



Food and Agriculture
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General Fisheries
Commission for
the Mediterranean

Navigating Changes in
Small Pelagic Fish
and Forage Communities:
Climate, Ecosystems, and
Sustainable Fisheries
May 4 – 8, 2026 | La Paz, Mexico

Managing round sardinella *Sardinella aurita* in the eastern Mediterranean: stock-unit identification, assessment, and management advice in the context of an Ecosystem Approach to Fisheries

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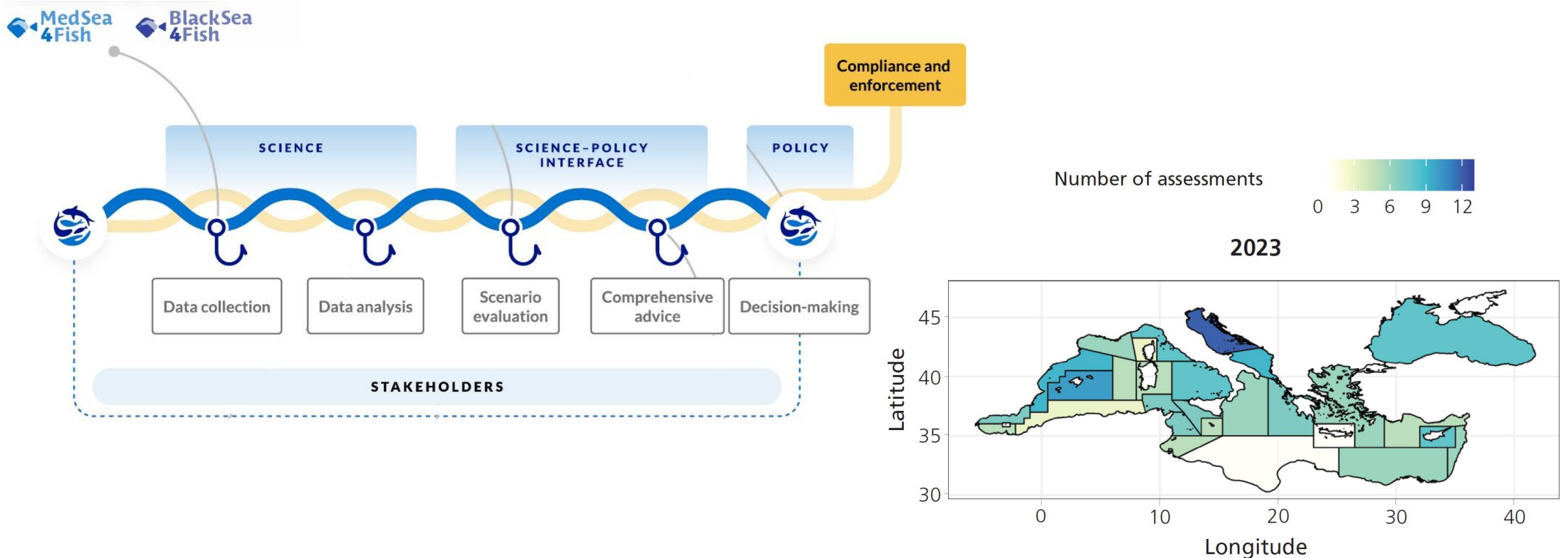
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Content

