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THE EUROPEAN UNION AND NEIGHBOURS

Blue Economy Project Development Guidebook

A step-by-step approach for practitioners

HANDBOOK

April 2019



A project implemented by the consortium of: WS Atkins International (lead), Pescares Italia Sri, GIZ, SML



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The views expressed in this report are purely those of the writer and may not in any circumstances be regarded as stating an official position of the Integrated Maritime Policy Blue Economy (IMP-BE) Facility and the European Commission (EC).



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Abbreviations

ASC	Aquaculture Stewardship Council
BE	Blue Economy
EC	European Commission
EEZ	Exclusive Economic Zone
EIB	European Investment Bank
ENI	European Neighbourhood Instrument
EU	European Union
FAO	Food and Agricultural Organisation
FOS	Friends of the Sea
GCF	Green Climate Fund
IMO	International Maritime Organisation
IMP-BE Facility	Integrated Maritime Policy-Blue Economy Facility
ISA	International Seabed Authority
KPI	Key Performance Indicators
KRA	Key Result Area
MSC	Marine Stewardship Council
MSP	Marine Spatial Planning
OECD	Organisation for Economic Co-operation and Development
RBM	Result-Based Management
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNFCCC	United Nations Framework Convention on Climate Change
WWF	World Wide Fund for Nature



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1. Introduction

1.1. Background and definitions

Oceans are central for global sustainability and provide a multitude of social, environmental and economic benefits to humans. This is increasingly being recognized in environmental policies, as are the threats of continuing environmental degradation, pollution and overfishing that oceans are facing. As such, one of the 17 Sustainable Development Goals formulated by the United Nations in 2017 focuses on Life Below Water and ocean sustainability, requesting states to “conserve and sustainably use the oceans, seas and marine resources for sustainable development” (SDG 14, Source: UN 2017).

Since 2017, several UN-led initiatives have been established to mobilize action and funding for ocean sustainability. These include the UNFCCC’s Ocean Pathway¹ as well as the United Nations’ Ocean Conference², which resulted in over a thousand voluntary commitments to this goal, as well as in Communities of Ocean Action that actively supports the implementation of SDG 14. This is complemented by action from the private sector and civil society, such as the World Ocean Summits, which have been held by the Economist Group annually since 2012, and which evolved into a World Ocean Initiative in 2018³ (The Economist 2018).

In parallel, the Blue Economy (BE) concept has emerged as a central element of several environmental policies, such as the Integrated Maritime Policy of the European Union (EC 2012). The principles of the Blue Economy are closely linked to those of the Green Economy – the creation of employment, businesses and investments while significantly reducing environmental impacts - but with a focus on marine resources and economic activities around oceans, seas, and coastlines. It thus aims to create “a green economy in a blue world” (UNEP et al. 2012).

A related term that is sometimes used interchangeably is ‘Ocean Economy’. However, the slight difference between the two is that ‘Ocean Economy’ focuses only on the economic use of ocean resources, whereas the ‘Blue Economy’ goes beyond that by incorporating a sustainable development aspect.

The “Blue Economy” aims to promote economic growth, social inclusion, and the preservation or improvement of livelihoods while at the same time ensuring environmental sustainability of the oceans and coastal areas (World Bank 2017)

The Blue Economy encompasses - traditional ocean industries such as fisheries, tourism, and maritime transport, but also new and emerging activities, such as marine renewable energy, aquaculture, seabed extractive activities, and marine biotechnology and bioprospecting. In addition, ecosystem services provided by oceans are also considered, such as carbon sequestration, coastal protection, waste disposal and the existence of biodiversity (World Bank 2017). Figure 1 below provides an overview of established sectors in the European Union’s Blue Economy.

Globally, the Blue Economy has the potential to grow faster than the general economy, possibly doubling in size by 2030 (EC 2017). However, this growth potential is put at risk by the continuous degradation of the maritime resource base through unsustainable exploitation. Therefore, concerted action at both a policy level and on the ground is necessary to maintain and restore the resource base needed to sustain blue growth.

¹ <https://cop23.com.fj/the-ocean-pathway>

² <https://oceanconference.un.org>

³ <https://www.woi.economist.com>

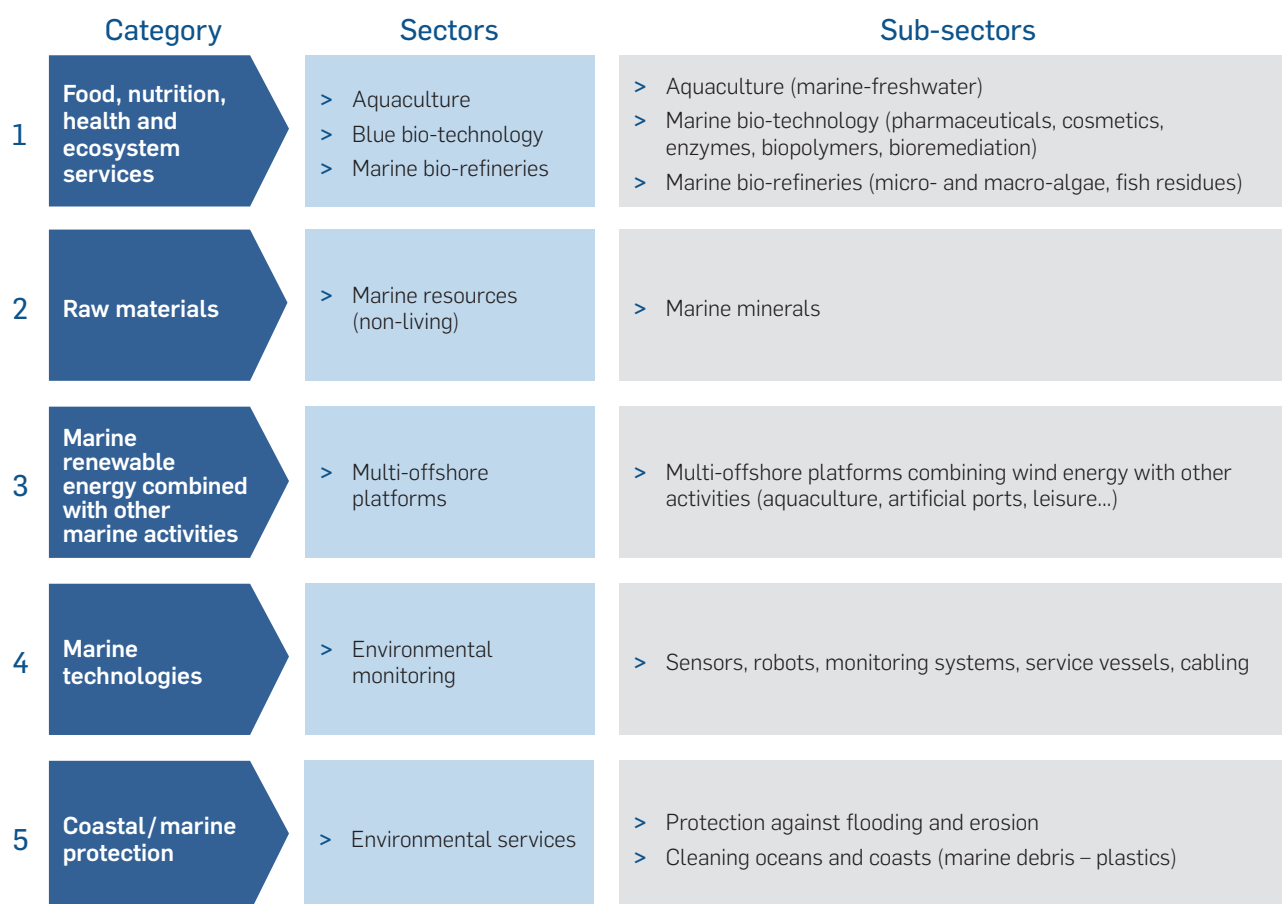


Figure 1: Five main categories of the Blue Economy

1.2 Characteristics of Blue Economy Projects

Sustainable Blue Economy Projects should of course have a relation to the maritime environment, but predominantly they should be defined by their purpose, which should promote at least one area of blue growth without detrimentally affecting others. Preference should be given to projects that not only promote sector growth but contribute to the restoration of the ocean's dwindling marine and coastal resources. Key characteristics should therefore ensure that the activity:

- > goes beyond business as usual and supports sustainable and equitable economic growth through oceans-related sectors and activities
- > restores, protects and maintains the diversity, productivity, resilience, core functions, and intrinsic value of marine ecosystems, including oceans, seas and coastal areas

- > includes, holistically, environmental, social and economic benefits for current and future generations, contributing to a wide range of areas such as food security, poverty eradication, livelihoods, income, employment, health, safety, equity, and political stability.

1.3 Aim and use of this guidebook

This project development guidebook has been prepared on behalf of the Facility for Regional Policy Dialogue on Integrated Maritime Policy and Climate Change (Fac IMP/CC). The IMP Facility applies a learning-by-doing and capacity building approach to encourage and support activities in the maritime economy. Through this guidebook, the Fac IMP/CC seeks to facilitate the development of Blue Economy projects on the ground in the ENI South region and partner countries.



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Table 1: Existing and potential Blue Economy activities in ENI South Countries, from Climatekos 2018⁴

Country	Current major relevant sector & activities	Potential growth areas/focal growth areas
Algeria	Maritime transport (goods and passengers), Fisheries	Coastal and maritime tourism, Marine Blue technologies, Offshore Oil and gas, Mariculture
Egypt	Fisheries, Coastal tourism, Water sports, Maritime transport (goods and passengers), Port services, Offshore Oil and gas	Desalination, Mariculture, Marine Blue technologies, Shipbuilding and repair
Israel	Desalination, Maritime transport (goods and passengers), Coastal tourism, Water sports	Offshore Oil and gas, Marine Blue technologies
Jordan	Maritime transport (goods and passengers), Coastal and cruise tourism	Marine Blue technologies, Desalination, Water sports
Lebanon	Transport (goods), Tourism, Fisheries	Offshore Oil and gas, Desalination, Offshore wind energy, Yachting, Marine Blue technologies
Palestine	Growth potential depends on political developments	
Tunisia	Coastal tourism, Maritime transport (goods and passengers), Offshore Oil and gas; Fisheries	Desalination, Shipbuilding and repair, Marine Blue technologies, Shipbuilding and repair
Morocco	Port services, Fisheries, Tourism, Maritime transport; (goods and passengers)	Marine renewable energies, Maritime transport, Desalination, Cruise ships, Mariculture, Marine Blue technologies; Shipbuilding and repair

This guidebook is designed to support the development of Blue Economy projects by providing hands-on step-by-step guidance to project developers and promoters. Whereas the information provided in this guidebook is in principle applicable worldwide, the specific target audience are the countries covered by the European Neighborhood Instrument (ENI South), namely countries of the Southern Mediterranean region, including Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Palestine, and Tunisia.

