FAO International Guidelines for the Management of Deep-sea Fisheries in the High Seas

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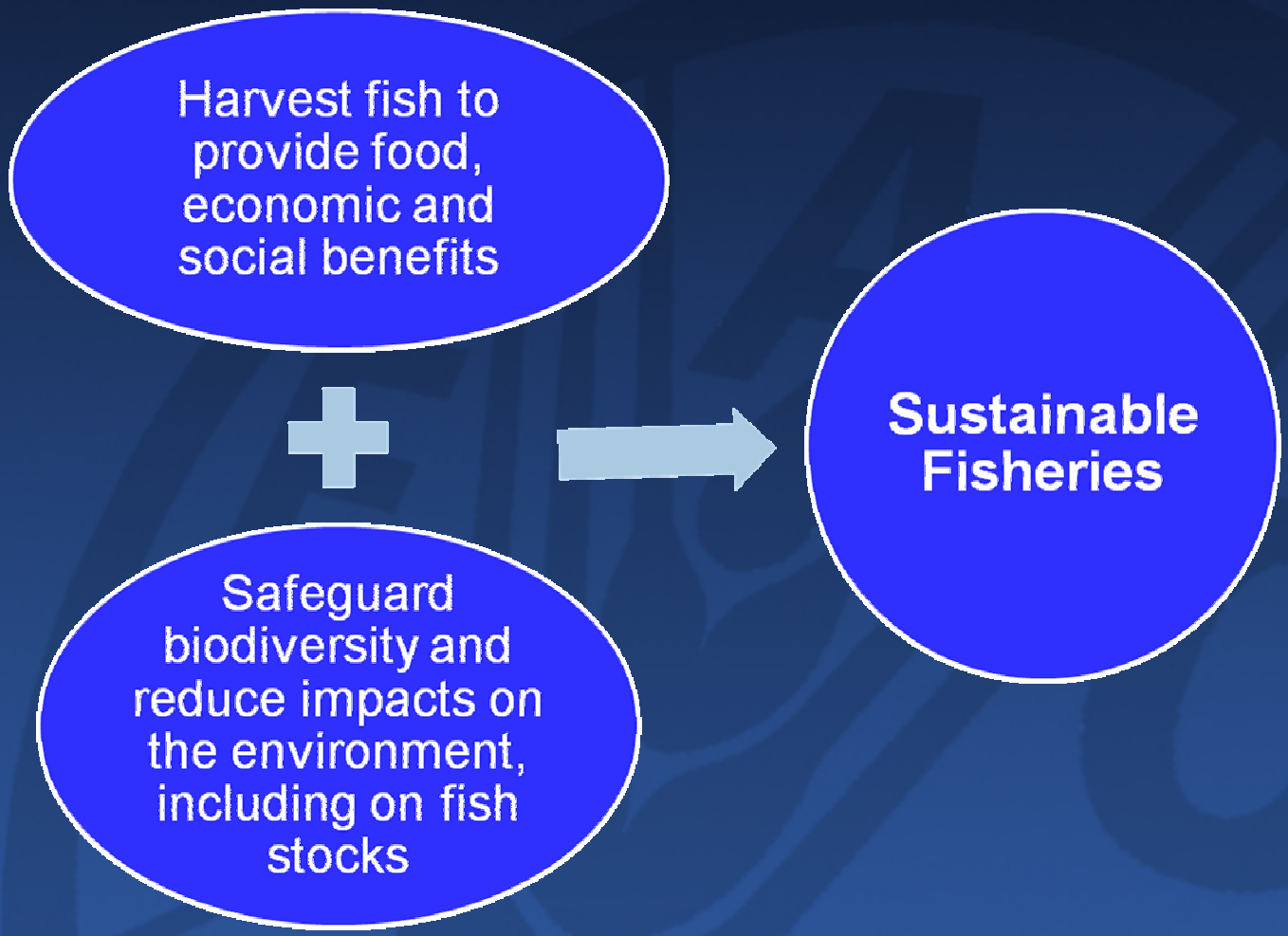
How can we…


Harvest fish to provide food, economic and social benefits
Safeguard biodiversity and reduce impacts on the environment, including on fish stocks
Sustainable Fisheries

Background

Request: by COFI to assist States and RFMO/As in sustainably managing deep-sea fisheries and in implementing the UN General Assembly Resolution 61/105, concerning responsible fisheries in the marine ecosystem

Result: the *FAO International Guidelines for the Management of Deep-sea Fisheries in the High Seas* adopted in August 2008 by 69 States, the EC and the Faroe Islands

Process: multi-stakeholder (FAO Members, industry, NGOs/IGOs, scientists and researchers)

Process

Expert Consultation and workshops

- 2006/2007 – Expert Consultations and Workshops
  - Data and Knowledge
  - Vulnerable Ecosystems and Destructive Fishing in Deep-sea Fisheries
  - A trawl industry perspective on the International Guidelines

Technical Consultation and adoption

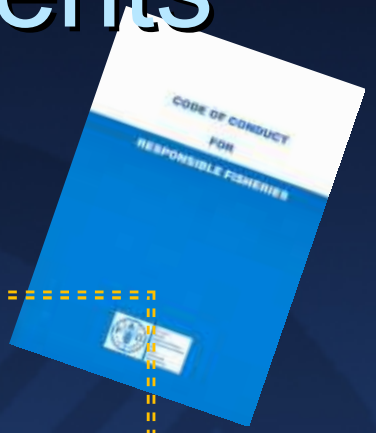
- 2008 – Two Technical Consultations

Next steps...