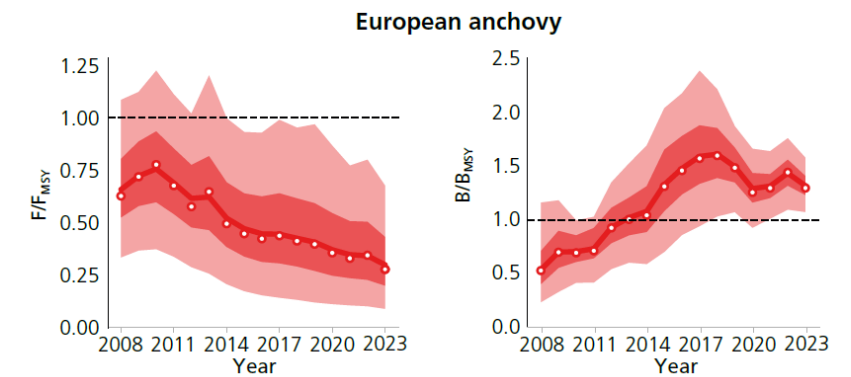
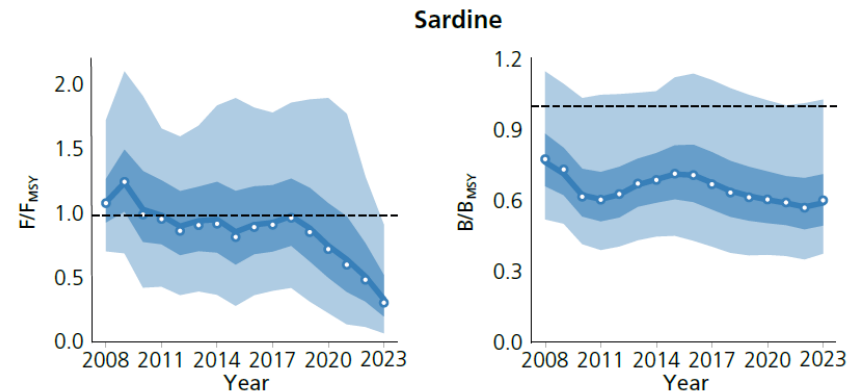
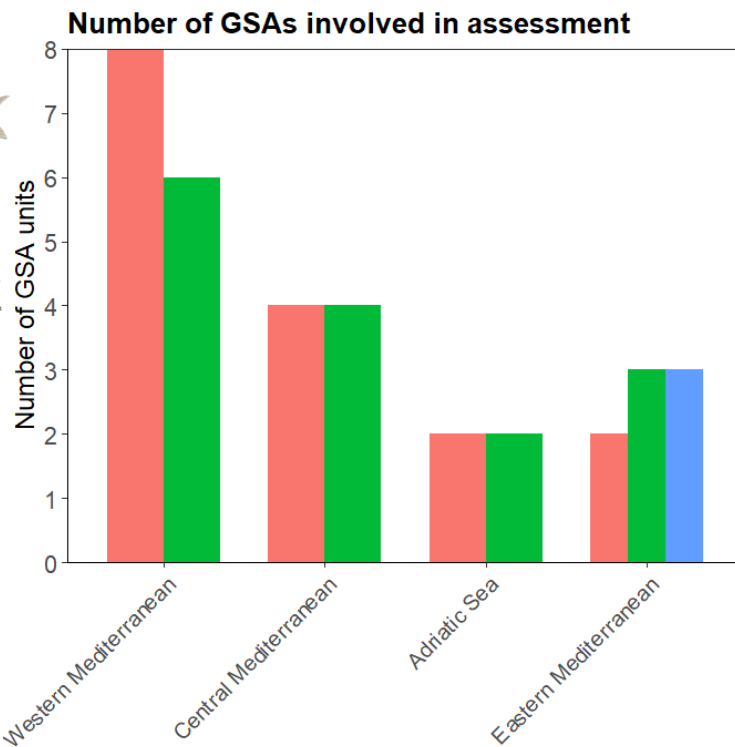
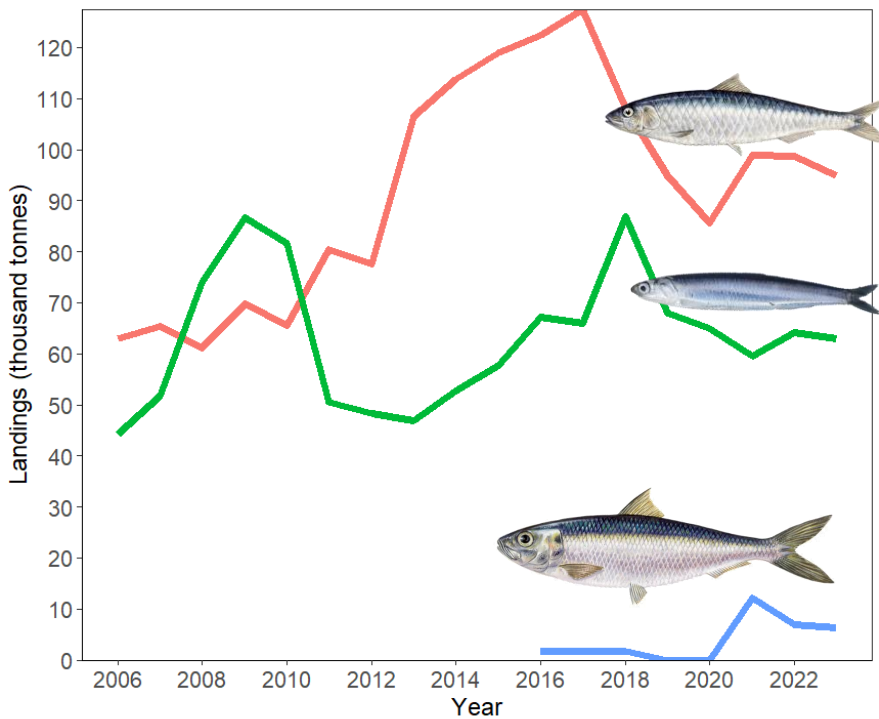
1. Regional and subregional management framework
2. Round sardinella's subregional relevance
3. Delineate stock structure
4. Management measures Toolbox
5. stock status
6. Next step: From assessment to management actions

General Fisheries Commission for the Mediterranean – GFCM

The General Fisheries Commission for the Mediterranean is a regional fisheries management organization. With 23 member countries & the EU, its main objective is to ensure the conservation and the sustainable use of living marine resources as well as the sustainable development of aquaculture in the Mediterranean and in the Black Sea.



