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pour la Méditerranée

GFCM 2030 Strategy for sustainable fisheries and aquaculture in the Mediterranean and the Black Sea

Final version before editing

BACKGROUND

Fisheries and aquaculture form an intrinsic part of the cultural fabric of the Mediterranean and the Black Sea and, for millennia, they have been key social and economic drivers of the region, providing essential coastal livelihoods and the basis for the so-called “Mediterranean diet.” Achieving food security and providing sustainable livelihoods for a growing population while striving to reduce inequalities and support gender equity represent the main challenges of our era and the ultimate targets of the United Nations Sustainable Development Goals (SDGs).

In recent years, in the context of its strategies for fisheries and aquaculture, the GFCM has made many positive achievements. However, several challenges still remain before Mediterranean and Black Sea fisheries and aquaculture can be assured of a sustainable future and contribute to their full potential to the wellbeing of coastal communities.

Today, catch levels are lower compared to decades ago, but the exploitation rates of shared assessed stocks are mostly still high. Moving forward, management plans need to be extended and control must be enhanced so that management measures can be fully enforced; discards and the incidental catch of vulnerable species must be reduced and properly regulated; and aquaculture production needs to meet demand and grow sustainably. Moreover, an adequate balance between resources and fleet capacity must be found, and innovation and greater social support are needed for the region’s ageing fleet and workforce, also taking into account the predominantly small-scale nature of the fleet. As the Mediterranean and Black Sea basins are also a very important recreational fishing areas, the impacts of recreational fisheries on fishery resources need to be assessed, monitored and managed. In addition to this, there is an urgent need to address anthropogenic-driven impacts, such as climate change and all forms of pollution, including eutrophication, underwater noise and non-indigenous species. More coordination with organizations in charge of specific sectors, such as soil and gas exploitation, dredging, navigation tourism, and urbanization in coastal areas is essential in order to reach the objective of a good environmental status and apply an ecosystem approach. The GFCM is already paying close attention to address the mitigation of negative impacts from any source of pollution in these sectors, and it is crucial to now move forward and address them in a cumulative way through concerted action and enhanced coordination.

In 2020, discussions were launched and the adoption of a new common vision and guiding principles emerged as the main course to consolidate the progress made so far, deliver on the commitments made and accelerate common efforts to promote the sustainability of the Mediterranean and the Black Sea. This common vision comes in the form of a new strategy that can play a central role in guiding this work and coordinating efforts among all actors to respond to the region’s priorities and growing challenges from increasing human pressures on the marine environment to the impacts of the COVID-19 pandemic.

The GFCM 2030 Strategy has a regional scope and addresses the priorities of the Mediterranean and the Black Sea as a whole. Taking advantage of the GFCM's subregional approach that supports fisheries management and aquaculture development while better addressing local specificities, the actions of the strategy will be coordinated within the five GFCM subregions. More focused and tailored interventions to achieve each of the strategy's targets will be key to ensure efficient implementation and coordinated action while taking into account specific needs. In this respect, the GFCM technical units in the subregions will play a key role and act as decentralized hubs to organize local actions, involve relevant stakeholders, share subregional expertise and coordinate cooperation and technical assistance work.

In order to effectively implement the strategy, the GFCM should remain the driving force behind regional cooperation and partnerships towards sustainable fisheries and aquaculture management. Bringing together different stakeholders of the sector, building on ongoing and future national and regional initiatives and promoting a multidisciplinary approach, the GFCM 2030 Strategy will federate all efforts to deliver on national, regional and global commitments, working in synergy with existing national and regional strategies.

On a global scale, the GFCM 2030 Strategy is expected to contribute to delivering against the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by 2030 (in particular SDG 14 to conserve and sustainably use the oceans, seas and marine resources for sustainable development) as well as the objectives of the United Nations Decade of Ocean Science for Sustainable Development (2021–2030) by focusing on the Mediterranean and Black Sea specificities. The strategy will also advance collective efforts under the Convention on Biological Diversity (CBD) and contribute to its post-2020 global biodiversity framework, currently being negotiated. It will also aim to integrate actions proposed ahead of the United Nations Food Systems Summit 2021 towards more inclusive, resilient and sustainable food systems.

As a United Nations specialized agency, FAO supports these global efforts. In particular, the quest for securing productive and sustainable fisheries and aquaculture to achieve food security is enshrined in the FAO Strategic Framework 2022–2031 and the four betters (Better Production, Better Nutrition, a Better Environment and a Better Life) as well as in the Code of Conduct for Responsible Fisheries (CCRF), which also promotes sustainable fisheries and responsible aquaculture. Moreover, the FAO Blue Transformation framework aims to address food security and poverty alleviation through the production of quality wild captured and farmed fish through integrated, sustainable and socio-economically sensitive processes. The recent Declaration for Sustainable Fisheries and Aquaculture, endorsed by the FAO Committee on Fisheries on 8 February 2021, is a renewed call for action to implement the 2030 Agenda and achieve the sustainable management of aquatic resources, in light of the critical importance of fisheries and aquaculture for global agrifood systems transformation. This vision is enshrined in the strategy and will guide its implementation.

Implementation and timeline

In line with the global agenda, the strategy is proposed to cover a ten-year span and run until 2030. A mid-term review of its objectives and outcomes is foreseen in order to assess the progress made in implementing the strategy, review lessons learnt and provide recommendations on possible readjustments and improvements and ensure the targets will be met efficiently.

One vision, five targets

To fulfil its overarching vision towards the sustainability of fisheries and aquaculture in the Mediterranean and the Black Sea, the strategy is articulated around five targets, which are in turn composed of outputs and strategic actions:

Target 1. Fisheries and ecosystems: healthy seas and productive fisheries

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

Target 3. Aquaculture: a sustainable and resilient sector growing to its full potential

Target 4. Livelihoods: decent employment and engaged fishers for profitable fisheries

Target 5. Capacity development: efficient technical assistance, knowledge sharing and partnerships in a subregional perspective

Technical knowledge and expertise in the region underpins all the actions while fully integrating cross-cutting themes such as gender, governance, nutrition, marine pollution, non-indigenous species as well as climate change mitigation and adaptation. The work towards achieving the five targets is upheld by appropriate knowledge sharing, through the production of a variety of publications and materials providing scientific and methodological insights into priority topics as well as through a fully encompassing communication mechanism, which declines into both transversal and specific communication strategies.

TARGET 1. Fisheries and ecosystems Healthy seas and productive fisheries

Building upon the work done and recognizing remaining challenges such as the still prevalent overexploitation of scientifically assessed resources and the various threats to biodiversity in these semi-enclosed seas, Target 1 aims to address sustainability, conservation and environment issues in an integrated way, focusing on four outputs with the aim to progressively achieve exploitation at maximum sustainable yield (MSY).

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

This output focusses on enhancing fisheries-related data collection, monitoring and analytical capacity towards the provision of solid advice to facilitate decision-making. It prioritizes stock assessment and simulations on the biological and socio-economic impacts of alternative management scenarios, including a focus on data-limited situations, small-scale fisheries as well as the use of multispecies approaches and integrated ecosystem assessments.

