

# Area-based management

Practical perspectives for regional cooperation

MaryElizabeth C. Miller  
FAO Fisheries and Aquaculture Department

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for the Implementation of Ocean-related Sustainable Development Goals

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# Overview of Presentation

- Area-based management
- FAOs experience with ABM
- Instruments, tools and guidance for fishery management
- Factors that enable ABM
- Challenges to ABM adoption
- Moving forward

# Area-based Management

Area-based measures and marine spatial tools fall within the framework of precautionary and ecosystem approaches and are commonly used for managing fisheries to protect target stocks and bycatch from excessive impacts.

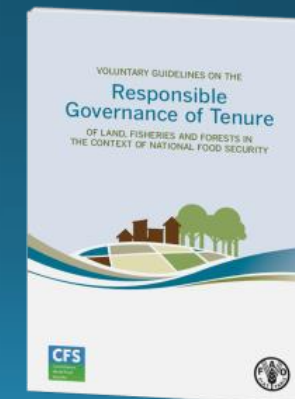
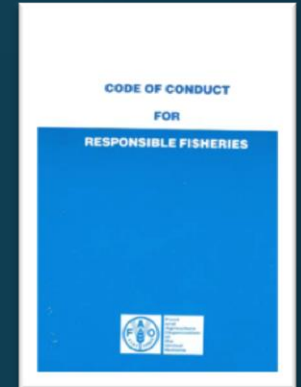
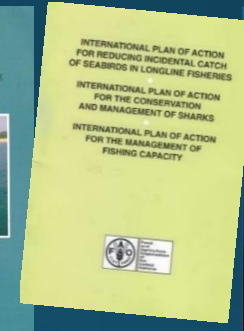
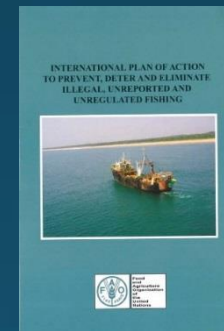
Use of MSP, MPAs, marine reserves, fisheries restricted areas, seasonal closures, restricted or banned gear types (bottom-contact gear) to manage fisheries, protect sensitive species and habitat such as nursery grounds, protect benthic habitats such as vulnerable marine ecosystems (VMEs) and mitigate bycatch.

Improvement over time as lessons learned through their implementation

# Area-based management approach

Instruments, tools, guidance for sustainable fisheries development

- 1995 Code of Conduct for Responsible Fisheries
- International Plans of Action (IPOAs)
  - Illegal, unreported, and unregulated (IUU) fishing
  - Fishing Capacity
  - Seabirds
  - Sharks
- Voluntary Guidelines
  - VGs for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication
  - VGs on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security



# Area-based management approach

Instruments, tools, guidance for sustainable fisheries development

- **Guidance**

- Ecosystem approach to fisheries, human dimensions, aquaculture
- Deep sea fisheries management in the high seas
- Fishing operations, bycatch management and reduction of discards
- Ecolabelling in fisheries, aquaculture certification
- Integrated coastal area management
- **MPAs and fisheries**
- **MSP for aquaculture**

- **Case Studies**

- MPA Governance, Policy and Institutional issues



# Area-based management approach

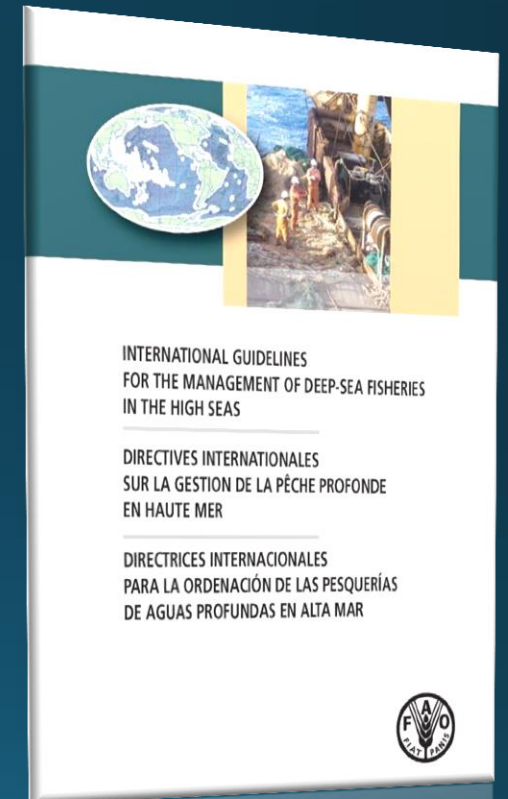
Management measures for areas beyond national jurisdiction