The background is the heavy reliance of the Mediterranean region on its marine and coastal resources, which generate an economic value of USD 450 billion per year, mostly from tourism and fisheries (Randone et al. 2017). At the same time, these economic activities cause negative environmental impacts, with 80% of fish stocks in the region overfished and severe habitat destruction and pollution taking place due to poorly planned tourism development.

Therefore, the region has a significant potential for developing a sustainable Blue Economy, which reduces environmental impacts while creating new employment opportunities and income. Overall, tourism and fisheries as well as aquaculture are the main BE growth areas in many ENI South countries. Table 1 provides an overview of current and potential Blue Economy activities in the ENI South countries, based on national assessments conducted by the Fac IMP/CC.

The guidebook provides detailed guidance on each step in the project development process; starting with the design of Blue Economy activities, the planning and establishment, through to the monitoring of implemented activities. The focus of this guidebook is on 'hard', technical investment activities on the ground rather than 'soft' activities such as strategic planning, research or capacity building. The latter usually follow different principles and the project development process presented here is only partly applicable to them.

⁴ Facilitating application procedures for Blue Economy project funding Accessing Blue Economy Finance - August 2018. Climatekos. Study funded by the European Union.

Although this handbook primarily targets investment projects, any public stakeholder aiming to develop and implement 'soft' BE activities with the need for funding can also use this guide. Potential key public beneficiaries include relevant government departments at operational and policy levels, such as national focal points, relevant units and committees, policy makers, authorities and departments concerned with BE, including local government stakeholders. Some parts of the handbook clearly concern project developers developing investment projects (e.g. Chapter 4, Feasibility assessment and quantification of BE benefits), whereas other parts apply to the development of soft projects as well. Please see the respective comments provided throughout the handbook.

Chapter 2 below provides an overview and summary of the typical project development process, followed by a detailed description of and guidance to the individual steps in the subsequent Chapters. The Annex provides a collection of resource materials, case studies of successful Blue Economy projects, as well as links to further reading.



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2. Overall project development process

This chapter describes the overall development process, from the initial project design and feasibility assessment, to the quantification, production of project documentation, implementation and monitoring of the activity. The development process consists of five concise phases (one of which is optional), each of which comprise several activities (Fig 2);

Step 1: Project Identification and initial planning

The initial project design includes the screening and scoping, comparison of alternatives, data collection, the determination of costs as well as the establishment of a project team. It is crucial to consider the financing for the planning, implementation and operation of a project early on in the process, to ensure the overall viability of the project. For large projects that are implemented in different phases several funding rounds may be needed.

Step 2: Feasibility assessment and quantification of benefits

A feasibility assessment is conducted to establish whether it makes sense to pursue the project idea, and to demonstrate credibility to a potential investor or donor. This analysis determines the overall ability and likelihood of the project to achieve positive outcomes, looking at the economics, technical factors as well as management and legal aspects, the timeline, project size and related milestones. If the project is deemed feasible, a detailed quantification of the (measurable) benefits of the BE project needs to follow – drawing on the collected and available data and applying the appropriate valuation methods and techniques. To this end, a quantifiable baseline needs to be established beforehand, as well as baseline and project (scenario) boundaries. Depending on the in-house expertise and capacity of the developer(s), external expertise may need to be contracted for certain tasks.

Step 3: Project design and documentation

After the two initial steps are completed, it is time for a comprehensive in-depth documentation of the project activities. A detailed project description clearly defines project activities, their objectives, milestones and time planning as well as the expected impacts and how these will be measured. The document describes the baseline scenario, and also contains relevant information for approaching donors or investors for funding. It can be useful to complement the Detailed Project Description with a letter of endorsement from the host country government.

Step 4: Validation and certification

Whereas the first three steps are always part of a BE project development process, the decision whether certification of the project is envisaged is a voluntary one. There will be markets or products for which certification is mandatory (e.g., mitigation projects); however, the blue economy sector is still in its infancy and not yet officially regulated. Relevant voluntary standards for Blue Economy activities include the ASC or MSC seafood standards⁵, which may be applicable. In general certification may enhance the credibility of the project.

Step 5: Project implementation and monitoring

Once all previous steps have been performed, the project can be rolled out step by step, either immediately at full scale or starting with smaller pilot sites, in accordance with the monitoring plan established as part of the project documentation (Step 3). Continuous monitoring and evaluation of what works and what doesn't allows the design to be readjusted if and where needed.

⁵ ASC- Aquaculture Stewardship Council; MSC- Marine Stewardship Council, two of several sustainability labels for seafood production and fishing

The development of projects pursuing soft activities will usually follow steps 1-3 as well. However, step 1 is usually different with regards to the viability of an investment project and mostly looks at value-for-money in the context of implementing soft projects. The screening and scoping and comparison of alternatives is also more an issue for investment projects. In step 2 the quantification of benefits differs from hard or investment projects as does the baseline determination, but results-based management and finance usually applies as well. Step 4 usually involves an evaluation rather than a validation and certification. The monitoring in step 5 differs from monitoring physical outputs of investment projects.

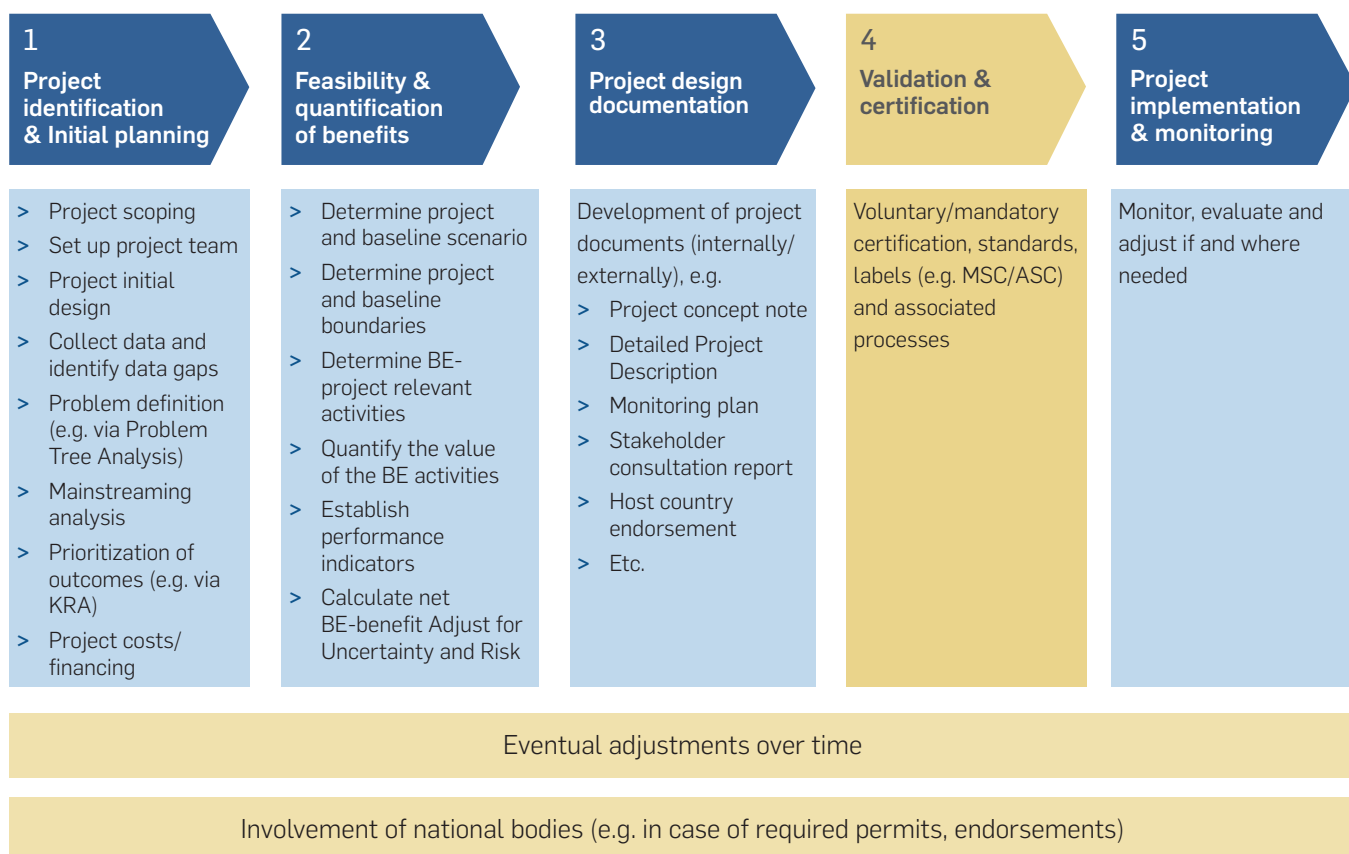


Figure 2: Schematic picture of project development process

The following Chapters present the different steps involved in this process in detail; steps are first described conceptually and followed by practical implementation guidance.



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3. Step 1: Project identification and initial planning

An essential starting point for any activity is the formulation of a well thought-through, sound project idea that is substantiated by as many details as possible. Taking time for careful project design, including initial data collection and the description of the idea can advance implementation in later stages and not least facilitate securing of funding. Therefore Step 1 of the development process receives extensive attention in this guidebook, presenting detailed practical guidance on the initial activities.

3.1. Project scoping and initial design

The scoping phase identifies an activity that complies with the key characteristics of BE projects (Chapter 1.2) and is rooted in one of the 5 BE sectors as defined in Fig 1. The basis is the identification of a problem, which leads to a first solution statement with related key objectives, activities and stakeholders, sequencing of such activities and indicators for measuring progress. Basically, the terms of reference for the project will be established. Another important consideration is whether a certification label can or should be pursued. Voluntary certification schemes (e.g. MSC/ASC for sustainable fisheries) are used to ensure compliance with certain environmental and social criteria and thus increase the credibility of the whole project, especially when approaching investors. An overview of existing standards is given in Annex III.