Actions

- A. Implement, building upon the principles of the Data Collection Reference Framework (DCRF), a regional scheme for the collection and analysis at national level of relevant fisheries data, and develop innovative tools to facilitate the integration of such information into comprehensive scientific advice in support to decision-making.
- B. Consolidate scientific evaluations of the status of marine living resources, particularly priority species and vulnerable species and ecosystems, with a view to further strengthening the provision of sound technical advice for management.
- C. Provide technical advice on management options, including through management strategy evaluation, to inform existing and new management plans and enhance the adaptive approach.
- D. Establish oriented research programmes addressing specific needs for the management of key fisheries and the conservation of vulnerable species and ecosystems.

1.2. Implement evidence-based adaptive fisheries and ecosystem management

Building on transitional measures and management plans in place, this output focusses on implementing and designing efficient multiannual, adaptive management plans addressing all key fisheries in the Mediterranean and the Black Sea. Based on best available scientific advice, a combination of quantitative harvest control rules for data-rich stocks and precautionary measures for data-limited resources can enrich existing management plans as well as inform new ones, thereby guiding the management framework towards increased sustainability in the Mediterranean and the Black Sea.

Actions

- A. Develop multiannual management plans for GFCM key fisheries, including small-scale fisheries, based on solid scientific advice and incorporating measures to address the social, economic and ecological aspects of fisheries.
- B. Monitor the effectiveness of management plans, by assessing related advances in the state of resources and the socio-economic indicators of fisheries, ensuring plans are adjusted in the face of internal changes or external pressures to achieve their objectives.

- C. Manage and adapt fishing capacity to ensure an adequate balance between the productivity of marine living resources and that of the fishing fleet.

1.3. Strengthen the use of efficient area-based conservation measures as well as technical and nature-based solutions to conserve biodiversity and enhance the productivity of marine living resources, based on the best available scientific advice

This output focusses on the identification, including on the basis of environmental and socio-economic scientific evidence, and implementation of new fisheries restricted areas (FRAs) and on enhancing the efficiency and monitoring of existing ones in order to address significant adverse impacts of fisheries on vulnerable marine species, ecosystems and essential fish habitats. It also addresses the use of other area-based management measures, as well as bycatch and impact-reduction technical measures, such as those directed at improving fishing selectivity, deterring depredation and decreasing mortality of accidentally caught vulnerable species.

Actions

- A. Establish effective area-based measures to minimize and mitigate impacts on vulnerable species, sensitive habitats and essential fish habitats, in order to address relevant international spatial conservation targets.
- B. Assess the efficiency of area-based measures, in particular fisheries restricted areas (FRAs), in contributing to the sustainability of fisheries in the region, including through the implementation of adequate monitoring plans.
- C. Develop a regional plan of action to mitigate bycatch – addressing both discards and the incidental catch of vulnerable species, in particular elasmobranchs – and depredation, including adequate monitoring, testing and implementation of mitigation measures, including technical measures to improve selectivity.
- D. Determine the fishing footprint of bottom contact fisheries and their potential interaction with essential fish habitats, sensitive habitats and vulnerable marine ecosystems.

1.4. Prevent, mitigate and address emerging threats to fisheries and the environment, including plastic pollution, climate change and the expansion of non-indigenous species

This output focusses on minimizing and mitigating any form of pollution deriving from the activities of the fishing sector, in particular abandoned, lost or otherwise discarded fishing gear. It also seeks the involvement of the sector in testing new technologies to remove marine litter, in particular plastics, from the marine environment. In addition, it aims to build on the work on climate change and non-indigenous species initiated during the previous strategy, by consolidating monitoring programmes such as the observatory for non-indigenous species, improving the initial assessments of potential impacts of these threats on the sector and implementing adaptive measures within existing and new management plans.

Actions

- A. Establish a regional observatory of non-indigenous species, exchanging information with other GFCM monitoring tools and interacting with relevant partners' platforms.
- B. Implement an adaptation strategy to address the potential effects of climate change and non-indigenous species on fisheries and the marine environment and ecosystem, including by incorporating adequate mitigation and adaptation measures within management plans.

- C. Develop, in collaboration with relevant partners, a regional adaptation strategy to cope with the potential effects of pollution on marine ecosystems, including pollution from land and sea sources of plastics, underwater noise, abandoned, lost or otherwise discarded fishing gear as well as nutrients and contaminants.

TARGET 2. Compliance and enforcement

A level playing field to eradicate illegal, unreported and unregulated fishing

Building upon the results obtained so far and with the aim to further operationalize the RPOA-IUU, Target 2 technically underpins the political commitments put forth by the MedFish4Ever Declaration and the Sofia Declaration. It should be instrumental in swiftly ending IUU fishing practices in the Mediterranean and the Black Sea and its execution will be guided by the overarching principles of transparency and fairness, focussing on four outputs.

2.1. Achieve full compliance with GFCM recommendations

This output focusses on endowing the GFCM Compliance Committee with the necessary means to level the playing field in the GFCM area of application. Under the mid-term strategy, the GFCM has adopted an unprecedented number of management measures and set a solidarity mechanism towards the provision of technical assistance to CPCs found to be in non-compliance with GFCM decisions. Although work is still needed to level the playing field, the root causes currently undermining such a crucial endeavour have been clearly identified and will be addressed under this output.

Actions

- A. Reinforce the procedure on the categorization of non-compliance in the framework of the Compliance Committee to enable the identification of appropriate deterrent measures depending on the severity of detected infringements.
- B. Streamline the GFCM Authorised Vessel List (GFCM AVL), as well as other subregional vessels' lists and related MCS information, for the sake of transparency, the cross-checking of information and the prevention of non-compliance.
- C. Develop, based on the "FAO Voluntary Guidelines for Flag State Performance", a methodology towards the regular assessment of actions taken by CPCs to ensure that their fishing vessels do not engage in IUU fishing activities.
- D. Adopt a sanctions scheme targeting cases of non-compliance, including reported infringements by fishing vessels operating in Fisheries Restricted Areas (FRAs).

2.2. Consolidate a common system of enforcement

This output focusses on building upon the progress made in the context of the GFCM's subregional management plans to enforce fisheries regulations. The mid-term strategy jump-started efforts by the GFCM towards a common methodology to regularly assess the extent and impacts of IUU fishing. Bearing in mind the high cost of enforcement measures, it will not be possible, without such a methodology, to identify where the main risks of illegal activities are likely to occur and deploy means to reduce those risks in critically important marine areas. This output addresses these issues and facilitates the implementation of a common system of enforcement by CPCs.

Actions

- A. Support the transposition of GFCM recommendations into national legislation across the Mediterranean and Black Sea, including on investigation procedures and sanctioning measures for lack of compliance with conservation and management measures.
- B. Support risk assessments in the fisheries sector by CPCs based on the regular estimation and quantification of IUU fishing activities at the regional and sub-regional levels.
- C. Contribute to the prevention of abandoned, lost or otherwise discarded fishing gear and the reduction of its harmful impacts on marine environment by establishing a regional framework for the definition of such gear in line with the FAO Voluntary Guidelines on the Marking of Fishing Gear.

