANA, HAITI, JAMAICA, MOZAMBIQUE, SAMOA, SENEGAL, SEYCHELLES, SURINAME, THE GAMBIA
 16	AWARENESS RAISING AND EDUCATION	BELIZE, CAMBODIA, COMOROS, CUBA, DOMINICAN REPUBLIC, EASTERN CARIBBEAN, JAMAICA, GUYANA, PACIFIC SPC, SAMOA, SENEGAL, SURINAME, THE GAMBIA
 14	COASTAL INFRASTRUCTURE	BANGLADESH, COMOROS, EASTERN CARIBBEAN, GUYANA, JAMAICA, MALDIVES, MOZAMBIQUE, PACIFIC SPC, SAMOA, SENEGAL, SEYCHELLES, THE GAMBIA, VANUATU
 13	KNOWLEDGE GENERATION AND RESEARCH	CUBA, DOMINICAN REPUBLIC, GUYANA, HAITI, JAMAICA, MOZAMBIQUE, PACIFIC, SENEGAL, SEYCHELLES, SURINAME, THE GAMBIA
 13	DEVELOPMENT OF ALTERNATIVE LIVELIHOODS	CAMBODIA, COMOROS, GUYANA, JAMAICA, MAURITIUS, MOZAMBIQUE, PACIFIC SPC, SAMOA, SENEGAL, SURINAME, TANZANIA, THE GAMBIA
 11	DEVELOPMENT OF INTEGRATED COASTAL ZONE MANAGEMENT	CUBA, DOMINICAN REPUBLIC, HAITI, JAMAICA, MOZAMBIQUE, PACIFIC SPC, SENEGAL, SEYCHELLES, THE GAMBIA, TRINIDAD AND TOBAGO
 8	SET-UP OF COASTAL MONITORING SYSTEMS	BELIZE, GUYANA, JAMAICA, LOWER MEKONG RIVER COMMISSION, PACIFIC SPC, SENEGAL, SURINAME, THE GAMBIA, TRINIDAD AND TOBAGO
 6	SUSTAINABLE FISHERY DEVELOPMENT	CAMBODIA, JAMAICA, MOZAMBIQUE, SAMOA, THE GAMBIA
 6	COASTAL WETLAND RESTORATION (OTHER THAN MANGROVES)	CUBA, DOMINICAN REPUBLIC, JAMAICA, PACIFIC SPC, SAMOA, THE GAMBIA
 5	MARINE AND COASTAL PROTECTED AREAS MANAGEMENT	CAMBODIA, JAMAICA, SAMOA, SURINAME

*The same country can have more than one project

**For details on regions see list of countries under the map on page 12



The best of Practice

Blue carbon accounting is the way forward

Blue carbon' has only been a part of our vocabulary since 2009 after the UN report Blue Carbon. The role of healthy oceans in binding carbon. The term emerged in the movement to implement the blue economy, at the same time as the concepts of 'blue growth', 'blue biotechnologies', and 'blue bonds'.

It refers to the CO₂ absorbed and stored by marine and coastal ecosystems. In open waters, phytoplankton plays an important role for the sequestration of carbon while the bottom of the sea ensures a key function of its storage resulting from the decomposition of plants and animals.

The same phenomenon exists along the coast where CO₂ contributes to the anabolism of plants to produce biomass through photosynthesis. Seagrass meadows, tidal marshes and mangroves are the three major blue carbon ecosystems given their sequestration and storage capabilities.

In 2015, only mangroves were recorded in the intended national determined contributions (INDC) for the preparation of the Paris agreement. Today, the tendency

is to expand the list to other blue carbon ecosystems as the importance for climate change mitigation is gaining increasing attention in coastal countries.

Thus, Cabo Verde has recently announced that it will include seagrasses in its NDC. In Mauritania, the large marine protected area of the National Park of the Banc d'Arguin is contributing to 20 % to the achievement of the country's NDC through the seagrass beds of the park, with an estimated value of USD 9 billion, and annual operating costs of only about USD 1.5 million: a very high return on investment!

Despite the significant contribution of coastal ecosystems to the climate change mitigation process, no country has yet put in place a formal blue carbon assessment and accounting mechanism. Currently, assessments are carried out on an ad hoc basis, and generally concern marine protected areas to highlight their importance. The focus of these assessments is no longer in terms of maintaining biodiversity, but in terms of combating the effects of climate change, which is much more likely to attract funding.

In this regard, the United Nations Economic Commission for Africa (UNECA) launched an initiative in 2020, the Blue Economy Valuation Toolkit, to report on the contribution of blue ecosystems to the development of the blue economy in African countries. The evaluation tool, adaptable to all ACP countries, as well as others, makes it possible to account for all the services produced by blue ecosystems in a relatively simple and inexpensive way.

More sophisticated accounting systems are under development, such as the UN System of Environmental-Economic Accounting (SEEA), which integrates economic and environmental data to provide a more comprehensive and multipurpose view of the interrelationships between the economy and the environment.

Efforts should be made in the short term to obtain a baseline evaluation of the blue carbon of coastal ecosystems, as well as the monitoring of its annual evolution based on the change of the size of blue carbon ecosystems and their ecological or health conditions.

Pierre Failler

EU GCCA+ THE ALLIANCE FOR A CHANGING WORLD

The **Global Climate Change Alliance Plus (EU GCCA+)** is a flagship initiative of the European Union helping the most vulnerable countries respond to climate change. It started in 2007 and has become a major climate initiative with over 80 programmes in Africa, Asia, the Caribbean and Pacific regions.

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