Establishment of initial project team

Usually and depending on the size of the project, a mix of technical and financial experts will be needed, combined with persons with coordination and management functions. It is important to consider early on whether staff requirements can be filled with

existing human resources, or whether external support is needed. Human capacities may be constrained by resources to coordinate an entire project (in particular if it is a large and/or cross-sectoral activity), the lack of specific skills and experience, e.g. in the involvement and partnering with communities or the private sector, or in supporting beneficiaries in adding value to their products to improve market access. The last point can be expected to be a common challenge in an environment with a low level of commercialization and a lack of regulation such as the BE.

Review existing project-specific information

The team will look into the available information and what policies and measures are already in place. However, considering the BE concept is in its infancy and only just emerging in maritime policies and planning, most countries will not yet have in place concrete policies and measures. This is where soft measures come in and try to address the lack of strategies, policies and planning frameworks. Together with a situation analysis and the above problem statement a first baseline situation will be established, to create a reference scenario of what would happen in the absence of the BE activity. This reference is important to later measure the resulting benefits and evaluate overall project success or failure (see Chapter 4).

Table 2: Example BE-sectors and their respective benefits

Sector	Benefits
Sustainable Shipping	Reduced carbon emissions and pollution, e.g. through ballast water/sewage discharge; energy efficiency
Sustainable Seafood	Benefits include sustaining seafood supplies, long term markets, Corporate Social Responsibility (CSR), access to finance for innovation
Sustainable/Eco-Tourism	Can generate higher revenues from tourists looking for holidays with a low environmental footprint; improve the environment and raise awareness, address consumption and target new markets as tourism is expected to grow

How to? Practical guidance to identify activities

First of all, it is important to identify an activity within a maritime sector with clear benefits and problem-solving characteristics. The examples provided in the following table show benefits for three representative BE sectors. Many benefits are sector/product-specific.

A situation analysis in the pre-project phase includes assessing available project-relevant information, technicalities and requirements as well as existing policies already in place. In addition, key activities and outcomes need to be defined. A useful tool for strategic planning in these early stages is the Result-Based Management approach (RBM), which is widely used in UN agencies and development projects and is closely linked to result-based-finance (cf. Climatekos 2018⁶).

It asks a number of key questions throughout the project development process, which help the user to stay focused and if necessary adjust the activity.

- > Assess: What is the current situation?
- > Think: What caused it? Who is involved?
- > Envision: What are we going to achieve?
- > Plan: How are we going to do it? With whom? When? With what resources?
- > Do: Get it done. How is it going? Do we need to adapt?
- > Review: What went well/badly? What can we learn for next time?

The RBM also foresees the formulation of Key Result Areas and Key Performance Indicators, which help to prioritize activities and funds (see Box 1). The example in Box 1 is a typical example of a soft measure, i.e. (institutional) capacity building.

Box 1: Key Result Areas (KRA) and Key Performance Indicators (KPI)

Key Result Areas (KRA) establish and highlight priority areas or activities and are essentially targeted outcomes of the project, which allow prioritizing measures to achieve strategic goals. In order to measure if the KRA's are achieved, Key Performance Indicators (KPIs) are established in planning stages to monitor, record and verify the progress of an output towards a desired outcome.

For instance, the GCF - Tuvalu Coastal Adaptation Project aims at increasing resilience of local coastal livelihoods, infrastructure and built environment against the impacts of rising sea levels and cyclone activity. Funding for specific activities was prioritized based on Baseline and Target Indicators to achieve Key Results, as follows:

Output	Activity	Barriers	Baseline indicator/ KPI	Target indicator/ KPI	Key Results Area
Strengthen human resources and coastal management	<p>a. Strengthen technical capacity to maintain current infrastructure</p> <p>b. Enhance awareness of coastal protection</p>	<p>Exclusive previous focus on short term capacity constraints</p> <p>High Staff turnover, lack of professionals</p>	Currently, there is no institutional arrangement where technical officers can gain technical skills	<p>Number of technical officers trained on:</p> <ul style="list-style-type: none"> > Monitoring / data synthesis on dynamic coastal processes > Designing of coastal protection measures > Environmental and social impact assessment > Project management 	Strengthen adaptive capacity of coastal infrastructure

⁶ Facilitating application procedures for Blue Economy project funding Accessing Blue Economy Finance - August 2018. Climatekos. Study funded by the European Union.



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3.2. Organisation of data, problem definition and prioritisation of outcomes

The preliminary project description needs to be further refined, to better reflect relevant project activities and related benefits. To this end, data constraints have to be addressed and a complete mainstreaming analysis has to be conducted.

Identification and resolution of data gaps

A review of existing project-specific information will reveal data gaps, most likely regarding necessary information (e.g. greatest risks and related vulnerability/ies) to perform a more robust problem statement and define a sound baseline scenario. Example questions to identify data and information gaps/constraints include:

- > Do we have sufficient data to determine the project baseline (i.e. the starting status quo used as reference when measuring project progress and performance)?
- > How many people currently benefit from climate-resilient livelihood options (e.g. from previous projects) and what are the profiles of the people that do?
- > How much more data would we need in order to build a more comprehensive dataset?
- > What type of data is most readily available to map the areas where such activities already take place?
- > What is necessary in order to implement or operationalize the program (i.e. in terms of human capacity, skills, time, resources or new techniques/technologies/studies)? What level of training programmes is needed?

The gathering of missing data and information might involve strengthened efforts of data collection or sometimes even the commissioning of dedicated studies to generate the required data or contacting local experts. The range and type of experts and data can vary and depend on the project needs and aims. An example for insufficient baseline data is provided in the Annex II.

Problem (tree) statement and baseline determination

A problem tree can categorize and organize project-relevant elements, as well as highlight any key areas of uncertainty to be sorted out during the (further) programming. This is the basis for a full baseline that is developed further on (see below).

How to? Practical guidance to perform a Problem Tree and Objective Tree Analysis

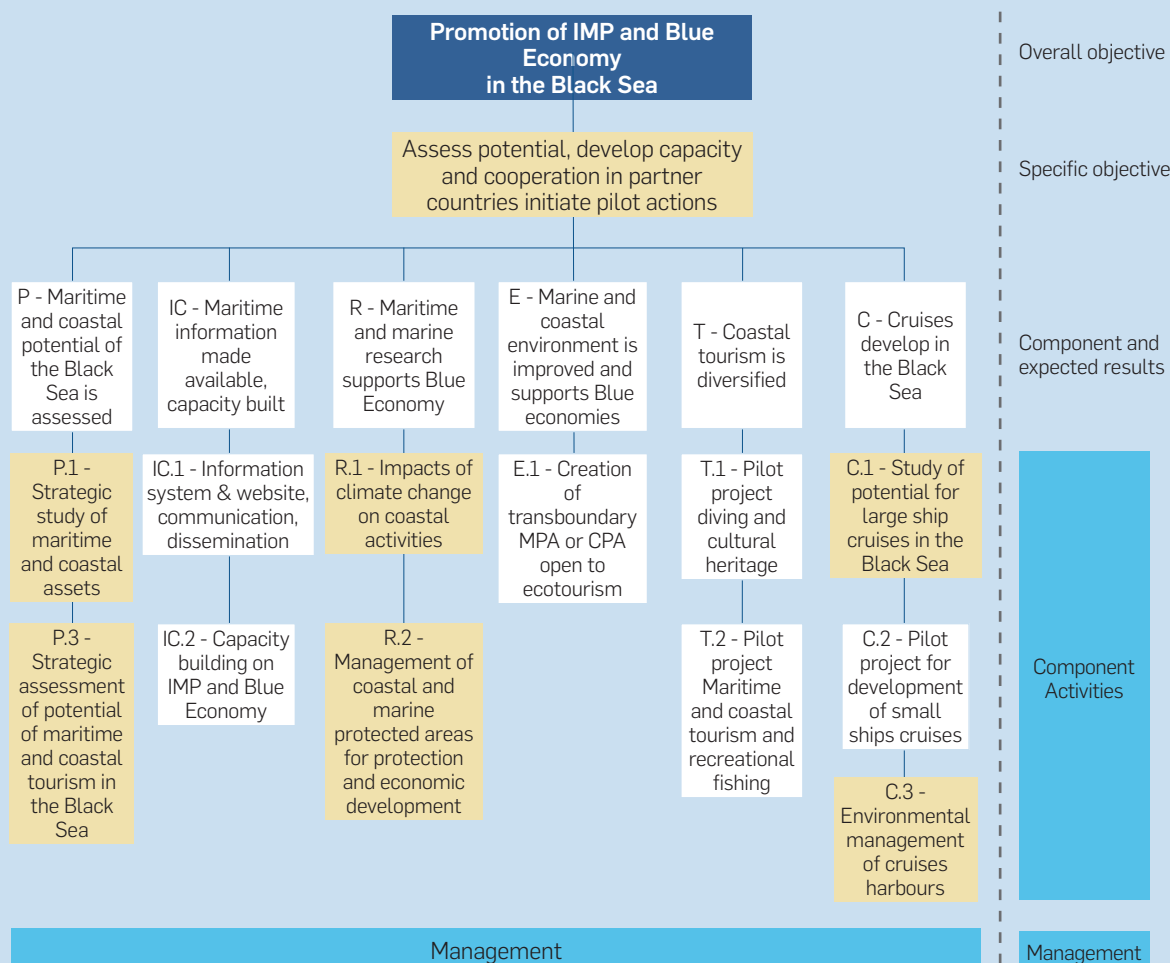
The first steps to any project planning and implementation require the clear identification of a problem to be solved, which will then imply the project's main objective and purpose. To that end, a variety of methods and analytical tools are available. One prominent example commonly used in the context of RBM is the Problem Tree and subsequent Objective Tree Analysis (see Box 2).

