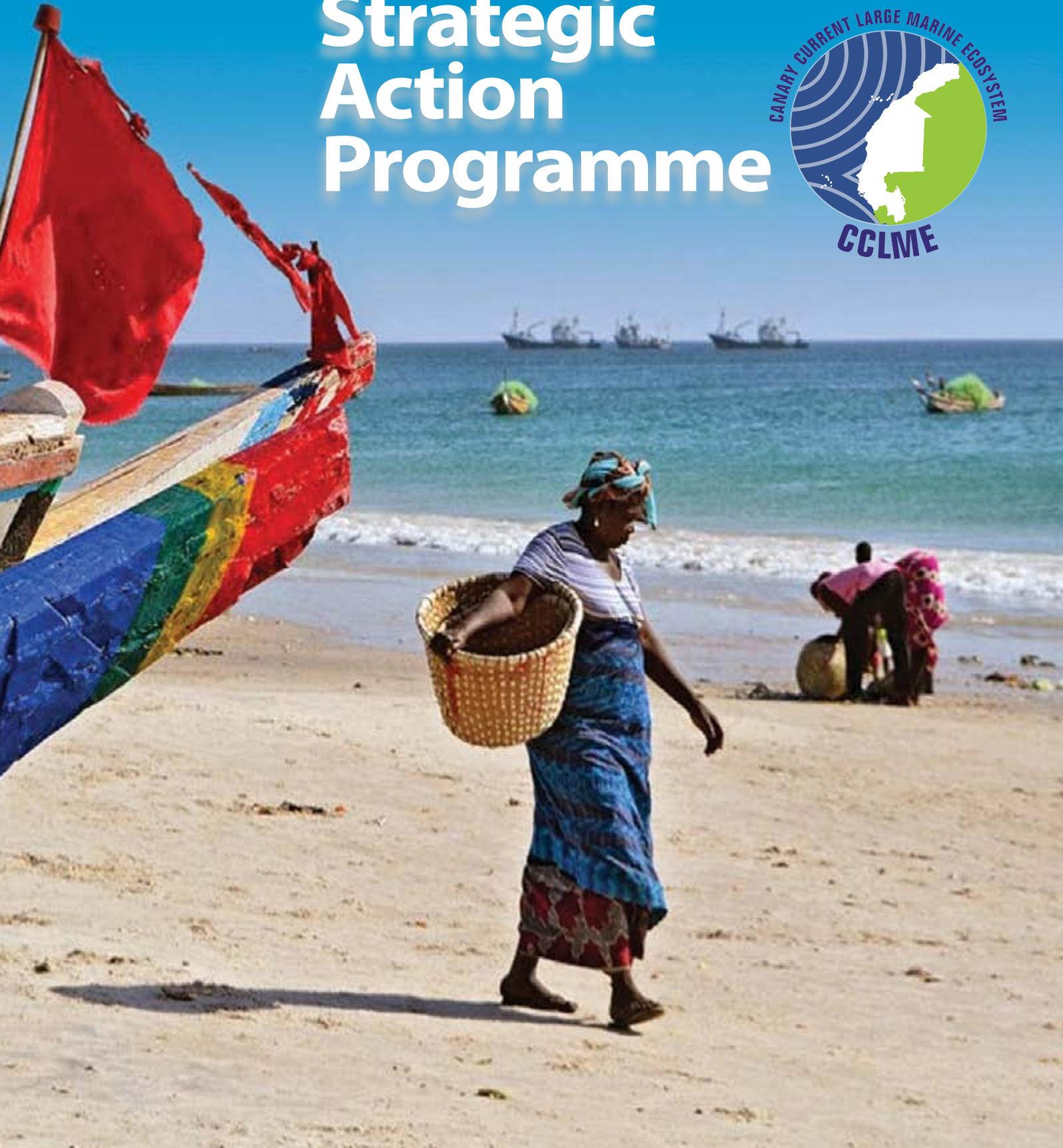
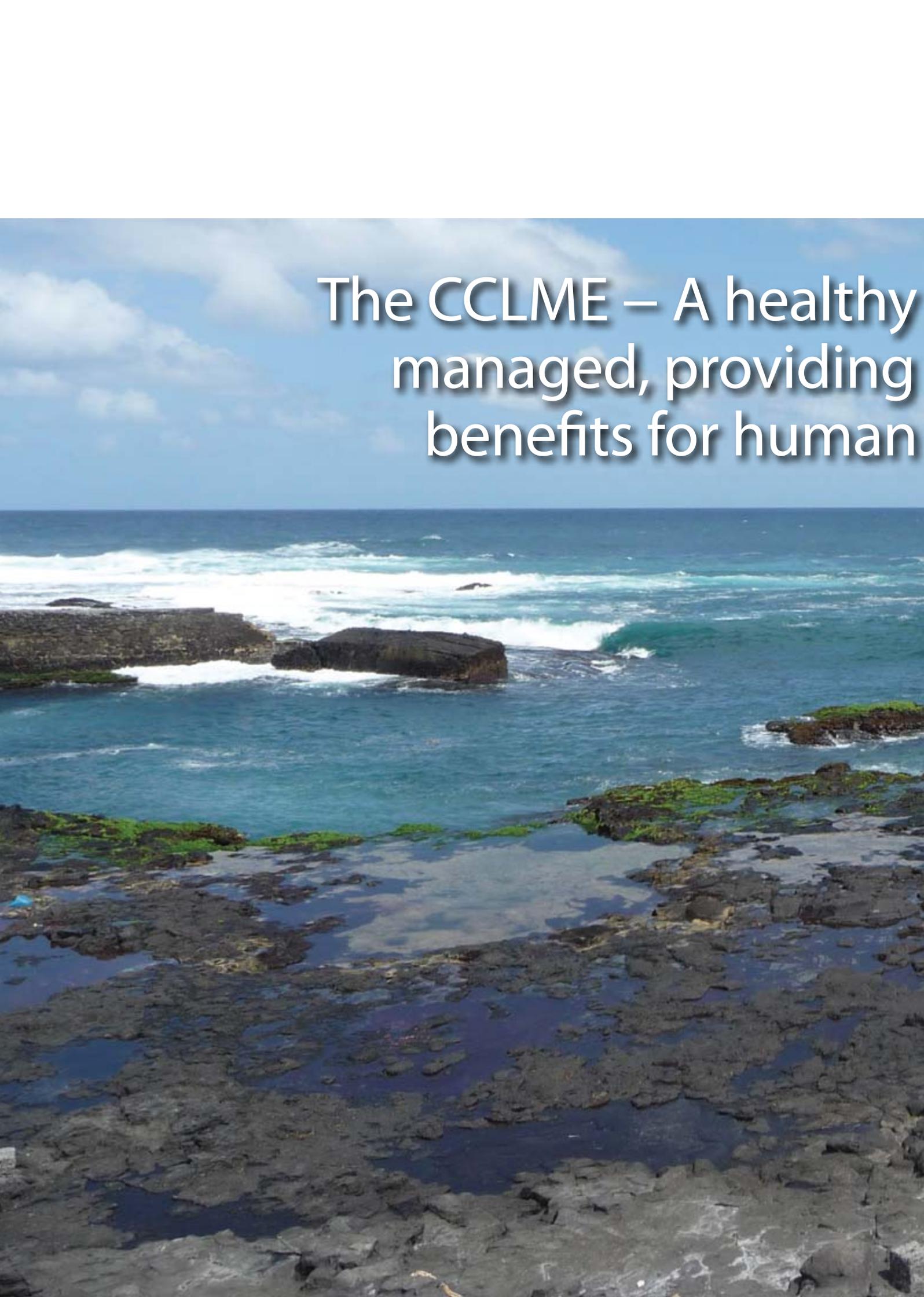


Protection of the Canary Current Large Marine Ecosystem Project

Strategic Action Programme

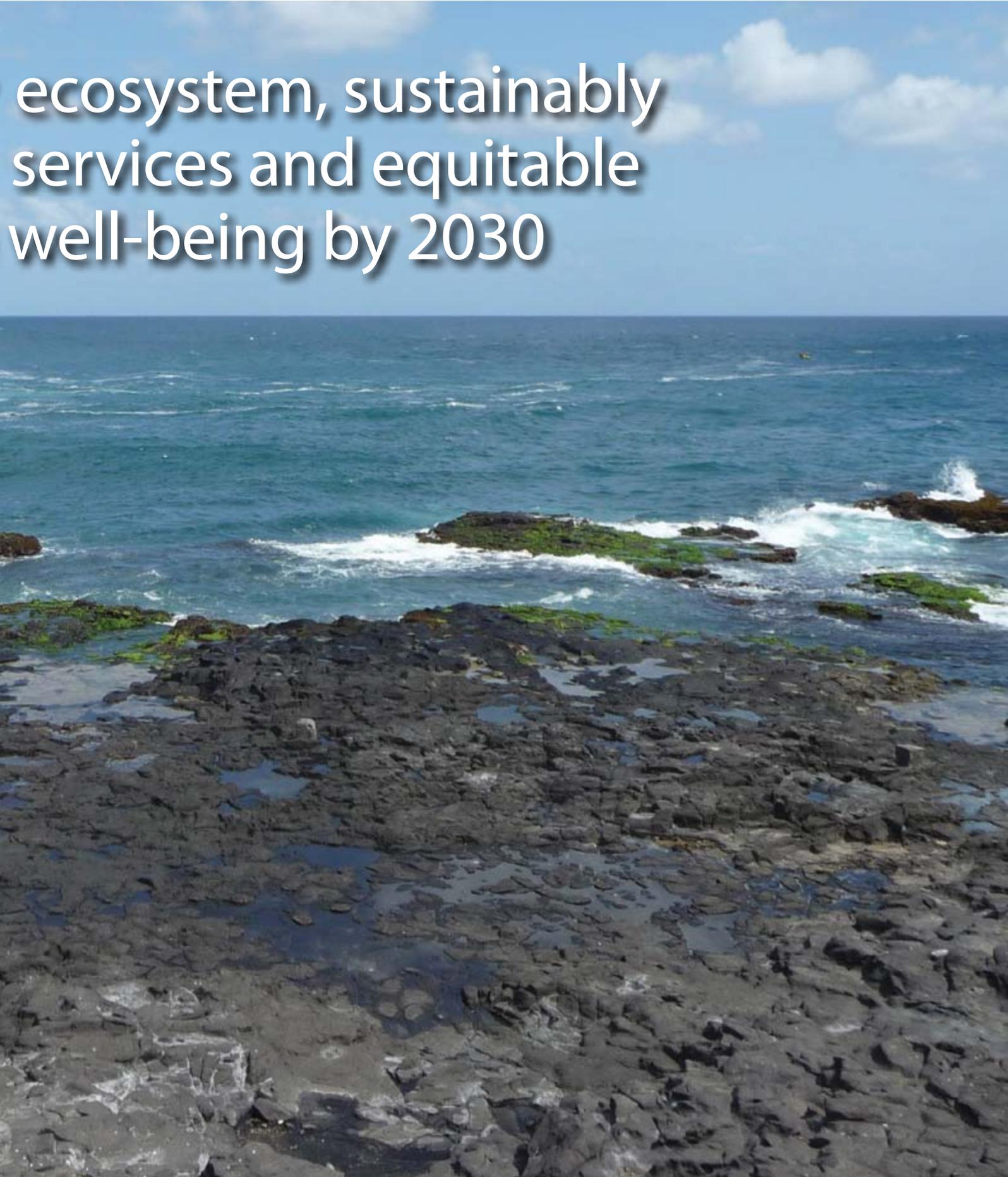


A coastal landscape featuring a rocky shore in the foreground with tide pools. The water is a vibrant turquoise color, with white waves breaking against dark, jagged rocks. The sky is a clear blue with scattered white clouds. The overall scene is bright and scenic.

