



Improving environmental sustainability of deep sea fisheries with emphasis on the conservation of Vulnerable Marine Ecosystems (VMEs)

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Elements of the Contract

Eight distinct tasks

- Expand the comparative analysis of previous review
- Review of 2008 DSF FAO Guidelines and compiling best practices
- By-catch mitigation: critical analysis and recommendations
- Criteria for establishment of footprints and historical fishing; framework for exploratory fisheries and scientific surveys
- Critical review of the effectiveness of existing management tools for VMEs conservation and identification of best practices
- Identify gaps in research and priority scientific topics (by region)
- Identify areas, topics and policy options for which there could be scope and added value in promoting consistency among relevant organizations (RFMOs) as well as for any possible revision of Council Regulation (EC) No 734/2008
- Support the evaluation of Council Regulation (EC) No 734/2008



Task 1 – Expand the comparative analysis of previous study

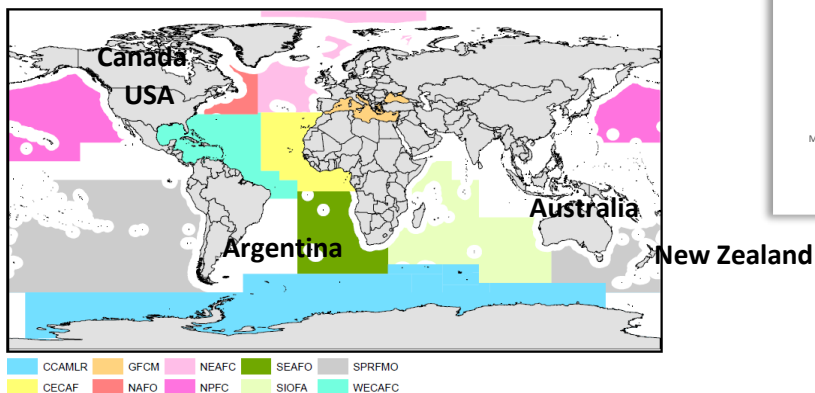
Objectives

Review of the work developed in five selected countries, in support of the VME protection and identification of mitigation measures from the impacts of bottom fishing (and activities other than fishing if relevant).

Methodology

Desk-based research, developed in three consecutive steps:

1. Selection of five relevant countries



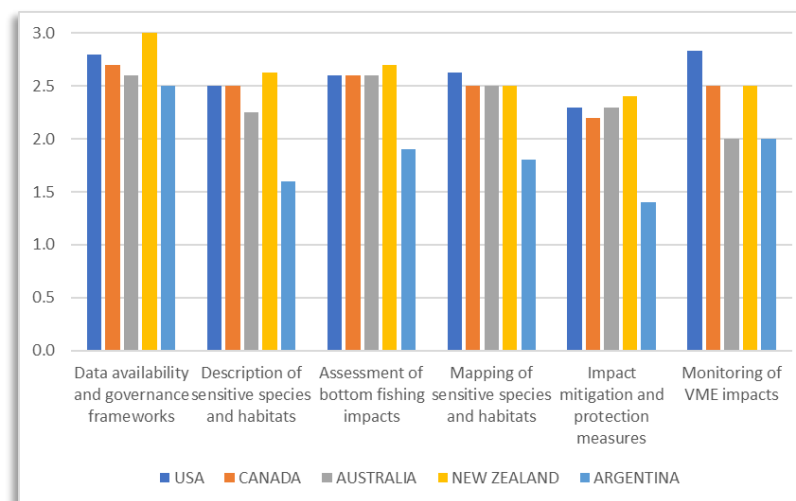
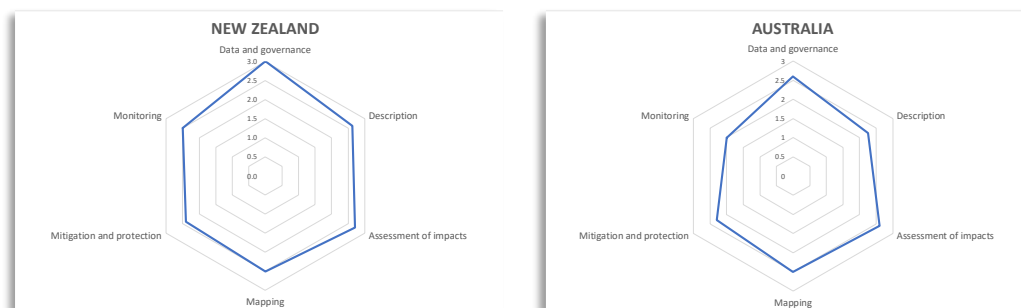
2. Data and information reviews: Individual Country Reports produced

