



# GFCM 2030 STRATEGY

## FOR SUSTAINABLE FISHERIES AND AQUACULTURE IN THE MEDITERRANEAN AND THE BLACK SEA

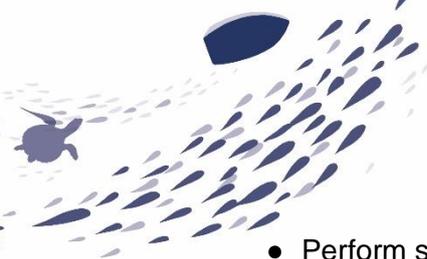
### ACTION PLAN

*The GFCM 2030 Strategy is complemented by a list of activities showing how the objectives of each target and action are expected to be delivered. This action plan is a living document that evolves over time. The activities are regularly reviewed and readjusted, and new activities may be suggested by contracting parties and cooperating non-contracting parties (CPCs) as well as relevant stakeholders.*

#### TARGET 1. Fisheries and ecosystems: healthy seas and productive fisheries

##### 1.1. Technical advice on the status of fisheries and potential management scenarios improved to provide a solid basis for decision-making

- Standardize and consolidate the execution of harmonized scientific surveys-at-sea, both demersal and pelagic, across the Mediterranean and the Black Sea.
- Improve regular data collection and monitoring of recreational fisheries, particularly for the main coastal species, with a view to integrating recreational fisheries data in assessments, when relevant.
- Improve GFCM data calls, in line with the Data Collection Reference Framework (DCRF), to cover all necessary data for the provision of advice, including, for example, information on the origin of the catch.
- Enhance the application of quality indicators to fisheries data that are submitted in line with GFCM recommendations.
- Undertake the assessment of key fisheries in the Mediterranean and the Black Sea, including through data-preparation meetings and benchmark assessments.
- Revise the list of GFCM priority species for the Mediterranean and the Black Sea, on the basis of the best scientific information available.
- Revise the framework for the provision of advice.
- Develop ad hoc stock assessments for key coastal species, in view of the sustainable management of coastal fisheries and in line with the Regional Plan of Action for Small-Scale Fisheries in the Mediterranean and the Black Sea (RPOA-SSF).
- Incorporate the effects of anthropogenic activities, such as climate change and marine pollution, into scientific and decision-making processes.
- Integrate short-term forecasts in the process of formulation of advice for priority species.
- Incorporate stakeholder views in the definition of potential management scenarios for key fisheries.



- Perform simulations of alternative management scenarios for key fisheries subject to a GFCM management plan.
- Continue with the implementation of research programmes for European eel (*Anguilla Anguilla*), red coral (*Corallium rubrum*), rapa whelk (*Rapana venosa*), common dolphinfish (*Coryphaena hippurus*) and blue crabs (*Callinectes sapidus* and *Portunus segnis*).
- Identify additional research programme needs, in line with GFCM priorities.

### **1.2. Evidence-based adaptive fisheries and ecosystem management implemented**

- Develop small-scale fisheries (SSF) management plans per subregion, supported by data collection and regular stock assessment of priority SSF species, where it is justified.
- Operationalize the ecosystem approach to fisheries as well as ecosystem-based management through the development of a framework tailored to the Mediterranean and the Black Sea.
- Adopt measures within multiannual management plans on gear selectivity in order to reduce the impact of fishing on bycatch (both discards and incidental catch of vulnerable species).
- Streamline the provision of advice on the state of resources and the socio-economic outcomes of fisheries covered by management plans.
- Integrate short-term forecast and/or management strategy evaluation into the estimation of harvest control rules, ensuring a minimal time gap between the assessment and implementation processes.
- Perform regular assessments of fishing capacity at the national, subregional and regional levels.
- Implement, following precautionary principles and available scientific assessments, fishing capacity regulations that ensure sustainable fishing activities at the subregional and regional levels.