The CCLME – A healthy
managed, providing
benefits for human

Strategic Action Programme (SAP)

ecosystem, sustainably
services and equitable
well-being by 2030





Endorsement of the Canary Current Large Marine Ecosystem (CCLME) Strategic Action Programme for

a healthy ecosystem, sustainably managed, providing services and equitable benefits for human well-being by 2030

Desiring to work collaboratively to reverse the degradation of the CCLME by adopting an ecosystem approach to governance in the northern part of the eastern-central Atlantic Ocean;

Considering the ecological importance of the CCLME in relation to global and regional ocean processes; that it is one of the world's major eastern boundary current systems with cold water upwelling; which supports some of the highest producing fisheries among all the large marine ecosystems;

Recognizing the socio-economic interests relating to the exploitation of marine and coastal resources of the CCLME and the essential role of fisheries for the well-being of people and the development of countries, particularly through the provision of important ecosystem goods and services;

Concerned by the transboundary issues threatening the health of the CCLME as identified in the transboundary diagnostic analysis, namely declining marine living resources, degradation of habitats and deterioration of water quality;

Conscious of the global threats affecting the marine environment of the planet, such as overfishing, pollution, climate change, ocean acidification and the introduction of alien invasive species;

Reaffirming the principles and provisions established by numerous international and regional instruments with respect to the Law of the Sea, the protection of nature and environmental pollution, and welcoming the initiatives taken to ratify or accede to relevant treaties;

Convinced of the need and the duty to act as custodians of this large marine ecosystem of global importance, in the interest of present and future generations, while recognizing the efforts made by national and international, governmental and non-governmental entities, for the conservation of the environment and the sustainable use of the marine living resources of the CCLME;



Noting the plurality of the current institutional and normative framework for fisheries and the environment in the Northwest African subregion and the need for a harmonized management framework in order to ensure good governance of the CCLME;

Affirming the need to establish cooperative governance arrangements between the states of the CCLME region, enabling integrated and intersectoral consultation between the institutions responsible for the management of fisheries and those responsible for environmental matters on actions to be taken to address transboundary issues, while acknowledging national differences, and benefitting from the current institutional diversity in the subregion;

Wishing to ensure the adoption of globally accepted management principles and approaches, such as the ecosystem approach to fisheries, integrated coastal zone management and the human rights-based approach, and to strengthen the capacity of CCLME states for their effective implementation.

The Republic of Cabo Verde,
The Republic of Gambia,
The Republic of Guinea,
The Republic of Guinea-Bissau,
The Kingdom of Morocco,
The Islamic Republic of Mauritania and
The Republic of Senegal

Hereby adopt the CCLME Strategic Action Programme and commit to collaborating at national and regional level in the implementation of the identified actions.

Signatories



Republic of Cabo Verde

15/07/2016



Republic of Gambia

20/06/2016



Republic of Guinea





Republic of Guinea-Bissau

REPUBLICA DA GUINEE BISSAU
 15.06.16
 BERNARDO BRATTA MANG
 SECRETARIO D'ESTADO A L'AMBIENTE



16/06/2016

Handwritten signature of Bernardo Bratta Mang



Kingdom of Morocco

01/08/2016

Ministre de l'Agriculture et de la Pêche Maritime

Signé: Mr. Aziz AKHANNOUCH

Handwritten signature of Mr. Aziz Akhannouch



Islamic Republic of Mauritania

27/07/2016

REPUBLICA ISLAMICA DE MAURITANIA
 Le Ministre



Handwritten signature

17/06/2016

REPUBLICA ISLAMICA DE MAURITANIA
 Le Ministre



Handwritten signature



Republic of Senegal

24/06/2016

LE MINISTRE
 ABBAYE BALDE



Handwritten signature

07/07/2016

LE MINISTRE
 OUMAR GUEYE



Handwritten signature

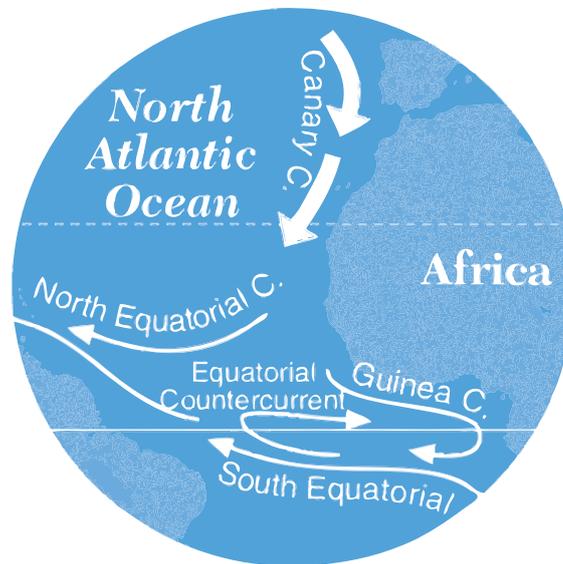
Acronyms and abbreviations

AFD	<i>Agence Française de Développement</i> /French Development Agency
AGC	Cooperation and Management Agency (between Senegal and Guinea Bissau)
CAOPA	<i>Confederation africaine des organisations professionnelles de peche artisanale</i> /African Confederation of Artisanal Fisheries Professional Organizations
CBD	Convention on Biological Diversity
CBO	Community Based Organization
CCC	Canary Current Conference
CCLME	Canary Current Large Marine Ecosystem
CCRF	Code of Conduct for Responsible Fisheries
CECAF	Fishery Committee for the Eastern Central Atlantic
CFI	Coastal Fisheries Initiative
EAA	Ecosystem Approach to Aquaculture
EAF	Ecosystem Approach to Fisheries
ECOWAS	Economic Community of West African States
EIA	Environmental Impact Assessment
ESIA	Environmental and Social Impact Assessment
EQO	Ecosystem Quality Objective
FAO	Food and Agriculture Organization of the United Nations
GEF	Global Environment Facility
GIS	Geographic Information System
HAB	Harmful Algal Bloom
ICARM	Integrated Coastal Area and River Basin Management
ICZM	Integrated Coastal Zone Management
IEO	<i>Instituto Español Oceanografía</i> /Spanish Oceanographic Institute
IOC	Intergovernmental Oceanographic Commission (of UNESCO)
IPOA	International Plan of Action
IRD	<i>Institut de recherché pour le développement</i> /French Institute for Research and Development
IUCN	International Union for Conservation of Nature
IUU	Illegal, Unreported and Unregulated Fishing
LME	Large Marine Ecosystem
MCS	Monitoring, Control and Surveillance
MPA	Marine Protected Area

NAP	National Action Plan
NCU	National Coordination Unit (of the CCLME Project)
NEPAD	The New Partnership for Africa's Development
NGO	Non-Governmental Organization
NIC	National Interministerial Committee (of the CCLME Project)
NOAA	National Oceanic and Atmospheric Administration (of the United States)
PAF	Partnership for African Fisheries
PPC	Plurinational Preliminary Commission
PRCM	<i>Partenariat Régional pour la Conservation de la zone côtière et Marine en Afrique de l'Ouest /Regional Partnership for Coastal and Marine Conservation in western Africa</i>
PSC	Project Steering Committee (of the CCLME Project)
PSM	Port State Measure
RAMPAO	Regional Network of Marine Protected Areas in West Africa
RCU	Regional Coordination Unit (of the CCLME Project)
REPAO	<i>Réseau sur les politiques de pêche en Afrique de l'Ouest /Fisheries Policies Network in West Africa</i>
RFB	Regional Fisheries Body
RSC	Regional Steering Committee
SAP	Strategic Action Programme
SDG	Sustainable Development Goals
SIDA	Swedish International Development Cooperation Agency
SRFC	Sub-Regional Fisheries Commission
TDA	Transboundary Diagnosis Analysis
TWAP	Transboundary Waters Assessment Programme
UEMOA	West African Economic and Monetary Union
UNCCD	United Nations Convention to Combat Desertification
UNEP	United Nations Environment Programme
UNEP-WCMC	The UNEP-World Conservation Monitoring Centre
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
WARFP	West Africa Regional Fisheries Program
WI	Wetlands International
WWF	World Wide Fund for Nature
WWF-WAMER	WWF West Africa Marine Ecoregion programme

The protection of the Canary Current Large Marine Ecosystem Project and the Strategic Action Programme

1. Introduction	10
1.1 Approaches and fundamental principles of the TDA and SAP process	11
1.2 Securing sustainable fisheries in the context of food security and poverty eradication	12
1.3 Climate change and variability: adaptation, mitigation and emergency response strategy	12
1.4 Capitalize and disseminate lessons learned to replicate success stories	13
2. State of the Canary Current Large Marine Ecosystem: results of the Transboundary Diagnostic Analysis	14
3. The Strategic Action Programme	15
3.1 Structure of the SAP	15
3.2 Vision for the CCLME	15
3.3 Strategic Action Programme for the CCLME: vision and objectives	17
3.3.1 <i>Living marine resources: specific objectives, targets and regional priorities</i>	17
3.3.2 <i>Habitats: specific objectives, targets and regional priorities</i>	20
3.3.3 <i>Water quality: specific objectives, targets and regional priorities</i>	22
4. Implementation of the Strategic Action Programme	24
4.1 Governance, communication and implementation	24
4.2 Cooperation, coordination and regional governance mechanisms	24
4.3 Monitoring and evaluation	25
4.4 Risks and sustainability	25
4.5 Funding and implementation of the SAP	25
Appendices	
1: Protection of the Canary Current Large Marine Ecosystem Project	27
2: Guidelines for improving the transboundary fish trade	28
3: The CCLME Project demonstration projects	30
4: Subregional guidelines for fisheries co-management in marine protected areas in the Northwest African region	31
5: Main results of the Transboundary Diagnostic Analysis	32
6: National priorities	34
7: Governance of the CCLME area: proposal for a cooperative governance mechanism	40



About the Protection of the Canary Current Large Marine Ecosystem Project and the Strategic Action Programme

The Canary Current Large Marine Ecosystem (CCLME) provides vital food and economic resources to coastal populations bordering the Large Marine Ecosystem (LME), and also to much of West Africa. The CCLME is one of the most productive upwelling systems in the world and provides important goods and services to the coastal nations, including food and nutrition; wood from mangroves; regulating services (e.g. climate regulation); supporting services (e.g. critical fish habitats); cultural benefits; and coastal and marine areas for agriculture, aquaculture, urban development, tourism and transport.

Given the importance of the CCLME, Cabo Verde, The Gambia, Guinea, Guinea-Bissau, Mauritania, Morocco and Senegal, together with national, subregional and international partners, have developed a common vision to reverse the degradation of the CCLME caused by overfishing, habitat modification and changes in water quality, by adopting an ecosystem approach to management.

The current situation highlights the need to address both fisheries and environmental aspects and requires a strategic approach involving expertise and multi-specific partnerships, as well as the involvement of stakeholders at national and regional level.

In this context, the project "Protection of the Canary Current Large Marine Ecosystem", presented in Appendix 1, supported countries in the development of a Transboundary Diagnostic Analysis (TDA) and a Strategic Action Programme (SAP) that proposes solutions to some of the transboundary issues that were identified in the TDA.