- Review of Implementation in Busan (2010)
- Continued Implementation of the Guidelines

Non-binding FAO Instruments

CODE OF CONDUCT FOR RESPONSIBLE FISHERIES



International Plans of Action (IPOA)

International Guidelines

Technical Guidelines

Seabirds | **Sharks** | **Capacity** | **IUU Fishing**

UNFSA, CBD, PSMA, etc

FAO Deep-sea Guidelines:

Scope

Guidelines designed for fisheries that occur beyond national jurisdiction, and where:

- catch includes species that can only sustain low exploitation rates, and
- fishing gear likely to contact the sea floor

Objective of the guidelines:

- to provide tools, and guidance on their application, and to facilitate and encourage the efforts of States and RFMO/As towards;
  - sustainable use of marine living resources,
  - prevention of significant adverse impacts on deep-sea VMEs,
  - protection of marine biodiversity that these ecosystems contain.

Section of Guidelines

- Description of Key Concepts
  - Species
  - VMEs
  - SAIs
- Governance and Management
  - General considerations
  - Governance framework
- Management and Conservation Steps
  - Data, reporting and assessment
  - Identifying VMEs and assessing SAIs
  - Enforcement and comp.
  - Management and conservation tools
  - Assessment and review of measures
- Special requirements of developing countries
- Additional considerations

Description of Key Concepts

Vulnerability ~ related to likelihood that a population, community, or habitat will experience substantial alteration from short-term or chronic disturbance / recovery / time-frame

The vulnerability of populations, communities and habitats must be **assessed relative to specific threats**

The risks to a marine ecosystem are determined by:
1.its vulnerability,
2.the probability of a threat occurring, and
3. the mitigation means applied to the threat.

- **Vulnerable marine ecosystems**

Description of Key Concepts

- **Significant Adverse Impacts**

SAIs compromise ecosystem integrity in a manner that: (i) impairs the ability of affected populations to replace themselves; (ii) degrades long-term natural productivity of habitats; or (iii) causes, on more than a temporary basis, significant loss of species richness, habitat or community types

The scale and significance should be consider:
1.the intensity or severity of the impact;
2.the spatial extent of the impact;
3.the sensitivity/vulnerability of the ecosystem;
4.the ability of an ecosystem to recover and rate of recovery;
5.extent to which ecosystem functions may be altered, and
6.timing and duration of the impact relative to the period in which a species needs the habitat during life history stages.

Duration and frequency at which impact is repeated

Governance and Management

States and RFMO/As should manage DSFs, in a manner consistent with the Code and the UN Fish Stocks Agreement) and to:

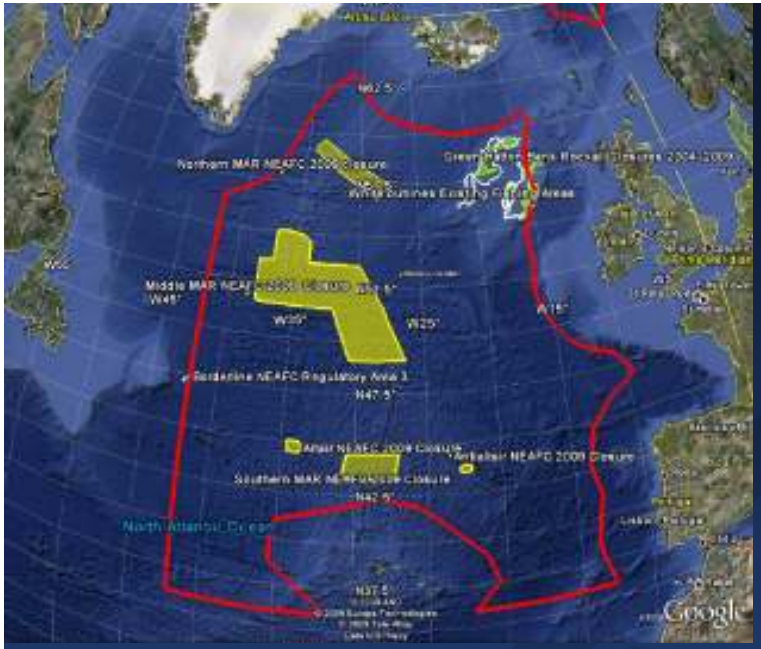
- adopt measures to ensure the conservation of **target and non-target species** (including reference points, measures for prevention of SAIs & the protection of the marine biodiversity)
- identify areas or features where VMEs are known or likely to occur, and **the location of fisheries in relation to these areas and features**;
- develop **data collection and research programmes** to assess the impact of fishing
- base the management of DSFs on the best scientific and technical information available **taking into account fishers knowledge**
- implement and enforce conservation and management measures through **effective MCS**
- take appropriate measures to address the problems of **overcapacity, overfishing and IUU fishing,**
- ensure **transparency and public dissemination** of information, in accordance with appropriate standards for confidentiality , as well as enable participation of relevant stakeholders.