2.3. Centralize monitoring, control and surveillance at the regional level

This output allows CPCs to follow up on the decision they took to establish a centralised/regional vessel monitoring system (VMS) and controls system under the remit of the GFCM. The mid-term strategy laid the ground for such system by piloting the testing of key technical features needed to set it up, while ensuring full correspondence with national VMS already in place. At the same time, the prevalence of SSF in the GFCM area of application, as well as most recent advances in technology, call for integrating tracking solutions into this system that would allow the broadening of monitoring, control and surveillance (MCS) across the region on a modular basis. There is also a growing need to monitor the presence of fishing vessels operating inside or in the proximity of FRAs and to use spatio-temporal data for the scientific assessment of fish stocks. The possibility exists to now capitalize on the establishment of a centralised/regional VMS and controls system, thereby reaping additional benefits for CPCs.

Actions

- A. Establish and maintain a GFCM centralized/regional VMS and related control system.
- B. Strengthen capacity-building of CPCs in the use of new technologies for MCS on all fleet segments, based on their specificities.
- C. Implement common sighting procedures based on a mechanism for CPCs to gather and report information on fishing vessels operating in contravention with GFCM recommendations.
- D. Carry out permanent and voluntary international joint surveillance and inspection schemes across the Mediterranean and the Black Sea, and organize, together with relevant partners, a fisheries inspection virtual academy for the regular training of practitioners in the Mediterranean and Black Sea.

2.4. Bolster coordination to address illegal practices related to the fishery sector

This output addresses the main gaps identified throughout the implementation of the mid-term strategy in relation to the consequences of IUU fishing activities. While the mid-term strategy has recognized the importance of only allowing access to the market to legally caught fishery products, the extent of action taken in this respect has remained limited. The culture of compliance promoted by the GFCM could be severely hampered if decisive action is not taken. Much has been done in terms of regulating harvesting activities in the region. Tackling the equally important aspect of regulating what occurs where harvested catch ends (“from bait to plate” approach) should be the next step. In 2019, during the GFCM High-Level Conference on MedFish4Ever Initiatives: Advances and Renewed Commitments, the importance of certification and traceability against the background of the market dimension of the fisheries sector was stressed. Creating the necessary working connections in support

to interagency coordination so as to enable the taking of market oriented actions by the GFCM will be achieved under this output.

Actions

- A. Enhance port State data exchange and information, including in the context of the mutual assistance system, in line with the requirements of the FAO Port State Measures Agreement.
- B. Promote the use of Catch Documentation Schemes (CDSs) in order to improve traceability of fishery products and the monitoring of their trade, including by applying innovative technology tools.
- C. Address transshipment in the GFCM area of application.
- D. Develop appropriate measures to regulate recreational fisheries.

TARGET 3. Aquaculture

A sustainable and resilient sector growing to its full potential

Building upon the achievements reached so far, Target 3 will ensure the sustainable development of the aquaculture sector and its contribution to sustainable food systems, in line with Resolution GFCM/42/2017/1 on a strategy for the sustainable development of Mediterranean and Black Sea aquaculture, and work towards its resilience against global challenges and crises such as climate change, plastic pollution and the COVID-19 pandemic.

3.1. Promote efficient governance in support of responsible investment

This output focusses on ensuring that an effective and efficient governance framework is in place, creating conditions to attract investors that look beyond short-term financial return and take a responsible stance on the overall impact of their investment, notably, environmental and social impact. The GFCM will continue to work closely with CPCs to develop, through a participatory process, a regulatory and administrative framework that efficiently accommodates the sustainable development of aquaculture through simplification of the licensing process. By emphasizing the importance of environmental, social and governance criteria, the GFCM shall ensure that aquaculture growth is based on responsible production and due diligence, and will promote sustainable and impactful investment in line with blue economy finance principles.

Actions

- A. Develop principles and guidelines for responsible investment in aquaculture in the Mediterranean and the Black Sea.
- B. Promote environmental, social and governance (ESG) investment in aquaculture.
- C. Collaborate with CPCs and stakeholders towards the creation of enabling legal and administrative frameworks.

3.2. Promote practices supporting the sustainability of the aquaculture industry

This output focusses on the blue transformation of the aquaculture industry through science-based solutions, a life-cycle approach to the assessment of impact, as well as effective spatial planning tools and following the ecosystem approach to aquaculture (EAA). Amongst the best practices to be promoted, green innovation and nature-based solutions, digitalization and traceability should have a critical role. Monitoring and reducing the sector's environmental footprint, dealing with climate change and pollution and securing animal health and welfare will be crucial in achieving the sustainability of the sector. Diversification towards aquaculture with lower environmental impact (e.g. low trophic aquaculture, integrated multi-trophic aquaculture), alternative feeds, reduction of the use of plastic and aquaculture offering environmental services (e.g. bioremediation or preservation of ecosystems) should also be promoted through the Aquaculture Demonstrative Centres (ADCs).

Actions

- A. Improve the footprint of the aquaculture industry through capacity building, focusing on responsible practices and state-of-the-art techniques.
- B. Further promote allocated zones for aquaculture within marine spatial planning tools through increased technical assistance to CPCs.
- C. Promote environmentally friendly blue farming systems in Mediterranean lagoons in order to protect their valuable ecosystems and cultural heritage.

3.3. Improve the perception of aquaculture

This output will ensure the competitiveness, resilience and social acceptability of the sector. The aim is to promote a sector which, beyond food security in the region, provides consumers with an easy and affordable choice of healthy and sustainable proteins. The GFCM will continue building on its fruitful collaboration with producer organizations and relevant stakeholders, including to enhance the image of aquaculture and its products. Awareness of seafood health benefits, information and consumer understanding regarding the environmental value of low impact aquaculture, certifications, and new business solutions and opportunities will play a pivotal role. Furthermore, this priority seeks to ensure that the sector is fair and inclusive, by providing the necessary opportunities to small-scale farmers in the supply chain, as well as supporting the empowerment of women and youth, thus further transforming the industry and leaving no one behind. Finally, a participatory approach in the development of aquaculture, as well as a better integration of aquaculture activities and other economic activities in local communities should be promoted.

Actions

- A. Promote a market-oriented aquaculture sector through capacity building on business planning and marketing.
- B. Increase awareness and improve the image of the aquaculture sector and its products and promote responsible practices.
- C. Promote aquaculture certification as a sustainability driver through capacity building, appropriate regulatory frameworks and awareness activities.
- D. Focus on social, gender and inclusiveness issues in the aquaculture sector by promoting relevant policies.