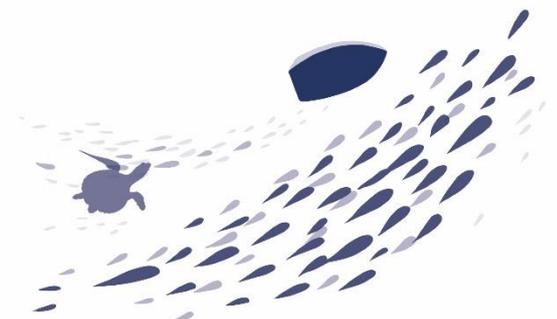
### **1.3. Efficient area-based conservation measures, technical and nature-based solutions strengthened to conserve biodiversity and enhance the productivity of marine living resources**

- Establish a roadmap for the establishment of new protected areas, such as fisheries restricted areas (FRAs) and/or other effective area-based conservation measures, based on the mapping of essential fish habitats and vulnerable marine ecosystems (VMEs), as well as on the best available scientific knowledge.
- Identify, designate and establish coherent networks of well-managed FRAs, both within and beyond national jurisdictions.
- Engage fishers, particularly small-scale fishers, in the participatory management of marine protected areas and FRAs, as well as in the designation of new area-based measures, as relevant.
- Complete the GFCM Mediterranean geodatabase of sensitive benthic habitats and explore the use of artificial reefs to enhance biodiversity conservation.
- Design and implement cost-efficient monitoring plans to assess the impacts of FRAs in relation to their objectives.
- Analyse the impacts of FRAs on the state of resources and the productivity of fisheries at the subregional level.

- Implement bycatch monitoring programmes (both for discards and incidental catch of vulnerable species), identify and test mitigation measures.
- Adopt measures to reduce discards, including the adoption of science-tested low-impact gear in the priority fleets with most discards and impacts on juveniles, sensitive species, seabeds and habitats, in particular essential fish habitats and VMEs.
- Develop, in coordination with partners, specific actions (such as awareness raising, research, etc.) to improve the conservation of elasmobranchs, in line with GFCM recommendations in place.
- Carry out pilot studies on depredation by marine mammals to inform mitigation efforts.
- Promote the use of alternative fishing methods to bottom-contact fishing gear.
- Develop awareness campaigns on the negative impacts of bycatch and possible solutions to reduce it.
- Implement a work plan to estimate the footprint of bottom-contact fisheries, in particular deep-water red shrimp fisheries, using available data.
- Analyse overlaps between VMEs and bottom-contact fisheries, in particular deep-water red shrimp fisheries, with a view to mitigating significant adverse impacts.

#### **1.4. Threats to fisheries and the marine environment, including plastic pollution, climate change and the expansion of non-indigenous species, prevented and mitigated**

- Continue the work initiated towards the establishment of an integrated monitoring platform and monitoring plan for non-indigenous species (NIS) in the eastern Mediterranean, and expand it to other GFCM subregions.
- Collect data on NIS, including through local ecological knowledge studies and participatory mapping.
- Starting from the eastern Mediterranean, experiment fisheries management actions, also within marine protected areas, to understand and mitigate the impacts of NIS on receiving ecosystems (including native commercial species), with the aim to maintain their ecological integrity and resilience.
- Organize dedicated expert meetings to compile and analyse data on NIS.
- Develop impact indicators to measure the effects of climate change on the Mediterranean and the Black Sea, using in particular real time information networks among CPCs.
- Conduct a full assessment of the socio-economic impacts of climate change on the fisheries sector, including those resulting from the expansion of NIS, with a view to formulating future adaptation measures, contingency plans and management plans.
- Adopt measures to prevent the introduction and significantly reduce the impacts of NIS and/or to manage their fisheries.
- Test solutions to remove marine litter from the sea, such as the use of specific gear or the development of specific waste management methods or facilities.
- Carry out pilot studies on the impacts of underwater noise on fisheries.





## **TARGET 2. Compliance and enforcement: a level playing field to eradicate illegal, unreported and unregulated fishing**

### **2.1. Full compliance with GFCM recommendations achieved**

- Promote the use of online tools to streamline the clarification and identification process, based on a comprehensive compliance assessment scheme.
- Identify measures to deter non-compliance, both positive (such as technical assistance) and deterrent (such as sanctions for recurrent cases of non-compliance), including corrective measures in line with the GFCM Agreement.
- Support CPCs in the implementation of relevant technical standards, including the International Maritime Organisation (IMO) number, for the maintenance of national records of vessels, according to GFCM provisions.
- Promote the use of the DCRF online platform for the regular reporting of all information relating to national fishing fleets.
- Assist CPCs in the regular self-assessment of their performance, in the context of GFCM obligations, and in line with the criteria contained in the Food and Agriculture Organization of the United Nations (FAO) Voluntary Guidelines for Flag State Performance.
- Integrate the analysis of self-assessments by CPCs into the work of the Compliance Committee (CoC) relating to the clarification and identification process.
- Conduct wide consultations towards the operationalization of a sanctions scheme in the context of the Regional Plan of Action for the Fight against Illegal, Unregulated and Unreported Fishing (RPOA-IUU).
- Promote the adoption and implementation of a toolkit to support compliance by fishing vessels in FRAs.