Management and Conservation Steps

Data, reporting and assessment

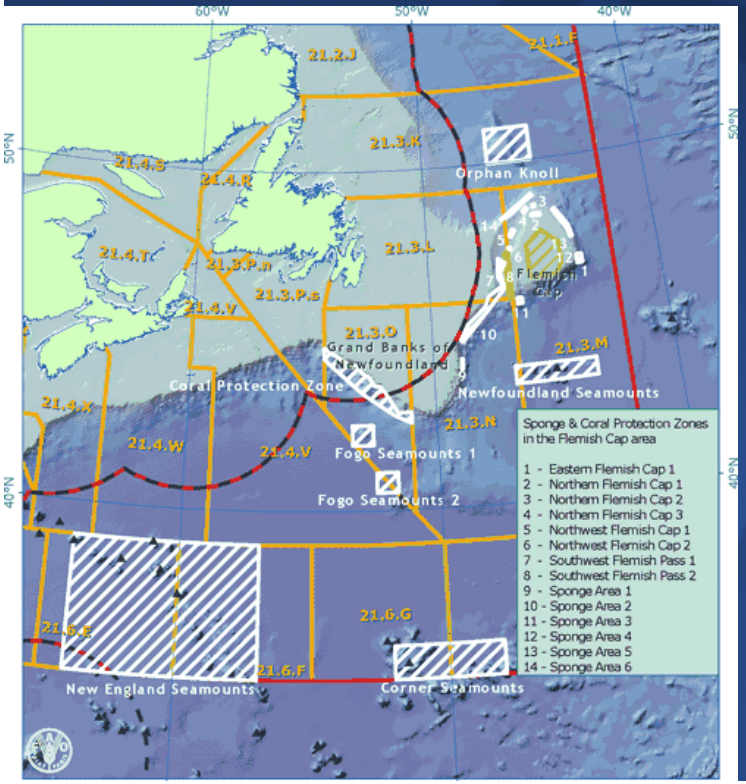
- States and RFMO/As should cooperate in intl. efforts to collate biogeographic information, including oceanographic parameters, and make use of this information
- States and RFMO/As should obtain and apply information for adaptive management to prevent SAIs on VMEs, including indicators and benchmarks
- States and RFMO/As should ensure that data reporting and analysis is as transparent as possible
- States and RFMO/As should collaborate in assessing deep-sea stocks throughout their range of distribution.

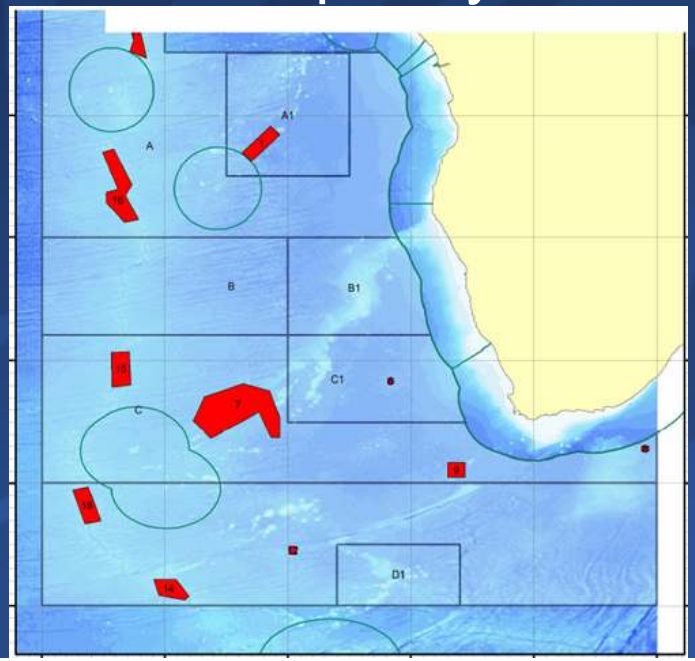
Example of VMEs



VME Criteria

1. Uniqueness or rarity
2. Functional significance of the habitat
3. Fragility
4. Life-history traits of component species that make recovery difficult
5. Structural complexity





Assessing SAIs

Assessments to be conducted to establish if deep-sea fishing activities are likely to produce significant adverse impacts in a given area.