The CCLME Project is unique in its strategic combination of fisheries and environmental governance frameworks and will, through governance reforms, investments and management programmes, enable the participating countries to address priority transboundary concerns on declining fisheries, reduction in biodiversity and deterioration of water quality. It will promote cooperation between the partners of the project and monitor the state of the CCLME based on scientific results.

The SAP is the result of a participatory process. It proposes a long-term vision and short- and medium-term priorities in order to address the degradation of the CCLME.

The SAP is the result of a common recognition of the CCLME as a shared heritage. Considering that the activities of each of the riparian countries may have cross-border implications for shared resources, CCLME countries recognize their responsibility as guardians of a global resource.

1. Introduction

The CCLME, an upwelling ecosystem among the most productive in the world

The CCLME consists of a diverse set of marine and coastal ecosystems extending for 5 400 km across the coastline, beaches and oceans of seven countries in Northwest Africa. It is one of the most productive upwelling systems in the world and constitutes a vital reservoir of resources for the CCLME countries, as well as a large part of West Africa.

Annual fisheries production ranges from 2 to 3 million tonnes. It is estimated that the fisheries of the CCLME region currently provide one million jobs, and livelihoods to over 150 000 artisanal fishers (Sambe, 2009 and FAO, 2009). Furthermore, the beaches, wetlands, seagrass beds, estuaries, mangroves and coral reefs provide essential goods and invaluable services to local populations. Overall, this rich ecosystem ensures social and economic well-being and stability for the entire region.

A degraded and threatened common good

The marine and coastal ecosystems of the CCLME have been under considerable pressure for many years. Some marine resources have been exploited in an intensive and unsustainable manner for several decades and today the status of many key resources is of great concern. Many of the region's commercially exploited fisheries resources – which contribute substantially to regional food security – are overexploited. Demersal resources are at particularly low levels and some of the important stocks of small pelagic fish also show signs of overfishing. In addition, certain vulnerable species that occur in the region (such as marine mammals, elasmobranchs and turtles), are also threatened by intense fishing pressure which, if not controlled, could push some species towards extinction.

Essential interdependence: the well-being of the people depends on the health of the ecosystem

The CCLME is threatened, not only by the consequences of overfishing and the use of destructive fishing methods, but also by uncontrolled human activity on the coast. All of these activities impact important habitats and biodiversity, including fish spawning and nursery areas. Water quality is also impaired, with seagrass beds, mangroves and estuaries being directly impacted by pollution. There is documented evidence that coastal developments have caused erosion and changed the dynamics of coastal oceanographic processes, including salinity levels. At a global level, climate change is expected to impact the CCLME region, leading to changes in seawater temperature, salinity and acidification of the oceans, as well as directly impacting currents that may disrupt the functioning of an already altered ecosystem. At the same time, the people of the CCLME region are highly dependent upon the goods and services that the ecosystem provides (food from fisheries, agriculture and livestock); coastal protection (through mangrove forests and coastal wetlands); and indirect services such as the landscapes and seascapes that attract visitors and generate tourism revenues¹. The decline of marine living resources, degradation of habitats and deterioration of water quality in the CCLME are priority concerns for the West African region because they directly or indirectly threaten the livelihoods of millions of people.

Need for cooperation: the need to act together for common benefits

The CCLME countries have relatively different strategies and policies in the areas of fisheries and marine and coastal environment, using a range of approaches that take into consideration national specificities. However, they are all aware of the transboundary dimension of the fisheries and environmental issues that impact the CCLME and the need for regional cooperation to resolve them. The SAP represents the strategy adopted by the countries to act together at the regional level, while taking into account the specific economic and social development needs of the populations of participating countries, and the well-being of all.

¹ Interwies & Gorlitz. 2013. Economic and social valuation of the CCLME ecosystem services. Report by the socio-economic and trade working group of the CCLME Project. 50 pp.

1.1 Approaches and fundamental principles of the TDA and SAP process

The TDA is the analytical component that identifies and analyses transboundary issues, threats, impacts and their causes, whereas the SAP is the strategic component that focuses on solutions, management actions, planning and implementation. The TDA and SAP have been developed with key partners and take into account the following approaches and fundamental principles:

The ecosystem approach

The management measures proposed in the SAP are based on the ecosystem approach, which is a strategy for the integrated management of resources that takes into account a broad range of interrelated factors. It promotes conservation and sustainable and equitable use, recognizing that people and their cultural and social needs are an integral part of ecosystems. At the multi-sectoral level, the ecosystem approach fosters cooperation across sectors to achieve common sustainability goals. At the sectoral level, as in the case with the Ecosystem Approach to Fisheries (EAF), management strategies are developed and measures are adopted to address ecological, social and economic issues to be addressed by the respective sectors. A number of the practices and principles outlined below form an integral part of the ecosystem approach:

- *Consultation and participation of stakeholders*

Comprehensive consultation with, and the participation of stakeholders in, the TDA and SAP development process was viewed as essential in order to secure ownership from a range of interested and affected parties, including representatives from the governments of the participating countries, the research community, private sector, coastal communities, Non-Governmental Organizations (NGOs) and civil society.

- *Adaptive management*

Adaptive management aims for and allows continuous improvement of policies and management practices because it is based on lessons learned from past practices. In the case of the CCLME, the environmental objectives defined for the long-term will be achieved through the step-by-step implementation of a series of targeted actions. At each stage, performance indicators will be used to decide on the next step.

- *The precautionary principle*

The precautionary principle stipulates that a lack of scientific and technical knowledge should not delay the adoption of measures to prevent the risk of serious and irreversible damage to the environment.

- *Equity*

The principle of equitable distribution of the benefits derived from marine ecosystems is an integral part of the ecosystem approach. This principle is therefore fully aligned with the human rights-based approach. Principles relating to human rights guided planning activities during all phases of the TDA/SAP development process, including assessment and analysis, planning, and design (e.g. setting goals, objectives and strategies).

Integration of gender

This is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy that aims to integrate the experiences and concerns of women (and girls) as well as those of men (and boys) in the design, execution, supervision and evaluation of policies and programmes, so that women and men can benefit equally. The ultimate goal is to achieve gender equality.

The commitment of governments

The endorsement of the SAP by government ministers from the seven countries is the final step in the TDA/SAP development process. Political endorsement indicates firm commitment to the CCLME Project and the implementation of a SAP to sustainably manage the CCLME.

Accountability and ownership

The parties that commit to implementing the SAP must be identified clearly and unambiguously and be fully accountable for their actions. The system is designed so that the beneficiary countries, and local communities in particular, take ownership of the development process.

International commitments

Through their commitment to implementing the SAP, the CCLME countries will take action on and contribute to a number of international conventions, framework agreements and protocols, such as the Sustainable Development Goals (SDGs), the Code of Conduct for Responsible Fisheries (CCRF), the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change (UNFCCC) and the United Nations Convention to Combat Desertification (UNCCD).

1.2 Securing sustainable fisheries in the context of food security and poverty eradication

Owing to a high level of productivity and diversity of fisheries resources, the marine fisheries sector plays an important role in the national economy of the CCLME countries, particularly in terms of creation of employment, food security and nutrition. The marine fisheries resources are exploited by artisanal fishers as well as by semi-industrial and industrial sectors. The fisheries sector plays an important social role in the CCLME region because of the large number of direct and indirect jobs it creates and the livelihoods it supports. In the seven countries of the CCLME, the average consumption of fishery products is estimated to be 15 kg per capita, per year² (higher than the remainder of the African Continent), pointing to the importance of fisheries for nutrition (see Appendix 2).

Artisanal fisheries are an essential part of the cultural, social and economic development of the CCLME region. They contribute more than 60 percent of the total catch and represent the main livelihood activity of the coastal population. Women are largely involved in post-harvest activities, including processing and marketing of fishery products.

While artisanal fisheries play an essential role in food security, nutrition, poverty eradication, social and economic development, artisanal fishing communities are marginalized, vulnerable and highly dependent on fishing. For instance, they have limited access to markets, health, education and other social services, and are characterized by high levels of poverty, poor education and health, and a lack of organizational structures. Working in difficult and dangerous conditions, the artisanal fishing communities are generally left out of the consultation and decision-making processes, and have neither a voice, nor the power to claim their rights. For these reasons, the CCLME SAP gives special attention to the entire fisheries sector and through actions and measures at local, national and subregional level, supports and contributes to the implementation of the FAO Voluntary Guidelines for Securing Small-Scale Fisheries in the Context of Food Security and Poverty Eradication.

1.3 Climate change and variability: adaptation, mitigation and emergency response strategy

Coastal populations in the CCLME countries, and fishing communities in particular, are very vulnerable to the impacts of climate change. Economic, social and environmental costs already associated with climate change are likely to increase significantly in future and negatively affect livelihoods and food security in the region. Increased frequency and intensity of environmental variability, together with predicted coastal erosion, salinity changes, modification of currents, elevation of sea level, increases in sea surface temperature and ocean acidification are likely to lead to further pressure on fisheries, ecosystems and sensitive habitats, some of which are already threatened.

² Regional study "Transboundary fish trade in the CCLME region". Report produced in collaboration with the socio-economic and trade working group of the CCLME Project, including draft guidelines for improving the regional trade of fish. A summary of the report is presented in Appendix 2.

In this context, it is necessary to strengthen regional coordination and cooperation for effective action at national and local level to:

- anticipate the impacts of climate change on marine resources and ecosystems
- prepare adaptation strategies in response to the new environmental conditions
- develop rapid and targeted responses to extreme events, disasters and emergencies
- identify and implement mitigation measures to combat climate change.

Adaptation strategies should be based on an integrated approach; involve the relevant institutions of the region; take into account all ecological changes and resulting consequences; and develop appropriate management responses.

This approach will provide an opportunity to integrate climate issues into national development policies and priorities so as to strengthen existing processes and enhance sectoral planning across a larger group of institutions. Particular emphasis will be placed on the coordination of research and information systems; improvement of knowledge and communication systems; developing adaptive capacities at local level; and strengthening policy coordination at national and regional level.

1.4 Capitalize and disseminate lessons learned to replicate success stories

Pilot projects implemented during the most recent phase of the CCLME Project (2010 to 2016) were designed to demonstrate and test, through practical application, the relevance of an integrated and regional approach to addressing specific transboundary issues. The five demonstration projects are presented in Appendix 3. These projects, currently still in progress, are continuing to strengthen the knowledge and subregional capacities of many stakeholders, while at the same time contributing to the development of policy and subregional guidelines, such as for example the guidelines for fisheries co-management in Marine Protected Areas (MPAs) in the Northwest African region (see Appendix 4, demonstration project no. 4).

Experiences and lessons learned from these projects will be pursued and strengthened within the framework of SAP implementation, thereby enabling stakeholders to use the developed methodologies, strengthen partnerships and replicate success stories in the subregion in order to achieve the objectives of the CCLME SAP.



2. State of the Canary Current Large Marine Ecosystem: results of the Transboundary Diagnostic Analysis

The TDA is a key component of all LME projects funded by the Global Environment Facility (GEF). The TDA is designed to present a subregional review and assessment of the CCLME and the threats that affect the long-term sustainability of the coastal and marine processes and resources of the region. The relative importance of the immediate and underlying causes of these threats is evaluated to identify preventative and remedial measures. As such, the TDA serves as the technical basis for the development of a regional SAP.