- Guided by a number of questions on six key topics

3. Comparative analysis

Assessment key topics

- Data availability and governance frameworks.
- Description of sensitive species and habitats.
- Assessment of bottom fishing impacts.
- Mapping of sensitive species and habitats.
- Impact mitigation and protection measures.
- Monitoring of impacts to VMEs.



Task 1 – Expand the comparative analysis of previous study

Conclusions

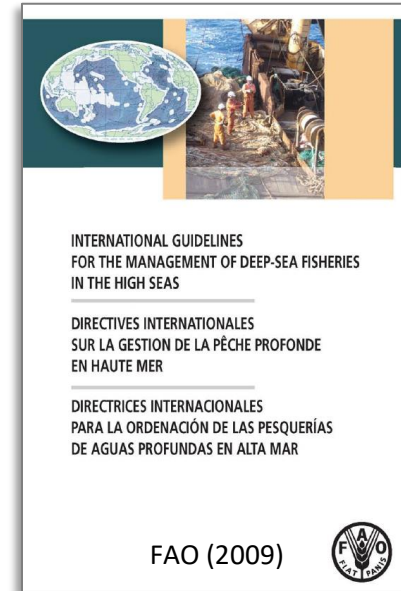
Results rely only on publicly available information and therefore, interpretation must be approached very carefully.

- All countries reviewed have implemented some form of governance and data collection frameworks for DSF/VMEs, and most have described sensitive species and habitats in some way.
- The assessment of bottom fishing impacts has in general a good degree of implementation for almost all countries, addressing in some cases the issue of the impacts of activities other than fishing.
- There is room for improvement in the impact mitigation and protection measures, as some documented vulnerable areas still remain unprotected, but in general, progress is being made in this area.
- Most countries have implemented some kind of monitoring of VME impacts, or such implementation is still partially in progress, or is planned.
- Finally, the differences between countries and the gaps identified are explained either by the different development of the DSF/VME frameworks, or by the availability/accessibility of information, or the degree of detail of the available data.

Task 2 – Review of 2008 DSF FAO Guidelines

Objectives

- Critical review of FAO 2008 DSF guidelines to:
 - identify the possible implementation issues arising from the interpretation of the Guidelines;
 - identify gaps in scientific knowledge affecting the operationalization of the Guidelines and
 - propose mitigation measures for those issues/gaps identified
- Compile and develop best practices and recommendations on key aspects related to the conservation of VMEs and management of DSF in the high seas.



Methodology

Desk-based research, involving a revision of available scientific literature, grey literature reports (e.g., Meeting reports from RFMOs), and databases (e.g., FAO VME database) related to the implementation of the Guidelines.

Task 2 – Review of 2008 DSF FAO Guidelines

Conclusions

- Many aspects related to the protection of VMEs need to be improved: i) Creating operational definitions of key concepts (VME and VME geomorphological elements) and ii) determining acceptable thresholds of protection level for VMEs, (not realistic to be able to protect 100% of VMEs)
- Lack of biological and distribution information of VME indicator taxa is a major issue. Can be overcome by carrying out further research of the species that form VMEs.
- Identifying VMEs is difficult due to lack of direct observations and data (only available for a small portion of the seabed). RFMOs must rely on indirect approaches (such as species distribution models) to identify VMEs, with a higher associated uncertainty.



Task 2 – Review of 2008 DSF FAO Guidelines

Conclusions

- A precautionary approach must be applied to protect VMEs despite uncertainties.
- Most RFMOs with competence over bottom fisheries on the high seas have adopted regulations to prevent SAIs on VMEs through area-based management approaches (including areas closed to bottom fishing).
- Understanding VME functioning and climate change impact is essential for long-term viability of the protected VMEs. Understanding how climate change can affect the distribution of deep-sea species is critically important for developing appropriate area closures (or adapting the existing ones) and other measures.
- Restoration of damaged VMEs can be achieved through long-term protection of heavily trawled areas.