A Problem Tree Analysis identifies cause-effect relationships of a problem with the aim to develop solutions. It helps to understand and structure a range of complex issues and dynamics within a given problem space, by identifying:

- > the core problem/ issue to be addressed (trunk of the tree)
- > the main causes (roots) leading to the problem/ issue
- > the main consequences (branches) resulting from the problem

While assessing the problem, its causes and trickle down effects, influencing political, social, cultural or economic issues as well as the problem's dynamics that influence/change the causes and effects of the problem (positively/negatively) have to be considered. To this end, creating a map of all relevant current blue economy projects, existing practices and initiatives, constraints and uncertainties may be necessary. Once the Problem Tree is finalised, the Objective Tree can be created by rephrasing each problem into desirable positive conditions, as if the problem was already solved. Root causes will become core means/solutions and consequences will turn into ends. This process further helps identifying key entry points for the project. Such a process can also be used for soft BE projects; an example is provided in Box 2 below.

Box 2: Example of an Objective Tree:



Source: European Commission (2015)

Comprehensive mainstreaming analysis

A mainstreaming analysis identifies whether and to which degree BE-concepts have been adopted into major national and local policies, programmes, plans and/or strategies, including a review of all relevant BE projects and existing practices and initiatives. This also includes understanding the institutional framework and the legal tenure situation. Bearing in mind that overall the integration and development of the BE concept is in its early stages, a mainstreaming analysis may be limited to the questions of whether and which existing regulatory frameworks support or hinder the implementation of a given BE project, and what kind of incentives or subsidies might be tapped in to.

How to? Practical guidance to mainstreaming analysis

The institutional and regulatory setting and associated requirements depend on the BE project and sector. A distinction is made between the regulatory framework

(applicable laws, regulations and treaties; see Action 1 below) and the institutional framework (involved institutions and actors beyond the core project development team; see Action 2 below). The embedding institutional and regulatory framework is assessed at the national and international scale and covers the regional, national or local legal and regulatory provisions.

Action 1: Review regulatory framework

The maritime area has historically lacked clear, enforced or legally binding institutional or regulatory arrangements at the national and international levels. However, in addition to specific national laws, there are some international agreements to consider in the context of BE. Prominent examples are listed in Table 3 below.



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Table 3: Examples of relevant regulations for BE projects

International/Intergovernmental	Regional	(Cross-)National
United Nations Convention on the Law of the Sea (UNCLOS): major legal framework outlining the rights and obligations of States concerning activities in the oceans.	EU Marine Spatial Planning Directive (MSP)	Marine Protected Areas (MPA)
United Nations Fish Stocks Agreement (1995). In cooperation with regional fisheries management organizations provides framework for States to sustainably exploit the resources of their Exclusive Economic Zones (EEZs) and the high seas. Stipulates rules for Regional Fisheries Management.	EU Marine Strategy Framework Directive	Integrated Coastal Zone Management (ICZM) strategies and policies
Conventions adopted by the International Maritime Organization (IMO) , e.g. the International Convention for the Safety of Life at Sea (SOLAS) regulating maritime safety. ⁷	European maritime transport agreements (e.g. 2008/143/EC)	National plans and programmes such as NAPs, NAMAs or sector specific regulations and policies (e.g., coastal agriculture, fisheries management, shipping industry regulations, etc.)
" Mining Code " ⁸ issued by the International Seabed Authority, regulates prospecting, exploration and exploitation of marine minerals in the international seabed area.		

Other issues to look at within the assessment of the regulatory framework are tenure, use and property rights. Rights over land and resources can vary from exclusive ownership rights to usage or access rights and may come with allocated duties and responsibilities. The allocation of such rights to different (public and private) stakeholders has major

implications for the project for its feasibility, the transaction costs, capital access, and many other aspects. Secure tenure rights may even be considered a vital condition to attract private sector finance. In the context of a BE project, these issues may apply at different levels:

Table 4: Applicability levels of tenure, ownership rights and related issues

Coastal zone level	Maritime level	Cross-national/regional level
Private rights may be stipulated by national laws	The ocean can generally be considered as an open-pool resource. Private rights in the marine sector are rare but may exist (e.g. related to fisheries: individual transferable quotas (ITQs); Marine Spatial Planning helps demarking other relevant rights; e.g. shipwrecks.	Becomes relevant when looking at BE sectors, e.g. migrating fish stocks, deep-sea resources crossing national borders, etc.

⁷ For a comprehensive list of all IMO conventions see <http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/Default.aspx>

⁸ <https://www.isa.org/jm/mining-code>

Potential areas of conflict may include:

- > new (exclusive, private) rights for offshore/renewable resources may conflict with existing governance/(public) rights/(informal) indigenous community rights (see also “ocean grabbing”)
- > Attempts to commodify ecosystem services (e.g. blue carbon)
- > The trend towards more BE may encompass the transfer to private ownership. That may entail social conflicts (equity, sustainability vs. efficiency).
- > (cross-country) coordination/cooperation, particularly as many fish migrate between different EEZ and the high seas, resource deposits may be cross-national or vessels may operate outside the national borders.

There are some attempts addressing these areas of conflict within the BE sector: The international Coastal Fisheries Initiative (CFI)⁹ represents one example that tries to promote sustainable fisheries management by securing and establishing access and tenure rights within the EEZ. A key component of the CFI is a ‘Challenge Fund’ led by the World Bank and Conservation International. The fund will act as an on-demand grant mechanism that supports market-

based solutions for improved fisheries management, which requires CFI-countries and regions to create enabling governance conditions that facilitate investment. Creating such enabling environments and improving the regulatory framework are typical soft measures by public actors.

Action 2: Assess institutional framework

The project implementation process may involve different actors and institutions. Some of these may already exist and be operational while others, especially in the direct BE context, are still to be established (i.e. an institutional enabling environment for business services around BE markets needs to be developed, or government bodies in charge of project support or endorsement might be set up). Figure 3 presents an example of actors and their tasks which may be involved in the project development and implementation process using the example of sustainable seafood production. In addition, the institutional analysis should identify national efforts or programmes related to developing the Blue Economy; these are usually specific to each country (see example from Bangladesh in Annex II). Analysing and improving or creating institutional (governance) frameworks are typical soft measures by public actors.

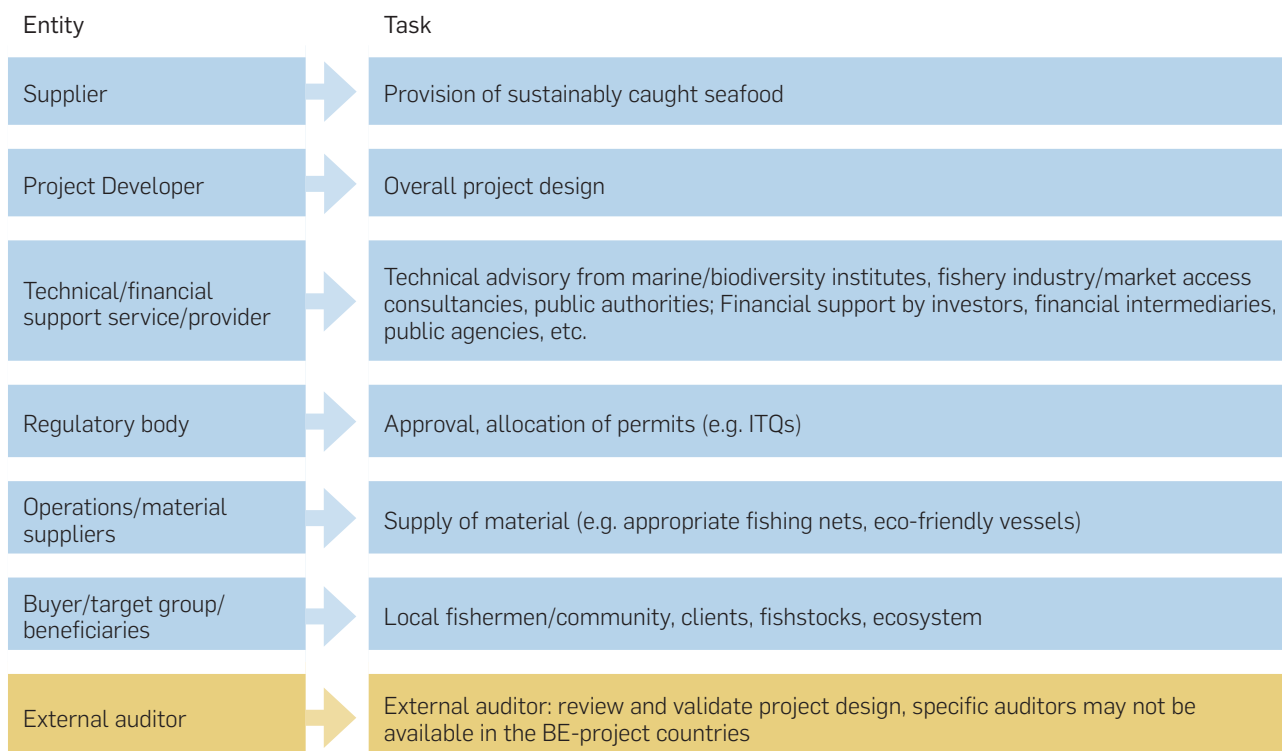


Figure 3: Example actors involved in BE-projects

⁹ <https://www.thegef.org/project/cfi-coastal-fisheries-initiative-program>



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3.3 Project cost and market considerations

The development of a feasible and viable BE activity does not stop with the technical and political analyses described above. An essential part is the determination of the overall cost of the planned activity, consisting of implementation, operation and management costs as well as project transaction costs, together with a financing concept. In addition, market considerations will include the identification of supply, demand and related market(s), whilst looking at the operational capacity and the creation of networks to access market(s). This whole section is clearly targeted and relevant to investment projects only, although soft activities obviously require a sound budgeting process as well.

Project costs and finance

The cost of financing the project and the implementation itself, including operating and management costs, will need to be determined in a budgeting exercise. The question from which sources these costs will be covered needs to be answered through a financial model that incorporates available and potential amounts and the mix of grants, equity, debt and innovative environmental finance. The use of the latter may incur transaction costs to create a saleable service (e.g. through the provision of the environmental service of sequestering blue carbon and the creation of related tradable credits) that need to be considered as well. In addition, many projects will require a certain amount if not a complete injection of seed funding to develop the concept and design the project to a certain level in the first place.