The TDA, the scientific basis for the development of the SAP

The TDA was initiated in 2006, as part of the preliminary phase of the CCLME Project, and finalized in 2015. It was subsequently endorsed by the seven countries of the CCLME region. The TDA constitutes a synthesis report on the CCLME; it analyses the causes, environmental impacts and socio-economic consequences of each transboundary problem identified. Countries and all stakeholders have unanimously agreed that the **decline of living marine resources, degradation of habitats** and the **deterioration of water quality** are the three transboundary issues to be addressed by the SAP.

- *Decline in living marine resources*

The priority transboundary issues identified are the decline and vulnerability of small pelagic resources; the depletion of demersal resources; the threats to vulnerable species (sharks, rays, marine mammals and sea turtles); and the vulnerability of tuna resources.

- *Degradation of habitats*

The priority transboundary issues identified are the disappearance and destruction of mangroves; degradation and modification of sensitive underwater habitats; and the degradation and modification of wetlands (in the broadest sense of the Ramsar Convention).

- *Deterioration of water quality*

The priority transboundary issues identified are the modification of the transport dynamics of sand and sediment; alien invasive species; changes in the salinity of waters upstream of river mouths; the high content of heavy metals in fish products; and pollution.

The results of the TDA for each of the three transboundary issues is detailed in Appendix 5.



3. The Strategic Action Programme

The SAP is the result of a comprehensive process of analysis and consultation

The SAP is a document that defines the priority actions to be taken to address the main transboundary environmental marine and coastal problems affecting the CCLME, as identified by the TDA and detailed above. It is a major strategic planning tool and the final step in a highly collaborative and consultative process. The SAP is based on the results of the TDA.

The SAP was developed during a consultative process, allowing stakeholders to select priorities in relation to the identified transboundary problems, and propose efficient solutions to address them.

The objective of the SAP is to provide the countries of the CCLME with a basis for the transboundary management of the CCLME. Specifically, the SAP proposes to:

- Identify actions and priority measures to resolve the most urgent marine and coastal environmental problems identified in the TDA.
- Define the institutional and regulatory framework, and the reforms required, to create an environment that enables the implementation of the proposed actions and measures.
- Identify stakeholders for the implementation of the selected actions.
- Define a funding strategy, i.e. the mobilization of human and financial resources for the implementation of the proposed actions and measures.

3.1 Structure of the SAP

The SAP was developed through a participatory process of stakeholder engagement and draws on the TDA and studies carried out by the CCLME Project. The SAP is structured according to three themes called strategic components, which are considered the priorities for the region. The strategic components are: **living marine resources; critical habitats; and water quality**. In order to develop the SAP out of the TDA, the following steps were taken:

- The definition of a subregional vision for the CCLME.
- The identification of Ecosystem Quality Objectives (EQOs) for each of the three strategic components.
- The validation of the main challenges to be solved.
- The definition of specific objectives.
- The identification of targets and actions to address the identified problems.

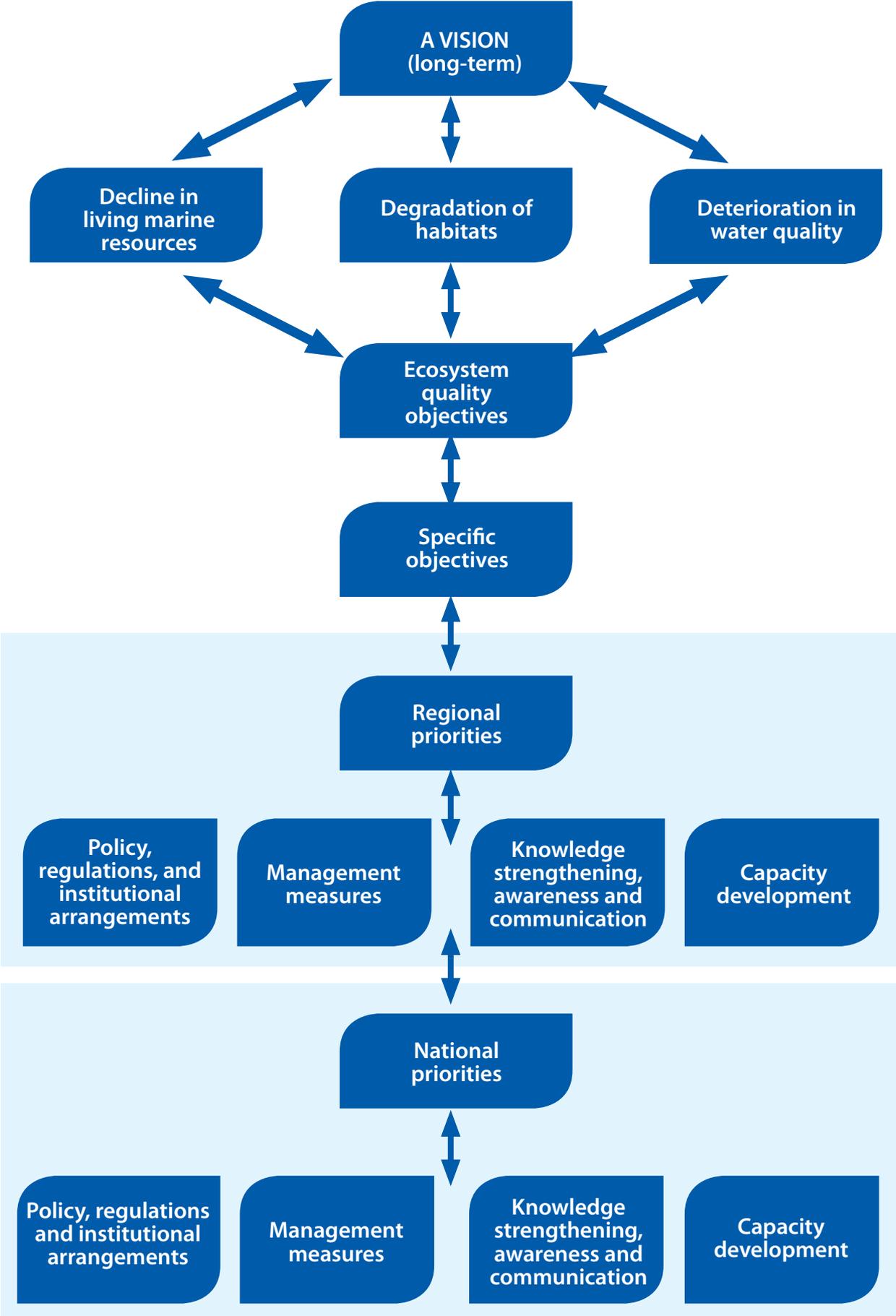
3.2 Vision for the CCLME

The vision is a long-term perspective that describes the future that stakeholders want for the CCLME. This vision is based on long-term EQOs, which refer specifically to the most urgent environmental problems identified in the TDA.

The vision emphasizes the following fundamental elements and priorities for the CCLME:

- The health of the marine and coastal ecosystems and the well-being of their populations.
- Equity in the use of resources and the distribution of ecosystem benefits.
- Good governance.
- Sustainability in a broad sense, for the management of resources and mechanisms.

The CCLME - A healthy ecosystem, sustainably managed, providing services and equitable benefits for human well-being by 2030



3.3 Strategic Action Programme for the CCLME: vision and objectives

The CCLME – A healthy ecosystem, sustainably managed, providing services and equitable benefits for human well-being by 2030

Theme 1: Living marine resources	Theme 2: Habitats	Theme 3: Water quality
Ecosystem quality objective:	Ecosystem quality objective:	Ecosystem quality objective:
Sustainably manage fisheries, restore degraded fish stocks and reduce threats to vulnerable species by 2030	Rehabilitate and/or preserve critical habitats in marine and coastal areas by 2030	Ensure that the water quality of the CCLME is of a high standard and contributing to the good health of the ecosystem by 2030
Specific objectives	Specific objectives	Specific objectives
<ol style="list-style-type: none"> 1. Sustainably manage and restore the small pelagic resources. 2. Sustainably manage and restore the demersal resources. 3. Reduce threats to vulnerable species and mitigate their impacts. 	<ol style="list-style-type: none"> 1. Restore and conserve mangroves. 2. Sustainably manage and conserve marine and coastal wetlands. 3. Reduce the negative impacts of human activities on the seabed and other critical habitats. 	<ol style="list-style-type: none"> 1. Mitigate the negative impacts of human activities on coastal processes and sediment dynamics. 2. Combat alien invasive species. 3. Monitor and control the sources and levels of different types of pollution in the marine and coastal environment.

3.3.1 Living marine resources: specific objectives, targets and regional priorities

Sustainably manage fisheries, restore degraded fish stocks and reduce threats to vulnerable species by 2030

Specific objective 1: Restore the small pelagic resources	Specific objective 2: Sustainably manage and restore the demersal resources	Specific objective 3: Reduce threats to vulnerable species and mitigate their impacts
Targets: <ul style="list-style-type: none"> • Maintain the abundance and biomass of all small pelagic stocks at/above ecologically sustainable level by 2030. • Implement the scientific recommendations of CECAF or responsible national institutions. • Minimize catches of juvenile fish across all small pelagic fisheries. 	Targets: <ul style="list-style-type: none"> • Rebuild overexploited demersal stocks by 2030. • Implement the scientific recommendations of CECAF or responsible national institutions. • Agree to management measures to maintain fish stocks at acceptable biological levels. • Reduce bycatch and discards (compared to the previous five year period). 	Targets: <ul style="list-style-type: none"> • Reduce the catch of vulnerable species, including marine mammals and sea turtles. • Minimize the negative impacts of offshore activities (oil, gas, and mining exploration and production, maritime operations) on marine mammals.

The national priorities for the three themes are presented in Appendix 6.

Regional priorities aimed at sustainably managing fisheries, restoring degraded fish stocks and reducing threats to vulnerable species

Policy, regulations and institutional arrangements

Support CECAF, in collaboration with other Regional Fisheries Bodies (RFBs), with the development of a policy and consultative framework for the concerted management of transboundary pelagic and demersal fisheries.

Promote linkages and cooperation between the competent institutions in the maritime area of the CCLME to facilitate regional policy, dialogue and coordination, building on the achievements of the CCLME Project.

Strengthen coordination and regional cooperation to prevent, deter and eliminate Illegal, Unreported and Unregulated (IUU) fishing through:

- establishment of regional agreements to facilitate the sharing of information and facilities;
- regional coordination of Monitoring, Control and Surveillance (MCS);
- application of the Port State Measures (PSM) agreement with respect to IUU fishing.

Management measures

Develop fisheries management plans for priority transboundary pelagic and demersal resources based on an EAF.

At a regional level, update and harmonize the management measures for transboundary stocks and vulnerable species, including the use of spatial management tools, e.g. MPAs.

At a regional level, support the implementation and coordination of existing International Plans Of Action (IPOA) for IUU fishing, sharks and seabirds, and develop regional plans of action for vulnerable species, e.g. marine mammals and turtles.

Put into practice and upscale recommendations from the CCLME Project demonstration projects relating to transboundary fisheries management of coastal small pelagic fish, shrimp trawl by-catch reduction and MPAs for fisheries.



Knowledge strengthening, awareness raising and communication

Harmonize methodologies and protocols for data collection and analysis in support of fisheries management.