### **2.2. Common system of enforcement consolidated**

- Expand throughout the region the GFCM Regional repository of national legislation in order to include, to the maximum extent possible, updated national laws and regulations by CPCs linked to the transposition of GFCM recommendations.
- Provide CPCs with legal advice in order to harmonize their national legal frameworks towards the regular transposition of applicable GFCM recommendations.
- Raise awareness on the connection between national legislation on fisheries and aquaculture, investigation procedures and sanctioning measures existing at the national level.
- Regularly apply the methodology for the quantification of illegal, unreported and unregulated (IUU) fishing in the Mediterranean and the Black Sea, including at the subregional level.
- Promote coordination with FAO and other regional fisheries management organizations (RFMOs), as appropriate, to perform a regular estimation of IUU fishing, based on new guidelines and procedures to be adopted.
- Develop common measures supporting the adoption of national laws by CPCs to define abandoned, lost or otherwise discarded fishing gear.
- Facilitate the identification of standard procedures towards retrieving such gear and preventing it from being disposed at sea by fishers, including penalties for reported infringements.

### **2.3. Monitoring, control and surveillance centralized at the regional level**

- Consolidate outputs stemming from the GFCM pilot project on vessel monitoring system (VMS) with a view to updating technical specifications and data confidentiality policies used by CPCs.
- Provide technical support for existing and planned national fishing monitoring centres (FMCs), by extending and complementing their features through the GFCM centralized/regional VMS with new functionalities and technologies in response to emerging needs.
- Assist CPCs in testing monitoring, control and surveillance tools applicable to SSF as well as to fleets with specificities require a tailor-made approach to monitoring and control.
- Contribute to the collection of spatio-temporal effort data underpinning the assessment of the state of fish stocks by CPCs, including through the use of gear sensors and electronic gear marking.
- Incorporate electronic monitoring tools within the work of the GFCM in bolstering the management of FRAs.
- Provide online access, through the GFCM centralized/regional VMS, to a data hub with streamlined information on vessel lists, valid authorizations and other relevant fleet-related data.
- Establish a mechanism for CPCs to gather and report information on sightings of foreign-flagged vessels, or vessels without nationality, operating in the GFCM area of application.
- Promote coordination with other RFMOs to compile indicative lists feeding into sighting information sheets to be shared among CPCs to streamline vessel sighting information.
- Establish joint surveillance and inspection schemes based on pilot schemes among CPCs to facilitate the voluntary exchange of personnel engaged in inspection activities targeting select fisheries.
- Agree on common procedures for the exchange of inspectors and inspection reports, and promote the conclusion of agreements among CPCs for the deployment of joint surveillance and inspection schemes at the regional and subregional levels.

### **2.4. Coordination to address illegal practices in the fishery sector bolstered**

- Facilitate the provision of mutual assistance to CPCs by streamlining the exchange of control and port state information at the regional and subregional levels.
- Integrate ad hoc modules for the exchange of data relating to port state inspections between CPCs in the remit of the GFCM centralized/regional VMS.
- Encourage initiatives to fight IUU fishing and raise awareness on its market dimension, including in the context of the celebration of the International Day for the fight against IUU fishing.
- Contribute to the traceability of fishery products via the launching of catch documentation schemes (CDS) for fishing activities in the context of GFCM multiannual management plans, and by developing GFCM catch certificates to be issued by the CPCs involved.
- Adopt a regional CDS, based on pilot CDS and in line with FAO and RFMOs standards, to provide CPCs with guidance on the use of CDS.
- Promote constant liaison with FAO with a view to developing a set of regional guidelines on transshipment operations in the GFCM area of application.



- Contribute, via the GFCM centralized/regional VMS, to the tracking and monitoring of transshipment operations.
- Report transshipment cases to the CoC, in order to enable the tracking of appropriate actions against fishing vessels engaged in these operations, such as their automatic inclusion in the GFCM IUU vessel list.
- Create a permanent liaison mechanism between the Scientific Advisory Committee on Fisheries (SAC) and the CoC to inform the elaboration of decisions by the GFCM aimed to regulate recreational fisheries.
- Promote dialogue among a broad network of stakeholders on necessary policy interventions in recreational fisheries, including control measures.





