Subject: Contribution of the GFCM to the report of the UN Secretary-General on oceans and the law of the sea, pursuant to General Assembly resolution 79/144 of 12 December 2024, entitled "Oceans and the law of the sea"

Theme for 2025: "Capacity Building and the Transfer of Marine Technology: New Developments, Approaches, and Challenges."

1. Background

As a regional fisheries management organization (RFMO) of the Food and Agriculture Organization of the United Nations (FAO), the General Fisheries Commission for the Mediterranean (GFCM) is instrumental in facilitating capacity building and the transfer of marine technology with respect to fisheries governance within its area of application. Collaborating with its member states and partners, the GFCM develops and implements science-based management measures to conserve fish stocks, reduce environmental impacts, and support the socio-economic growth of coastal communities. By integrating innovative tools, fostering knowledge sharing, and enhancing institutional and legal capacities, the GFCM is making significant strides in addressing the challenges and opportunities of marine technology transfer. Through its work, the GFCM addresses pressing challenges such as illegal, unreported, and unregulated (IUU) fishing, climate change, and marine pollution, which pose risks to the sustainability of ocean-derived food resources. The GFCM's diverse initiatives and partnerships play a seminal role in conserving marine biodiversity and bolstering the resilience of marine ecosystems.

As the global community advances the 2025 theme of "Capacity Building and the Transfer of Marine Technology: New Developments, Approaches, and Challenges," the GFCM stands as a model of regional cooperation and leadership. The theme for 2025 is both integral to the GFCM's constitutive a strategic texts and a pervasive feature of its constant efforts to achieve sustainable development and environmental stewardship in the conservation and management of living marine resources.

2. GFCM Basic Texts

The GFCM's emphasis on capacity building and the transfer of marine technology is built into its legal foundations, a feature that distinguishes it from many other RFMOs. The preamble of the Agreement for the Establishment of the GFCM explicitly recognizes "the special requirements of developing States" and the need "to assist them to participate effectively in the conservation, management, and farming of living marine resources." The same Agreement lists "the development of institutional capacity and human resources, particularly through education, training, and vocational activities" as one of the principal functions of the GFCM. The GFCM Rules of Procedure mandate the identification and use of suitable data communication protocols, information technology standards, tools, and systems to enhance communication, cost-efficiency, and the dissemination of its work. Capacity building is also integral to addressing non-compliance, with the GFCM Rules of Procedure identifying "technical assistance and capacity building programmes" as one of two key measures to resolve such situations. This legal foundation underscores how the GFCM's commitment to empowering its contracting and cooperating non-contracting parties (CPCs) to foster effective marine resource management is embedded in all GFCM activities, including resolving non-compliance through technical assistance and targeted programs.

General Fisheries Commission for the Mediterranean
Palazzo Blumenstihl, Via Vittoria Colonna 1, 00193 Rome, Italy
www.fao.org/gfcm

3. GFCM 2030 Strategy

The theme of "Capacity Building and the Transfer of Marine Technology" is integral to the [GFCM 2030 strategy for sustainable fisheries and aquaculture in the Mediterranean and the Black Sea](#) (GFCM 2030 Strategy). The GFCM 2030 Strategy offers a shared vision and guiding principles to achieve sustainable fisheries and aquaculture in the region while uniting efforts to fulfil the national, regional, and global commitments of its CPCs. In line with the 2030 Agenda for Sustainable Development, the 2030 GFCM Strategy aims to promote regional efforts to end poverty, ensure food security, reduce inequality, and address climate change.

The GFCM 2030 Strategy seeks to preserve the rich heritage of fisheries and aquaculture as cornerstones of Mediterranean and Black Sea coastal livelihoods, transforming them into productive and sustainable food systems that drive thriving economies and maintain healthy ecosystems. To achieve these objectives, the GFCM 2030 Strategy is structured around five targets. Target 5 is specifically dedicated to capacity development, and contains concrete plans for technical cooperation, knowledge sharing and efficient partnerships in a subregional perspective. However, all five targets of the GFCM Strategy feature elements of capacity building, emphasising its transversal role in the work of the GFCM.

4. Programmes, projects and activities

4.1 MedSea4Fish and BlackSea4Fish programmes

The MedSea4Fish and BlackSea4Fish programmes are prime examples of the GFCM's commitment to ensuring capacity building and the transfer of marine technology. These projects advance the objectives of the GFCM 2030 Strategy by promoting sustainable fisheries through diverse initiatives across various focus areas, including at-sea surveys, the protection of vulnerable species, the management of non-indigenous species, decarbonization efforts for less pollutant fleets, and the development of small-scale fisheries. Activities encompass a wide array of capacity building efforts, such as tailored courses, specialized training sessions, and opportunities for study tours and knowledge exchanges. Through these efforts the GFCM supports CPCs and other stakeholders in adopting effective monitoring technologies for marine resource management. These include winch sensors for collecting physical and biological ocean data, drones, and electronic reporting systems (ERS). These technologies enhance data accuracy, enable real-time reporting, and ensure compliance with international marine resource management standards.