Undertake multidisciplinary scientific studies on:

- monitoring and assessment of priority pelagic and demersal stocks;
- stock identification and geographic distribution;
- monitoring of marine and coastal ecosystems, e.g. upwelling, estuary dynamics, mapping of critical habitats and changes in biodiversity;
- monitoring and assessment of vulnerable species, including their role in the ecosystem and interaction with fisheries.

Strengthen the collection of data for monitoring of key socio-economic indicators.

Conduct and/or update regional studies on fisheries socio-economics:

- value of ecosystem goods and services;
- market and seafood trade;
- stakeholders and their roles in the various fisheries;
- cost–benefit analysis of management options.

Support the organization of regional scientific working groups for the analysis of data.

Organize annual meetings for the dissemination of information and consultation between fisheries stakeholders, i.e. government, the research community, private sector and civil society.

Conduct awareness raising and information dissemination activities with fisheries stakeholders and the public on the state of resources, vulnerable species, ecosystem health and the impact of human activities on the marine environment.

Capacity development

Strengthen the capacity of fisheries institutions in the following areas:

- EAF for the development, implementation and monitoring of fisheries management plans;
- designation, development and management of MPAs;
- governance and management of transboundary fisheries plans.

Strengthen scientific capacity in fish stock assessment and monitoring of resources.

Improve the capacity of fishers and members of fishing communities to address:

- co-management and participatory data collection;
- gear selectivity and use of environmentally friendly catching techniques;
- sanitary standards, post-harvest processing and adding value to products;
- alternative income generating activities, e.g. ecotourism.

3.3.2 Habitats: specific objectives, targets and regional priorities

Rehabilitate and/or preserve critical habitats in marine and coastal areas by 2030

Specific objective 1: Restore and conserve mangroves	Specific objective 2: Sustainably manage and conserve marine and coastal wetlands	Specific objective 3: Reduce the negative impacts of human activities on the seabed and other critical habitats
Targets: <ul style="list-style-type: none"> Restore degraded mangrove areas and conserve intact mangrove areas. Reverse the degradation of mangroves by 2030. 	Targets: <ul style="list-style-type: none"> Protect marine and coastal wetlands. Strengthen the management of protected wetlands. 	Targets: <ul style="list-style-type: none"> Through the effective implementation of EAF and existing guidelines reduce impacts on critical habitats in at least three CCLME countries. Reduce eutrophication in some key lagoons and estuaries by 50 percent by 2030. Reduce coastal erosion in some key sites by 2030.

Regional priorities aimed at rehabilitating and/or preserving critical habitats in marine and coastal areas

Policy, regulations and institutional arrangements

Support the ratification of relevant international conventions so that they may be implemented in the region.

At the regional level, harmonize legislation relating to the conservation and protection of marine and coastal areas.

Support the development of the Additional Protocol to the Abidjan Convention on the concerted and sustainable management of mangrove ecosystems of the Atlantic coast in the African region.

Develop regional policy to mitigate the impacts of fishing on critical habitats, taking into consideration demonstration project results and existing guidelines.

Review existing Environmental and Social Impact Assessment (ESIA) processes and guidelines (ICZM, fisheries, shipping, oil and mining) and adopt regional ESIA procedures.

Promote a consultative framework for MPA assessment, designation and evaluation, taking into account the existing regional network of MPAs, and related fisheries and conservation management regulations.

Management measures

Harmonize management measures relating to the conservation and protection of marine and coastal wetlands.

Strengthen the management of national and transboundary MPAs and enhance their contribution to ecosystem functioning and the restoration of fisheries in marine and coastal areas.

Support the future implementation of the Additional Protocol to the Abidjan Convention on the concerted and sustainable management of mangrove ecosystems of the Atlantic coast in the African region.

Incorporate climate change adaptation and mitigation measures – as they relate to critical habitats in marine and coastal areas – into management plans.

Knowledge strengthening, awareness raising and communication

In support of sustainable management, monitor and assess sensitive and critical habitats and their contribution to ecosystem goods and services, i.e.:

- mangroves;
- seagrass beds;
- marine habitats e.g. sensitive seabeds, fish spawning and nursery grounds.

Develop and apply a Geographic Information System (GIS) to monitor sensitive and critical habitats.

Promote soft engineering options for the rehabilitation of eroded coastlines and coastal areas within the region.

Strengthen knowledge of the environmental, social and economic impacts of MPAs, including costs, benefits and stakeholder participation.

Conduct community awareness projects linked to national ministries of health to alert the public to the dangers associated with Harmful Algal Blooms (HABs).

Support awareness-raising programmes for the wider public, policy makers and users on:

- the importance of critical habitats;
- alternative energy sources;
- the added value of natural resources, alternative income-generating activities and sustainable livelihoods.

Develop links with international conservation initiatives.

Capacity development

Undertake a participatory planning process for each selected mangrove site of global and ecoregional importance to identify challenges and locally acceptable management mechanisms.

Develop institutional capacity in relation to:

- planning and ICZM;
- ESIA;
- management, monitoring and restoration of mangroves;
- adaptation and mitigation in relation to climate change;
- fisheries impacts mitigation.

Strengthen the capacity of NGOs and Community-Based Organizations (CBOs) for community-based conservation measures.

Strengthen and enhance regional capacity to design, develop and manage MPAs.

Implement local training programmes through agricultural extension officers promoting alternatives to harvesting and cutting of mangroves.

Promote capacity development in coastal communities in terms of:

- adding value to products;
- using alternative resources for energy;
- building sustainable livelihoods;
- developing environmentally sound community-based tourism programmes.

3.3.3 Water quality: specific objectives, targets and regional priorities

Ensure that the water quality of the CCLME is of a high standard and contributing to the good health of the ecosystem by 2030

<p>Specific objective 1: Mitigate the negative impacts of human activities on coastal processes and sediment dynamics</p>	<p>Specific objective 2: Combat alien invasive species</p>	<p>Specific objective 3: Monitor and control the sources and levels of different types of pollution in the marine and coastal environment</p>
<p>Targets:</p> <ul style="list-style-type: none"> • The use of ESIA for proposed activities in the coastal zone promoted in the CCLME countries. • The CCLME countries are trained in the ESIA approach and are equipped with appropriate tools. 	<p>Targets:</p> <ul style="list-style-type: none"> • Action plans addressing the requirements of international conventions and protocols available to the CCLME region. 	<p>Targets:</p> <ul style="list-style-type: none"> • Strengthen water quality monitoring and surveillance activities to meet the requirements of international conventions and protocols. • Adopt and put in place an operational emergency plan to combat oil pollution. • Decrease sources of heavy metals pollution. • Reduce the concentration of nitrates and phosphates in marine and coastal waters. • Reduce the incidence of marine pollution. • Reduce the level of plastic pollution, solid waste and other dangerous waste. • Reduce damage caused by the harmful effects of wastewater.

Regional priorities aimed at ensuring that marine water quality is of a high standard and contributing to the good health of the ecosystem

Policy, regulations and institutional arrangements

Support the ratification and implementation of relevant international agreements on marine pollution and alien invasive species.

Promote regional cooperation to facilitate the exchange of information and resources (equipment, expertise), as well as mutual assistance in the case of transboundary pollution events.

Strengthen national and regional coordination for the monitoring and surveillance of polluting activities (such as dumping of ballast water and fuel from ships).

Ratify and accede to the Protocol on Land-Based Activities and Sources of Pollution of the Abidjan Convention.

Establish a regional working group to decide on environmental quality standards.

Strengthen and promote regional dialogue for a coordinated policy on the management of transboundary river basins.

Develop common regional guidelines for the periodic assessment of water quality.

Management measures

Support the development and implementation at the regional level of:

- plans for oil spill preparedness, prevention and response;
- plans for prevention and combatting land-based pollution sources and contributing activities;
- plans for marine litter reduction;
- plans for prevention and control of alien invasive species.

Undertake a participatory planning process for each hotspot to identify challenges and locally acceptable management mechanisms.

Knowledge strengthening, awareness raising and communication

Monitor and map water quality, marine pollution and alien invasive species using a GIS and make this knowledge available.

Develop a HAB reporting system for the CCLME region.

Conduct studies to:

- update information on the main sources of, and areas at risk from, pollution;
- assess the impacts of construction and development activities on the marine and coastal environment;
- model the movement and dispersal of pollutants from the main source areas;
- evaluate the extent of pollution, the transfer of pollutants and risks to the ecosystem and fisheries;
- estimate the impact of pollution and contamination on ecosystem health and the economy.

Implement a first periodic assessment of the water quality and trends (to be repeated at three-year intervals).

Develop and implement a regional programme to sensitize the public on waste and water pollution.

Support an awareness raising programme for farmers on good agricultural practices and the use of alternatives to fertilizers and pesticides.

Promote a tertiary waste exchange center and waste treatment technology for highly industrialized coastal cities, where appropriate.

Undertake an awareness raising programme on waste management with governments and the private sector, include recycling and reuse of waste for industrial products with a view to promoting small-scale commercial businesses.

Capacity development

Develop capacity at regional level in relation to:

- monitoring and surveillance of pollution;
- pollution prevention and response;
- taxonomy for the identification of alien invasive species;
- EIA

Identify three top priority regional educational needs and address them in appropriate languages to support the reduction of land-based sources of pollution and activities that contribute to pollution.

Improve regional capacity to analyse toxins and identify harmful species by sharing expertise between countries.

Support capacity development for farmers on best agricultural practices and the use of alternatives to fertilizers and pesticides.

4. Implementation of the Strategic Action Programme

4.1 Governance, communication and implementation

A specific component has been developed to include cross cutting issues so as to ensure good governance, effective communication and evaluation of the progress of SAP implementation. This component has the following three specific objectives:

1. Coordination and management of the SAP implementation.
2. Development of a communication strategy and tools to support the dissemination of information and lessons learned.
3. Monitoring and evaluation of the SAP Implementation, and the functioning of the data and information management system.

Specific targets identified include the ongoing review of the SAP; strengthened governance mechanism; a communication strategy and tools; and the completion of mid-term and final evaluations. Further details are provided in the table below.

Ensuring good governance, effective communication and evaluation of the progress of SAP implementation

Specific objective 1:	Specific objective 2:	Specific objective 3:
Coordination and management of SAP implementation	Develop a communication strategy in relation to SAP implementation and support the dissemination of information and lessons learned	Monitor and evaluate SAP implementation and the functioning of the data and information management system
Targets: <ul style="list-style-type: none"> • Update the SAP and operationalize the governance mechanism. • Prepare periodic progress reports. 	Targets: <ul style="list-style-type: none"> • Develop a communication strategy and communications tools. • Disseminate information and lessons learned. • Strengthen links with other LME projects, regional organizations and other partners. 	Targets: <ul style="list-style-type: none"> • A data and information management system and GIS/mapping tools to facilitate monitoring of ecosystem status. • Baseline assessments. • Mid-term and final evaluations.

4.2 Cooperation, coordination and regional governance mechanisms

National actions within a regional framework

The justification for the preparation of this regional SAP is the common recognition that the CCLME is a shared resource. Some of the activities conducted within the borders of each of the CCLME countries have transboundary implications and the participating countries acknowledge their responsibilities as custodians of a globally important resource. Sustainable use of the region's biological and environmental resources implies a shared responsibility and a common objective to implement a joint programme of action that addresses the key threats to marine ecosystems, so as to realize the opportunities those resources present. The responsibility to implement actions is that of the participating countries (with the exception of the regional coordination of the programme).

At the country level, the challenge will be to integrate the priorities identified in the SAP into national policies, legal frameworks, development plans and budgets. Moreover, implementation at the national level will require the development of plans to finance priority actions.