3.4. Capitalize on technology and information systems

This output aims to provide CPCs, producers, stakeholder platforms and other relevant institutions with all the necessary tools and information on aquaculture production, trade and markets. This will be achieved through the overall modernization of data collection, analysis and dissemination processes and the use of modern information technologies. A sustainable, market-oriented sector requires sound and up-to-date information for decision making, which can be achieved by capitalizing on innovative, flexible and affordable technologies – a key factor for delivering quality-controlled data and products. The Aquaculture Market Observatory to be established by the GFCM will play a central role in this respect, acting as a data and information hub for aquaculture stakeholders in the Mediterranean and Black Sea region.

Actions

- A. Create and further promote GFCM subregional knowledge-sharing hubs, including existing and new ADCs, the Aquaculture Market Observatory and other information systems, to foster and advance research, innovation, and hands-on training.
- B. Improve aquaculture information systems in order to reinforce production and market data management practices by modernizing and streamlining data collection, analysis and dissemination processes, through the use of modern information technologies.
- C. Utilize data management to ensure the traceability of aquaculture products from sea to plate, using innovative technologies, as well as through capacity building activities and the creation of relevant regulatory frameworks.

- D. Enhance inter-administrative communication and cooperation regarding aquaculture development, including by assessing the needs for harmonized IT standards and tools, and identifying viable options, where requested and applicable.

TARGET 4. Livelihoods

Decent employment and engaged fishers towards profitable fisheries

Building upon the work done and recognizing the importance of promoting resilient fisheries-based livelihoods while fully and efficiently implementing the GFCM Regional Plan of Action on Small Scale Fisheries (RPOA-SSF), Target 4 aims to address issues such as employment, socio-economic knowledge, value chains and participatory decision-making in an integrated way, through four outputs.

4.1. Support productive and resilient employment along the fisheries value chain

This output focusses on enhancing sustainable livelihoods by fostering decent working conditions, including health and safety standards in the workplace, and productive employment opportunities for men and women in the fisheries sector, particularly young people. Access to social protection programmes and financial services will be promoted as a central component, supporting the resilience of fishers and enhancing their capacity to prepare for and respond to crises such as the one triggered by the COVID-19 pandemic as well as climate change, among others. Finally, linkages with other blue economy sectors will be encouraged to promote livelihood diversification and the sustainability of the sector, including through specific training, upskilling and reskilling programmes.

Actions

- A. Advance the principle of decent work in the Mediterranean and Black Sea fishing sector, including through fair and safe working conditions and access to social protection.
- B. Promote policies that support and recognize the contribution of small-scale fisheries in food security, employment and income for coastal communities.
- C. Support equal opportunities for women and promote youth development to ensure generational knowledge transfer and turnover.

4.2. Enhance the socio-economic information supporting decision-making processes

This output focusses on strengthening the understanding of the socio-economic impact of fisheries, including recreational fisheries, along the value chain. Socio-economic data collection and analysis will be enhanced, so as to better integrate this information into decision-making processes. This output will also shed light on the role of women in fisheries, including in gleaning activities and pre- and post-harvest activities.

Actions

- A. Support the collection of accurate, timely, complete and gender-disaggregated social and economic data on fisheries-based livelihoods, including vessel and shore-based fisheries, the pre- and post-harvest sectors, as well as recreational fisheries.
- B. Facilitate the integration of socio-economic information into decision-making processes for fisheries management.
- C. Assess interactions between small-scale fisheries and recreational fisheries at a subregional level and identify opportunities for livelihood diversification and new revenue between the sectors.

4.3. Foster dynamic and innovative fisheries value chains

This output focusses on identifying and implementing innovative solutions to enhance the profitability of fisheries, making value chains more efficient and responsive to market demand, while ensuring food security and ready access to fresh, local products. Actions will promote innovation to facilitate sustainable direct selling initiatives, minimize food waste, enhance traceability, promote certification of local and sustainable products, heighten consumer awareness and improve the integration of fisheries in a circular economy.

Actions

- A. Enhance fisheries value chains, particularly for small-scale fisheries, in view of increasing profitability and reducing food waste in the context of sustainable and inclusive ocean economies.
- B. Support capacity development to strengthen and valorise short value chains for small-scale fisheries products, including by leveraging technological innovations for direct selling and by raising consumer awareness to the benefits of buying local.
- C. Empower market value chain operators and consumers to make informed choices to support the sustainability of fish stocks, including through product certification and the use of digital technologies to support traceability.
- D. Facilitate the participation of fishers in a circular economy, including through innovative livelihood diversification activities to capture marine litter.

4.4. Foster the active engagement of fishers in participatory management processes and facilitate their role as guardians of the sea

This priority focusses on enhancing the capacity of all producer organizations, and notably small-scale fisher organizations, to engage as active contributors in management through a multi-level participatory process. In particular, efforts will be made to integrate fishers into knowledge-building activities, capturing their local ecological knowledge (LEK), empowering them to advocate for their needs through management consultations and partnering with them to institute participatory management models, such as co-management arrangements. The participatory approach is envisaged to be developed in a tailored and adaptive manner and is recognized, in particular, as an important governance tool for the identification, implementation and management of fisheries restricted areas.

Actions

- A. Raise awareness about the ecology of the ecosystem on which fishers act and the impact of their fishing methods when operating in specific maritime areas.
- B. Disseminate information about good participatory management practices that reduce the impact of fisheries on the environment.
- C. Capitalize on the local and traditional knowledge of fishers to support and enhance fisheries management

TARGET 5. Capacity development

Technical cooperation, knowledge sharing and efficient partnerships in a subregional perspective

Building upon the work and achievements under the mid-term strategy, including the outcomes of the Fish Forum 2018, and capitalizing on previous technical assistance work carried out through the relevant FAO regional projects, Target 5 aims to continue providing capacity development support to coastal countries, including by empowering the GFCM technical units in the subregions in order to ensure that commitments under the MedFish4Ever Declaration and the Sofia Declaration are met. The execution of activities under this target will be guided by the overarching principle of solidarity and be underpinned by broad and inclusive partnerships through three outputs.

5.1. Streamline capacity development at the subregional level

This output focusses on tailoring the capacity development to the specificities of the different GFCM subregions and assisting CPCs to fulfil the untapped potential of their fisheries and aquaculture sectors. Through the establishment of its technical units, the GFCM has set in motion a process that should ultimately deliver on-the-ground technical and scientific support adapted to the different needs of each subregion. Specific focus will be placed on the role of education and human development in the field of fisheries and aquaculture, including for women and young people, and on promoting innovation and research in marine technology.

Actions

- A. Ensure effective and targeted capacity-building to support national plans implementing the GFCM 2030 Strategy, including through shared cooperative research.
- B. Consolidate – in the context of the subregional approach and through the BlackSea4Fish Project and other ad-hoc GFCM projects in the Mediterranean – expertise and scientific capacity at the national level on technical aspects related to fisheries management, towards ensuring a level playing field across the region.
- C. Further strengthen aquaculture know-how and competencies, including through hubs such as the ADCs, in order to level the capacity at the regional level.