- Time-area closures for specific fishery,
- Area-based limits on the use of fish aggregating devices (FADs),
- Gear restrictions (bottom gear in VME locations),
- Precautionary (exploratory bottom fishing protocol),
- Distribution of fishing effort,
  - Prohibit certain fishing activities within the high seas pockets
  - Limitation of fishing pressure allowed in ABNJ of the Pacific Ocean
  - Area-based measures intended to reduce the incidental mortality of non-target species in all five tuna RFMOs
  - Prescribed seasonal closure of purse-seine fishery

# Area-based management approach

Management measures for areas beyond national jurisdiction

- Institutional strengthening
  - As of September 2016, eight regional management bodies exist in the high seas, covering ~ 77 % of the total area of the ABNJ
- FAO Deep-sea Fisheries Guidelines
  - A tool to manage deep-sea fisheries for sustainable use and protection of VMEs from significant adverse impacts
  - Shaped the regulatory frameworks of the deep-sea RFMO/As since adoption in 2008
    - Criteria for identifying VMEs and assessing potential impacts of bottom fishing
    - Provisions and recommendations for fisheries management in the ABNJ that address impact assessments



# Area-based management approach

Management measures for areas beyond national jurisdiction

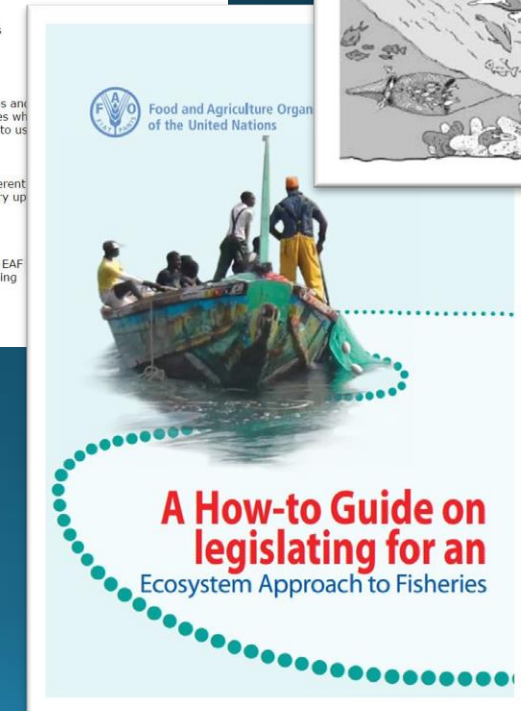
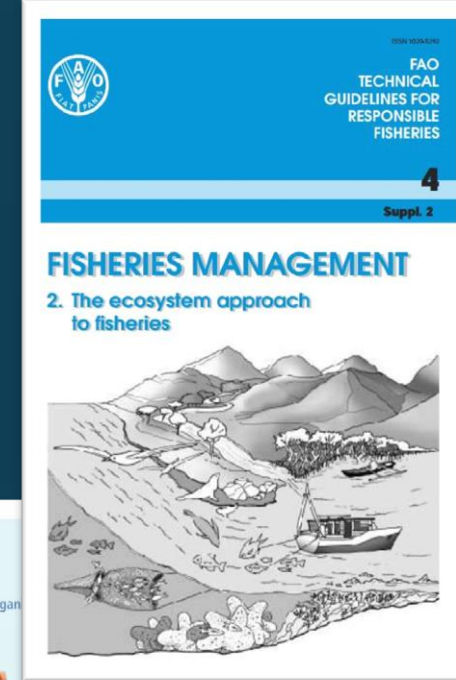
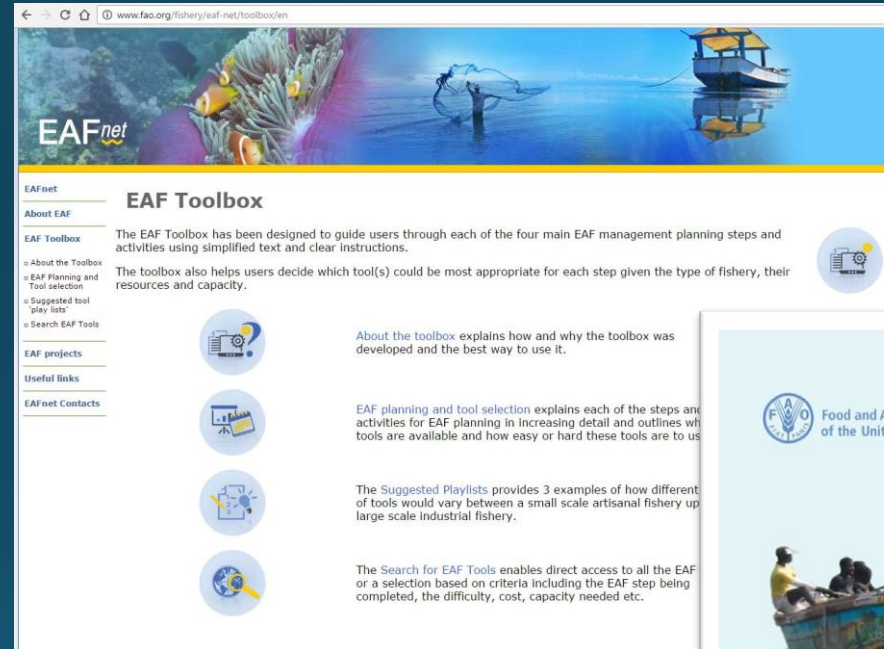
- Capacity building
  - Resource assessments, impact assessments, management tools, species identification, data collection and reporting as well as providing increased knowledge in relation to deep-sea fisheries and ecosystems.
  - Deep-sea Fisheries Programme, Common Oceans Programme, EAF-Nansen, fishFinder
- *The Vulnerable Marine Ecosystems: Processes and Practices in the High Seas*
  - Achievements since 2006 on identification and protection of vulnerable marine ecosystems (VMEs) from significant adverse impacts caused by fishing with bottom contact gears in the high seas.





# Enabling factors

- Governance
  - Legal mandates
  - Political will
  - Institutional capacity
- Process
  - Partnership
  - Regulatory design
  - Clear Goals with indicators
  - Conflict resolution mechanisms
- Funding
- Monitoring and Enforcement
  - Performance review
- Integrated frameworks\EAF approach