4.2 GFCM-Lex project

The GFCM launched the GFCM-Lex project to monitor national legislation implementing its decisions and support the alignment of national legislation with international standards. This multilingual, online regional repository of laws on fisheries and aquaculture has helped CPCs gather domestic legislation and identify discrepancies between national and international legal instruments. As a result, the number of contracting parties that have aligned their domestic legal frameworks with all applicable GFCM decisions has consistently increased since 2021. As of 2024, the number of GFCM contracting parties that have aligned their domestic legal frameworks with binding GFCM decisions is now 17 out of 23. This progress is partially attributable to targeted capacity building efforts conducted under the aegis of the GFCM-Lex project aimed at helping CPCs amend their domestic legal frameworks. With collaboration from UNDOALOS, the UN Office on Drugs and Crime, the World Maritime University, the World Bank, and private actors like Global Fishing Watch, GFCM-Lex has the potential to become an invaluable tool for policymakers, scientists, administrators, fishers, students, and NGOs.

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4.3 The Fisheries and Ecosystem-Based Management in the Mediterranean and Black Sea projects

The GFCM is implementing the Fisheries and Ecosystem-Based Management in the Mediterranean and Black Sea projects, aiming to reverse the over-exploitation of certain commercial marine resources. These efforts focus on strengthening countries' capacities to manage fisheries, including through the application of ecosystem-based management tools. Under these projects, the GFCM conducts capacity building efforts to familiarise CPCs with the procedures and technologies central to the success of international joint inspection schemes, thereby facilitating the implementation of the recently adopted Resolution GFCM/47/2024/5 on a voluntary-based data exchange format and protocol in relation to the vessel monitoring system in the context of voluntary-based international joint inspection schemes in the GFCM area of application.

4.4 The Monitoring, Control and Surveillance (MCS) Portal

The GFCM recognizes the critical importance of MCS technologies in sustainable marine resource management and actively supports CPCs in identifying and adopting innovative monitoring tools. One notable achievement in this respect is the establishment of an MCS Portal by the GFCM Secretariat. This platform facilitates real-time sharing of inspection reports, sightings, and catch documentation schemes. By enhancing data accuracy, compliance, and transparency, these technologies significantly contribute to sustainable marine resource governance.

4.5 Aquaculture Demonstration Centres

To promote the sustainable development of aquaculture in the Mediterranean and Black Sea, the GFCM established the Aquaculture Demonstration Centres (ADCs). These centres serve as subregional hubs for knowledge exchange, technical cooperation, and capacity building. ADCs focus on advancing scientific research, facilitating technology transfer, showcasing best practices, enhancing education, and fostering collaboration. Their efforts are particularly geared towards benefiting women, youth, and small-scale farmers.

The success of these ADCs is illustrated by their rapid proliferation across the GFCM area of application. The first two ADCs were launched in the Black Sea: the Grigore Antipa National Institute in Constanta, Romania (shellfish), and the Central Fisheries Research Institute in Trabzon, Türkiye (finfish). This was followed by the establishment of ADCs in Egypt and Tunisia. The inauguration of an ADC in Bulgaria is planned for 2025. This growing network of ADCs ensures that the sustainable development of aquaculture in the region will be underpinned by sound scientific advice and the active involvement of all relevant stakeholders.

5. Events

- *The second edition of the GFCM Forum on Fisheries Science in the Mediterranean and the Black Sea (Fish Forum), held in Antalya, Türkiye, from 19 to 23 February 2024.*

The Fish Forum plays a leading role in catalysing capacity building and facilitating the transfer of marine technology in the Mediterranean and Black Sea region. This event offers a major scientific platform to foster collaboration among researchers, policymakers, international organizations, and private stakeholders. Its second edition focused on climate change and innovative technologies, emphasizing the integration of scientific knowledge into decision-making to shape the future of regional fisheries and contribute to the UN SDGs. With over 400 participants from 38 countries and more than 300

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scientific contributions, the Fish Forum showcased diverse perspectives and proposed actionable solutions to critical fisheries challenges. Through workshops, lectures, and expert roundtables, it strengthened the science-policy interface and showcased cutting-edge technological and scientific solutions to issues affecting fisheries in the GFCM area of application and beyond.

- *The Regional Aquaculture Conference "Shaping the future of sustainable aquaculture in the Mediterranean and the Black Sea", held in Heraklion, Greece, from 4 to 5 December 2024*

The Regional Aquaculture Conference entitled "Shaping the future of sustainable aquaculture in the Mediterranean and the Black Sea," provided a platform for advancing sustainable aquaculture in the region. Marking a decade of progress since the landmark 2014 Bari Conference, it evaluated achievements, addressed emerging challenges, and proposed actionable solutions to strengthen the sector. The conference also highlighted recent advancements in artificial intelligence (AI) applications, particularly in environmental monitoring and decision-making processes. Discussions explored how AI-driven tools can optimize aquaculture sustainability while addressing challenges such as technological accessibility and balancing innovation with environmental conservation. By uniting diverse stakeholders, it reinforced aquaculture's role in regional sustainability and resilience while fostering a prosperous future.

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