Task 3 – By-catch mitigation

Objectives

Overview and critical analysis of existing bycatch mitigation and management approaches in DSF and development of recommendations for improving bycatch management in DSF: **CCAMLR, GFCM, NAFO, NEAFC, SEAFO, SIOFA, SPRFMO** and **FAO Area 41***

Methodology

- Critical analysis of the **current practices** and **measures** implemented **to reduce and manage bycatch** in DSF.
- Desk-based research involving a revision of readily available scientific literature, reports and grey literature related to by-catch mitigation and management approaches in DSF.
- Study divided in **3 sections**:

Effectiveness of bycatch management

Areas with gaps/ needed improvements

Recommendations for bycatch avoidance and management

-Main bycatch groups: **Sharks and rays, Marine mammals, Seabirds** and **Benthic organisms related to VMEs.**

-The **Score** was calculated for all RFMOs based on 6 criteria (specific conservation and management measures, bycatch limits established/VME thresholds, mitigation measures in place, observer programmes, ongoing research)



Results, achievements

Overview of measures to mitigate / avoid bycatch

Sharks and rays

- Bycatch limits:
 - ✓ for sharks, rays and skates (CCAMLR),
 - ✓ for only a subgroup of elasmobranchs (NAFO)
 - ✓ for single species (NEAFC),
 - ✓ in exploratory fisheries (SPRFMO)
- Move-on rule (CCAMLR, SPRFMO)
- Live release (CCAMLR, NAFO, NEAFC)

Marine mammals

- Exclusion devices (CCAMLR)
- Live release
- Prohibition of offal and discards during net shooting and hauling (CCAMLR)
- Mitigation of depredation:
 - ✓ Minimization of net exposure, avoidance of net maintenance in the water (CCAMLR)
 - ✓ Avoidance of hauling longlines in the presence of cetaceans (SIOFA)

Benthic organisms

- Area closures (All RFMOs)
- Bycatch thresholds and move-on rule (All RFMOs except GFCM)

Seabirds

- Bycatch limits (CCAMLR)
- Bycatch thresholds to revert to night setting (CCAMLR, SIOFA)
- Live release (CCAMLR, SIOFA, SPRFMO)
- Prohibition of net monitoring cables (trawl gears) (CCAMLR,
- Use of scaring lines and bird exclusion devices (GFCM, SIOFA, SPRFMO)
- Minimization of illumination and night setting (CCAMLR, GFCM, SIOFA, SPRFMO)
- Prohibition of offal and discards during net shooting and hauling (CCAMLR, GFCM, SPRFMO)
- Adoption of gear configurations that minimize encounters (CCAMLR, SIOFA, SPRFMO)
- (Increasing weighting or decreasing buoyancy, placing colored streamers or other devices)
- Mitigation of depredation

General measures

- Limit fishing effort
- Data collection: Observer Programme
- Gear prohibition:
- Gillnet ban (CCAMLR, SEAFO, SPRFMO, NEAFC)
- Depth limitations
- e.g., Bottom trawling beyond 1000 m (GFCM) or beyond 1500m (NPFC)
- Research to fill knowledge gaps

Conclusions

- The study allowed an understanding the current state of protection of bycaught species in different RFMOs.
- RFMOs are advancing at different paces in bycatch mitigation efforts.
- Lack of data is a major issue hindering bycatch mitigation efforts, especially for elasmobranchs, marine mammals, and seabirds.
- The lack of data on bycatch occurrence and level hinders the ability to manage and apply rules on fishing vessel activities.
- The lack of statistically robust and harmonized sampling designs limits the value of available data and prevents comparisons between fishing fleets and areas.
- Monitoring programs and frameworks that can provide sound bycatch data collection are required to obtain the necessary information to manage adequately the bycatch of vulnerable species.
- Once data becomes available, better measures can be designed to protect bycaught species in DSF.

Task 4 – Establishment of footprints; Frameworks for exploratory fisheries and surveys

Objectives

Review of the existing criteria/methods for characterisation of fishing footprint in DSF in relevant RFMOs, as well as in FAO Area 41. Furthermore, a framework for exploratory fisheries and scientific surveys was developed.