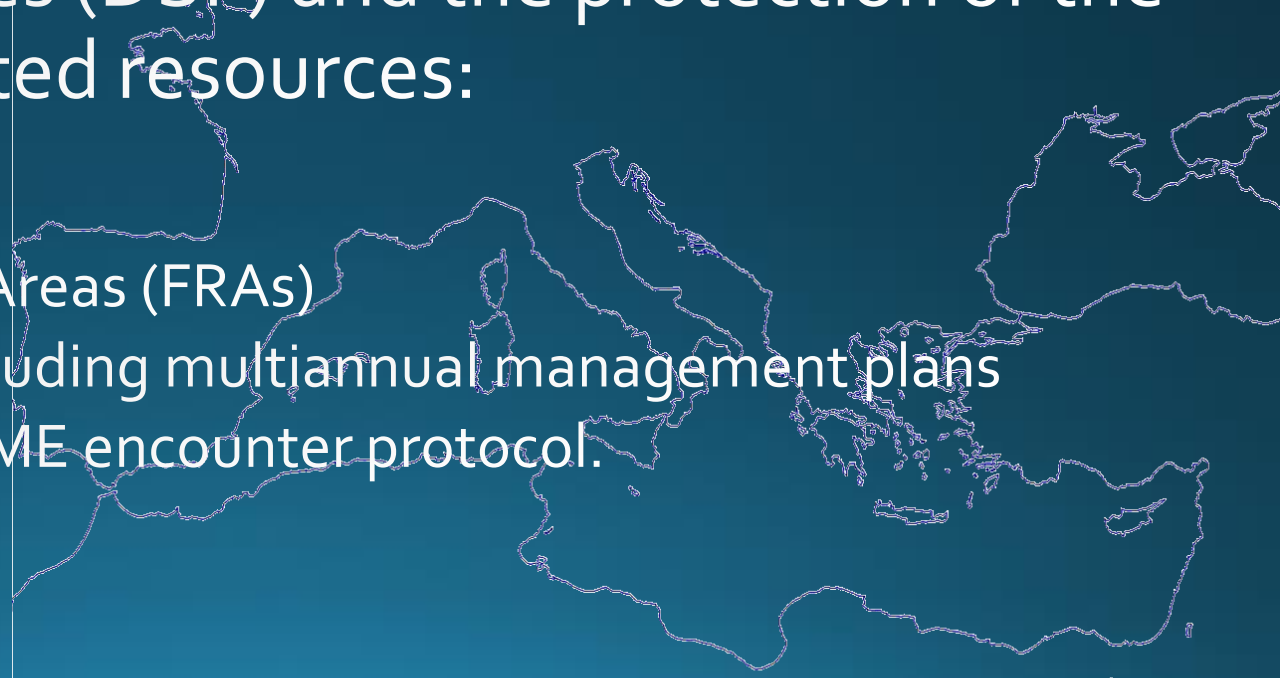
# Barriers (that prevent adoption by regional and national bodies)

- Economic constraints
- Governance (contradicting objectives and competing mandates)
- Capacity (institutional and financial)
- Coordination and collaboration (limited in existence)
  - Country level cross –sectorial coordination
  - Missing positive experiences in regional cooperation or coordination
  - Coexisting regional mechanisms not coordinated
  - Differing institutions and institutional structures
- Social dimension
  - Stakeholder involvement/ transparency
  - Perception
- Multiple environmental and anthropogenic stressors across sectors
- Geopolitics

# Example GFCM Fisheries Restricted areas

GFCM has been active with initiatives and measures towards the management of deep-sea fisheries (DSF) and the protection of the marine environment with its related resources:

- Established of GFCM Fisheries Restricted Areas (FRAs)
- Adopted of measures concerning DSF, including multiannual management plans
- Initiated actions toward the adoption of VME encounter protocol.



# Example GFCM Fisheries Restricted areas

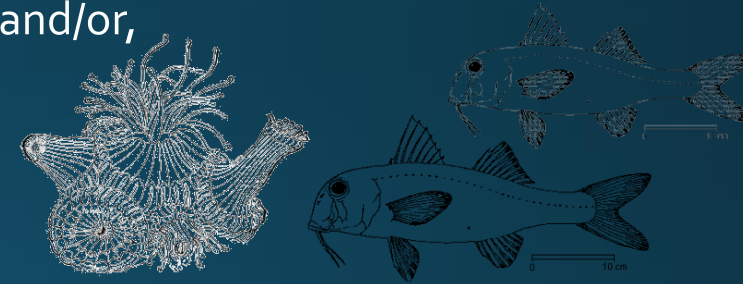
## GFCM FRA

Spatial protection tool defined as a geographically-defined area in which all or certain fishing activities are temporarily or permanently banned or restricted in order to:

- i. improve the exploitation and conservation of harvested living aquatic resources and/or,
- ii. protect specific marine ecosystems