- type(s) of fishing conducted or contemplated, [vessels and gear types, fishing areas, target and potential bycatch species, fishing effort levels and duration of fishing (harvesting plan)];
- best available scientific and technical information on the current state of fishery resources and baseline information on the ecosystems, habitats and communities in the fishing area
- identification, description and mapping of VMEs known or likely to occur in the fishing area;
- data and methods used to identify, describe and assess the impacts of the activity, the identification of gaps in knowledge, and an evaluation of uncertainties
- identification, description and evaluation of the occurrence, scale and duration of likely impacts
- risk assessment of likely impacts by the fishing operations to determine which impacts are likely to be significant adverse impacts
- proposed mitigation and management measures

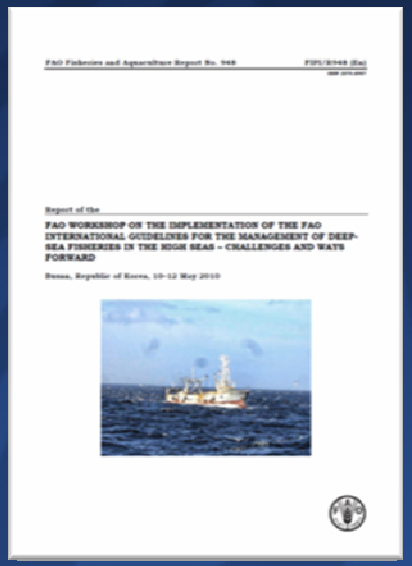
Fishery Management Plans

- …develop and adopt fishery management plans for specific DSFs, including a set of measures with defined longterm/ multi-annual management objectives
- …develop and adopt their fishery management plans for DSFs using a transparent process.
- …encourage dialogue and collaboration with responsible DSF operators
  - recognising the value of industry information & experience in resource assessment and fisheries management, identification of VMEs, responsible fishing techniques, gear development, and implementation methods to avoid or mitigate significant adverse impacts on VMEs.

Issues in implementation

Busan workshop recommendations (May 2010)

- Compile, develop guidance, make available information on:
  - impacts and risk assessment;
  - encounter protocols and related mitigation measures, and the move-on rule; and
  - use of the VME criteria, including triggers for what degree of presence constitutes a "significant concentration"



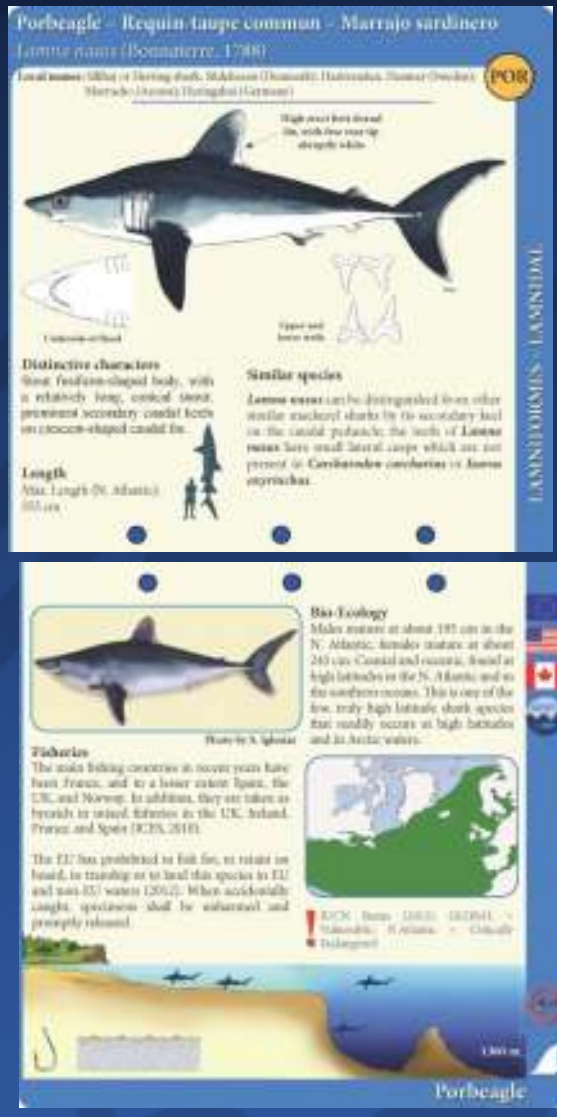
- Evaluation of the implementation of the Guidelines and convening of further workshops at regular intervals

Issues in implementation (cont.)

- Step-wise approach to implementation, prioritize the main provisions
- Procedures to build confidence between scientists and industry for improved collaboration including protocols for collaboration
- Collection of historical data
- Sharing experiences and best practices between RFMOs & RFMO scientists
- Build awareness among deep-sea skippers, operators and crew

Ongoing work to address challenges

- Deep-sea ABNJ project
  - Partnering with the RFMOs, states and industry to better implement an Ecosystem Approach to Fisheries
- VME issues
  - Database to improve accessibility of information for managers and others
  - Species identification guides and data collection manuals
- Develop best practices
  - EIAs, ‘move on’ rule, operational use of VME criteria, collaboration between scientists/managers/industry