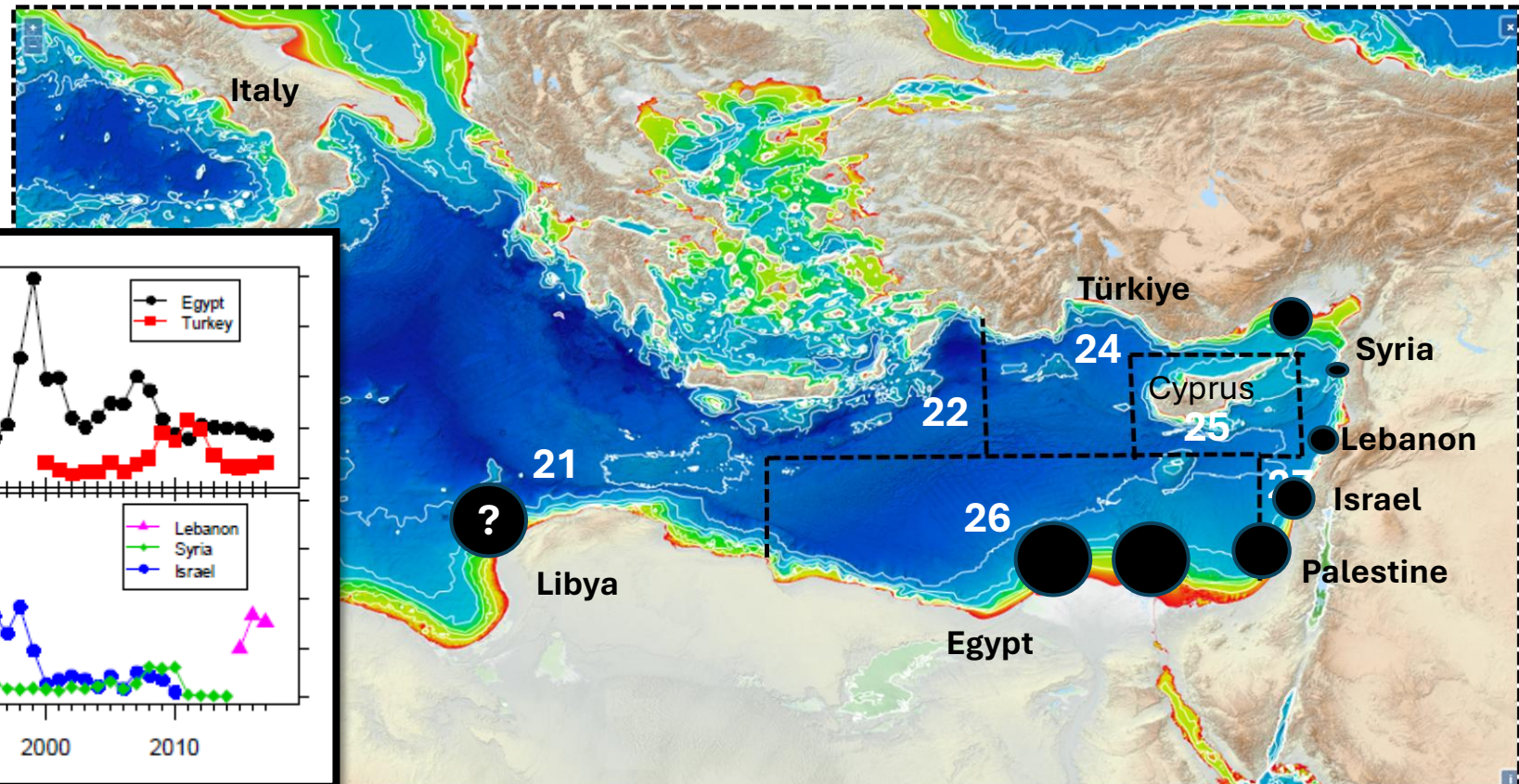
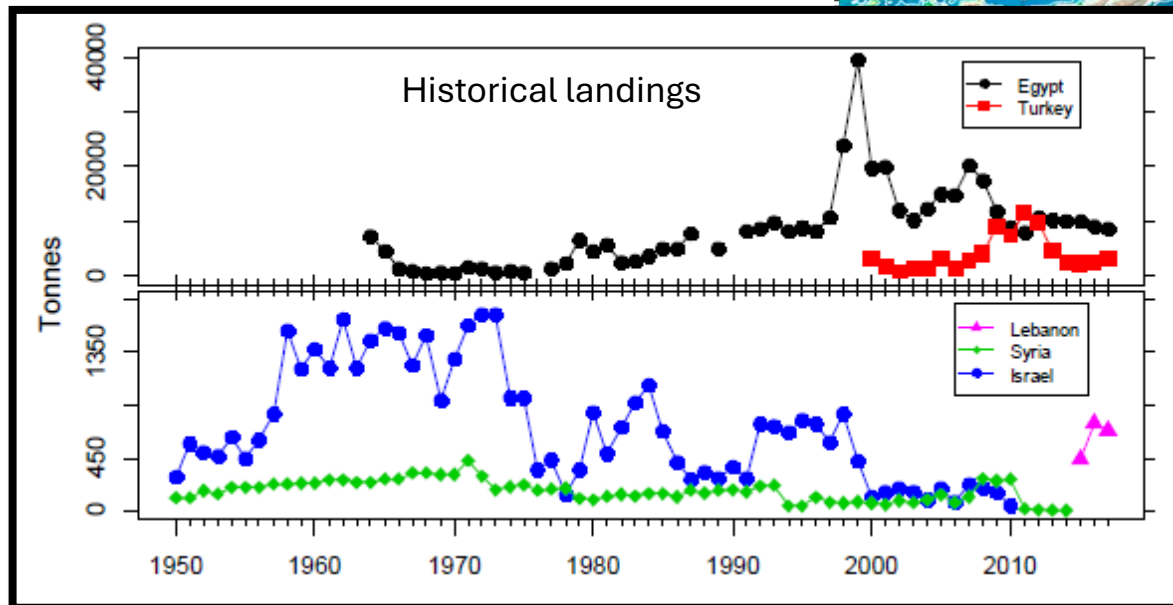
Assessed small pelagics in the Mediterranean Sea



