

## MEDAC Advice relevant for the GFCM SRC-Eastern Mediterranean

### MAPs and NIS

#### Background and Context

In accordance with the MEDAC Workplan 2025 and building on discussions held at the 2024 GFCM Subregional Committee for the Eastern Mediterranean (SRC-EM) and the Scientific Advisory Committee on Fisheries (SAC25), the MEDAC FG for the Eastern Mediterranean provides the following advice on strategic topics of high importance for the region:

- Implementation of the **multiannual management plan (MAP)** for **deep-water red shrimp** fisheries (DWRS) in the Levant Sea;
- The **Pilot Study on Non-Indigenous Species (PS-NIS-EM)**;
- The status and management of **round sardinella** and **European hake**;
- Considerations for **small-scale fisheries (SSF)** and the application of the **Ecosystem Approach to Fisheries (EAF)**.

Considering the continued biological and socio-economic impacts of Non-Indigenous Species (NIS) in the Eastern Mediterranean Sea, and the developments presented at the GFCM SRC-EM meeting (Rome, April 2024) and the SAC25 session (Marseille, June 2024), the MEDAC Focus Group (FG) for the Eastern Mediterranean Sea convened to formulate updated advice to support effective management and stakeholder participation in forthcoming drawing up of Multiannual Management Plans (MAPs).

Building upon MEDAC's previous advice (Ref. 69/2023) and following the progress of the Pilot Study on Non-Indigenous Species in the Eastern Mediterranean (PS-NIS-EM), this advice reiterates and updates recommendations on the establishment and implementation of an NIS Observatory and reflects MEDAC's ongoing commitment to stakeholder-based, ecosystem-aware, and science-informed fisheries governance in the Eastern Mediterranean.

#### 1. Update on Non-Indigenous Species Observatory and Recommendations

Following the **launch of the PS-NIS-EM in January 2024**, and the discussion within the SRC-EM, MEDAC:

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- a) Reaffirms the urgent need to operationalise the **NIS Observatory in the Eastern Mediterranean**, in close collaboration with EU Member States and regional stakeholders, including small-scale and recreational fishers.
- b) Welcomes the initiation of **WP2 and WP3** of the PS-NIS-EM, including baseline reporting and Local Ecological Knowledge (LEK) collection. MEDAC recommends accelerating the implementation of these components without further delay, as agreed during SRC-EM 2024.
- c) Suggests that **focus species and LEK survey design** be tailored per country, considering national priorities and fishing community insights. Coordination and harmonization should be ensured to allow regional synthesis.
- d) Supports a flexible and adaptive approach to NIS management, acknowledging the **dual role of certain NIS species** as both ecological threats and socio-economic resources (e.g., *Siganus* spp., *Pterois miles* as commercial species and *Lagocephalus sceleratus* as a species which needs a special management scheme since it cannot be commercialised). Management options should prioritize selective fishing, sustainable market development and eco-tourism potential.
- e) Emphasises the need for the **NIS Observatory to act as a regional Competence Centre**, enabling early detection, data coordination, communication and impact assessment related to NIS and climate-induced ecological shifts. Moreover, highlights the importance of early management actions to attempt the population control.

## 2. Tailored Stakeholder Engagement in MAP Development

Given the evolution of the GFCM advisory framework and in alignment with the **Ecosystem Approach to Fisheries (EAF)**, MEDAC proposes a **tailored stakeholder engagement model** for the development of forthcoming MAPs in the Eastern Mediterranean. This model should:

- a) Build on the participatory approach piloted in EAF case studies (e.g., purse seine sardine fishery in Lebanon), ensuring effective inclusion of MEDAC, and other organizations such as **small-scale fishers, women in fisheries, youth, recreational fishers, NGOs and industry actors**.
- b) Ensure stakeholder mapping and **representation mechanisms** are adapted to local contexts, respecting national governance structures and socio-economic profiles of the fishing communities.
- c) Use **co-design methods**, such as structured focus groups and community forums, to include stakeholder inputs in the design, implementation and evaluation of MAP measures.
- d) Provide support for stakeholder capacity building and knowledge transfer, including simplified briefings on scientific assessments and management tools, to enhance informed participation.

e) Promote national-level **EAF pilot projects**, particularly in areas like Port Said (Egypt) and Türkiye, where momentum already exists, and encourage replication across the subregion with tailored objectives and locally relevant indicators.

### 3. Deep-water Red Shrimp (DWRS) Fisheries in the Levant Sea

Following the **adoption of the multiannual management plan (MAP) for deep-water red shrimp fisheries (DWRS)** (GFCM/46/2023/4), the SRC-EM acknowledged the progress made in data collection, particularly the enhancements in GSAs 24 to 26.