However, with the Blue Economy being a new emerging topic whose economic development potential is only starting to be acknowledged, specific BE-allocated financial instruments, vehicles and flows are rather scarce at present. Conventional public funding (i.e. domestic finance, ODA, concessional loans) as well as private financing may be available for certain BE projects. Depending on the size and scope of the project such conventional public funding may still need to be up-scaled and complemented by new financial sources (such as blue bonds, venture capital, etc.). The interlinkages between BE topics and climate change measures might allow tapping into climate finance for the implementation of BE activities, which is described in further detail in Climatekos 2018.¹⁰

How to? Practical guidance to de-risking investments through innovative public financial instruments

Project financing

For BE projects, elevated financing costs can be expected, because of higher risk-characteristics due to infancy of the concept, a lack of experience with activities and a still poor market infrastructure. In this context, public interventions to de-risk investments become crucial, especially to promote private sector involvement. Some recent innovative financial instruments and arrangements are listed below and in the example box to show existing and emerging opportunities (included in the Nairobi Statement of Intent on Advancing the Global Sustainable Blue Economy¹¹):

Instrument	Support to Blue Economy activities
PRO BLUE (multi-donor trust fund)	Management of marine litter in developing countries. Sweden contributes US\$ 33.3 million to support transition into blue economy and realization of SDG 14
EU's External Investment Plan	Mobilisation of nearly 44 billion EUR of investment by 2020 (objective), including for the blue economy
European Investment Platform	Assistance mechanism by the EC dedicated solely to the blue economy to support Small and Medium size Enterprises (SMEs)
Blue (carbon) bonds	The Seychelles issued the first sovereign blue bond to the magnitude of US\$15 million to attract private investments in sustainable fisheries; the NGO The Nature Conservancy supports debt free financing through blue carbon bonds and other means of debt swaps
Blue Economy Bank	Kenya aims to support the growth and development of the blue economy sector
Water financing facilities	The Netherlands committed EUR 10 million to unlock finance for low carbon climate-resilient development through such facilities

¹⁰ Facilitating application procedures for Blue Economy project funding Accessing Blue Economy Finance - August 2018.

Climatekos. Study funded by the European Union.

¹¹ <https://www.isa.org.jm/mining-code>

Box 3: Piraeus Blue Growth Initiative (BGI)¹²

Piraeus Blue Growth Initiative (BGI) is a structured entrepreneurship and innovation competition focusing on the marine and maritime economy. The BGI helps early-stage entrepreneurs develop and realise innovative business concepts and create jobs in the Blue Economy. Operating as an annual business plan competition, the initiative is effectively a programme of activities to help aspiring Blue Growth entrepreneurs get 'investment ready' – to effectively prepare their business ideas to the stage where they can secure external investment.

Identification of supply, demand, and related market(s)

The nature of project activities, costs and financial revenues will determine which kinds of services and products can be provided to which kinds of markets (e.g. carbon sequestration, biodiversity, ecosystem services as coastal protection through mangroves). As a basis, the market and potential buyers need to be understood. Are individuals, businesses, public players the potential buyers? Are integrated products sold? What are the marketing and communication strategies to attract these buyers? The identification of existing

or evolving certification standards and labels and respective criteria to comply with will be part of these considerations in this phase. Furthermore, innovative approaches should be considered for investment propositions, e.g. combining innovative environmental finance with more conventional finance solutions. Designing bankable projects may also include bundling of smaller activities to reach a critical mass making a (more) compelling business case. An analysis of related project risks may lead to the consideration of risk mitigation measures such as insurance.

How to? Practical guidance to market assessment

A thorough **market analysis** that identifies supply, demand and related markets is key in the project design phase, as it will have direct implications for future project revenues and cost.

Action 1: Identify supply/products and demand/potential buyers

The very first step is to clearly identify which products and services will be generated by the project activity. In a next step, an assessment is needed of whether markets or demand for these products exists, or can be expected in the future. The table below provides relevant examples for Blue Economy activities:

Table 5: Relevant examples for Blue Economy activities

Activities/Sector	Products/Services	(Potential) Demand/Buyers
Blue renewable energy	Electricity, emission reductions	Industry, households for electricity; voluntary carbon market or market for emission reductions under the Paris Agreement
Sustainable aquaculture	Seafood; fish	Environmentally aware industry/consumers; gastronomy
Sustainable tourism	Low environmental footprint of leisure activities	Environmentally aware industry/consumers
Marine mineral resources	Sulphides, phosphorites	Industry
Blue (sustainable) biotechnology	Macroalgae-based foods and cosmetics; seaweed	Industry/consumers

¹² <http://urbact.eu/bluact-why-blue-economy-increasing-sea-opportunity>



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Action 2: Understand market landscape

It is important to understand the landscape and demand of potential buyers at local and international scale. This includes the supply and demand of current products, the motivation for potential buyers and perceptions of and appetites for risk to be attracted by products generated by the activity (see case study on seaweed in the Annex II). This market assessment can be based on a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats), or, perhaps more targeted, take the 5-C approach presented in Figure 4.

Here you start the analysis based on your company (in this case, the BE project and the products it generates). In principle, you analyse who are the potential buyers and how large the demand could be, and identify other suppliers of the product to a) understand potential competitive situations, and b) identify potential collaborators. The assessment of Climate/Environment (the 5th C) is already covered in the mainstreaming analysis above.

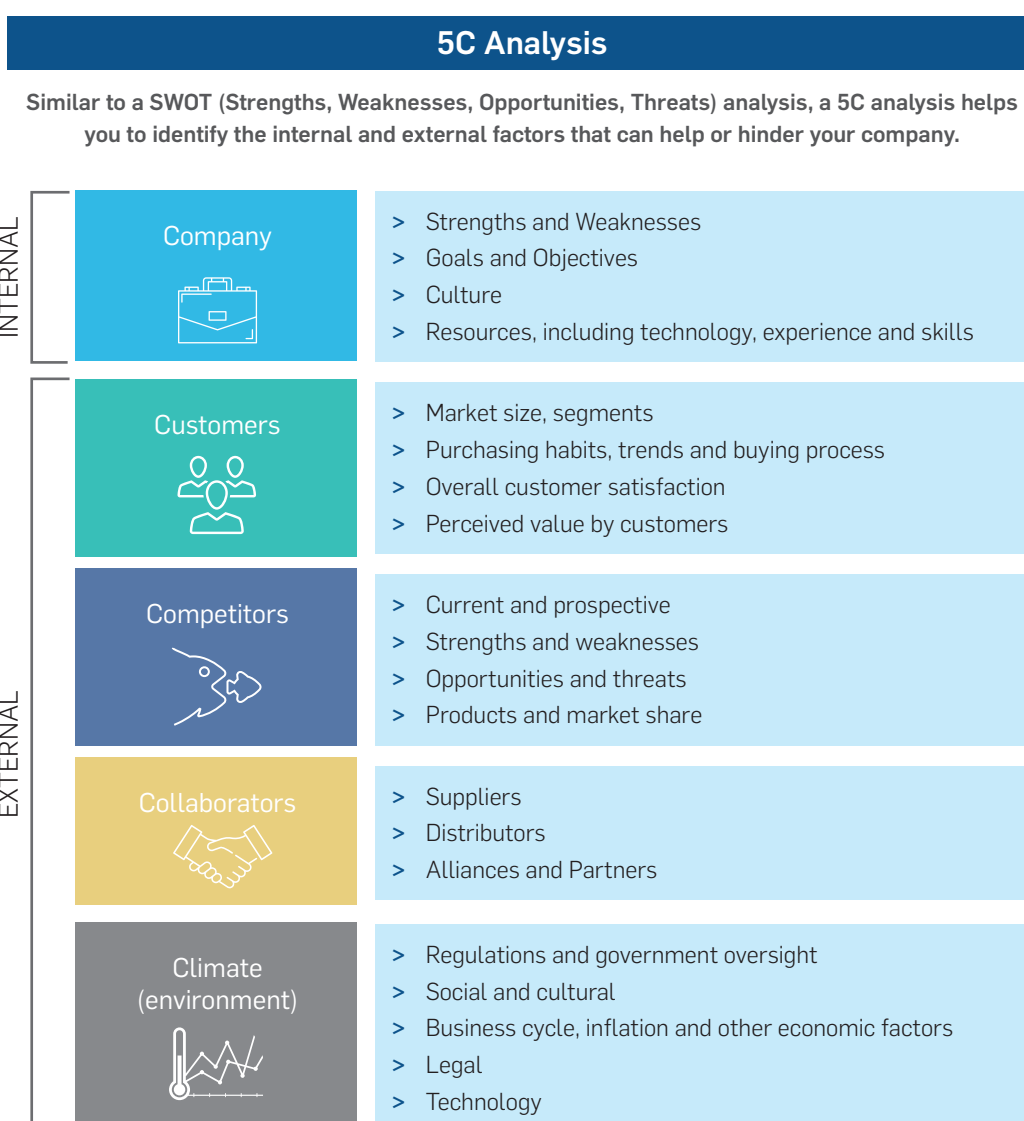


Figure 4: The 5-C analysis; Source: Smartsheet 2018 (<https://www.smartsheet.com/strategic-marketing-processes-and-planning>)



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4. Step 2: Feasibility assessment and quantification of BE benefits

The results of this phase will help with the decision whether or not the project makes sense from an environmental and economic perspective and should be pursued further. This whole section is targeted and relevant to investment projects, only.

Feasibility assessment

This analysis determines the overall ability and likelihood of the project to achieve positive outcomes, looking at the economics, technical or technological as well as management and legal aspects, the timeline and related milestones. The main question to answer is whether it is overall a good idea to pursue. To answer this, the following factors are investigated:

- > Is the planned project financially and environmentally viable?
- > What are potential problems and how could these be overcome?
- > How will the activity be operated?
- > What are the funding needs? Is there any competition in the market?
- > What else is needed to make the planned activity work?
- > Do the resulting benefits, both economic and environmental ones, justify spending resources on the activity?

Quantification of the benefits

The detailed quantification of the (measurable) benefits of the BE project needs to be approached early on in the process. This involves the establishment of a reference scenario, the so-called baseline, against which expected project outcomes will be compared. Depending on the data availability, this baseline can be preliminary or in the ideal case represent the full reference case backed by quantifiable data. Part of this process is the delineation of the project boundary and scope, to determine which results exactly enter the calculations. This may involve stratification of data, or separating data into subgroups, depending on the complexity of the planned intervention. A final step will determine the actual net BE benefits, to the extent possible at the early planning stage of the overall activity. A methodological accounting approach needs to be established to ensure a solid foundation of the results, based on sound science and methods. Sensitivity and risk analyses will further show whether mitigation strategies to account and adjust for uncertainty and risk are needed.