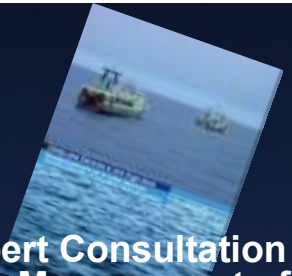


Deep-sea ABNJ fisheries

2006	2013
Bottom fishing in general area	Existing and new fishing areas
Mix of qualitative and quantitative stock advice	More quantitative stock advice
Limited benthic protection	Closures to protect VMEs, Encounter protocols, Move-on rules
Fisheries can start rapidly	Strict exploratory protocols for new fisheries
Limited understanding of DSF	Better understanding of DSF
No impact assessments	Impact assessments in new fishing areas
Few regulations on bycatch species	More attention to assessment and regulation of bycatch species
RFMO's mandate limited to fish stocks	RFMO's mandate expanded to EAF

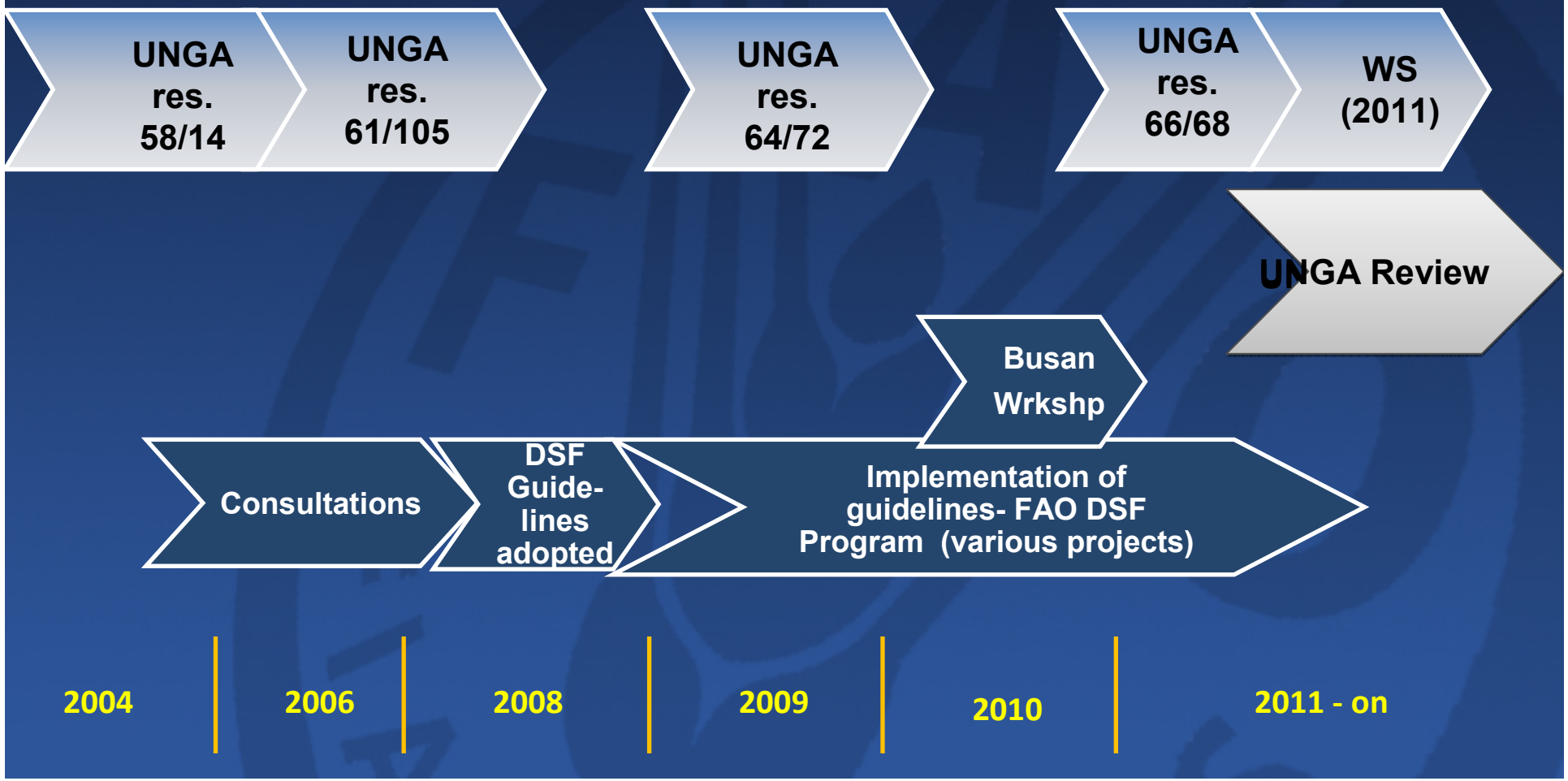
Thank you

Publications



- Report on bottom trawling in the southern Indian Ocean for orange roughy (*Hoplostethus atlanticus*). (*In press*)
- Report on the workshop on Fishing-vessel Execution of Acoustic Surveys for Deep-sea Species: Main Issues and Way Forward. FAO, Rome, 9 to 11 December 2009. *(In press)*
- Report of the FAO Workshop on the Implementation of the International Guidelines for the Management of Deep-sea Fisheries in the High Seas - Challenges and Ways Forward, Busan, Republic of Korea, 10-12 May 2010.
- Report of the Workshop on Deep-sea Species Identification ,Rome, 2–4 December 2009.
- Worldwide review of bottom fisheries in the high seas. 2009.
- International guidelines for the management of deep-sea fisheries in the high seas. 2009.
- Report of the Technical Consultation on International Guidelines for the Management of Deep-sea Fisheries in the High Seas. 2008.
- Deep-sea fisheries in the high seas: a trawl industry perspective on the International Guidelines for the Management of Deep-sea Fisheries in the High Seas. 2008.