5.2. Promote technical cooperation and boost scientific research and innovation

This output capitalizes on the experience mustered through the launch of research applied programmes and the consolidation of existing scientific networks. It will benefit from the knowledge harnessed in the wider community of scientists and stakeholders working in fisheries, aquaculture and the conservation of marine ecosystems throughout the Mediterranean and Black Sea region so as to address gaps in knowledge on specific cross-cutting themes. It will thereby accelerate innovation in the fishing and aquaculture sectors, including through cost-efficient interventions that improve livelihoods and competitiveness.

Actions

- A. Capitalize on existing knowledge and research, as well as scientific collaboration and best practices in fisheries and aquaculture, by consolidating technical networks and promoting the role of the GFCM Forum on Fisheries Science.
- B. Improve technological capacities within the fisheries and aquaculture sectors, by targeting among others the modernization of fishing fleets, aquaculture facilities and select infrastructures along the fisheries and aquaculture value chains.

- C. Promote cross-sectorial initiatives addressing ocean based-livelihoods and marine biodiversity conservation.

5.3. Enhance the role of partnerships in fisheries and aquaculture from a blue transformation perspective

This output focusses on expanding strategic cooperation between the GFCM and its current and potential partners, from countries to international organizations and programmes, academia and research institutions, civil society organizations, professional associations and cooperatives and the private sector. This output seeks to boost the progressive integration of fisheries and aquaculture into a wider blue economy outlook, by building alliances to address common environmental, economic and social priorities. It will also support the GFCM's participation and involvement in relevant global fora and international events to ensure a committed response to calls and policies adopted at the international level towards meeting agreed goals and targets (such as SDG, the post 2020 Global Biodiversity Framework and the UN Decade for Oceans).

Actions

- A. Complement and establish partnerships with relevant organizations to build synergies and support the sustainability of the fisheries and aquaculture sectors.
- B. Continue addressing the priorities under SDG 14 and other relevant SDGs to provide a regional contribution to the global sustainability challenges for the fisheries and aquaculture sectors under the 2030 Agenda for Sustainable Development.
- C. Give due consideration to relevant policy developments under the post-2020 Global Biodiversity Framework of the Convention on Biological Diversity (CBD) as well as the targets established under the United Nation Decade of Ocean Science for Sustainable Development and Ecosystem Restoration (2021-2030).

GFCM 2030 STRATEGY ACTIVITIES

The GFCM 2030 Strategy is accompanied by a living document which contains a list of activities, detailing how the objectives of each strategy action are expected to be operationalized. These – including relevant new activities that can be added with time – are suggested by CPCs and stakeholders, as appropriate, and validated by CPCs on a regular basis. They are provided below, divided by target and action.

TARGET 1. Fisheries and ecosystems: Healthy seas and productive fisheries

1.1. Improve technical advice on the status of fisheries and potential scenarios to provide a solid basis for management

- A. Implement, building upon the principles of the Data Collection Reference Framework (DCRF), a regional scheme for the collection and analysis at national level of relevant fisheries data, and develop innovative tools to facilitate the integration of such information into comprehensive scientific advice in support to decision-making.
- Standardize and consolidate the execution of harmonized scientific surveys-at-sea, both demersal and pelagic, across the Mediterranean and Black Sea
 - Improve the 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 GFCM DCRF, to cover all data necessary for the provision of advice, including, for example, information on the origin of catches
 - Enhance the application of quality indicators to fisheries data submitted in line with GFCM recommendations
- B. Consolidate scientific evaluations of the status of marine living resources, particularly priority species and vulnerable species and ecosystems, with a view to further strengthening the provision of sound technical advice for management.
- Undertake the assessment, including data-preparation meetings and benchmark assessments, of key fisheries in the GFCM area of application
 - Revise the list of GFCM priority species for the Mediterranean and the Black Sea, in accordance with 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, in line with the RPOA-SSF
 - Incorporate the effects of anthropogenic activities, such as climate change and marine pollution, into scientific and decision-making processes
- C. Provide technical advice on management options, including through management strategy evaluation, to inform existing and new management plans and enhance the adaptive approach.
- Integrate short term forecasts in the process of provision of advice for priority species
 - Incorporate stakeholder views on the definition of potential management scenarios for key fisheries
 - Carry out simulations of alternative management scenarios for key fisheries subject to a GFCM management plan

- D. Establish oriented research programmes addressing specific needs for the management of key fisheries and the conservation of vulnerable species and ecosystems.
- Continue with the implementation of research programmes for European eel, red coral, rapa whelk, dolphinfish, blue crabs
 - Identify additional research programme needs in line with GFCM priorities

1.2. Implement evidence-based adaptive fisheries and ecosystem management

- A. Develop multiannual management plans for GFCM key fisheries, including small-scale fisheries, based on solid scientific advice and incorporating measures to address the social, economic and ecological aspects of fisheries.
- Develop 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)
- B. Monitor the effectiveness of management plans, by assessing related advances in the state of resources and the socio-economic indicators of fisheries, ensuring plans are adjusted in the face of internal changes or external pressures to achieve their objectives.
- Streamline the provision of advice on the state of resources and the socio-economic outcomes of fisheries under management plans
 - Integrate short-term forecast and/or management strategy evaluation into the estimation of harvest control rules, ensuring the minimal time-gap between the assessment and implementation processes
- C. Manage and adapt fishing capacity to ensure an adequate balance between the productivity of marine living resources and that of the fishing fleet.
- Carry out regular assessment of fishing capacity at national, subregional and regional levels
 - Implement, including through precautionary principles and available scientific assessments, fishing capacity regulations that ensure the sustainability of fishing activities at subregional and regional levels.

1.3. Strengthen the use of efficient area-based conservation measures as well as technical and nature-based solutions to conserve biodiversity and enhance the productivity of marine living resources, based on the best available scientific advice

- A. Establish effective area-based measures to minimize and mitigate impacts on vulnerable species, sensitive habitats and essential fish habitats, in order to address relevant international spatial conservation targets.
- Establish a roadmap for the establishment of new protected areas (such as fisheries restricted areas and/or other effective area-based conservation measures) based on the mapping of essential fish habitats and vulnerable marine ecosystems, as well as 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 the conservation of biodiversity
- B. Assess the efficiency of area-based measures, in particular fisheries restricted areas (FRAs), in contributing to the sustainability of fisheries in the region, including through the implementation of adequate monitoring plans.
- Design and implement cost efficient monitoring plans to assess the impact of FRAs in relation to their objectives
 - Analyse the impact of FRAs in contributing to the state of resources and the productivity of fisheries at the subregional level
- C. Develop a regional plan of action to mitigate bycatch – addressing both discards and the incidental catch of vulnerable species, in particular elasmobranchs – and depredation, including adequate monitoring, testing and implementation of mitigation measures, including technical measures to improve selectivity.
- Carry-out bycatch monitoring programmes (both for discards and incidental catches of vulnerable species) and identify and test mitigation measures
 - Adopt measures to reduce discards, including the adoption of science-tested low-impact gear in priority fleets with most discards and most impact on juveniles, sensitive species, seabed and habitats, in particular essential fish habitats (EFHs) and vulnerable marine ecosystems (VMEs)
 - Develop, including in coordination with partners, specific actions (e.g. awareness work and research, etc.) to support the conservation of elasmobranchs, in line with the GFCM recommendations in place
 - Carry-out pilot studies on depredation by marine mammals and inform mitigation efforts
 - Foster the adoption of alternative measures to bottom-contacting gears
 - Develop awareness campaigns on the negative impact of bycatch and the solutions to reduce it.
- D. Determine the fishing footprint of bottom contact fisheries and their potential interaction with essential fish habitats, sensitive habitats and vulnerable marine ecosystems.
- Implement the workplan towards the estimation of the footprint of bottom contact fisheries, in particular deep-water red shrimp fisheries, including all available data
 - Analyse the overlap between vulnerable marine ecosystems and bottom contact fisheries, in particular deep-water red shrimp fisheries towards the mitigation of significant adverse impacts (SAI)