How to? Practical guidance to quantifying Blue Economy benefits

The sequence of steps and methods generally applied in this process are presented in the box below and explained in detail subsequently.

Box 4: Quantification of BE benefits:

Steps in the Quantification of Blue Economy Benefits

1. Determine project baseline boundaries

2. Determine BE-relevant activities

3. Determine the project baseline scenario

4. Calculate net BE benefits

5. Adjust for uncertainty and risk

Action 1: Determine project and baseline boundaries

Establish the criteria of your project and carefully define your project boundaries over time and space, including parameters and assumptions about the project, including:

- > If applicable, a geographical region delineated through coordinates within which the activity will be implemented and outcomes be achieved
- > Economic, geographic, social, political and environmental sectors that will influence the project
- > Relevant actors, stakeholders, communities and value chains
- > The time horizon (select a baseline year for comparison) and a short, medium or long-term time horizon: short term (5 years); medium term (10-20 years); long-term (30-50 years+).

Action 2: Assess BE activities

List all relevant BE activities that could contribute to the project objectives and influence the baseline scenario. For this, review prior assessments, literature, stakeholder consultations, interviews and investigation of currently active projects.

Action 3: Determine project and baseline scenarios

The baseline scenario represents the current or anticipated status of the market, ecosystem or area of interest under the premise that the project would not be introduced. For example, a sustainable fisheries project would determine the current catch and replenishment-rates of fish in the area for the baseline scenario. The project scenario then describes the anticipated level of fish stock in the same area after implementation of the project activities.

A baseline scenario requires project-specific data and assumptions regarding:

- > Macroeconomic and demographic projections (e.g. population and GDP growth in coastal areas)
- > Economic sectors relevant to BE (e.g. fisheries, maritime transport)
- > Economic developments (e.g. planned investments and relative growth of ocean industries/services; examples are offshore wind/ tidal/ wave energy, mariculture of algae)

- > Status Quo and shifts in the (enabling) policy environment (e.g. different policy scenarios for development of the country's ocean economy)
- > Technological changes (e.g. evolution and adoption rates of new technologies; examples are marine biotechnology or coastal/ offshore wind generation technologies).

Action 4 - Calculate net BE benefits

Upon establishment of the baseline, it is possible to measure the benefits achieved by the project in comparison to the reference scenario. This involves developing a set of clear, measurable and time-specific indicators that allow quantifying the impact of all BE activities in relation to the baseline scenario. It is often difficult to measure blue economy benefits, especially the non-market goods and benefits, e.g. ecosystem services such as carbon sequestration by the ocean, or coastal protection through reefs and mangroves.

Approaches to quantification differ, and will in many cases be limited to monetary valuation. As a basic principle, the net benefits are calculated by deducting baseline results from the expected project results. For example, by introducing a marine off-shore wind power plant, indicators could measure the reduction in projected carbon emissions of the system over time, in tons carbon dioxide (tCO₂) or revenues per tCO₂ reduced (in USD). These indicators are projected over time to provide a quantitative estimate of the gross benefits. In the absence of a wind plant the baseline scenario would incur no emission reductions, so that the net benefit in this case corresponds to the gross reductions calculated. Another example is the net benefit obtained through sustainable tourism: conventional tourism in the baseline scenario may lead to ocean and coastal pollution through e.g. sewage, potentially causing decreasing fish stocks and coral depletion (relevant for snorkeling/diving). Sustainable tourism facilities by contrast may preserve a clean coast, a healthy ocean and attract ocean tourists, assuring long-term income.

Action 5: Adjust for Uncertainty and Risk

Finally, it is important to adjust for uncertainty and risk throughout the project preparation, i.e. to factor in contingency plans or alternative actions that should be taken in the case of disruptions to the project occurring from relevant or high-risk environmental, social, financial, economic or associated factors – examples can vary from lack of capacity or data to complete certain project steps to physical risks derivable from e.g. rising sea levels.



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5. Step 3: Project design and documentation

One of the main outcomes of the project design phase will be the development of a series of project documents. Some of these will need to be written by the project developer, whilst others can or should be subcontracted out. These are summarized in Table 7 below. The below documents will also be required for soft projects, in one way or another, although the contents will differ from hard projects.

Table 6: Components of detailed project documentation

Activities/Sector	Products/Services	(Potential) Demand/Buyers
Project concept note	Project developer (or subcontractor)	Used by project developer. Assists with screening and early assessment of project design
Detailed Project Description	Project developer (or subcontractor)	Used to present the project to investors, or to the host country government to get national backing. Basis for eventual validation
Monitoring Plan	Project developer (or subcontractor)	Used by project developer as basis for the monitoring system. Used by validator to audit the project
Stakeholder consultation report	Project developer (or subcontractor)	Used by developer to gather comments, opinion on project design
Host country endorsement	National Authority	Useful feedback for project developer, whether the project has national backing

Detailed Project Description

This document forms the basis for funding applications, in particular with public organizations. It may also be required by (private) investors, together with a business plan, or by independent auditors for an eventual certification. It is also useful to government agencies in the host country, which may evaluate the project before providing an endorsement letter.

How to? Practical guidance to generate a Detailed Project Description

This section outlines the information that should generally be provided by the project developer in the Detailed Project Description:

- > General information about the Project
- > Context and situation analysis: Project description (incl. overall and specific objectives, activities, methodological approach)

- > Baseline and Project scenario
- > Market and regulatory conditions
- > Financing of the project, if secured
- > Monitoring and evaluation
- > Risk management
- > Supporting information

Monitoring Plan

The monitoring plan should include:

- > Monitoring methodology: full description of the approach used, data sources and assumptions, together with a justification of why the chosen approach is used rather than any other.
- > Monitoring plan: determines when and which indicators have to be measured for project performance, who is responsible for the measurements, frequency of measurement, and reporting of monitoring activities; and processes for the collection and archiving of all relevant data within the project boundary over the lifetime of the project.

How to? Practical guidance to generate a Monitoring Plan

The list below provides guidance on the type of information that is required to be included in the monitoring plan:

- > What are and how were the project boundaries defined (this provide the boundaries for the monitoring activities)?
- > How data relevant for the baseline development have been collected and how these are stored?
- > What the procedures for calculation of the BE benefits/impacts as a result of the proposed activity are. Preferably the plan includes formulas or algorithms for calculations. It should also be described how frequent the calculations will be made.
- > How the data on (other) environmental impacts and social impacts will be collected and stored?

Other information that can be included in the monitoring plan includes:

- > Explanation on how to deal with missing data,
- > Who is responsible for collection of the data;
- > Who is responsible for acquiring the monitoring data;
- > Back-up system for data collection;
- > Who has the ultimate responsibility for the whole monitoring process?

The monitoring should be carried out in such a way that the project performance indicators can be compared with the baseline scenario. The monitoring data will also be used by the auditor to validate a project.

Host country endorsement

In some cases, the host country government might be asked for a letter of endorsement, to show official backing of the activity and confirming that the project complies with the national objectives and regulations. While it is useful to enhance the overall credibility and saleability of the project, sometimes this is even required by potential investors or funding providers. Such a letter might be issued by a specifically designated organization within the governments' ministries concerned with maritime issues, or a national focal point.



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6. Step 4: Validation and certification (voluntary step)

A third party should assess the project and its documentation in order to ensure that the project meets minimum criteria of quality and environmental integrity and that all information included in the Detailed Project Description for a project is trustworthy and accurate – this step is referred to as validation. Such a check may be mandatory if potential investors ask for additional proof of credibility and soundness or when a certification is envisaged - e.g. sustainable fisheries labels such as from MSC and FOS all involve third party validation by an accredited independent auditor.

As projects typically last several years or even decades, it is important to maintain internal monitoring systems to ensure that the project achieves the specified outcomes throughout its lifetime, so that the certificate can be expanded. Similar to the process of validation, it is the responsibility of the project developer to arrange for periodic verification and to contract an auditor to carry out the verification process. The frequency of verification activities depends on the specific requirements and rules of the certification standard applied. Soft projects usually may undergo external evaluations instead of validations and certifications.



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7. Step 5: Project implementation and monitoring

Once all previous steps have been performed, the project can be rolled out step by step, either immediately at full scale or starting with pilot sites, or other pilot activities in the case of soft projects, in accordance with the monitoring plan established as part of the project documentation (Step 3).

Continuous monitoring and evaluation of what works and what doesn't allows the design to be readjusted if and where needed.