Methodology

Desk-based research that compiled relevant information to address the following questions:

- Criteria and methodologies for fishing footprints
- Approaches for “*exploratory fisheries*” and options
- Framework for research activities not related to fisheries

Task 4 – Establishment of footprints; Frameworks for exploratory fisheries and surveys

Conclusions

- **Fishing footprint** is not specifically defined in FAO Guidelines, however, in most RFMOs the terms “*fishing footprint*”, “*bottom fishing footprint*”, “*existing bottom fishing areas*”, “*existing deep-sea bottom fishing areas*” are equivalent and generally refer to the same concept.
- Findings from previous tasks show that there is a wide variety of methods being used in the different RFMOs to define the fishing footprints.
- When studying the fishery footprint, several key issues must be taken into account:
 - (i) Data (e.g. needs, compilation, availability and quality);
 - (ii) International cooperation (e.g. research, management, sharing of information);
 - (iii) Potential of new methodologies, complementary data sources and approaches (e.g. methods to improve footprint resolution, AIS); and
 - (iv) financing needs.
- Most of RFMOs adopted regulations on bottom fishing, incorporating relevant elements from the UNGA resolution 61/105, and the FAO DSF Guidelines, including the adoption of exploratory fishing protocols.
- RFMOs generally follow similar specific procedures and preliminary assessments and most have implemented specific conservation and management measures to prevent SAIs on VMEs including monitoring of exploratory fisheries (through observers).

Task 5 – Effectiveness of existing management tools for VMEs

Objectives

Provide a critical review of the effectiveness of existing management tools, including the move-on rule, and measures to assess impacts and/or combinations thereof (including spatial management tools) for the conservation of VMEs and identify best practices in RFMOs.

Methodology

Desk-based research, with two Sub-tasks:

- A review of current management approaches for fishing vessels carrying out fishing activities with bottom gears in the high seas (e.g. move on rules, area closures)
- Assess the appropriateness of existing approaches, and identify alternatives based on a review of best practice. Intended to serve as a baseline for other management bodies, help when conducting future reviews, and for the possible updating of Regulation 734/2008.

Task 5 – Effectiveness of existing management tools for VMEs

Results, achievements

Main management measures regarding SAIs and conservation of VMEs

RFMOs	Closed Areas	Encounter protocols (threshold and distance moved)	Depth limitations	Gear restrictions/modifications	Seasonal closures	Observers
NAFO	26 (2,707,895)	60kg live coral, 300kg sponge, 7kg sea pens - 2nm	None	None	None	100%. VME data collected.
NEAFC	22 (375,606 ¹)	30kg live coral, 400kg live sponge – 2nm, 10 hooks / 1,000 – 2nm	None	No gillnets >200m	None	100% for exploratory fisheries. VME data collected.
SEAFO	12 (16%)	60kg live coral, 600kg live sponges – 2nm 10 units of VME taxa – 2nm	None, but only 2% - 3% < 2000m	None	None	100%. VME data collected.
GFCM	3 (15,659)	N/A	>1000m, <50m ⁴	Dredges and trawls >1000m, trawls <50m ⁴	None	~25%, varies by contacting party
NPFC	2 (546 (2.1%))	50kg live coral – 2nm	>1,500m	Distance between gillnet and seafloor >70cm	Closures introduced for fish species but can also reduce SAIs on VMEs	100% for vessels bottom fishing. VME data collected.
SPRFMO	N/A ²	60kg stony coral, 5kg black coral, 15kg sea fans, 35kg anemones, 10kg hexacorals – 1nm	None	Type of gear limited to management area	Only for Protected, Endangered and Threatened (PET) species.	100% bottom trawl, 10% longline. VME data collected.
SIOFA	12 (504,922 (3.2%))	60kg live coral, 300kg live sponges – 1nm	None	None	None	50%. VME data collected.
CCAMLR	86 ³ (1,647,092)	10 units of VME taxa – 1nm	<550m ⁵	Ban on bottom trawling and gillnets. Use of integrated weights on longlines.	Yes, but for seabirds.	100%. VME data collected on at least 30% of line segments

Task 5 – Effectiveness of existing management tools for VMEs (cont.)