- Report of the Workshop on Data and Knowledge in Deep-sea Fisheries in the High Seas. 2008.
- Report of the Expert Consultation on International Guidelines for the Management of Deep-sea Fisheries in the High Seas. Bangkok, 11–14 September 2007.
- Report of the FAO Workshop on Vulnerable Ecosystems and Destructive Fishing in Deep-sea Fisheries. Rome, 26–29 June 2007.
- Report and documentation of the Expert Consultation on Deep-sea Fisheries in the High Seas. Bangkok, Thailand, 21–23 November 2006.
- Management of demersal fisheries resources of the Southern Indian Ocean. 2006.
- Report on DEEP SEA 2003, an International Conference on the Governance and Management of Deep-Sea Fisheries.
- Summary and review of Soviet and Ukrainian scientific and commercial fishing operations on the deepwater ridges of the Southern Indian Ocean. 2003.
- Report of the second Ad Hoc Meeting on Management of Deepwater Fisheries Resources of the Southern Indian Ocean. 2002.
- Report of the Ad Hoc Meeting on Management of Deepwater Fisheries Resources of the Southern Indian Ocean. 2001.

Background – time frames



Description of Key Concepts

- **Characteristics of species**

SAIs compromise ecosystem integrity in a manner that: (i) impairs the ability of affected populations to replace themselves; (ii) degrades long-term natural productivity of habitats; or (iii) causes, on more than a temporary basis, significant loss of species richness, habitat or community types

- **Vulnerable Marine Ecosystems**

- **Significant Adverse Impacts**

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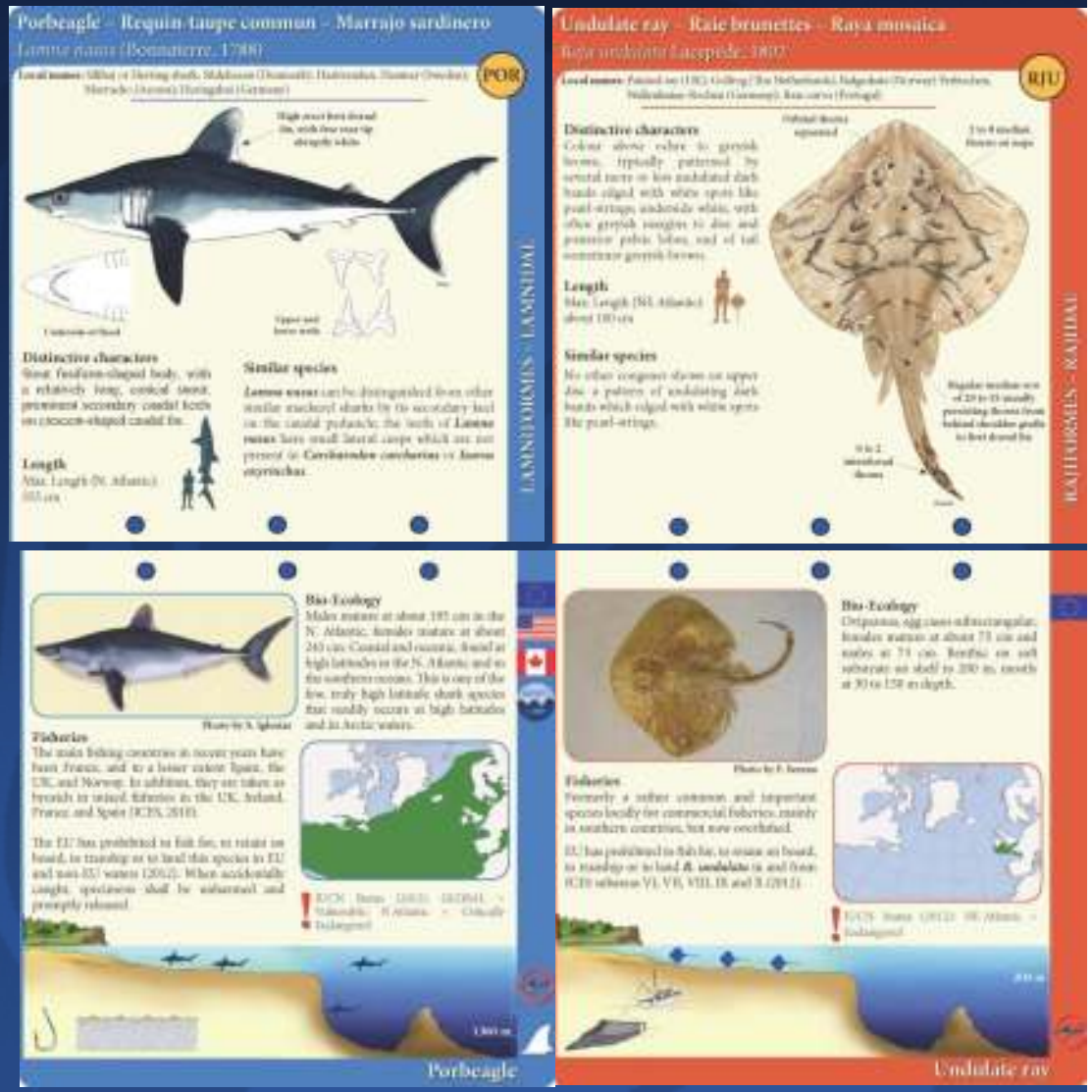
Duration and frequency at which impact is repeated