■ Sardine
 ■ European anchovy
 ■ Round sardinella

Assessed small pelagics in the Mediterranean Sea

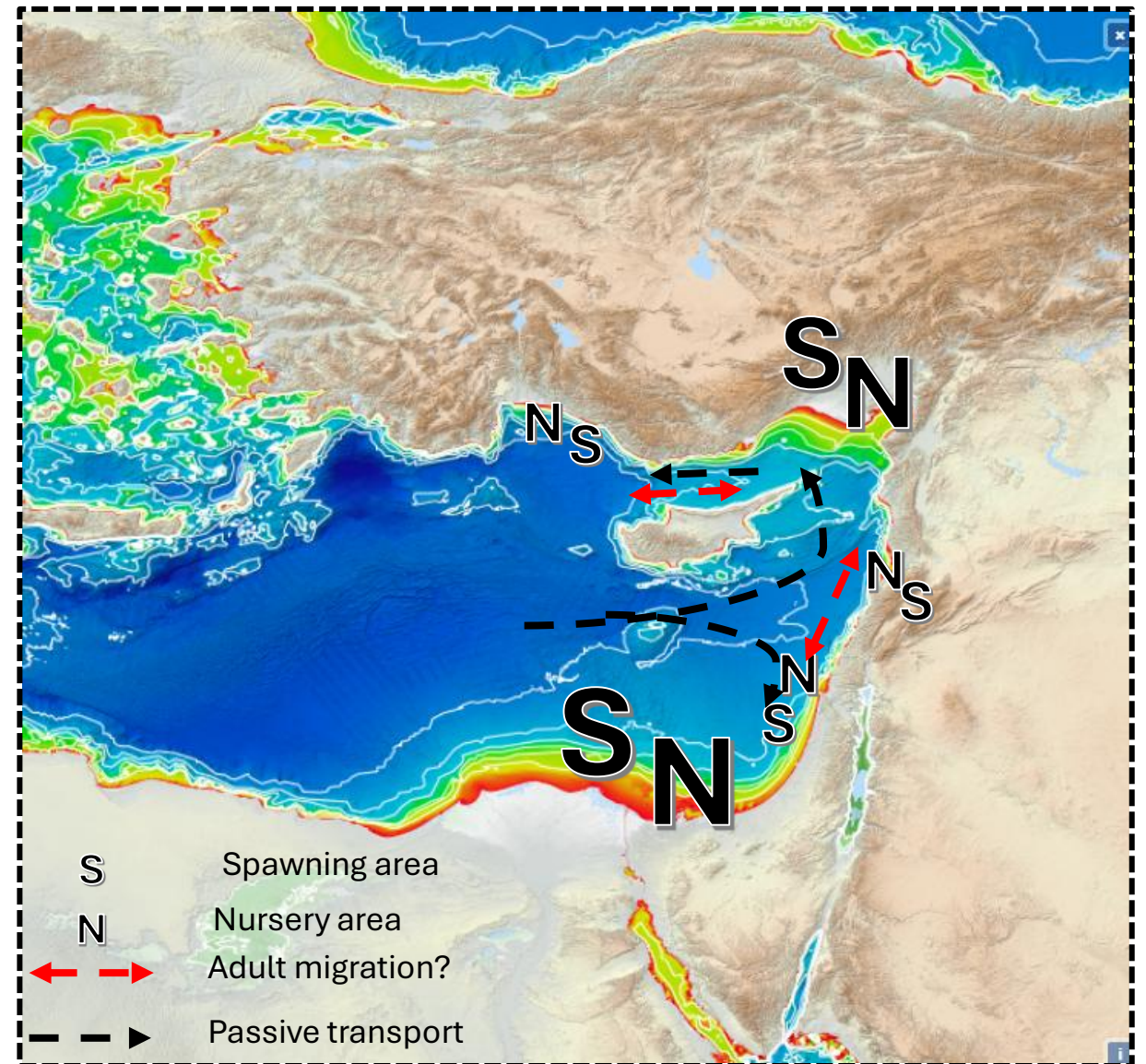
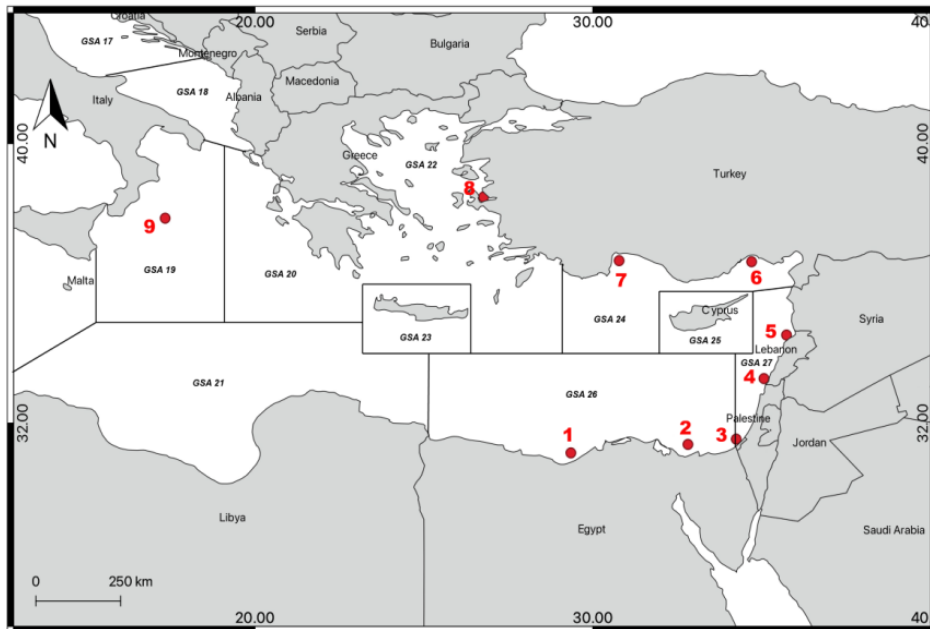
- A coastal, pelagic species
- Temperatures between 18-25°C, with movement linked to thermocline
- Breeds across the year
- Recruits are observed from April to June