Proposals for cooperative governance and a regional coordination mechanism for the SAP are based on the *Guidance document on governance of the Canary Current Large Marine Ecosystem* (FAO, 2015), a study that was carried out by the CCLME Project. The proposed cooperation mechanism puts the countries at the center of the SAP implementation process and integrates the expertise of the intergovernmental organizations active in the subregion, but it avoids the creation of a new intergovernmental body.

The proposed governance mechanism is composed of an orientation and consultation body (the Canary Current Conference); a management body (the Regional Steering Committee); a permanent regional coordination body charged with the overall monitoring of SAP implementation and its administrative aspects (the Regional Coordination Unit); the existing National Interministerial Committees (NICs) and ad hoc expert committees with responsibility for the formulation of scientific advice.

This option is cost effective and strengthens existing structures, including the NICs that were created during the current phase of the CCLME Project. The functioning of the proposed cooperative governance framework could be dictated by internal regulations as agreed between parties involved, and its practical operationalization and the allocation of responsibilities should be elaborated by all parties as a next step.

4.3 Monitoring and evaluation

The SAP serves as a framework for adaptive management and may be regarded as an evolving document that will be revised periodically to take into account the political, economic and environmental dynamics of the region, as well as the evolution of scientific knowledge.

4.4 Risks and sustainability

A number of risks could compromise the implementation of the SAP and the sustainability of the results. A detailed assessment of the risks associated with the implementation of the various components of the SAP was made during the SAP development process. The main risks are as follows:

Inadequate cooperation and coordination: the risk lies in the fact that environmental considerations are not sufficiently incorporated into the policies, projects and activities, owing to a lack of coordination both at the national and regional level. This may seriously affect the consistency of the actions in relation to the overall vision of the region.

A lack of capacity: the coordination mechanisms and essential regulatory measures for the integrated management of marine and coastal natural resources are not developed, adopted or applied in a satisfactory manner because of limited capacity in the participating countries.

Inadequate financial resources: owing to the current economic climate, governments, institutions, partner countries and national and regional organizations may be unable to allocate sufficient human and financial resources to support the implementation of the SAP. This is a major risk to the implementation and sustainability of the project.

It is important to note that the SAP has already incorporated these risks and their mitigation through specific actions aimed at mobilizing the necessary political support, capacity and financial mechanisms and improving cooperation and coordination.

4.5 Funding and implementation of the SAP

The importance of mobilizing the support of the CCLME countries, donors and international organizations

The implementation of the SAP will be funded by the mobilization of financial resources at national, regional and international levels. It is expected that the governments of the participating countries will contribute a significant portion of the required human and financial resources. Such contributions will facilitate regional and international donor support.

Following national consultations, an analysis of possible sources of funding for each of the actions identified in the SAP, and funding mechanisms for policies and national measures agreed to in the SAP, will be presented by the participating countries, based on the action plans developed by them.

Potential sources of funding are:

- Grant support by the GEF to co-finance the general coordination and execution of strategies and priority actions.
- Contributions by multilateral institutions, bilateral donor countries and partners.
- Financial and in-kind contributions from the countries of the CCLME, and regional stakeholders.

The use of innovative financing mechanisms

Funds and investments from carbon offsetting by the countries of the North could be mobilized to finance specific priorities. For example, carbon sequestration projects (replanting mangroves, protecting seagrass beds) may be eligible for this type of funding. Similarly, projects aimed at developing alternatives to activities that cause pollution, or generate greenhouse gas emissions, may benefit from funding.

Partnerships and collaboration with complementary initiatives in the region

There are many initiatives being undertaken in the subregion and partnerships could be developed within the framework of SAP implementation. Such partnerships will ideally coordinate responses, pool resources and create constructive synergies. The list of key initiatives provided below is not exhaustive but merely indicative:

The Coastal Fisheries Initiative (CFI) is a GEF programme that aims to demonstrate and promote integrated and holistic processes that lead to the sustainable use and management of coastal fisheries and, in doing so, complement the GEF multi-country LME approach. The initiative addresses the three pillars of sustainability – the ecological, social and economic dimensions – and comprises national and subregional projects with an innovative financing mechanism (the Challenge Fund). One of the three geographical areas to be supported by the project is West Africa and Cabo Verde, Côte d'Ivoire and Senegal are to be the beneficiaries.

The Partnership for African Fisheries (PAF) is a programme of the New Partnership for Africa's Development (NEPAD) that works to improve the sustainability of Africa's fisheries and the economic returns provided by this sector. Activities cover five key strategic areas:

- good governance;
- illegal fishing;
- trade and access to markets;
- aquaculture;
- finance and investment in fisheries and aquaculture

The West Africa Regional Fisheries Program (WARFP) aims to strengthen governance and management of targeted fisheries and improve the handling of landed catches at selected sites. The project consists of four components: i) reducing IUU fishing; ii) strengthening good governance and sustainable management of fisheries; iii) increasing the contribution of fish resources to the local economy; and iv) monitoring, evaluation and regional coordination. The first phase of the WARFP ended in December 2015.

The Regional Partnership for Coastal and Marine Conservation in western Africa (PRCM) was established as a combined initiative of several international organizations, i.e. the International Union for Conservation of Nature (IUCN), the *MAVA Fondation pour la nature* (Foundation for Nature), the Worldwide Fund for Nature (WWF), and Wetlands International (WI), in partnership with the Sub-Regional Fisheries Commission (SRFC). It is primarily focused on conserving and sustainably managing the natural resources, biological and cultural diversity of the marine and coastal zone in West Africa. Projects are funded and implemented within the framework of three components, namely: conservation of biodiversity, sustainable fisheries and integrated management.

The EAF-Nansen Project "Strengthening the Knowledge Base for and Implementing an Ecosystem Approach to Marine Fisheries in Developing Countries" and the follow-up programme is an initiative by the Food and Agriculture Organization of the United Nations (FAO) to support the implementation of the ecosystem approach in the management of marine fisheries. The aim is to promote sustainable utilization of marine living resources and improved protection of the marine environment. The long-term objective of the EAF-Nansen Project is to strengthen regional and country specific efforts to reduce poverty and create conditions to assist in the achievement of food security through development of sustainable fisheries management regimes and specifically through the application of the EAF, with an early emphasis on sub-Saharan Africa.

Appendix 1: Protection of the Canary Current Large Marine Ecosystem Project

The Protection of the Canary Current Large Marine Ecosystem (CCLME) Project, implemented from 2010 to 2016, is unique in its strategic approach in that it combines fisheries and environmental governance frameworks. The project enabled the participating countries to identify three priority transboundary problems, namely declining fisheries, degradation of habitats and deterioration of water quality. It also helped to identify solutions for resolving transboundary problems through cooperation, strengthening institutions, promoting partnerships and demonstration projects as management options. The CCLME Project promotes cooperation between project partners and monitors the state of the CCLME, based on scientific results.

Cabo Verde, The Gambia, Guinea, Guinea-Bissau, Morocco, Mauritania and Senegal are all committed to working together as partners in the CCLME Project in a combined effort to combat the trend of progressive degradation of the CCLME – as a result of overfishing, habitat modification and changes in water quality – by adopting an ecosystem approach to management.

The existing project is funded by the GEF, with co-financing from participating countries and the support of many partners such as the French Development Agency (AFD); the Swedish International Development Cooperation Agency (SIDA); the MAVA Foundation for Nature; the SRF, the Secretariat of the Abidjan Convention; the United Nations Environment Programme – World Conservation Monitoring Centre (UNEP–WCMC), the United Nations Educational, Scientific and Cultural Organization (UNESCO); the Cooperation and Management Agency between Senegal and Guinea-Bissau (AGC); the Spanish Oceanographic Institute (IEO); the National Oceanic and Atmospheric Administration (NOAA) of the United States; the French Institute for Research and Development (IRD); Wageningen International; the Intergovernmental Oceanographic Commission (IOC); Vigo University; Old Dominion University; the University of Rhode Island; the University of Bergen; the African Confederation of Artisanal Fisheries Professional Organizations (CAOPA); the Fishery Policies Network in West Africa (REPAO); the Marine Protected Areas Network in West Africa (RAMPAO); the WWF’s West Africa Marine Ecoregion programme (WWF-WAMER); WI; IUCN; the EAF-Nansen Project; and the PRCM.

The first steering committee meeting of the CCLME Project held in Dakar, Senegal on 4 November 2010, established six technical working groups to assist with the development of a TDA and the formulation of a SAP for the CCLME region. The meeting also adopted terms of reference for the development of the SAP and agreed that the CCLME Project, together with member states, would support and strengthen the two CECAF working groups on the assessment of demersal and small pelagic fish stocks. During the sixth project steering committee meeting, which was held in Dakar, Senegal, from 2 to 3 February 2016, the final version of the TDA was distributed.

The FAO and UNEP are the UN agencies responsible for implementing the CCLME Project.

For more information, please visit the CCLME Project website: www.canarycurrent.org



Appendix 2: Guidelines for improving the transboundary fish trade

Four directives can be issued to mark the intervention of public policies on the area of fishing and trade. The first concerns the promotion of a regional vision for the trade in fisheries products in West Africa by 2025, in order to satisfy the demand of 450 million people. The second aims to boost intra-regional trade. The third is to rapidly develop a number of initiatives to improve the quality and quantity of supply. The fourth is to develop a digital mobile phone application in order to network with all producers, processors and traders in the region. These directives are summarized as follows:

1. Promotion of a regional vision for 2025 concerning the trade in fisheries products

By setting up a joint working group, the CCLME Project, the Economic Community of West African States (ECOWAS), the West African Economic and Monetary Union (UEMOA) and the SRFC aim to satisfy the needs of the West African population, which is expected to surpass 450 million (including 84 million people in the countries of the CCLME region). The main objective of national and regional institutions will be to anticipate the future needs of a growing population. The working group must take into account all the steps in the chain from production (in the region or elsewhere) to consumption. This initiative requires a significant improvement in qualitative and quantitative knowledge of the fish trade in West Africa. The group should also consider the development of incentives to balance the benefits derived from exports with the needs of the population. In this respect, communication around the risks of export growth, at the expense of domestic supply, should be considered without delay. This work must be extended to an analysis of the societal benefits generated by fishing enterprises that are dedicated to supplying the export market.

2. Boosting intra-regional trade by taking measures to ease trade flows between coastal West African countries as outlined below:

- a. Simplify and standardize customs documents and procedures, then adopt standard tools for the simplification of transaction costs.
- b. Harmonize the maximum axle load and the single customs declaration document for road transit.
- c. Establish an advanced information system to track goods and their transportation by road, ports and railways.
- d. Establish a customs surety deposit to remove the administrative costs associated with sureties required by national customs.
- e. Establish a uniform classification of goods for customs purposes.
- f. Set up an electronic customs system for recording customs declarations, customs accounting procedures, warehousing, licenses and permits for import/export.
- g. Establish common rules of competition and harmonize technical standards.

Such measures would improve trade between West African countries because the actions that hinder the free movement of people and goods would be eliminated. Improving trade will also promote:

- Public-private partnership.
- Uniform sanitary standards and trade related to international standards.
- The development of communication infrastructure and information and communications tools.
- The means and methods for transport, transformation and conservation of products.

3. The development of a set of immediate actions with regional partners to improve the quantity and quality of fisheries products in West Africa

While seeking harmonization between countries, actions must address post-catch losses and all practices that are incompatible with the use of fish as raw material. Efforts must also be made to improve the equipment used in fishing and processing. Training and awareness of the nutritional and health qualities of fishery products should also be promoted.