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Annex

- > References
- > Glossary
- > Annex I: Overview of potential BE-fields of action and examples of case studies
- > Annex II: Additional Case Studies
- > Annex III: Examples of BE-relevant certification standards
- > Annex IV: Additional information on soft BE-project development for public sector actors



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Glossary

Full Title	Abbreviation	Explanation
Baseline	BL	An assessment of the status quo or business-as-usual scenario that would have occurred in absence of project.
Baseline Study		A study including the construction of a baseline scenario
Business As Usual	BAU	The continuation of the status quo. It usually refers to a scenario under which an activity/ project would not have taken place.
Blue Economy	BE	The "Blue Economy" aims to promote economic growth, social inclusion, and the preservation or improvement of livelihoods while at the same time ensuring environmental sustainability of the oceans and coastal areas
European Commission	EC	
European Neighborhood Instrument	ENI	
European Union	EU	
Facility for Regional Policy Dialogue on Integrated Maritime Policy and Blue Economy/ Climate Change	Fac IMP/BE CC	EU- funded Facility for Regional Policy Dialogue on Integrated Maritime Policy, Climate Change and Blue Economy
Green Climate Fund	GCF	
Intergovernmental Panel for Climate Change	IPCC	The UN panel of experts that assesses the scientific, technical and socio-economic information relevant for the understanding of the risk of human-induced climate change
Key Performance Indicator	KPI	A measurable indicator to track the achievement of key objectives
Key Result Areas	KRA	A strategic factor indicating a key area of outcomes or outputs
Non Profit Organization	NGO	
National Appropriate Mitigation Actions	NAMA	Any action that reduces emissions in developing countries and is prepared under the umbrella of a national governmental initiative.
National Adaptation Plan of Action	NAPA	Documents prepared by least developed countries (LDCs) identifying urgent and immediate activities useful for coping with climate change. The NAPAs are then presented to the international donor community for support.
Official Development Assistance	ODA	Development aid from developed to developing countries

Full Title	Abbreviation	Explanation
Project Idea Note	PIN	First description of a project idea
Programme of Activities	PoA	UNFCCC approved the modalities and procedures for grouping small projects together
Project boundary		The notional boundaries set around the project within which the impacts and effects of the project should be considered and quantified.
Result Based Management	RBM	A management strategy by which all actors, contributing directly or indirectly to achieving a set of results, ensure that their processes, products and services contribute to the achievement of desired results. The actors in turn use the information and evidence on actual results to inform decision-making on the design, resourcing and delivery of programmes and activities as well as for accountability and reporting
Sustainable Development Goals	SDG	A total of 17 global goals set in 2015 by the UN General Assembly, to be realized by 2030
United Nations	UN	
United Nations Development Programme	UNDP	
UN Framework Convention on Climate Change	UNFCCC	International legal agreement on climate change, signed in 1992
United States Dollar	USD	
World Bank	WB	



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Annex I: Overview of potential BE-fields of action and related example case studies

BE-Sector	Key activities	Project examples
Marine Resource use	<ul style="list-style-type: none"> > Food security > Fishing (fish, molluscs, crustaceans, coral), Aquaculture, (including domestic fish production), mariculture > Alternative proteins (e.g. algae for food) > Pharmaceuticals and cosmetics 	<p>Case Study Madagascar¹³: Seafood exporters, the government and marine conservation NGOs together with Malagasy fishers established locally managed marine areas as a first step towards a sustainable management of small-scale fisheries by traditional fishing communities. The support of the private sector, a favourable policy environment, and Blue Venture's financial and technical support, allow successful management by the fishers.</p>
Policy/Governance	<ul style="list-style-type: none"> > Policy support, policy creation, capacity building, creating a favourable institutional environment 	
Marine Extraction of oil; gas, and minerals	<ul style="list-style-type: none"> > Sustainable hydrocarbon exploration > Seabed mining 	<p>Case Study EU¹⁴: The MIDAS (Managing Impacts of Deep Sea Resource Exploitation) initiative is a Public-Private Partnership with the UK, EIP and Fugro Group. It provides R&D in favour of environmental surveys, monitoring and EIA, seeking to reduce impact on oceans, improve efficacy of environmental monitoring, and support the development of policy and legislation. The MIDAS Consortium unites 32 organisations from across Europe, including research institutes, universities, specialist SMEs and industry partners. Another EU initiative in this field is the Environmentally Responsible Deep-sea Mining project (ERDEM).</p>
Research and Development	<ul style="list-style-type: none"> > Development of innovative technology (e.g. bio-informatics, genetic tracking, nanoscience, circular economy) > Data collection and sharing, knowledge systems > Monitoring, Reporting & Verification 	
Port activities	<ul style="list-style-type: none"> > Shipbuilding and repair units > Deconstruction 	<p>Case Study Spain¹⁵: One core aim of the Sustainable and Humanised Fishing Fleet project of the Port of Vigo is to design new fishing vessels in accordance with environmentally friendly standards and applying design to pilots, with intention to scale-up.</p>
Maritime transport	<ul style="list-style-type: none"> > Commercial and leisure > Management & traffic coordination, capacity building 	

¹³ <https://bjyv3zhj902bwxa8106gk8x5-wpengine.netdna-ssl.com/wp-content/uploads/2016/07/Sustainably-Managing-Small-scale-Fisheries-in-Partnership-with-Communities.pdf>

¹⁴ <https://ec.europa.eu/growth/tools-databases/eip-raw-materials/en/content/environmentally-responsible-deep-sea-mining>

¹⁵ <http://bluegrowthvigo.eu/en/project/sustainable-and-humanised-fishing-fleet>

Education	<ul style="list-style-type: none"> > Education, awareness raising and knowledge management 	<p>Case Study Bonaire, the Caribbean¹⁶: The island is working to become the first Caribbean island to ban the active chemicals components found in sunscreen: oxybenzone and oxainoxate. Focus is on marine and cruise tourism, where passengers will be educated on the adverse effects of such pollution. Other commitments that have started will include engagement and awareness raising campaigns with schools and the tourism industry, for e.g. dive operators informing about the effects of oxybenzone on coral reefs, and only selling reef safe sunscreen – among others.</p>
Tourism	<ul style="list-style-type: none"> > Sea (cruises/diving etc.) and coastal (beaches) > Gastronomy (fishing/aqua farming) > Conservation tourism 	
Environmental Protection	<ul style="list-style-type: none"> > Pollution (e.g. litter, plastics, waste disposal) > Climate change (adaptation, mitigation, blue carbon) > Biodiversity and natural resources management > Conservation and habitat protection 	

¹⁶ <https://bluedestination.com>



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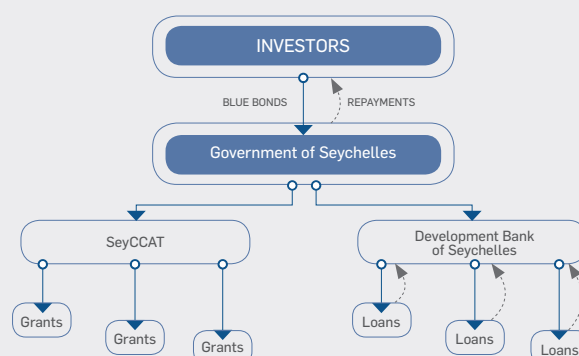
Annex II: Additional case studies

Insufficient baseline information, Bangladesh:

Initial Baseline Measures of Output from Bangladesh's Ocean Economy, and a Summary of the Status of the Underlying Ecosystems Efforts to measure the output from Bangladesh's ocean economy have only recently begun. The Government has not traditionally disaggregated and organized data in a way that permits analysis over time. To provide an initial conservative snapshot of the magnitude of the country's ocean economy, the report¹⁷ synthesizes disaggregated data provided by the Bureau of Statistics for key ocean-based industries. While that represents the best information available, it provides only a partial baseline of the size of the ocean economy, for several reasons: (i) The measures reflect an imperfect separation of ocean and non-ocean related economic activities, for example, the distinction between marine and inland capture fisheries and aquaculture; (ii) The measures of economic output do not include the economic value of a number of ecosystem services without the market transactions; and (iii) The measures do not subtract the costs to the country from environmental degradation resulting from various activities in the ocean economy, such as pollution from ship breaking. Factoring in the costs of this degradation will reduce the estimated size of the country's ocean economy.

The Seychelles Blue Bond¹⁸:

The Seychelles issued the first sovereign blue bond to attract private capital firms to invest in sustainable fisheries. The bond is based on debt buy-back of 22 million USD with the Paris Club Creditors. It was issued at 15 million USD, supported by a 20 million USD finance package from the GEF and the World Bank to improve marine conservation and seafood value chains. A guarantee of 5 million EUR was provided from the IBRD and credit from the GEF's Non-Grant Instrument Pilot to reduce risk to investors and lower interest rates to 2-3%.



The Seventh Five Year Plan (FYP)¹⁹, Bangladesh:

To promote BE in Bangladesh, especially the BE sectors of marine fishing, transportation and tourism the seventh national Five Year Plan (2016-2020) recommends the following steps to foster an institutional and regulatory enabling environment – alongside the implementation of an Integrated Coastal and Ocean Management Policy:

- > protecting and managing the fisheries for the present and the future generations,
- > developing a strong renewable energy sector using ocean and atmospheric forces,
- > maintaining existing (e.g., ship building) and developing new maritime industries;
- > extending fishing areas using new technologies and methods even beyond the EEZ in the international waters,
- > developing a strong human resource base for domestic utilization, and export to foreign job markets,
- > substantially increasing fisheries production and export earnings through improved aquaculture and introduction of mariculture,
- > creating a competitive tourism industry, including ecotourism and marine cruises,
- > further increasing revenue from shipping and commerce by the expansion of domestic fleet and destinations, transshipment and transit provisions, linking neighbouring states to the sea-ports, etc.
- > give special priority to anticipated Climate Change impacts on all relevant matters, and adjust policies and plans
- > maintain the inland river systems and ecosystems for fishery, sediment transport, and inland shipping,
- > building a solid science, research and education base
- > establishment of marine academy in Khulna may be considered.

¹⁷ https://www.middlebury.edu/institute/sites/www.middlebury.edu.institute/files/2018-11/11.2.18.Blue%20Economy-Bangladesh%20Final%20Paper_0.pdf

¹⁸ <http://thecommonwealth.org/project/seychelles-blue-economy-strategic-roadmap-and-implementation>

¹⁹ http://www.lged.gov.bd/UploadedDocument/UnitPublication/1/361/7th_FYP_18_02_2016.pdf

Innovations in seaweed farming²⁰:

Seaweed farming is becoming more common as demand for macroalgae-based foods and cosmetic compounds add to the existing demand for thickeners derived from seaweed. However, the new generation of seaweed farming operations is not only generating profits for local communities, but other benefits as well. For example, Acuisur's seaweed farming operation in Paracas, Peru cultures seaweed on strings suspended in a little-used area of Paracas Bay. By employing workers from the local community, the operation provides livelihoods for fishers who have been displaced by competition. The operation also benefits the communities and businesses of the wider Paracas region by improving water quality and increasing marine and coastal biodiversity. The seaweed farm boosts the productivity of scallop fishermen and increases the profitability of restaurants that serve scallops and other local seafood.

Resilience of the Blue Economy and the Coastal Ecosystem in Northern Honduras—MIPESCA / Nordic Development Fund, Honduras²¹

The project will address mangrove degradation and loss through enhancing the competitiveness of artisanal fishing companies and organizations so as to ensure their sustainable and environmentally responsible inclusion in the economy while preserving the mangrove ecosystem on which their economy depends and increasing their resilience to climate change.