1.4. Prevent, mitigate and address emerging threats to fisheries and the environment, including plastic pollution, climate change and the expansion of non-indigenous species

- A. Establish a regional observatory of non-indigenous species, exchanging information with other GFCM monitoring tools and interacting with relevant partners' platforms.
- Continue the work initiated towards the establishment of an integrated monitoring platform and a monitoring plan for non-indigenous species in eastern Mediterranean and expand it to all other GFCM subregions

- Collect new data on NIS, including through local ecological knowledge studies and participatory mapping
 - Starting from the eastern Mediterranean, experiment different management actions also within marine protected areas, towards understanding and mitigating the impacts of NIS on receiving ecosystems (including on native commercial species), with the aim of maintaining their ecological integrity and resilience
 - Organize dedicated expert meetings to compile and analyze data on non-indigenous species
- B. Implement an adaptation strategy to address the potential effects of climate change and non-indigenous species on fisheries and the marine environment and ecosystem, including by incorporating adequate mitigation and adaptation measures within management plans.
- Develop impact indicators on the effects of climate change in the Mediterranean and the Black Sea, also based on real-time information networks from CPCs
 - Conduct a full assessment of the socio-economic impacts of climate change on the fisheries sector, including from the expansion of non-indigenous species, with a view to formulating future adaptation measures, contingency plans and management plans
 - Adopt measures to prevent the introduction and significantly reduce the impact of non-indigenous species and/or to manage their fisheries
- C. Develop, in collaboration with relevant partners, a regional adaptation strategy to cope with the potential effects of pollution on marine ecosystems, including pollution from land and sea sources of plastics, underwater noise, abandoned, lost or otherwise discarded fishing gear as well as nutrients and contaminants.
- 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 underwater noise impacts on fisheries

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

2.1. Achieve full compliance with GFCM recommendations

- A. Reinforce the procedure on the categorization of non-compliance in the framework of the Compliance Committee to enable the identification of appropriate deterrent measures depending on the severity of detected infringements.
- 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, including corrective measures in line with the GFCM Agreement both positive (technical assistance provision) and deterrent (to punish recurrent cases of non-compliance)
- B. Streamline the GFCM Authorised Vessel List (GFCM AVL), as well as other subregional vessels' lists and related MCS information, for the sake of transparency, the cross-checking of information and the prevention of non-compliance.
- Support CPCs in the implementation of relevant technical standards, including the implementation of the IMO number, for the maintenance of national records of vessel according to GFCM provisions

- Further promote the use of the DCRF online platform for the regular reporting of all information relating to national fishing fleets
- C. Develop, based on the “FAO Voluntary Guidelines for Flag State Performance”, a methodology towards the regular assessment of actions taken by CPCs to ensure that their fishing vessels do not engage in IUU fishing activities.
- Assist CPCs in the regular out self-assessments of their performance in the context of GFCM obligations, in line with criteria provided for in the “FAO Voluntary Guidelines for Flag State Performance”
 - Integrate the analysis of self-assessments by CPCs into the work of the Compliance Committee relating to the clarification and identification process
- D. Adopt a sanctions scheme targeting cases of non-compliance, including reported infringements by fishing vessels operating in Fisheries Restricted Areas (FRAs).
- Carry out wide consultations towards the operationalization of a sanctions scheme in the context of the RPOA-IUU
 - Promote the adoption and implementation of a toolkit in support to compliance with FRAs by fishing vessels

2.2. Consolidate a common system of enforcement

- A. Support the transposition of GFCM recommendations into national legislation across the Mediterranean and Black Sea, including on investigation procedures and sanctioning measures for lack of compliance with conservation and management measures.
- Scale up the GFCM Regional National Legislation Repository at the regional level in order to include, to the maximum extent possible, updated national laws and regulations by CPCs linked to the transposition of GFCM recommendations
 - Provide legal advice to CPCs in order to harmonize their national legal frameworks in support to the regular transposition of applicable GFCM recommendations
 - Raise awareness on the connection between national legislation on fisheries and aquaculture and investigation procedures and sanctioning measures existing at the national level
- B. Support risk assessments in the fisheries sector by CPCs based on the regular estimation and quantification of IUU fishing activities at the regional and sub-regional levels.
- Regularly apply the methodology for quantification of IUU fishing in the Mediterranean and Black Sea, including at the sub-regional level
 - Promote coordination with the FAO, and other RFMOs as appropriate, to perform a regular estimation of IUU fishing based on new guidelines and procedures to be adopted
- C. Contribute to the prevention of abandoned, lost or otherwise discarded fishing gear and the reduction of its harmful impacts on marine environment by establishing a regional framework for the definition of such gear in line with the FAO Voluntary Guidelines on the Marking of Fishing Gear.
- Develop common measures in support to 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 that it is disposed at sea by fishers, including penalties for reported infringements

2.3. Centralize monitoring, control and surveillance at the regional level

- A. Establish and maintain a GFCM centralized/regional VMS and related control system.
- Consolidate outputs stemming from the GFCM Pilot Project on VMS with a view to update technical specifications and data confidentiality policies used by CPCs.
 - Provide technical support to existing and planned national fishing monitoring centers (FMCs), by extending and complementing their features through the GFCM centralized/regional VMS.
 - Assist CPCs in testing MCS tools applicable to SSF and fleets having specificities requiring a tailor-made approach to monitoring and control.
- B. Strengthen capacity-building of CPCs in the use of new technologies for MCS on all fleet segments, based on their specificities.
- Contribute to the collection of spatio-temporal effort data suitable to underpin the assessment of the status of fish stocks by CPCs, including through the use of gear sensors and electronic gear marking)
 - Incorporate electronic monitoring tools to underpin the work of GFCM in bolstering the management of FRAs
 - Provide online access, through the centralized/regional GFCM VMS, to a data hub with streamlined information on vessel lists, valid authorizations and other relevant fleet-related data
- C. Implement common sighting procedures based on a mechanism for CPCs to gather and report information on fishing vessels operating in contravention with GFCM recommendations.
- 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 of information feeding into the elaboration of sighting information sheets to be shared among CPCs to streamline vessel sightings
- D. Carry out permanent and voluntary international joint surveillance and inspection schemes across the Mediterranean and the Black Sea, and organize, together with relevant partners, a fisheries inspection virtual academy for the regular training of practitioners in the Mediterranean and Black Sea.
- Establish a joint surveillance and inspection schemes based on pilots undertaken among CPCs to facilitate the voluntary exchange of inspection personnel engaged in inspection activities targeting select fisheries.
 - Agree on necessary common procedures on the exchange of inspectors and inspection reports and promote the conclusion of agreements among CPCs on the deployment of joint surveillance and inspection schemes at the regional and sub-regional levels.