Delineate stock structure (FAO regional project EastMed's -FISHBONE)

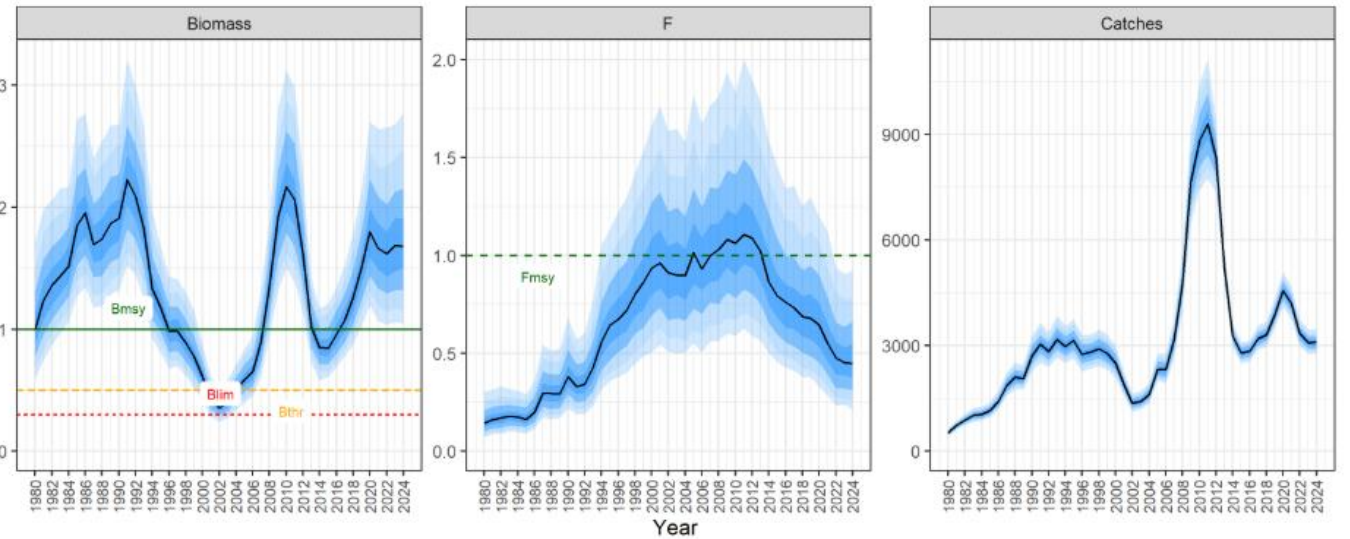
Methods consider to construct the Stock Differentiation Index (SDI)

- Genetic approaches (Evolutionary)
- Otolith shape (Individual lifetime)
- Morphology and meristic (Generational)
- Reproductive traits (Generational)
- Fisheries data (Inter-annual)
- Oceanic circulation