## Establishment of the FRA to GFCM

- The initial FRA proposal can be submitted to GFCM by any stakeholder
  - Institutions, scientists, policy-makers, NGOs, private sector
- Through an ad-hoc form
  - providing information on the area, e.g. site description, biological features, human activities and impacts, legal status, objective of the FRA, etc.
  - Process

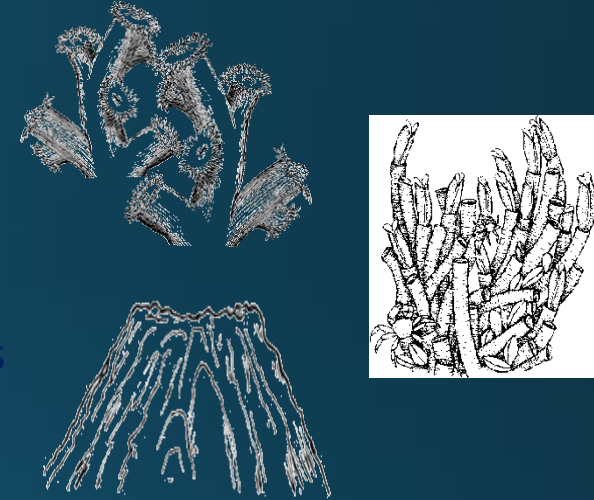


FRA Proposal → Technical GFCM groups → Scientific Advisory Com on Fi → Commission

# GFCM FRAs: 7 small areas falling in national and international waters

Rec. GFCM 2006 established three FRAs where i) fishing activities with towed dredges and bottom trawl nets are prohibited and ii) Members have to ensure that these areas are protected from the impact of any other activity

- **Lophelia reef off Capo Santa Maria di Leuca** - 1673 km<sup>2</sup> GSA 19, Italy - unique ecosystem of cold-water corals
- **The Nile Delta Area** - 6043 km<sup>2</sup> GSA 26, Egypt - cold hydrocarbon seeps and unique living communities of chemosynthetic organisms such as Polychaeta and bivalves
- **The Eratosthenes Seamount** - 14792 km<sup>2</sup> GSA 25, Cyprus - rare deep-sea benthic associations such as scleractinian corals and sponges



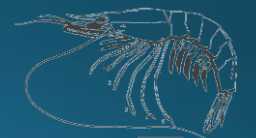
Rec. GFCM 2009 established a FRA in the Gulf of Lion where i) only a number of authorized vessels are allowed to fish in order to prevent any increase of fishing activities and fishing effort (reference levels: 2008)

- **Eastern part of the Gulf of Lion** - 3742 km<sup>2</sup> GSA 07, France - Important spawners' aggregations (European hake, monk fish, lobsters) reported to occur in the area