2.4. Bolster coordination to address illegal practices related to the fishery sector

- A. Enhance port State data exchange and information, including in the context of the mutual assistance system, in line with the requirements of the FAO Port State Measures Agreement.
- Facilitate the provision of mutual assistance to CPCs by streamlining the exchange of control and port State information at the regional and sub-regional 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.

- B. Promote the use of Catch Documentation Schemes (CDSs) in order to improve traceability of fishery products and the monitoring of their trade, including by applying innovative technology tools.
- Encourage initiatives to fight IUU fishing and raise awareness on its market dimension, including in the context of the celebration of the International Day on the fight against IUU.
 - Contribute to the traceability of fishery products via the launching of CDSs for fishing activities in the context of GFCM multiannual management plans, including by developing GFCM catch certificates to be issued by CPCs involved in these plans.
 - Adopt a regional CDS, based on pilot CDS and on FAO and RFMOs standards, which would provide guidance to CPCs on the use of CDS.
- C. Address transshipment in the GFCM area of application.
- Promote constant liaison with FAO with a view to develop a set of regional guidelines on transshipment operations occurring in the GFCM area of application.
 - Contribute, via recourse to the GFCM centralized/regional VMS, to the tracking and monitoring of transshipment operations.
 - Report transshipment cases to the Compliance Committee in order to enable the tracking of appropriate actions against fishing vessels engaged in these operations, such as their automatic inclusion on the GFCM IUU list.
- D. Develop appropriate measures to regulate recreational fisheries.
- Create a permanent liaison mechanism between the Scientific Advisory Committee on Fisheries and the Compliance Committee to inform the development of decisions by the GFCM to regulate recreational fisheries.
 - Promote dialogue among a broad network of stakeholders as to policy interventions needed in recreational fisheries, including control measures.

TARGET 3. Aquaculture: A sustainable and resilient sector growing to its full potential

3.1. Promote efficient governance in support of responsible investment

- A. Develop principles and guidelines for responsible investment in aquaculture in the Mediterranean and the Black Sea.
- Conduct a consultation process with stakeholders on responsible investment principles 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
- B. Promote environmental, social and governance (ESG) investment in aquaculture.
- Establish a forum of finance and aquaculture stakeholders to promote impact investment
- C. Collaborate with CPCs and stakeholders towards the creation of enabling legal and administrative frameworks.
- Organize training and national capacity-building programmes for operators and decision-makers at the local and regional level, on regulatory systems and governance

- Monitor progress of aquaculture development in the Mediterranean and the Black Sea, aiming at the implementation of sustainable aquaculture development 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 multi-stakeholder platforms

3.2. Promote practices supporting the sustainability of the aquaculture industry

A. Improve the footprint of the aquaculture industry through capacity building, focusing on responsible practices and state-of-the-art techniques.

- 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 Programs (EMP)
- Develop and implement plans oriented towards “climate-smart aquaculture activities”, aiming at supporting aquaculture activities that have a positive effect on global warming, and contributing 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 area, focusing on the control of pathologies and including prevention aspects and biosecurity
- Implement capacity-building for aquaculture farmers in the field of risk analysis, adaptive management, diagnosis, biosecurity measures, sanitary and food security, to improve the capacities of farmers to tackle disease prevention and 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 program 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
- Carry out 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

B. Further promote allocated zones for aquaculture within marine spatial planning tools through increased technical assistance to CPCs.

- Increase capacity of relevant administration staff and stakeholders on spatial planning, GIS and AZA establishment, management and monitoring
- Implement technical cooperation projects and mechanisms to support the effective implementation of AZAs in the region

- C. Promote environmentally friendly blue farming systems in Mediterranean lagoons in order to protect their valuable ecosystems and cultural heritage.
- Promote implementation of GFCM’s guidelines on the management of coastal lagoons

3.3. Improve the perception of aquaculture

- A. Promote a market-oriented aquaculture sector through capacity building on business planning and marketing.
- 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 SMEs
 - Carry out 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)
- B. Increase awareness and improve the image of the aquaculture sector and its products and promote responsible practices.
- Develop regional communication and marketing resources, including collaboration within business-to-business segments (producers, traders, retailers, organizations and media) and production of material promoting the region as well as nutritional and healthy characteristics of aquaculture products
 - Provide technical assistance on developing and implementing national communication and marketing plans, including communication resources development, training of relevant stakeholders and promotion of their participation in national and regional initiatives
- C. Promote aquaculture certification as a sustainability driver through capacity building, appropriate regulatory frameworks and awareness activities.
- Provide technical assistance to countries 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 of producers on aquaculture certification
- D. Focus on social, gender and inclusiveness issues in the aquaculture sector by promoting relevant policies.
- Organize capacity building for farmers and producers' associations on SDGs, social, gender and inclusiveness issues
 - Collaborate with national authorities to develop the appropriate legal and regulatory frameworks

3.4. Capitalize on technology and information systems

- A. Create and further promote GFCM subregional knowledge-sharing hubs, including existing and new ADCs, the Aquaculture Market Observatory and other information systems, to foster and advance research, innovation, and hands-on training.
- Develop new ADCs at the subregional level where required, with a view to put at disposal knowledge and data deemed relevant in the subregion through information hubs leveraging modern technologies

- Develop a work plan to strengthen aquaculture-driven research and technical development through ADCs
 - Implement a hands-on training on production and applied research for producers through ADCs
 - Provide technical assistance and cooperation to implement innovative farming technology
- B. Improve aquaculture information systems in order to reinforce production and market data management practices by modernizing and streamlining data collection, analysis and dissemination processes, through the use of modern information technologies.
- Conduct mapping and survey exercises at regional and subregional level, where needed, in order to take stock of existing gaps;
 - Identify mitigation measures to improve progressively the availability of data;
 - Deliver technical advice on viable technologies and practices to bridge identified gaps;
 - Support harmonization at regional level of standards relating data collection formats, where needed.
- C. Utilize data management to ensure the traceability of aquaculture products from sea to plate, using innovative technologies, as well as through capacity building activities and the creation of relevant regulatory frameworks.
- Take stock of existing practices international at UN level standards on tools and technologies, including those based on blockchain;
 - Design potential technology-supported traceability scenarios and assessment of their gradual applicability in the GFCM area of application;
 - Support the execution of pilots of identified traceability solutions, including through the provision of test IT platforms, where needed.
 - On the basis of results gathered through the pilots, organize a capacity building program on the implementation and use and applications of blockchain identified aquaculture traceability technologies and solutions in aquaculture traceability.
- D. Enhance inter-administrative communication and cooperation regarding aquaculture development, including by assessing the needs for harmonized IT standards and tools, and identifying viable options, where requested and applicable.
- Support harmonization at regional and subregional level of data exchange standards.
 - Identify communication and cooperation gaps, at regional level, that may benefit from enhanced data exchange practices.
 - Provision of technical assistance to CPCs to address difficulties in the implementation of required data exchange practices.