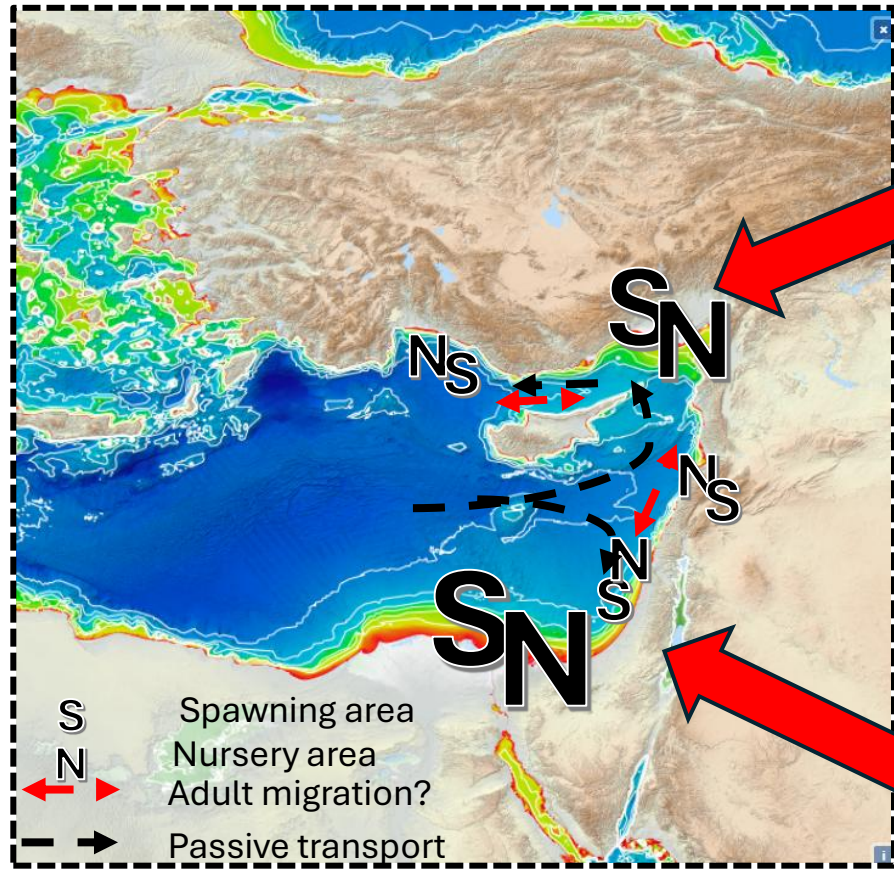
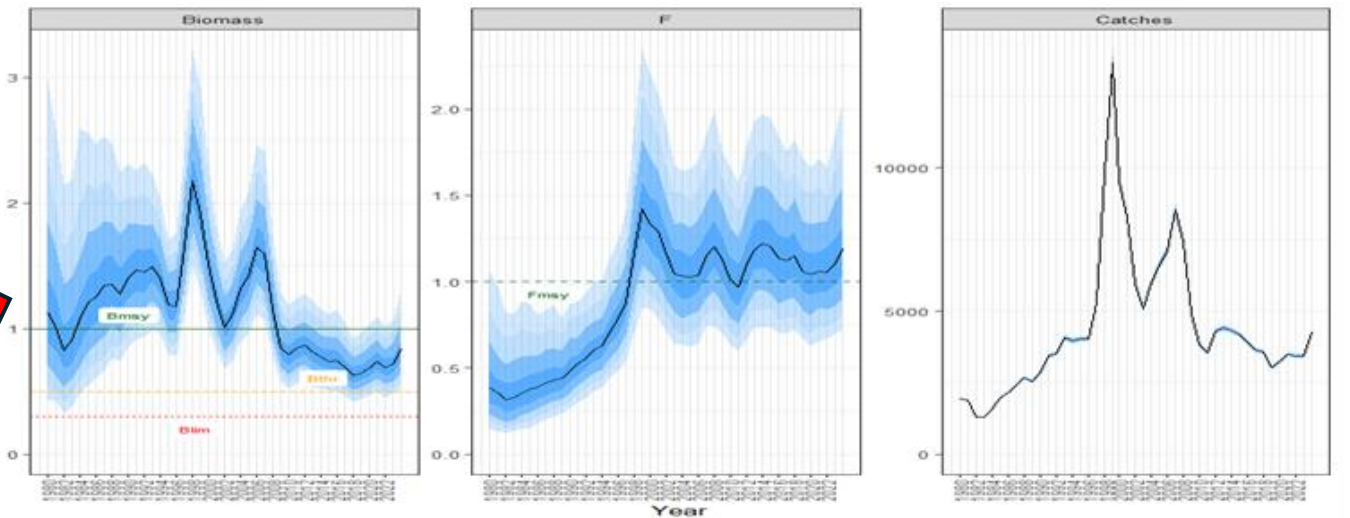


Definition of stock status

GSA 24 (Turkiye) and 27 (Lebanon)