Conclusions

- In the absence of information, originally a precautionary approach had been used and underwater features such as seamounts where VMEs were likely to occur were closed to fishing. There is no actual agreement, however, on how to define and delimit VMEs. Today, some RFMOs are still applying the precautionary approach. For measures to be effective, the distribution and connectivity of VMEs must be better understood.
- Identifying the presence, distribution, and abundance of an indicator species defines the state of that species at a moment (or period) in time. It does not define the composition of an associated community, the suite of species interactions that define and sustain the community, or the flows of materials and energy that define the bounds of the ecosystem. Details about species interactions (including population connectivity, energy flow that mediates growth and reproduction, and interactions mediated by the local oceanographic regime) that will be needed to understand and predict the extent to which fishing and other human activities produce significant adverse impacts.
- A key issue is that move-on rules were not originally intended as stand-alone measures to protect VMEs from SAI. They should only be considered as temporary measures until spatial protection measures are implemented.
- Predictive modelling can be used to help include climate change aspects into area-based management decisions such as those aimed to preserve VMEs, However, VMEs are unlikely to “move” whereas the fish stocks and fisheries can.

Task 6 – Identify gaps in research and priority scientific topics

Objectives

- To identify gaps in research and priority scientific topics to be addressed by region (RFMOs and FAO Area 41) with regards to VME management.
- Design a framework for future RFMO observer schemes to identify, record and report on VME associated taxa and hence the potential for VMEs.

Methodology

- It used the findings from previous tasks to identify and summarize gaps in science and subsequently needs for research (protection and conservation of VMEs and the sustainability of DSF regarding their potential impacts on marine ecosystems).
- Analyses was undertaken to explore whether the gaps are a result of lack of the regulatory regime or poor implementation of existing data collection rules.
- Review and identified data needs and gaps in the existing data collection frameworks within the scope of Council Regulation (EC) No 734/2008. These were based upon the previous study (SC08). There was a scarcity of information for the South West Atlantic region (FAO Area 41), much of the information was taken from the the ABNJ Deep Sea Project. The EU Data Collection Framework (DCF) was reviewed and data gaps were.
- Finally, a framework for RFMO observer scheme was designed for those RFMOs where no such programme yet exists, taking examples from schemes already in place.

Task 6 – Identify gaps in research and priority scientific topics

Results

RFMO Priorities

Main areas of research:

- *Data collection to refine threshold levels*
- *Establishing the effectiveness of encounter rules*
- *Increased research into spatial management*

Priorities of the working groups

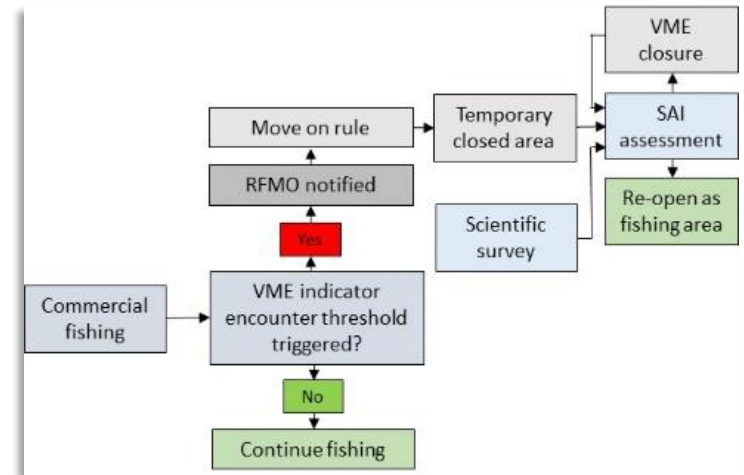
FAO Area 41

Developing a framework for observer programmes for RFMOs

- *Levels of observer coverage*
- *Data collected on VME taxa encounters and data collection protocols in place*
- *How these data are submitted and used*
- *Observer VME ID guides*
- *Use of electronic monitoring*

Data Requirements related to Council Regulation (EC) No 734/2008

- *Information that needs to be submitted by EU vessels planning to fish on the high seas, how the information is evaluated, encounter rules and VMS and observer requirements.*



Encounter rule process

Task 6 – Identify gaps in research and priority scientific topics (cont.) (Annex 10)