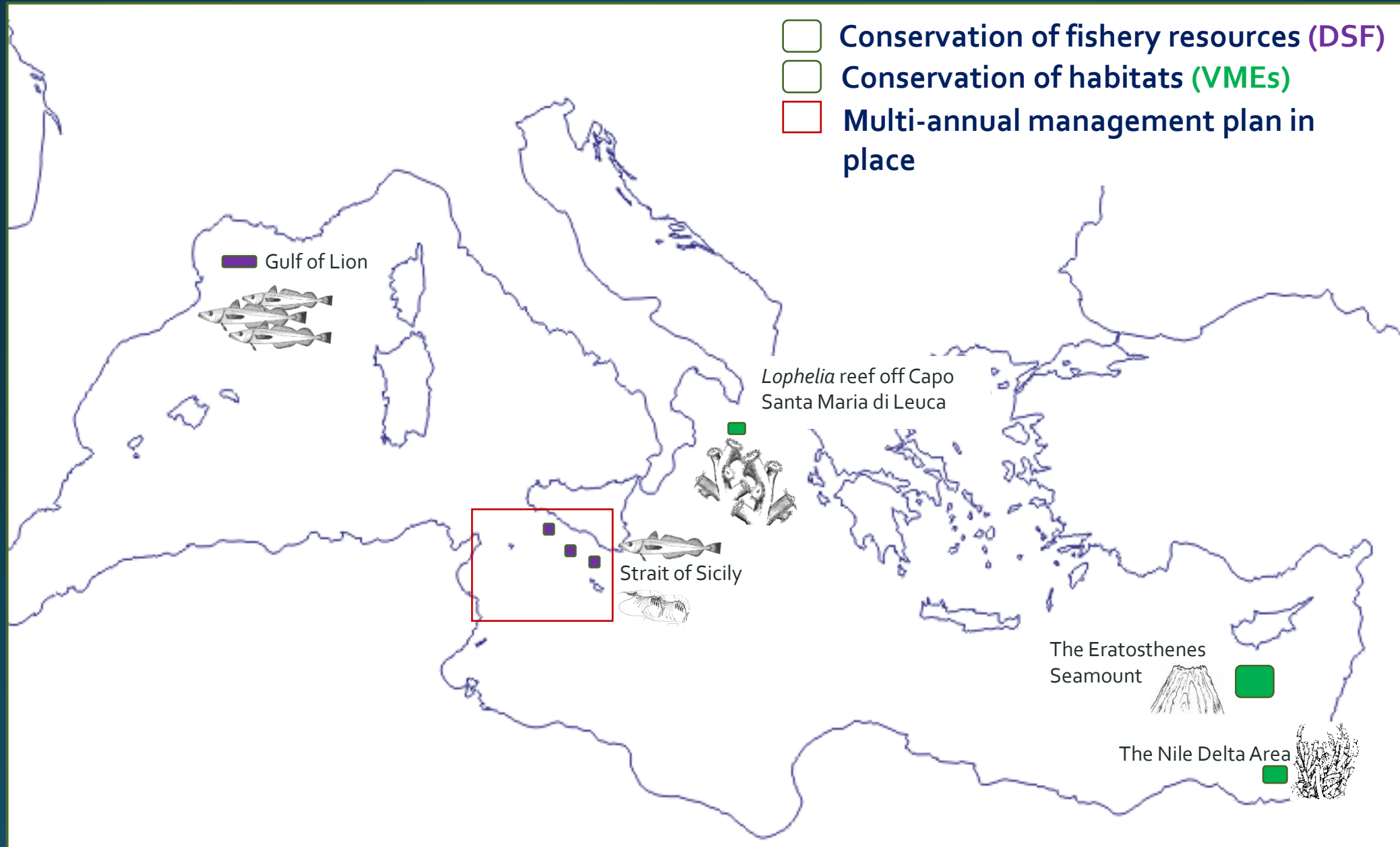


Rec. GFCM 2016 established three FRAs in the Strait of Sicily where i) fishing activities with bottom trawl nets are prohibited

- **Strait of Sicily** - GSAs 12-14 (between Italy and Malta) - Important nursery areas of European hake and deep-water rose shrimp