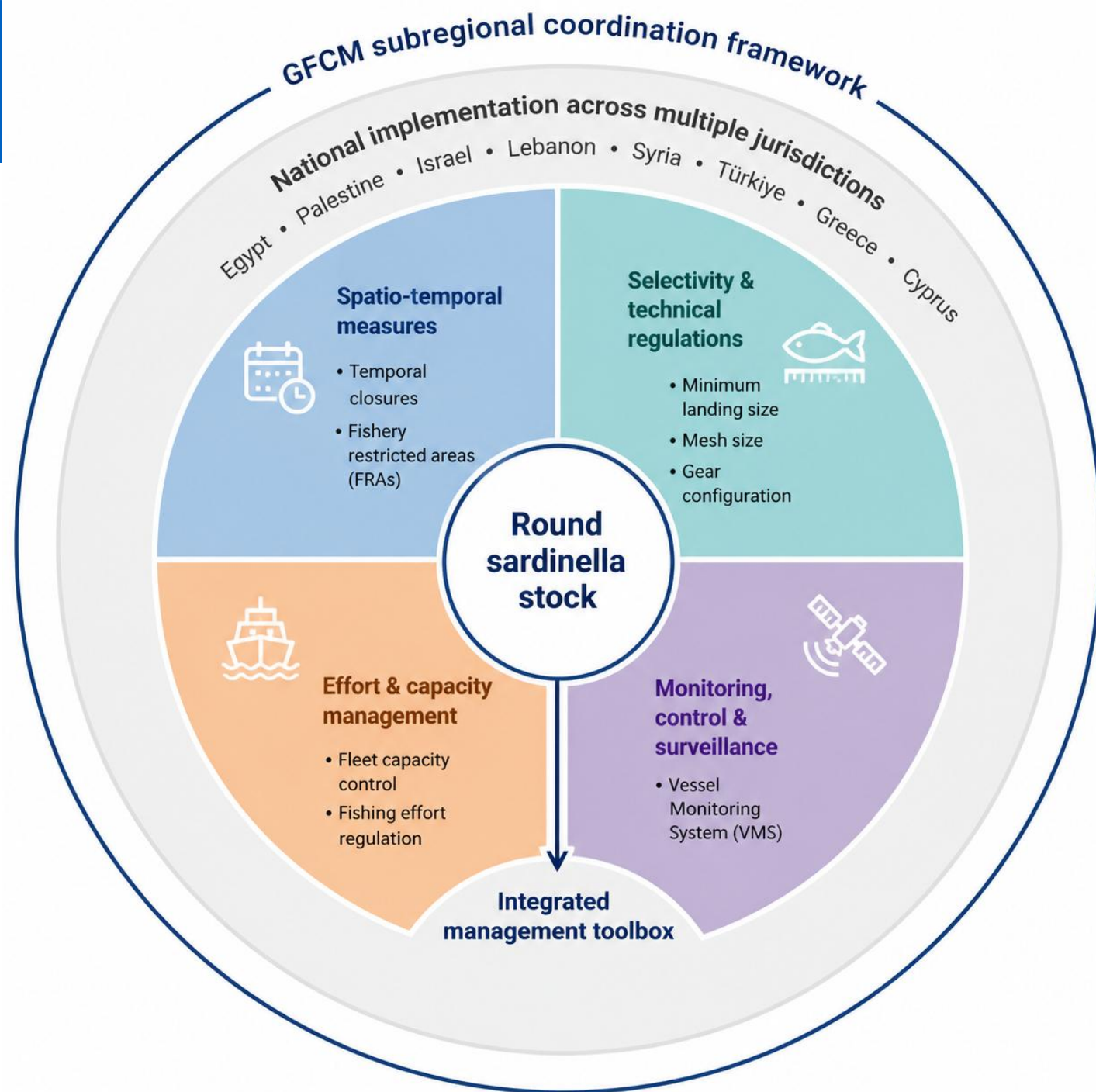


GSA 26 (Egypt) and 27 (Palestine)






Management measures Toolbox

Conceptual representation of the management toolbox applied to the round sardinella fishery in the Eastern Mediterranean. The figure illustrates the main categories of regulatory measures and their implementation across multiple jurisdictions under a regional coordination framework (GFCM).