In all countries, women play a very important role in fishing activities. They are highly involved both upstream and downstream of the supply chain and often invest in fishing or processing equipment. As essential actors in the industry, they are largely the guardians of the quality of fish traded by the countries and it is essential to involve women in long-term actions aimed at improving the quality of seafood in the region. The CAOPA could play an important role in such an initiative. Writing and disseminating best practice guidelines, and producing short videos may be regarded as a first step in this process. While recognizing that each development partner has its own priorities, establishing a dialogue between them should bring about a set of actions that might be financially supported by many. The idea is to seek synergies with existing projects (for example WARFP). A special effort should be made to encourage technology transfer in the aquaculture industry; for instance skills from Nigeria might be transferred to the countries of the region. The development of peri-urban aquaculture is regarded as a priority to meet the growing demand for protein from urban centers, especially in the hinterland.

4. The development of a digital mobile phone application to create a network of producers, processors and traders in different countries

Many types of fish do not find buyers and yet they may be popular in a different region or country. For example, the bonga is little appreciated in Senegal but very popular in Guinea. Many creative systems have been applied to reduce waste and improve processing, but have not been widely disseminated. An application for mobile phones (smartphones) has the potential to connect sellers and buyers, to disseminate information about the most appropriate processing techniques and discuss prices. Such a tool would also be a vector of regional integration because it would provide a means for fishery and seafood professionals from all countries to communicate.



Appendix 3: The CCLME Project demonstration projects

Demonstration Project No.1: Sustainable management of shared pelagic stocks in Northwest Africa

This project synthesized knowledge on small pelagic fish and prepared a strategy to promote the sustainable use and integrated management of small pelagic fish in Northwest Africa as well as a draft regional framework for the management of shared or transboundary small pelagic fish off Northwest Africa, using an EAF.

Demonstration Project No. 2: Reducing the impact of shrimp trawling by reducing bycatch and discards

This project contributed to improved knowledge on bycatch and discards from shrimp fisheries in the CCLME region and initiated a common, standard methodology for data collection on bycatch and discards, and improved collaboration with vessel owners on the use of demersal fishing gear.

Demonstration Project No. 3: Transboundary management of coastal pelagic resources important to artisanal fisheries (striped mullet, meager, bluefish)

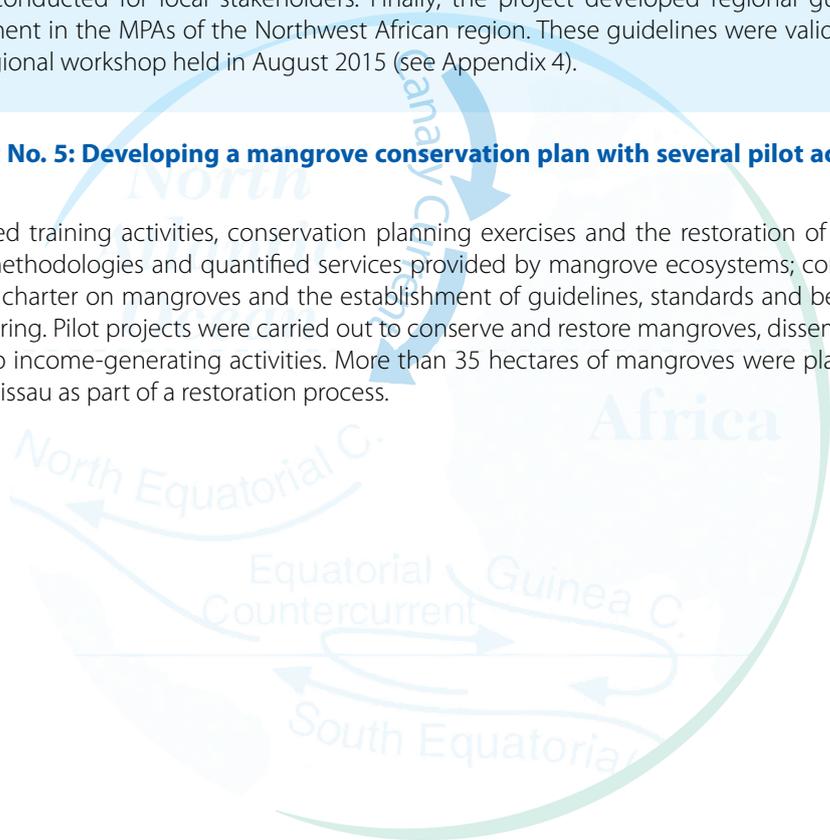
This project helped to improve knowledge of the biology and ecosystem interactions of the target species. It also contributed to knowledge of the economic environment by assessing the benefits from fisheries and identifying ways to improve the sustainability of profits. Management plans for striped mullet have been put into practice in Mauritania and Senegal and communication materials have been distributed. This project also led, in June 2015, to the establishment of a regional co-management process that resulted in the creation of the Plurinational Preliminary Commission (PPC) at the level of the SRFC.

Demonstration Project No. 4: Use of MPAs as a tool to improve management of multiple resources

This project designed and tested a methodology for the evaluation and monitoring of demersal fisheries at two pilot sites (Tanbi in The Gambia and Cayar in Senegal) and conducted a regional synthesis on MPA co-management systems in West Africa. Capacity building activities, including training, communication and awareness raising activities, were also conducted for local stakeholders. Finally, the project developed regional guidelines for fisheries co-management in the MPAs of the Northwest African region. These guidelines were validated by the countries during a regional workshop held in August 2015 (see Appendix 4).

Demonstration Project No. 5: Developing a mangrove conservation plan with several pilot activities for mangrove restoration

This project conducted training activities, conservation planning exercises and the restoration of mangroves; revised assessment methodologies and quantified services provided by mangrove ecosystems; contributed to the ratification of the charter on mangroves and the establishment of guidelines, standards and best practices for ecosystem monitoring. Pilot projects were carried out to conserve and restore mangroves, disseminate good practices and develop income-generating activities. More than 35 hectares of mangroves were planted in The Gambia and Guinea-Bissau as part of a restoration process.



Appendix 4: Subregional guidelines for fisheries co-management in marine protected areas in the Northwest African region

The subregional guidelines for fisheries co-management in MPAs in the Northwest African region clearly reflect the concerns of the countries of the subregion and were validated during a subregional workshop that took place in Dakar, Senegal from 18 to 19 August 2015. The workshop was attended by MPA stakeholders and partners in the CCLME Project. The guidelines represent a contribution to the technical instruments of the FAO and provide voluntary operational guidance for the sustainable management of natural resources.

The guidelines focus on six major topics for which a summary is presented below.

The full version of the guidelines may be downloaded from the CCLME project website: <http://www.canarycurrent.org>

1. Clearly specify the concepts in their contexts

Set the MPA with particular emphasis on context and objectives.

Define the co-management option that was adopted according to the context of the MPA and describe the scope of governance.

2. Identify and organize stakeholders for co-management

Identification of MPA stakeholders should be conducted in a participatory manner.

Co-management of a MPA must be based on a functional organizational framework.

3. Put into practice co-management of MPAs

It is essential to define and implement principles and rules relating to stakeholder participation in co-management arrangements.

To ensure active participation in the governance of MPAs, all stakeholders must be involved in an inclusive manner.

Co-management agreements should be negotiated and formally adopted so as to formalize and establish rules for the framework and the governance bodies.

4. Recognize and overcome the main constraints to co-management

A permanent platform for dialogue, deliberation by consensus, and appreciation of traditional conflict resolution methods should be implemented.

MPA co-management should capitalize on available public means and funds, as well as on stakeholder capacity and locally produced resources.

5. Promote policies that support co-management

Legal and institutional frameworks for the co-management of MPAs should be reinforced and the mandates of the various public institutions should be respected.

In order to better promote MPAs, co-management, economic and financial frameworks should be upgraded.

The efficiency of MPA co-management depends on sociological and anthropological frameworks

6. Learn from and capitalize on experience gained

It is essential to always rely on a participatory system of monitoring and evaluation.

A good communication plan should be part of a MPA co-management process in order to ensure that everyone is well informed.

Adaptive co-management should be developed through an iterative and cyclical approach to reviewing, adjusting and refining the governance process.

Appendix 5: Main results of the Transboundary Diagnostic Analysis

Decline in living marine resources

Major transboundary issues:

- Decline and vulnerability of small pelagic resources (sardines, sardinella, mackerel, anchovy and bonga)
- Decline in demersal resources (fish, cephalopods and crustaceans)
- Threats to vulnerable species (sharks, rays, marine mammals and sea turtles)
- Vulnerability of tuna resources

Primarily caused by:

- Overfishing and the overcapacity of coastal artisanal and offshore industrial fleets
- Excessive fishing in the breeding areas and critical habitats
- The use of non-selective fishing methods and destructive fishing gear
- IUU fishing
- Inadequate management of major watersheds
- Changes caused by environmental factors

For the following reasons:

- Inadequate regulations for access to resources, or an open-access regime
- Weak MCS
- A lack of subregional management and collaboration
- Insufficient scientific knowledge on the resources and their dynamics
- A strong demand for seafood and the emergence of new markets
- Greater variability in upwelling and an increase in water temperature
- Negative impacts on the environment from offshore oil and gas exploration and production
- Inappropriate management of large river basins (which could impact the reproduction of certain species)
- The uncontrolled development of tourism

Degradation of habitats

Major transboundary issues:

- Disappearance and destruction of mangroves
- Degradation and modification of sensitive underwater habitats, i.e. seagrass beds
- Degradation and modification of wetlands (in the broad sense of the Ramsar Convention: coastal zones, coral reefs and estuaries)

Primarily caused by:

- Unsustainable exploitation of mangroves
- Increase in salinity levels
- Pollution
- Destructive fishing techniques and methods
- IUU fishing
- Coastal erosion
- Offshore oil exploration and production

For the following reasons:

- Strong demographic pressure on the coastal zone
- Uncontrolled coastal urbanization
- Construction of dams
- Absence of alternative resources for energy and construction
- The development of irrigated agriculture
- Lack of, or non-compliance with, legislation for conservation
- Inadequate MCS
- Coastal communities' poverty and lack of alternative income-generating activities
- Strong demand for energy

Deterioration in water quality

Major transboundary issues:

- Modification in the transport dynamics of sand and sediment
- Alien invasive species
- Changes in the salinity of waters upstream of river mouths
- The high content of heavy metals, including cadmium in fish products
- Pollution

Primarily caused by:

- The construction of structures in river basins and in the coastal zone (dams, levees, ports, etc.)
- Ballast water and the dumping of fuel from ships
- The escape of species from aquaculture operations
- Droughts causing changes in the circulation dynamics of estuarine ecosystems
- Oil pollution and mining
- Agricultural runoff

For the following reasons:

- Uncontrolled urbanization and increased development of tourism
- The lack of consideration for the marine environment and the impacts of construction and management of work projects
- Non-compliance with international conventions and maritime protocols
- The lack of wastewater treatment plants and marine litter collection facilities
- Polluting agricultural practices leading to increased coastal eutrophication
- The absence of plans to prevent and combat pollution



Appendix 6: National priorities

National priorities aimed at managing fisheries, restoring degraded fish stocks and reducing threats to vulnerable species³