## **TARGET 3. Aquaculture: a sustainable and resilient sector growing to its full potential**

### **3.1. Efficient governance promoted in support of responsible investment**

- Conduct a consultation process on responsible investment principles with stakeholders in the Mediterranean and the Black Sea in order to promote the sustainability of the sector.
- Develop responsible investment guidelines and indicators for financial institutions, investors and producers.
- Establish a forum of finance and aquaculture stakeholders to promote impact investment.
- Organize training and national capacity-building programmes on regulatory systems and governance for operators and decision-makers at the local and regional levels.
- Monitor progress in aquaculture development in the Mediterranean and the Black Sea, according to identified sustainability indicators.
- Develop guidelines to enhance the involvement of aquaculture producers' organizations in aquaculture management.
- Support the establishment of national and regional participatory tools such as multistakeholder platforms.

### **3.2. Practices supporting the sustainability of the aquaculture industry promoted**

- Develop guidelines on risk analysis methods and data recording to highlight the importance of monitoring and collecting data on specific aspects of aquaculture activities.
- Provide training and technical assistance on the implementation of environmental monitoring programmes (EMP).
- Develop and implement plans oriented towards climate smart aquaculture activities, to support aquaculture activities that have positive effects on global warming and contribute to the preservation of ecological services provided by the environment, such as seaweed farming.
- Develop guidelines on the promotion of aquaculture best management practices, to increase awareness and responsibility among farmers on the conservation of environmental integrity.
- Establish a core team on aquaculture risk analysis for the Mediterranean and the Black Sea, focusing on the control of pathologies and including prevention aspects and biosecurity.
- Provide capacity building for aquaculture farmers in the field of risk analysis, adaptive management, diagnosis, biosecurity measures, and sanitary and food security, to improve their capacities to tackle disease prevention as well as potential risks and hazards posed by farming operations.
- Develop systems and protocols for the early diagnosis of pathogens, with the support of certified, equipped and competent laboratories, so as to strengthen the capacity to contain the spread of diseases.
- Develop a regional research programme to assess the vulnerability of aquaculture to climate change and to map risks and associated phenomena, including ocean acidification.
- Perform a regional analysis on value chain for European seabass, gilthead seabream and mussel aquaculture products.

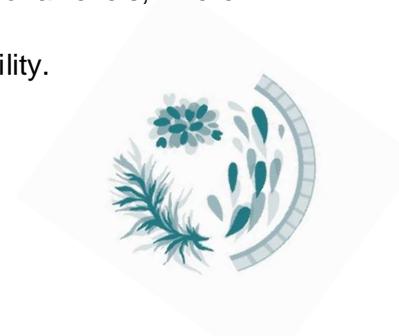
- Perform a regional survey to assess small-scale and family-run aquaculture farms in the Mediterranean and the Black Sea, with a view to identifying priorities and issues to be addressed (administrative, environmental, economic and social).
- Implement a programme for aquaculture farmers and producer associations to share knowledge on better management practices.
- Increase the capacity of relevant administration staff and stakeholders in spatial planning, geographic information systems as well as in the establishment of allocated zones for aquaculture (AZAs), management and monitoring.
- Implement technical cooperation projects and mechanisms to support the effective implementation of AZAs in the region.
- Promote the implementation of the GFCM guidelines on the management of coastal lagoons.

### **3.3. Perception of aquaculture improved**

- Organize training and capacity building for aquaculture farmers on market requirements and innovation in shellfish and finfish aquaculture, in order to increase competitiveness, especially for small and medium enterprises.
- Develop regional communication and marketing resources, including collaboration within business-to-business segments (producers, traders, retailers, organizations and media) and the production of material to promote the region as well as the nutritional and healthy characteristics of aquaculture products.
- Provide technical assistance on developing and implementing national communication and marketing plans, including communication resource development, training of relevant stakeholders and the promotion of their participation in national and regional initiatives.
- Provide technical assistance in the field of food quality, aquaculture certification and traceability, in line with the Codex Alimentarius and the FAO Technical Guidelines on Aquaculture Certification.
- Implement capacity building for producers on aquaculture certification.
- Organize capacity building for farmers and producers' associations on sustainable development goals, social issues, gender and inclusiveness.
- Collaborate with national authorities to develop appropriate legal and regulatory frameworks.