North Atlantic Sharks, Batoids and Chimaeras Pocket Guides



Enforcement and Compliance

- States, both individually and cooperatively through RFMO/As, should work to implement effective MCS frameworks
- National or international cooperative observer programmes should be implemented
- States should maintain and periodically update vessel registers or records to document changes in fleet characteristics and submit vessel register or record data on at least an annual basis to RFMO/As
- States and RFMO/As should cooperate to prevent, deter and eliminate IUU fishing in DSFs, and to take action related to IUU vessels and their listing.

Mechanisms to include Industry into the RFMO/A process

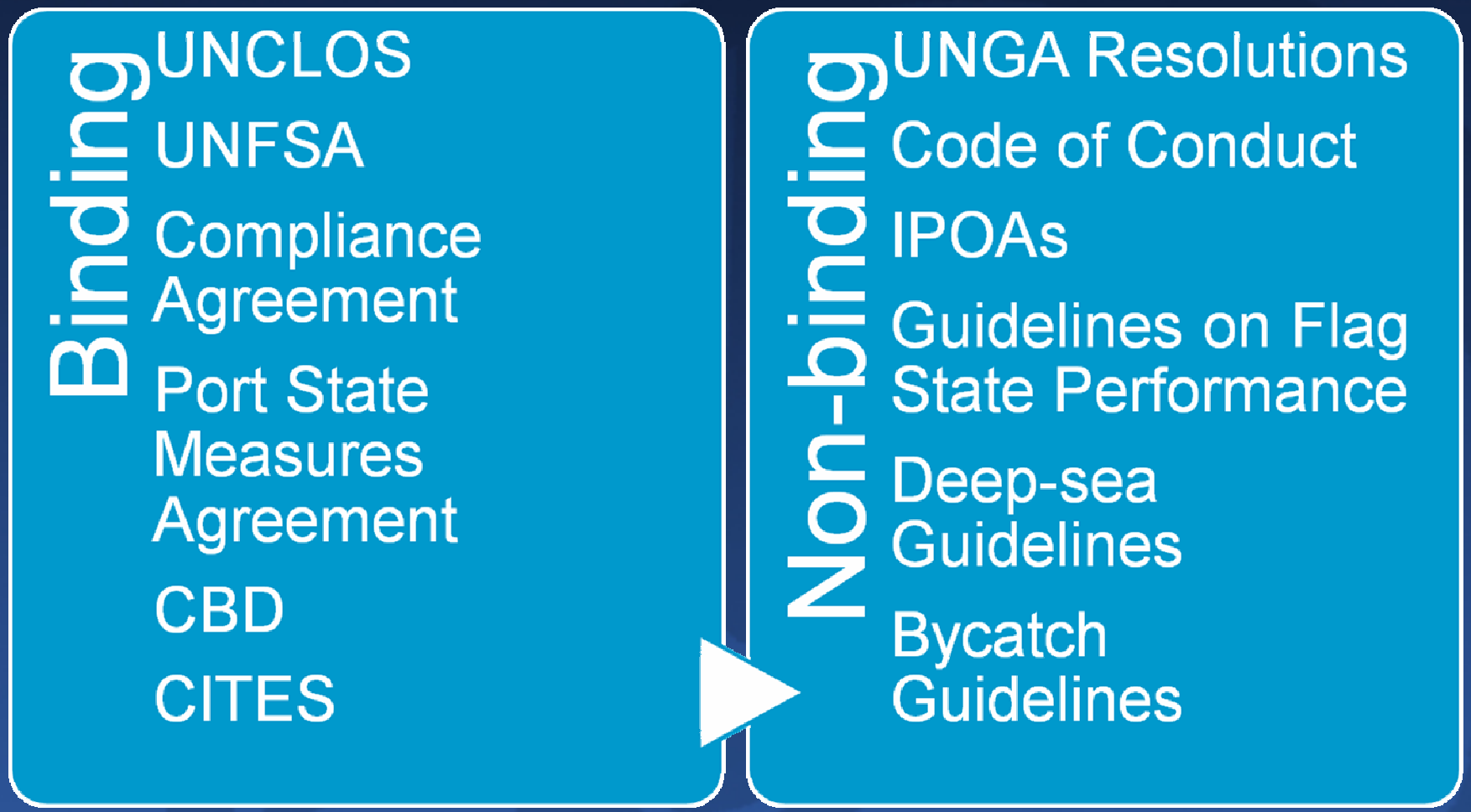
RFMO/As operate at the Contracting Party level.