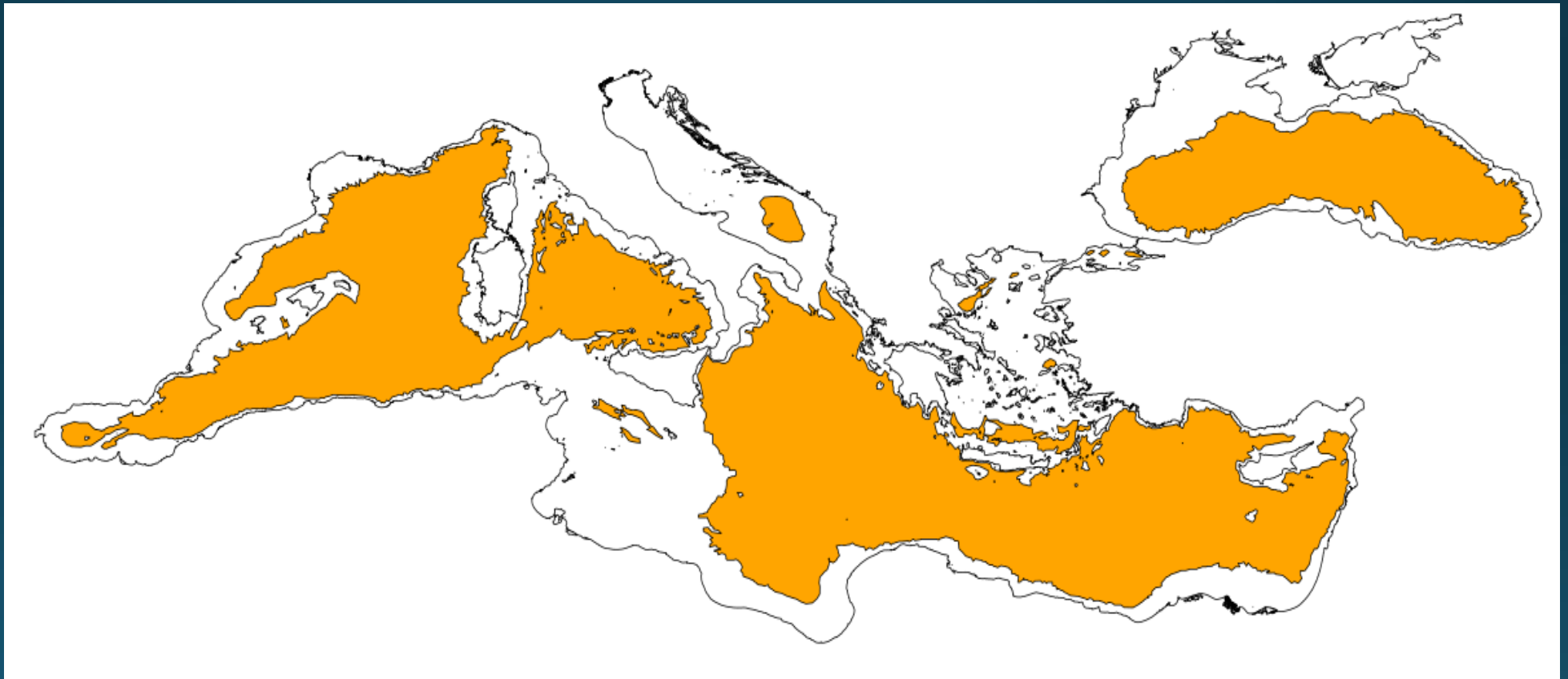


# GFCM FRAs: 7 small areas falling in national and international waters



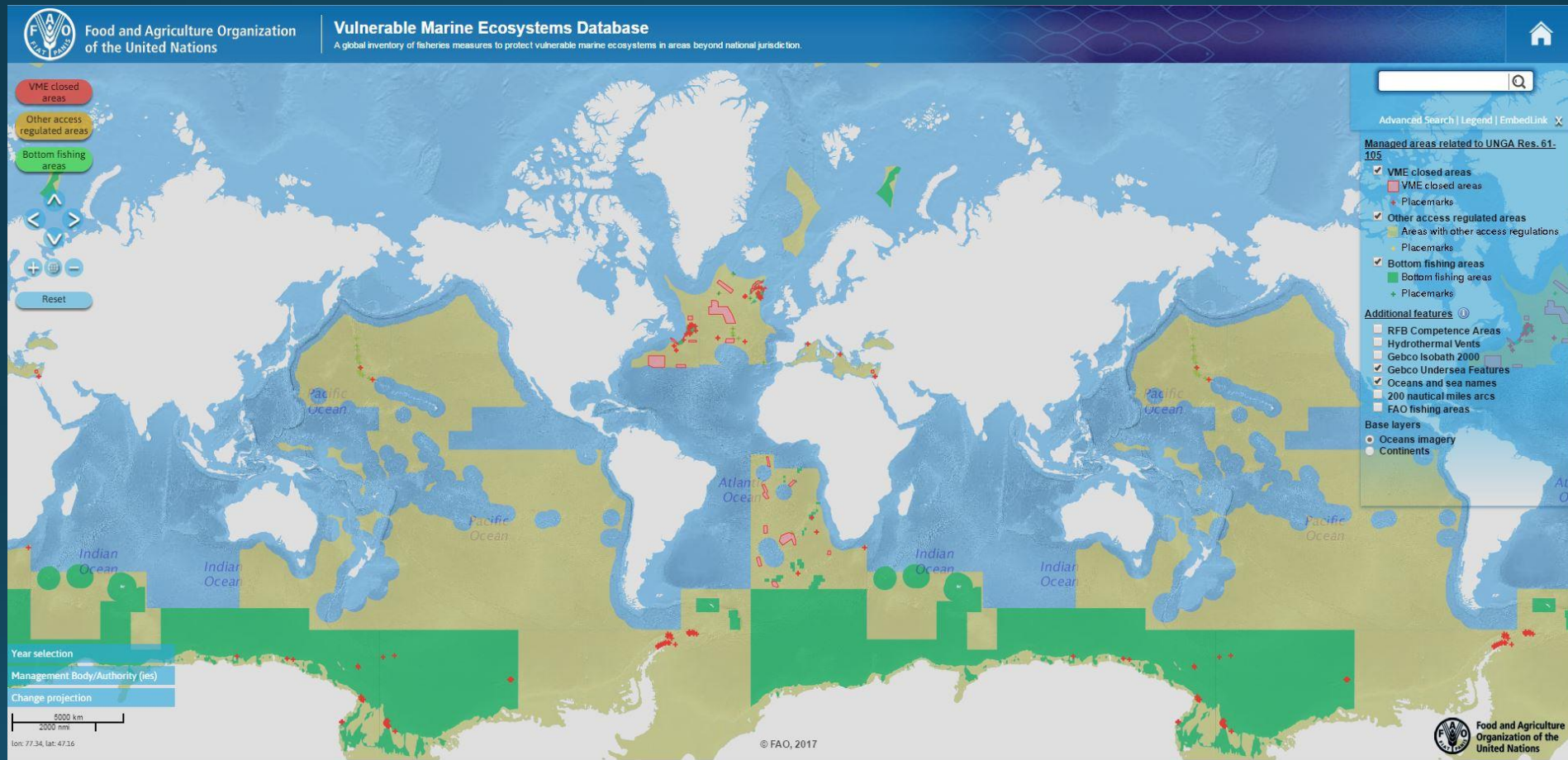
# GFCM FRAs: 1 larger area

REC.CM-GFCM/29/2005/1 on the management of certain fisheries exploiting demersal and deepwater species and the establishment of a fisheries restricted area below 1000 m - recalling the precautionary approach to fisheries management and, in particular, in relation to the development of new fisheries - the use of towed dredges and trawl nets at depths beyond 1000 m is prohibited



# Area-based management approach

Management measures for areas beyond national jurisdiction



Screen capture of the VME DataBase, VME closed areas (red polygons), bottom fishing areas (green polygons), and other access regulated areas (orange polygons). Access the VME DataBase: [www.fao.org/in-action/vulnerable-marine-ecosystems/vme-database](http://www.fao.org/in-action/vulnerable-marine-ecosystems/vme-database)



# Moving forward

Management solutions need to look beyond simple solutions to complex problems and select from the full range of available tools, including MPAs and other spatial management measures, for jointly achieving conservation and sustainability objectives within a relevant policy and management framework that is responsive to local situations.

These solutions need to recognize humans as an integral component of marine ecosystems.

# Key messages

- Integrated **ecosystem-based** approach, to sustainably manage the full suite of human activities occurring in large, spatially defined areas, and take into account biophysical, socioeconomic, and jurisdictional considerations.
- **Full coordination**, across sectors and agencies, and among levels of government
- **Adaptive**, capable of learning from experience
- **Strategic and anticipatory**, focused on the long-term
- **Participatory**, stakeholders actively involved in the process

Thank you