### **3.4. Technology and information systems maximized**

- Develop new Aquaculture demonstrative centres (ADCs) at the subregional level, where required, with a view to providing relevant knowledge and data in the subregion through information hubs leveraging modern technologies.
- Develop a work plan to strengthen aquaculture driven research and technical development through ADCs.
- Implement hands-on training on production and applied research for producers through ADCs.
- Provide technical assistance and cooperation to implement innovative farming technology.
- Conduct mapping and survey exercises at the regional and subregional levels, where needed, in order to take stock of existing gaps.
- Identify mitigation measures to progressively improve data availability.



- Deliver technical advice on viable technologies and practices to bridge identified gaps.
- Support the harmonization, at the regional level, of standards relating to data collection formats, where needed.
- Explore existing international practices to implement traceability mechanisms that meet United Nations standards, such as for the use of blockchain technologies.
- Design potential technology-supported traceability scenarios and assess their gradual applicability in the GFCM area of application.
- Support the execution of trials for identified traceability solutions, including through the provision IT platforms.
- Organize a capacity-building programme, on the basis of trial results, for the implementation and use of blockchain-based solutions for aquaculture traceability.
- Support the harmonization, at the regional and subregional levels, of data exchange standards.
- Identify communication and cooperation gaps, at the regional level, that may benefit from enhanced data exchange practices.
- Provide CPCs with technical assistance to address difficulties in the implementation of required data exchange practices.





## **TARGET 4. Livelihoods: decent employment and engaged fishers towards profitable fisheries**

### **4.1. Productive and resilient employment supported along the fisheries value chain**

- Support efforts by CPCs to ratify and implement international instruments and governance mechanisms relevant to decent work in the fisheries sector, including but not limited to the ILO C188 Work in Fishing Convention, the IMO Cape Town Agreement, the FAO Port State Measures Agreement, and other complementary instruments to prevent, deter and eliminate IUU fishing.
- Support efforts to prevent and eradicate forced labour.
- Facilitate access to social protection programmes and financial services to support investment and reduce the vulnerability of fishing communities.
- Promote upskilling and reskilling processes and initiatives addressing fisheries and aquaculture operators as well as fish workers.
- Support safety at sea and improved working conditions for fishers, including through the introduction of new technology, gear and fishing methods permitting fishers to work in better conditions.
- Implement the RPOA-SSF, in line with the concrete targets and priority actions identified, such as improving the characterization of SSF and promoting good governance.
- Develop national plans of action, if necessary, for the implementation of the RPOA-SSF.
- Develop pre-financing mechanisms to support small-scale fishers in accessing available financial resources that would facilitate the implementation of the RPOA-SSF.
- Provide capacity-building processes and peer-to-peer exchanges to promote transnational cooperation to catalyse implementation of the RPOA-SSF.
- Expand the SSF mapping website in a hub for Mediterranean and Black Sea SSF, creating a database of best practice and prototypes for alternative economic solutions to fisheries (e.g., fish tourism, integration of agricultural and fisheries products).
- Ensure equal opportunities for the full and effective participation of women at all levels in the fisheries sector, including in leadership and decision-making roles, combating gender-based discrimination and supporting gender sensitive policies.
- Facilitate the access of women in the fisheries sector to education and training, technology, credit, entrepreneurship opportunities and more.
- Increase substantially the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship in coastal fishing communities.
- Develop livelihood strategies to support generational turnover in fishing communities.

### **4.2. Socio-economic information enhanced in supporting decision-making processes**

- Continue supporting the implementation of socio-economic surveys, in view of producing regular time series to support the generation of advice.
- Extend socio-economic data collection to non-vessel-based fishing activities, in view of providing information on the impacts of this activity and, in particular, the role of women.

- Support the collection of data on the economic impacts of recreational fisheries, in view of understanding their contributions to coastal economies.
- Provide CPCs with technical assistance to improve socio-economic data, in light of the DCRF data quality indicators.
- Connect socio-economic data submissions with management strategy evaluation.
- Improve information about the impacts of both small-scale and recreational fisheries on select coastal species, as well as spatial mapping of coastal fishing activities, to identify potential conflicts and synergies among the sectors.
- Support the implementation of hybrid approaches, such as pescatourism, which leverage opportunities within the SSF, recreational fisheries and tourism sectors.
- Encourage pilot studies to engage SSF and recreational fisheries stakeholders in co-management committees and facilitate the dissemination of best practices in this regard.