Policy, regulations and institutional arrangements
Create/strengthen national consultative structures for fisheries management for concerted policy and management of transboundary pelagic and demersal fisheries
Strengthen regulations to prevent, deter and eliminate IUU fishing (IUU National Action Plan, NAP)
At the national level, promote the establishment of a regional agreement to facilitate the exchange of information and resources between countries on MCS
Adapt the legal policy framework to promote the effective implementation of the PSM agreement in relation to IUU fishing
Contribute to the implementation of the CCRF, the Ecosystem Approach to Fisheries and to Aquaculture (EAF/EAA)
Management measures
Identify priority resources at national and regional level and set management objectives for each
Develop/implement EAF management plans for priority resources
Support the implementation of international guidelines, e.g. voluntary guidelines for securing sustainable small-scale fisheries in the context of food security and poverty eradication; guidelines on bycatch management and reduction of discards
Support the implementation of existing relevant International Plans Of Action (IPOAs for the management of fishing capacity; for reducing the incidental catch of seabirds in longline fisheries; for conservation and management of sharks) and develop NAPs for vulnerable species, e.g. marine mammals, turtles
Update and harmonize the management measures for transboundary stocks and vulnerable species, including the use of spatial tools, e.g. MPAs
Put into practise and upscale recommendations from demonstration projects relating to transboundary fisheries management of coastal small pelagic fish, shrimp trawl bycatch reduction and MPAs
Knowledge strengthening, awareness raising and communication
Develop and/or strengthen the data collection system to: <ul style="list-style-type: none"> • monitor and assess priority pelagic and demersal resources and vulnerable species • monitor marine and coastal ecosystems and the safety of fish and fish products • monitor key socio-economic indicators
Conduct and/or update studies on: <ul style="list-style-type: none"> • stock identification and geographic distribution • fisheries and vulnerable species interactions • fisheries socio-economics, e.g. the value of ecosystem goods and services; trade; stakeholders; cost–benefit analysis of management options
Support the organization of national working groups so that they contribute to regional working groups that regularly analyse scientific data produced at the national level
Conduct awareness raising and information dissemination activities with fisheries stakeholders and the wider public on the state of resources, vulnerable species, ecosystem health and the impacts of human activities on the marine environment
Organize annual consultation meetings for the dissemination of information and support dialogue between fisheries stakeholders i.e. the government, the research community, private sector and civil society
Capacity development
Strengthen the capacity of fisheries institutions in the following areas: <ul style="list-style-type: none"> • EAF for the development, implementation and monitoring of fisheries management plans • governance and management of transboundary fisheries issues • designation, development and management of MPAs
Strengthen scientific capacity in stock assessment and monitoring of ecosystems and resources
Develop the capacity of fishers and members of fishing communities to address: <ul style="list-style-type: none"> • co-management and participatory data collection • gear selectivity and use of environmentally friendly catching techniques • sanitary standards, post-harvest processing and adding value to products • alternative income generating activities, e.g. ecotourism

³ For Morocco: R = Already realized in the Kingdom of Morocco, I= Initiated process in the Kingdom of Morocco

National priorities aimed at rehabilitating and/or preserving critical habitats of marine and coastal areas

Policy, regulations and institutional arrangements
Promote linkages and inter-institutional coordination mechanisms for the integrated management of the coastal and marine zone
Develop national policy to mitigate the impacts of fishing on critical habitats, taking into consideration demonstration project results and existing guidelines, e.g. deep-sea fishing
Promote a national consultation framework for MPA assessment, designation and evaluation, taking into account the existing regional network of MPAs and related fisheries and conservation management regulations
Develop national management strategies/plans/frameworks (including community participation and empowerment) for mangroves, lagoons and the seabed
Support the development of the additional Protocol to the Abidjan Convention on the concerted and sustainable management of mangrove ecosystems
Review existing ESIA processes and guidelines (ICZM, fisheries, shipping, oil and mining)
Support the ratification of relevant international conventions so as to encourage their implementation
Review, harmonize and strengthen relevant local and national policies and legislation regarding Integrated Coastal Area and River Basin Management (ICARM)
Management measures
Update/harmonize management measures relating to the conservation and protection of marine and coastal areas
Support the implementation, at national level, of the regional charter on mangroves
Strengthen national and transboundary MPA assessments, designation and evaluation and enhance their contribution to ecosystem functioning and the restoration of fisheries in coastal areas
Promote climate change adaptation and mitigation measures in relation to critical habitats and marine and coastal areas
Devise a national management structure/framework/plan for addressing coastal erosion
Knowledge strengthening, awareness raising and communication
Monitor and assess critical areas in support of sustainable management, including their contributions to ecosystem goods and services
Develop and apply a GIS to monitor sensitive and critical areas
Strengthen the knowledge of the environmental, social and economic impacts of MPAs, including cost–benefits and stakeholder participation
Conduct community awareness projects linked to national ministries of health to alert the public to the dangers associated with HABs
Support an awareness raising programme for the wider public, policy makers and users on: <ul style="list-style-type: none"> • the importance of critical habitats • alternative energy sources • the added value of natural resources, alternative income generating activities and sustainable livelihoods
Capacity development
Develop institutional capacity in relation to: <ul style="list-style-type: none"> • planning and ICZM • ESIA • management, monitoring and restoration of mangroves • adaptation and mitigation in relation to climate change • fisheries impacts mitigation
Strengthen and enhance institutional and users' capacity to design, develop and manage MPAs
Strengthen capacity of coastal communities in term of: <ul style="list-style-type: none"> • adding value to products • using alternative sources of energy • building sustainable livelihoods • environmentally sound community-based tourism development

National priorities aimed at ensuring that marine water quality is of a high standard, contributing to the good health of the ecosystem

Policy, regulations and institutional arrangements
Support the ratification and implementation of relevant international agreements on marine pollution and alien invasive species
Promote regional cooperation so as to facilitate the exchange of information and resources (equipment, expertise) as well as mutual assistance in the case of transboundary pollution events
At the national level, strengthen the regulations on water quality, including wastewater treatment
Conduct a national review of policy, legal and regulatory frameworks and institutional structures for addressing land-based activities
Develop and enforce regulations on the disposal of industrial and mining effluents
Management measures
Support the development and implementation of NAPs for: <ul style="list-style-type: none"> • oil spill preparedness, prevention and response • prevention and control of alien invasive species • prevention and combating sources of land-based pollution • Marine waste reduction
Undertake a participatory planning process for each hotspot to identify challenges and locally acceptable management mechanisms
Strengthen national coordination on monitoring and surveillance of polluting activities
Knowledge strengthening, awareness raising and communication
Monitor and map water quality, marine pollution and alien invasive species using a GIS and make this knowledge available
Support an awareness raising programme for farmers on good agricultural practices and alternative uses to chemical fertilizers and pesticides
Conduct studies to: <ul style="list-style-type: none"> • update information on the main sources and areas at risk from pollution • evaluate the extent of contamination and transfer of pollutants and risks to the ecosystem and fisheries • model the movement of pollutants and contaminants from the main source areas
Conduct a survey on educational needs to support a reduction in land-based activities and sources
Promote the construction of reception facilities for marine debris/wastewater at ports
Implement demonstration projects for nutrient reduction in effluent water
Develop and implement a programme at the national level for sensitization of the public on waste and water pollution
Capacity development
Support capacity development for farmers on best agricultural practices and the use of alternatives to chemical fertilizers and pesticides
Develop capacity at national level on: <ul style="list-style-type: none"> • monitoring and surveillance of pollution • pollution prevention and response • taxonomy for the identification of alien species • EIA

Appendix 7: Governance of the CCLME area: proposal for a cooperative governance mechanism

Based on the analysis presented in the document "*Document d'orientation sur la gouvernance du Grand Ecosystème Marin du Courant des Canaries (CCLME) (FAO, 2015)*"⁴, and resulting from meetings held with representatives of the CCLME countries, a flexible mechanism for cooperative governance between the countries participating in the CCLME Project is proposed, with the purpose of implementing and updating the SAP. This mechanism takes into account the mandate of existing organizations, as well as the coordination achieved within the framework of the CCLME Project until now. The proposed cooperation mechanism places the countries at the centre of the management process by integrating the current project management structure with the expertise of the intergovernmental organizations currently active in the sub-region.

At the regional level, the proposed governance mechanism for the Canary Current Consortium consists of three bodies or entities:

- The Canary Current Conference or CCC: an orientation and consultative body that meets every five years, with a revision meeting at mid-term (i.e. a meeting every two or three years);
- The Regional Steering Committee or RSC, which meets at least once a year and is responsible for the management of SAP implementation;
- The Regional Coordination Unit (RCU), a permanent body responsible for administration and monitoring the implementation of the SAP.

Each country has a National Interministerial Committee (NIC) responsible for the implementation of the SAP at the national level. The NIC will meet approximately once a year, six months prior to the RSC meeting. A National Coordination Unit (NCU) will provide logistic support for meetings and follow up the implementation of the SAP in each country. Countries propose that this responsibility be given to the national focal point and the national technical coordinator who represent the interests of the NIC and their home administration (Ministry of Fisheries or Ministry of Environment, as applicable) within the RSC.

The CCC is the main advisory and consultative body of the Consortium, or the assembly of members. The institutions involved meet within a consultative framework to ensure commitment from all stakeholders to the implementation of the SAP. The CCC also aims to attract the interest of donors or others partners to invest in the implementation of the SAP, thoroughly communicating and presenting results and identifying opportunities for engagement. All institutions active in the fields of fisheries, environment and water quality in the CCLME region participate in the CCC, including national government institutions; intergovernmental organizations and other technical and financial partners; civil society; professional organizations; and academic bodies.



⁴ FAO. 2015. *Document d'orientation sur la gouvernance du Grand écosystème marin du courant des Canaries*. CCLME document (published in French).



Strategic Action Programme



The CCLME project

Seven countries in northwest Africa are working together through the CCLME Project to reverse the degradation of the Canary Current Large Marine Ecosystem (CCLME) and introduce an ecosystem approach to ocean governance. The countries are Cabo Verde, Guinea, Guinea-Bissau, Mauritania, Morocco, Senegal and The Gambia. Their objective is to introduce governance reforms and management interventions to address priority transboundary concerns,

including declining fisheries resources, the degradation of biodiversity and deteriorating water quality.

The effective management of shared fish stocks is one of the greatest challenges countries of the CCLME region face. Thus, the project is promoting multi-country cooperation and co-management of shared stocks, with a view to achieving long-term, sustainable fisheries management.

The CCLME Regional Coordination Unit is based in Dakar, Senegal.

5e étage de l'immeuble Kazem
41 Avenue Georges Pompidou
3300 Dakar RP
Senegal

Tel: +221 33 842 34 00 | Email: cclme@fao.org

www.canarycurrent.org



The five-year CCLME project is funded by the Global Environment Facility (GEF) and implemented by the Food and Agriculture Organization of the United Nations (FAO) and the United Nations Environment Program (UNEP). The participating countries and a number of development partners are also making substantial contributions towards meeting the aims and objectives of the project. Project partners include the *Agence Française de Développement* (AFD); the EAF-Nansen Project; the Norwegian Institute of Marine Research; the Spanish Institute of Oceanography; the *Partenariat Régional pour la Conservation de la zone côtière et Marine en Afrique de l'Ouest* (PRCM); the Sub-Regional Fisheries Commission (SRFC); the Swedish International Development Cooperation Agency (SIDA); Wageningen UR (University and Research Centre); and the National Oceanic and Atmospheric Administration (NOAA) of the United States.