The specific objectives of this project are the following: (i) reduce the intermediation gap between fishing organizations and high-value markets; (ii) improve production practices and product quality; (iii) facilitate the artisanal fishing sector's access to credit; (iv) strengthen territorial governance in the management and use of natural resources; and (v) raise awareness of the ecosystem services that the project provides for improving the resilience of the population and its economy.

The immediate objectives are addressed through five components:

1. Strengthening the administrative-accounting, operational, and business skills and practices of artisanal fishing companies and organizations so they can comply with the law, meet the expectations of their members, and satisfy market requirements. Work is planned in four departments: Cortés, Atlántida, Colón, and Gracias a Dios.
2. Development and adoption of a traceability system by species that confirms the origin, catch volume by location, and handling process carried out at each point in the chain, in addition to promoting trust and loyalty on both sides of the chain.
3. Establishment of a financial instrument in the form of a mutual guarantee fund to serve the artisanal fishing sector.
4. Governance and planning for the sustainable management of the mangrove ecosystem. Participatory and resilient governance models being implemented in 4 mangrove systems and priority fishing sites in co-managed areas and indigenous territories.
5. To improve knowledge on the measurement of carbon stocks in mangrove ecosystems so that this dimension can be incorporated into the community governance models adopted in the Moskitia region.

Financing: Total budget of EUR 5.9 million (USD 6,527,158). NDF grant will be EUR 3.1 million and IDB financing will be EUR 1.9 million (USD 2.1 million) The international NGO GOAL will contribute EUR 0.9 million (USD 986,158). Government of Honduras and local communities will provide in-kind contributions.

Outcomes: Increase income for fishermen, artisanal fishing organizations adopt good fishing practices, fishing companies as a group increase their sales and production, carbon capture (tC20e), and sustainably managed mangroves (hectares) increase.

The Statistical Framework for Measuring Sustainable Tourism (MST framework)²²:

As it is currently still challenging to measure sustainable tourism, i.e. the activities that do not have a negative effect on the environment, this projects tries to solve this problem by developing a statistical framework for the multiple domains of sustainable tourism, in order to measure the economic dimension of sustainable tourism (GDP and employment) and the environmental impacts. So far, there has been no conclusive discussion on the types of indicators of sustainable tourism that might be defined. The project is meant to be finalized by 2020.

²⁰ http://www.medblueeconomyplatform.org/wp-content/uploads/2018/12/ditcted2018d11_en.pdf

²¹ <http://www.ndf.fi/project/resilience-blue-economy-and-coastal-ecosystem-northern-honduras%E2%80%944mipesca-ndf-c61>

²² https://ufmsecretariat.org/wp-content/uploads/2017/12/UfMS_Blue-Economy_Report.pdf



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Annex III: Examples of BE-relevant certification standards

BE – sector	Benefits	Examples of certifications/standards/programs
Sustainable/eco-tourism	<ul style="list-style-type: none"> > Potential for higher revenues from tourists looking for holidays with a low environmental footprint > Local financial returns > Improved environment/ less damage to the ecosystem > awareness, address consumption > creation of a new market, as tourism is expected to grow 	<p>Travellife Certification by Global Sustainable Tourism Council: awards tourism services with an improved social, environmental and economic impact. Egypt, Morocco and Tunisia have certified establishments.</p> <p>Green Key Initiative: voluntary eco-label awarded to more than 2600 hotels, hostels, small-scale accommodation, campsites, restaurants and attractions in 56 countries including Morocco, Tunisia, Egypt, Israel, Jordan and Lebanon, and managed by national coordinators (e.g. ATPNE in Tunisia).</p> <p>Green Globe: A Standard rewarding responsible and sustainable environmental and social products and activities offered within the tourism sector, using 41 criteria with 337 compliance indicators. Egypt, Morocco, Tunisia, Jordan, Palestine and Lebanon have certified establishments.</p> <p>European Ecolabel: a voluntary scheme promoting sustainable practices.</p> <p>Tunisian Ecolabel: a national ecolabel for – inter alia – technical and environmental criteria for the tourism accommodation sector.</p> <p>Earthcheck</p>
Sustainable shipping:	<ul style="list-style-type: none"> > Corporate Social Responsibility > reduction of environmental footprint and oil spills > improved waste management > community impacts 	<p>Green Marine: an environmental certification program developed by many actors of the North American industry</p> <p>IMO Energy Efficiency Design Index (EEDI): legally-binding energy efficiency standards applicable to newly-built ships. Energy Efficiency Design Index (EEDI) is to improve the hull design and machinery operations and to reduce the CO2 emissions by increasing the ship's overall efficiency.</p> <p>Global Industry Alliance to Support Low Carbon Shipping</p>
Seabed mining	<ul style="list-style-type: none"> > improve legal framework > reduced environmental and health and safety risk > fewer market risks > improved CSR/reputation 	<p>MDIAS project: provided recommendations for best practices in sea bed mining exploration and potential exploitation</p> <p>EU-ERDEM programme – environmentally responsible deep sea mining: the aim is to inclusively develop a Framework for Sustainable Deep Sea Mining.</p>
Ports	<ul style="list-style-type: none"> > improve legal framework > reduced environmental and health and safety risk > fewer market risks > improved CSR/reputation > improved waste management 	<p>PPRISM - ESPO Port Performance Indicators: prescribe indicators to measure, assess and communicate the impact of the European port system on society, environment and economy.</p>

BE – sector	Benefits	Examples of certifications/standards/programs
Biomaterials		Roundtable on Sustainable Biomaterials (tools, solutions, sustainability certification etc.)
Seafood/ Fisheries/ Aquaculture	<ul style="list-style-type: none"> > Potential for higher revenues > improved CSR/reputation > positive impacts on local communities and the environment > sustainable returns, through long-term fisheries management 	<p>Friends of the Sea (FOS): A certification standard available for products and services that rely on sustainable practices in fisheries, aquaculture and Omega3 oils, respecting and protecting the marine environment. One of their prominent programs is the Dolphin-Safe-Programme</p> <p>MSC Blue Fish Label – Marine Stewardship Council / Aquaculture Stewardship Council: Fisheries and supply chains for wild capture fisheries that meet best practice guidelines of the UN FAO and ISEAL Alliance for sustainability standards</p> <p>ASC – Aquaculture Stewardship Council: a programme aiming to promote best environmental and social aquaculture performance within the seafood industry through eight ASC standards covering 12 species. There is also a joint ASC-MSC standard for seaweed</p> <p>BAP Aquaculture Standards: A third-party aquaculture certification programme that complies with the Global Food Safety Initiative (GFSI), Global Social Compliance Programme (GSCP) and the Global Sustainable Seafood Initiative (GSSI).</p>



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Annex IV: Additional information on soft BE-project development for public sector actors

The following resource materials provide a range of additional general background reading for public players aiming at developing BE-soft projects (e.g. BE strategies, policies etc.). In general "soft" projects provide services or support of a technical, managerial, research, capacity building, policy-based, educational, touristic, banking or financial nature. Applied to the BE-context they are a significant driver and incentive for the further development of the BE and related projects and create the necessary enabling conditions.

- > The Annual Report on the EU Blue Economy aims to describe the scope and size of the blue economy in the European Union, creating a baseline to support policymakers and stakeholders in the quest for sustainable development of oceans, seas and coastal resources. The report monitors developments in the EU blue economy annually and examine the drivers behind trends: <https://publications.europa.eu/en/publication-detail/-/publication/79299d10-8a35-11e8-ac6a-01aa75ed71a1>
- > This OECD report underlines the importance of science and technology for a responsible economic management of the ocean and seas - attributing a role to the public sector as facilitator of innovation within the BE sector: https://read.oecd-ilibrary.org/science-and-technology/rethinking-innovation-for-a-sustainable-ocean-economy_9789264311053-en#page2
- > This report explores growths prospects for established and emerging sectors within the ocean economy. The report focuses on the potential contribution to (national) growth and employment creation and underlines the current barriers, in particular fragmented governance and sector-by-sector regulation approaches: https://read.oecd-ilibrary.org/economics/the-ocean-economy-in-2030_9789264251724-en#page5
- > The Five-Year-Plan of Bangladesh provides one example for mainstreaming the BE into strategies, related policies and measures by policymakers. In this report by the World Bank, current theories and practices regarding BE concepts are summarized in order to provide a framework to the Government of Bangladesh: <http://documents.worldbank.org/curated/en/857451527590649905/pdf/126654-REPL-PUBLIC-WBG-Blue-Economy-Report-Bangladesh-Nov2018.pdf>
- > Initiative for the sustainable development of the blue economy in the western Mediterranean – Framework for action: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017SC0130&from=EN>
- > This Policy Handbook provides a step by step guidance for African member States for mainstreaming the Blue Economy into their national development plans, strategies, policies and laws. The handbook may serve as a reference for other public players wanting to engage in similar BE mainstreaming activities: <https://www.uneca.org/publications/africas-blue-economy-policy-handbook>
- > This EU communication paper is part of the "Initiative for the sustainable development of the blue economy in the western Mediterranean" and provides the EU perspective on BE strategies and plans on a policy level. Moreover, a Framework for Action in the form of a Commission Staff Working Document is included: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017SC0130&from=EN>
- > This European Commission Communication underlines the role of innovation in the Blue Economy for realising the potential of Blue Economy; the latter mainly being job creation, economic growth and obtained environmental benefits: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=COM:2014:254:REV1&from=EN>
- > This report on the EU Blue Growth Strategy (2012) examines what has been learnt and has been achieved since its – including an assessment of what is currently being done and what is still missing on the path towards more sustainable growth and jobs in the blue economy: https://ec.europa.eu/maritimeaffairs/sites/maritimeaffairs/files/swd-2017-128_en.pdf
- > This UN Habitat Background paper shows how and to what extent cities can grasp the opportunities deriving from the Blue Economy. The paper, inter alia, shows the necessity to integrate urban planning and marine spatial planning and the harmonisation of relevant governance arrangements: <https://unhabitat.org/wp-content/uploads/2018/11/UN-Habitat-Background-Paper-on-Blue-Economy-and-Cities.pdf>



This project is funded
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Disclaimer:

The views expressed in this report are purely those of the writer and may not in any circumstances be regarded as stating an official position of the Integrated Maritime Policy Blue Economy (IMP-BE) Facility and the European Commission (EC).



A project implemented by the consortium of: WS Atkins International (Lead), Pescares Italia Sri, GIZ, SML