#### **4.3. Dynamic and innovative fisheries value chains fostered**

- Conduct value chain studies to assess the sustainability and profitability of select priority fisheries, including those of particular importance to SSF.
- Develop value chain upgrading strategies.
- Encourage the reduction of pre- and post-harvest loss and waste in the sector, including discards, through appropriate actions, including awareness building, education and training, in particular, as well as through safety and quality standards for safe fish processing, distribution and healthy consumption.
- Pilot direct selling marketing technology, such as digital fish market places and direct selling applications.
- Assess the potential of new technologies (e.g. blockchain technology) to support traceability in fisheries value chains.
- Incentivize the recycling of nets and “fishing for litter” initiatives, including by facilitating the disposal of marine litter at port facilities and promoting schemes for upcycling marine plastic.

#### **4.4. Engagement of fishers in participatory management processes promoted, facilitating their role as guardians of the sea**

- Facilitate training opportunities for fishers, including peer-to-peer training, on reducing fishing impacts on the marine environment.
- Establish an award at the GFCM level to regularly recognise best practices in the use of selectivity measures by fishers.
- Create an online library of informative tools for fishers and establish effective communication channels to reach and engage with the maximum number of fishers in the region.
- Consider the possibility of developing pilot projects aimed at involving fishers in the compilation of good management practices with the objective of reducing the impact of fisheries on the environment and increasing participatory management, in line with existing best practices.
- Engage fishers in participatory data collection and mapping activities, including through the application of local ecological knowledge methodologies, to shed light on topics such as SSF, recreational fisheries, NIS, and more.





## **TARGET 5. Capacity development: technical cooperation, knowledge sharing and efficient partnerships in a subregional perspective**

### **5.1. Capacity development streamlined at the subregional level**

- Perform regular consultations on national priorities to meet the GFCM 2030 Strategy targets and devise related work plan activities.
- Build trust and understanding in the values of the GFCM 2030 Strategy and highlight progress through local stories to build engagement and increase mobilization to reach the targets.
- Continue enhancing the role of the BlackSea4Fish project in providing scientific and technical support to the work of the GFCM in the Black Sea.
- Operationalize and implement the MedSea4Fish project to provide technical support and capacity development at the national level in all the Mediterranean subregions.
- Collaborate with CPCs on know-how and research needs in different subregions, towards the establishment of new ADCs and the improvement of knowledge and capacity.
- Collaborate with producer associations at the subregional and national levels to promote knowledge sharing and increase capacity and competencies in aquaculture production.

### **5.2. Technical cooperation promoted, scientific research and innovation boosted**

- Consolidate Mediterranean and Black Sea networks of experts on fisheries science, including through targeted communication activities.
- Design and develop databases to ensure, as appropriate, sustainable and trustworthy sources of information for relevant Mediterranean and Black Sea fisheries and aquaculture data.
- Utilize authoritative information to spread knowledge and foster engagement.
- Strengthen knowledge sharing and capacity development through the production of relevant informative materials and methodologies as well as scientific publications, such as GFCM Studies and Reviews, *The State of Mediterranean and Black Sea Fisheries* and ad hoc publications on aquaculture.
- Launch pilot activities and programmes to test the use of new onboard technologies towards improved reporting and increased security at sea.
- Continue research towards increased efficiency and environmentally friendly aquaculture facilities.
- Identify needs and provide support for the modernization of infrastructures along the value chain, towards increased added value, reduced food waste and circular economy.
- Participate in relevant initiatives related to the blue economy and disseminate the FAO Blue Transformation vision.
- Continue collaborating with the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Convention on Migratory Species (CMS) on the management of species such as red coral and European eel.

### **5.3. Role of partnerships in fisheries and aquaculture enhanced under a blue transformation perspective**

- Foster constructive dialogue and stakeholders' engagement, including by updating and adopting memoranda of understanding and letters of agreement, consistent with FAO procedures.
- Establish reporting systems within the GFCM to support CPCs in collecting information under Sustainable Development Goal 14 and report it to the United Nations Secretariat, with a view to contributing to the achievement of global targets at the regional level.
- Establish coordination mechanisms with relevant organizations to inform the implementation of the GFCM 2030 Strategy and maintain an open dialogue with them while regularly reporting to CPCs on the outcomes.