In light of these developments, MEDAC suggests the following:

a) Continued support for the **collection of comprehensive and high-quality data**, particularly on the spatial and temporal dynamics of DWRS fisheries, including in **GSA 26**, and other GSAs where past data gaps have impacted the accuracy of stock assessments.

b) All the **fleets operating in the East-Med**, which have been exploiting deep-water red shrimp throughout the Eastern Mediterranean, play a significant role in this fishery. However, this expansive exploitation could pose challenges for the **sustainability of European hake stocks**, particularly in areas where **mature hake individuals** overlap with shrimp fishing grounds. While contribution of all the fleets to shrimp fisheries is crucial for the region, it is essential to balance these activities with **measures that protect hake populations** and their habitats.

c) In light of the above, MEDAC strongly supports the implementation of **spatial and temporal closures** that reduce fishing pressures on overlapping areas of **mature hake habitats** while maintaining the sustainability of the DWRS fishery. Special attention should be given to **nursery and spawning grounds of hake**, ensuring that the management measures for red shrimp do not inadvertently harm the ecological balance in these critical areas.

d) Furthermore, MEDAC encourages the exploration of **innovative gear selectivity measures** and **adaptive management strategies** to address the potential risks to hake populations, ensuring that **socio-economic needs** are balanced with **ecosystem-based management principles**.

e) The continued engagement of all stakeholders, including all the **fleets** and other regional fishers, is crucial to ensure that the proposed management measures are not only **scientifically sound** but also **socially acceptable**. Stakeholder dialogues, particularly on issues such as gear modification and spatial zoning, will be essential for securing long-term sustainability.

f) Actively **engaging stakeholders** (especially trawl operators and SSF) in shaping **spatial and temporal closures** that balance biological protection (e.g. for juveniles and EFHs) with socio-economic sustainability.

h) Monitoring socio-economic impacts of the **Minimum Conservation Reference Size (MCRS)** and exploring strategies to **improve selectivity and product value** in the DWRS fleet.

i) Including stakeholder representatives in evaluating the effectiveness of MAP measures to ensure **adaptive co-management**.

#### 4. European Hake (*Merluccius merluccius*)

Considering the overexploitation of European hake in parts of the Eastern Mediterranean, MEDAC advises:

a) A differentiated approach to **gear selectivity**, acknowledging that **passive gears (trammel nets, longlines)** are more selective for adult hake, while trawls impact juveniles disproportionately.

b) Reaffirmation of the need for **better biological sampling and otolith ageing protocols**, supported by MedSea4Fish, to inform reliable stock assessments.

c) Supporting **complementary measures** such as the protection of nursery and spawning grounds through **spatial management**, particularly in areas where trawlers operate intensively.

d) Promoting **consumer awareness campaigns** discouraging the consumption of juveniles and advocating a “**deck-to-plate**” **sustainable seafood culture**.

#### 6. Cross-Cutting: Small-Scale Fisheries and EAF Implementation

a) The two-pronged approach to SSF (better data + stakeholder inclusion) is strongly endorsed. Stakeholder mapping, participatory design, and capacity-building are essential to tailor solutions per GSA.

b) MEDAC supports further development of **SSF value chain assessments**, eco-labelling schemes, and efforts to boost market value and recognition of sustainable SSF practices.

c) Recreational fisheries should be integrated into **data collection and NIS monitoring**, particularly where their effort intersects with SSF or sensitive habitats.

d) MEDAC supports the urgent need for action relating to the ageing of the SSF fleet and the entrance of young fishers into the sector. This needs the immediate attention of all levels of management to ensure the viability of the sector (MEDAC Ref. 59/2024).

#### 7. Conclusions and Recommendations

In light of the above, MEDAC recommends:

- Immediate advancement of the **NIS Observatory activities** under the PS-NIS-EM framework, with stakeholder participation from inception and active management strategy implementation.



- Inclusion of a **dedicated advisory group** within the Observatory, composed of stakeholders from the fishing sector (including in particular SSF), academia, NGOs and government representatives from the whole Eastern Mediterranean Sea.
- Formal **recognition of stakeholder inputs** in the preparation of MAPs through structured engagement methodologies and support from the GFCM and national administrations.
- The development of **guidance on socioeconomic impact assessment tools** to evaluate proposed MAP measures with direct inputs from stakeholder consultations.

MEDAC invites the EC, EU Member States and relevant stakeholders to:

- Prioritize **regional coordination**, but with **local flexibility** in the implementation of MAPs and pilot studies;
- Promote **tailored EAF case studies** as living laboratories for co-management;
- Enhance **stakeholder engagement** not only in consultation phases, but throughout the management cycle — from assessment to adaptation.