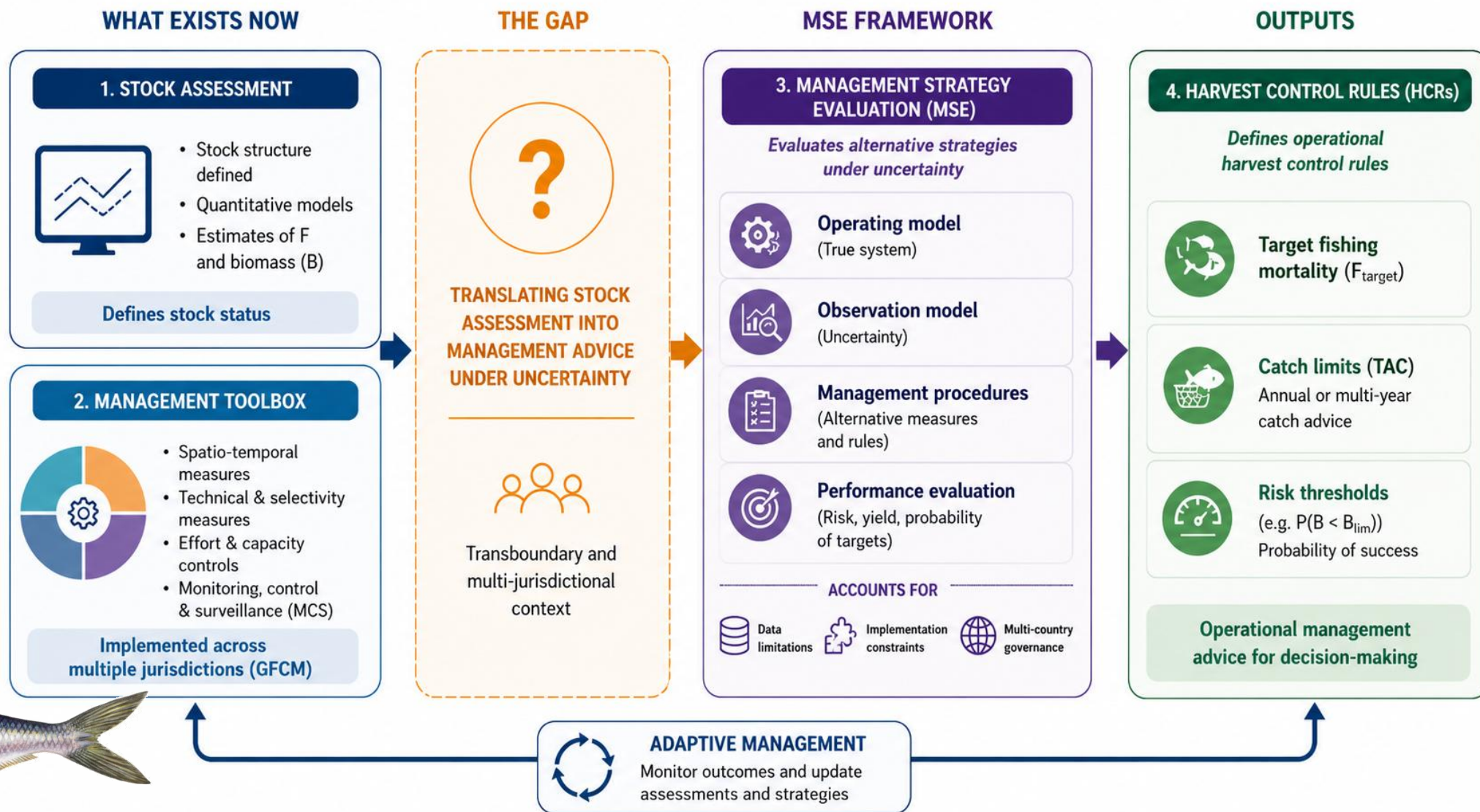
Management measures Toolbox

Category	Management measure	Egypt	Palestine	Israel	Lebanon	Syria	Turkey	Greece	Cyprus	Subregional Implementation level
Temporal restriction	Temporal closure (protecting spawning season and/or shallow waters)	Implemented	Limited or difficult implementation	Limited or difficult implementation	Implemented	Limited or difficult implementation	Implemented	Implemented	Limited or difficult implementation	Partial implementation, lacking subregional harmonization
Technical measure	Minimum landing size	Limited or difficult implementation	Limited or difficult implementation	Limited or difficult implementation	Limited or difficult implementation	Limited or difficult implementation	Implemented	Implemented	Implemented	Partial implementation, lacking subregional harmonization
Spatial restriction	Fishery restricted areas (FRAs). Areas, depth and/or habitats restricted to operate purse seines	Limited or difficult implementation	Limited or difficult implementation	Implemented	Implemented	Limited or difficult implementation	Implemented	Implemented	Partial implementation, lacking subregional harmonization	Partial implementation, lacking subregional harmonization
Gear features	Specification of mesh size	Implemented	Implemented	Implemented	Limited or difficult implementation	Limited or difficult implementation	Limited or difficult implementation	Implemented	Implemented	Partial implementation, lacking subregional harmonization
Gear features	Specification of gear dimensions and operation	Implemented	Limited or difficult implementation	Implemented	Implemented	Limited or difficult implementation	Implemented	Implemented	Implemented	Partial implementation, lacking subregional harmonization
Fishing effort	Reduction and/or control of fishing capacity (considering fleet movement across GSAs)	Implemented	Limited or difficult implementation	Implemented	Limited or difficult implementation	Limited or difficult implementation	Implemented	Limited or difficult implementation	Limited or difficult implementation	Partial implementation, lacking subregional harmonization
MCS	Vessel Monitoring System	Limited or difficult implementation	Limited or difficult implementation	Limited or difficult implementation	Partial implementation, lacking subregional harmonization	Limited or difficult implementation	Implemented	Limited or difficult implementation	Implemented	Partial implementation, lacking subregional harmonization

	Implemented
	Partial implementation, lacking subregional harmonization
	Limited or difficult implementation

How to translate assessment results into integrated management actions?

MSE-based Harvest control rules





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Thank you!

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