TARGET 4. Livelihoods: Decent employment and engaged fishers towards profitable fisheries

4.1. Support productive and resilient employment along the fisheries value chain

- A. Advance the principle of decent work in the Mediterranean and Black Sea fishing sector, including through fair and safe working conditions and access to social protection.
- 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
 - Support 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
- B. Promote policies that support and recognize the contribution of small-scale fisheries in food security, employment and income for coastal communities.
- Fully 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 SSF 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)
- C. Support equal opportunities for women and promote youth development to ensure generational knowledge transfer and turnover.
- Ensure equal opportunities for the full and effective participation of women at all levels of 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. Enhance the socio-economic information supporting decision-making processes

- A. Support the collection of accurate, timely, complete and gender-disaggregated social and economic data on fisheries-based livelihoods, including vessel and shore-based fisheries, the pre- and post-harvest sectors, as well as recreational fisheries.
- 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 illuminating the impact 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

- B. Facilitate the integration of socio-economic information into decision-making processes for fisheries management.
 - Provide assistance to CPCs in improving socio-economic data, in light of the DCRF data quality indicators
 - Better link socio-economic data submissions into management strategy evaluation
- C. Assess interactions between small-scale fisheries and recreational fisheries at a subregional level and identify opportunities for livelihood diversification and new revenue between the sectors.
 - 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 pescaturism, which leverage opportunities within the small-scale fisheries, recreational fisheries and tourism sectors
 - Encourage pilot studies to engage small-scale fisheries and recreational fisheries stakeholders in co-management committees and facilitate the dissemination of best practices in this regard

4.3. Foster dynamic and innovative fisheries value chains

- A. Enhance fisheries value chains, particularly for small-scale fisheries, in view of increasing profitability and reducing food waste in the context of sustainable and inclusive ocean economies.
 - Carry out value chain studies to assess the sustainability and profitability of select priority fisheries, including those of particular importance to SSF
 - Develop of 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, safety and quality standards for safe fish processing and distribution and healthy consumption
- B. Support capacity development to strengthen and valorise short value chains for small-scale fisheries products, including by leveraging technological innovations for direct selling and by raising consumer awareness to the benefits of buying local.
 - Pilot direct selling marketing technology such as digital fish market places and direct selling apps
- C. Empower market value chain operators and consumers to make informed choices to support the sustainability of fish stocks, including through product certification and the use of digital technologies to support traceability.
 - Assess the potential of new technologies (e.g. block chain technology) to support traceability in fisheries value chains
- D. Facilitate the participation of fishers in a circular economy, including through innovative livelihood diversification activities to capture marine litter.
 - 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. Foster the active engagement of fishers in participatory management processes and facilitate their role as guardians of the sea

- A. Raise awareness about the ecology of the ecosystem on which fishers act and the impact of their fishing methods when operating in specific maritime areas.
 - 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 recognize best practices in the use of selectivity measures by fishers
 - Create an e-library of informative tools for fishers and establish effective communication channels to reach and engage with the maximum number of fishers in the region.
- B. Disseminate information about good participatory management practices that reduce the impact of fisheries on the environment.
 - 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
- C. Capitalize on the local and traditional knowledge of fishers to support and enhance fisheries management
 - Engage fishers in participatory data collection and mapping activities, including through the application of LEK methodologies, to shed light on topics such as small-scale fisheries, recreational fisheries, NIS, and more

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

5.1. Streamline capacity development at the subregional level

- A. Ensure effective and targeted capacity-building to support national plans implementing the GFCM 2030 Strategy, including through shared cooperative research.
 - Carry out regular consultations on national priorities against strategy targets and devise related specific workplan 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.
- B. Consolidate – in the context of the subregional approach and through the BlackSea4Fish Project and other ad-hoc GFCM projects in the Mediterranean – expertise and scientific capacity at the national level on technical aspects related to fisheries management, towards ensuring a level playing field across the region.
 - 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 national level in all Mediterranean subregions
- C. Further strengthen aquaculture know-how and competencies, including through hubs such as the ADCs, in order to level the capacity at the regional level.

- Collaborate with CPCs regarding the know-how and research needs of different subregions, towards the establishment of new ADCs and 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. Promote technical cooperation and boost scientific research and innovation

- A. Capitalize on existing knowledge and research, as well as scientific collaboration and best practices in fisheries and aquaculture, by consolidating technical networks and promoting the role of the GFCM Forum on Fisheries Science.
- 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
 - Use authoritative information to spread knowledge and foster engagement
 - Strengthen knowledge sharing and capacity development through the production of relevant informative materials, methodologies as well as scientific publications, such as GFCM Studies and Reviews, *The State of Mediterranean and Black Sea Fisheries* and facts and figures on the aquaculture sector.
- B. Improve technological capacities within the fisheries and aquaculture sectors, by targeting among others the modernization of fishing fleets, aquaculture facilities and select infrastructures along the fisheries and aquaculture value chains.
- Launch pilot activities and programmes to test the use of new technologies onboard towards improved reporting and increased security at sea
 - Continue research towards increased efficiency and environmentally friendly aquaculture facilities
 - Identify needs and provide support to modernization of infrastructures along the value chain, towards increased added value, reduced food waste and circular economy.
- C. Promote cross-sectorial initiatives addressing ocean based-livelihoods and marine biodiversity conservation.
- Participate in relevant initiatives related to blue economy and disseminate the FAO Blue Transformation vision
 - Continue collaborating with CITES and CMS on the management of species such as red coral and European eel

5.3. Enhance the role of partnerships in fisheries and aquaculture from a blue transformation perspective

- A. Complement and establish partnerships with relevant organizations to build synergies and support the sustainability of the fisheries and aquaculture sectors.
- Keep on fostering constructive dialogue and stakeholders' engagement, including via recourse to the update and adoption of memoranda of understanding and letters of agreement, consistent with FAO procedures

- B. Continue addressing the priorities under SDG 14 and other relevant SDGs to provide a regional contribution to the global sustainability challenges for the fisheries and aquaculture sectors under the 2030 Agenda for Sustainable Development.
- Establish reporting systems within the GFCM with a view to support CPCs to collect information under SDG 14 and report it to the UN Secretariat with a view to contribute to the reaching of global targets at the regional level
- C. Give due consideration to relevant policy developments under the post-2020 Global Biodiversity Framework of the Convention on Biological Diversity (CBD) as well as the targets established under the United Nation Decade of Ocean Science for Sustainable Development and Ecosystem Restoration (2021-2030).
- Establish coordination mechanisms with relevant organizations to inform the implementation of the GFCM 2030 Strategy and maintain an open dialogue with them while reporting regularly to CPCs on the outcomes