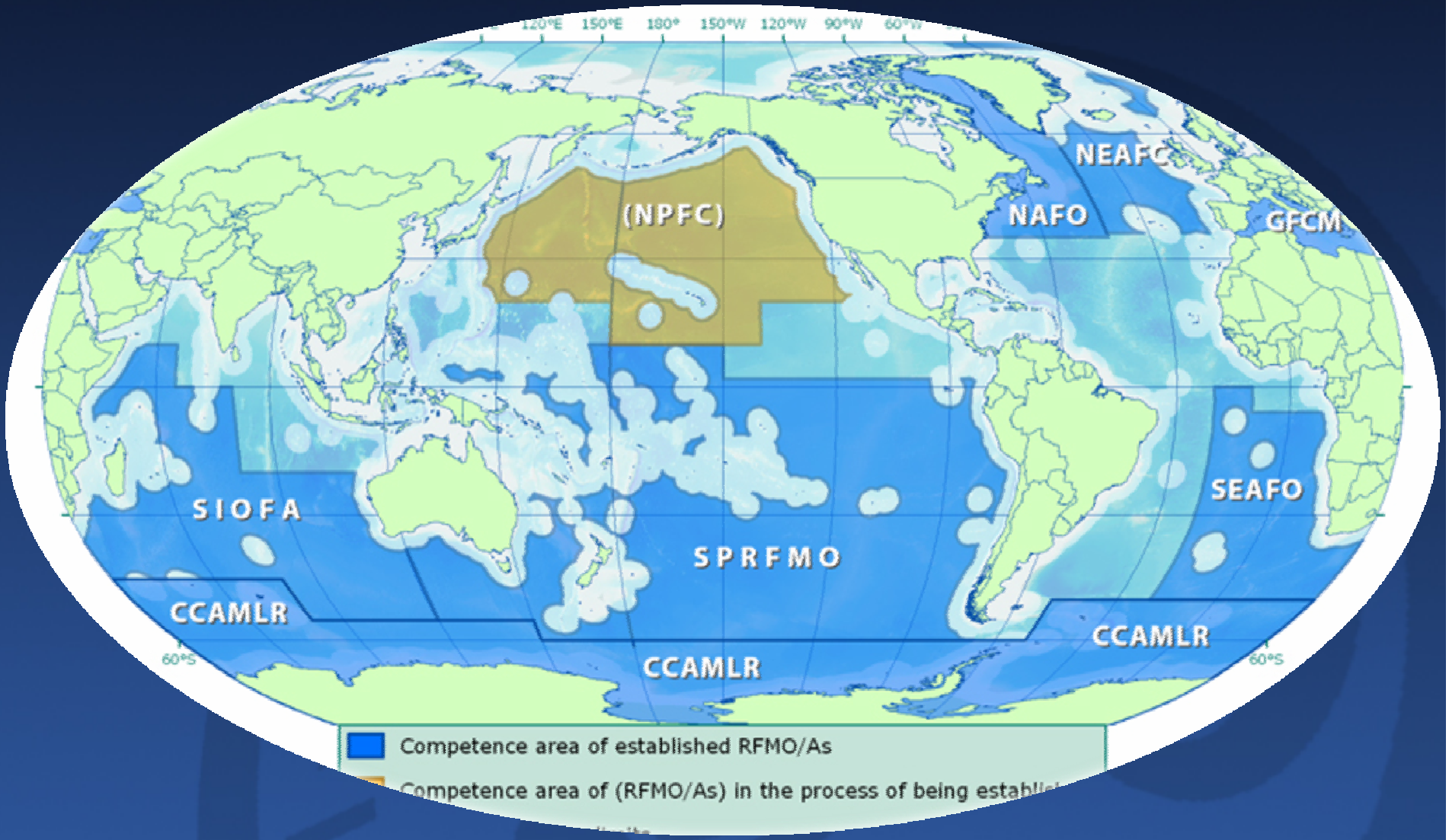
At working Groups – Typically individual experts can be invited in their own right. Usually would not represent their organisation.

At Scientific Council Meetings – Organisations can be invited as observers and would often be able to contribute to the meeting upon invitation from the Chair. Unlikely to be able to attend as an expert scientist unless actively involved in research.

At Commission Meetings – As Observers or as part of CP delegations. Can assist delegations during their meetings, but not able to speak during plenary sessions.

Major relevant instruments and processes

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Final sections

Assessments and Reviews

- transparent system for regular monitoring of the implementation of fishery management plans
- regularly review the scientific information on deep-sea fish stocks, known or likely location of VMEs & the impacts of DSFs on VMEs
- regular and independent reviews of the data and impact assessments

Others

- …RFMO/As should collaborate to address common issues such as the development of compatible standards, tools and information
- … provide assistance and support to develop a global database on VMEs in ABNJ