Article	Requirement under Regulation (EC) 734/2008	Comments
<p>Article 4 Issuance of Permit</p>	<p>Detailed fishing plan</p> <ul style="list-style-type: none"> • Location • Target species • Type of gear and depth • Bathymetric profile of area to be fished. 	<ul style="list-style-type: none"> • EU vessels planning must submit a detailed fishing plan, equivalent to submitting an impact assessment for new and exploratory fisheries in most RFMOs. • The information required is common to most RFMOs with the exception of the bathymetric profile. • Additional data collected would include proposed dates, fishing effort, proposed modifications to fishing gear or methods to reduce impacts to VMEs, biology and ecology of target and by-catch species and overall potential impact footprint of the proposed fishing operations. • Some RFMOs have developed a pro forma to ensure all the information is captured and can be assessed.
	<p>Review of plan</p> <ul style="list-style-type: none"> • Use of best scientific data on VMEs in proposed fishing area. • Assessment of SAls • Assessment of Risk • Precautionary Principal • Amendments to plan 	<ul style="list-style-type: none"> • Applications to fish in new or exploratory fisheries are reviewed by the scientific body responsible within each organisation on an annual basis, however no time scale included, i.e. when plan is submitted. • The procedure followed is basically as described here, no additional changes suggested to the review process itself.
<p>Article 5 Validity</p>	<ul style="list-style-type: none"> • Notification of change of plan. • Assessment of change. 	<ul style="list-style-type: none"> • What constitutes a change of plan should be specified .
<p>Article 6 Unassessed Areas</p>	<ul style="list-style-type: none"> • Assessment shows no risk to VME 	<ul style="list-style-type: none"> • No change suggested.
<p>Article 7 Encounters with VME</p>	<ul style="list-style-type: none"> • Action taken by vessel <ul style="list-style-type: none"> ○ Cease fishing ○ Move at least 5nm • Assess alternative site • Report encounter. 	<ul style="list-style-type: none"> • No definition of what constitutes a VME or the threshold levels that will trigger the required action. This needs to be defined by gear type and VME taxa according to previous research and best available science. • 5nm is greater than other move on rules, consider reviewing. ICES have advised that move on rules can be ineffective. They recommend areas are surveyed first to review extent of VME. • Current requirement is report VME encounter ‘without delay’ can be open to interpretation. • Follow up actions are unclear.

Task 6 – Identify gaps in research and priority scientific topics (cont.)

Conclusions

- Main data gaps related to the life history of VME species (longevity, fragility, larval dispersion and mobility). Without a better knowledge of these traits the effectiveness of various mitigation measures is difficult to assess such as whether threshold levels suitable, The ideal distance for a move-on rule, if any, and the best way to spatially manage an area to provide maximum protection with minimum interference to fishing.
- Although fishing vessels are not an effective sampling tool, observer programmes provide a valuable source of data a relatively low cost. All RFMOs in this study had some form of observer programme in place with a requirement to collect data on VMEs when encountered.

Task 7 – Options for promoting consistency among RFMOs as well as for any possible revision of Council Regulation (EC) No 734/2008

Objectives

The objective of this task was to identify areas, topics and policy options with potential scope and added-value in promoting consistency among RFMOs and with relevance to any possible revision of Council Regulation (EC) No 734/2008.

Methodology

- Desk-based research, which was approached through a bibliographic review.
- Information was obtained from the different tasks performed.

Results, achievements

- A summary of the definitions of “key concepts” used across the RFMOs and Council Regulation (EC) No 734/2008 was compiled.
- A summary of the main management measures regarding mitigation of potential impacts (SAIs) and conservation of VMEs implemented in the different RFMOs was provided.
- 11 topics of interest in the context of the promotion of consistency of concepts among RFMOs was identified.
- Some of them are relevant with respect to any possible revision of Council Regulation (EC) No 734/2008.



- 1. Bycatch mitigation,***
- 2. Fishing footprint,***
- 3. Exploratory Fisheries,***
- 4. Scientific Research,***
- 5. Observers,***
- 6. Framework for VMEs,***
- 7. Data collection and reporting,***
- 8. SAI assessment, including activities other than fishing,***
- 9. Work plans,***
- 10. Management options (balance: protection – loss of fishing opportunities),***
- 11. Measures to combat IUU fishing.***

Task 7 – Options for promoting consistency among RFMOs as well as for any possible revision of Council Regulation (EC) No 734/2008.

- 1. *Bycatch mitigation*** -> Generalised lack of data. Harmonized sampling designs/approaches are needed

- 2. *Fishing footprint*** -> Lack of definition in FAO Guidelines/EC 734/2008. Data needs, international cooperation, new methods and financing needs should be considered

- 3. *Exploratory Fisheries*** -> Some RFMOs have strict protocols, while others do not have a specific frameworks, and some have modified their protocols several times. Elements for a exploratory fisheries frammework

- 4. *Scientific Research*** -> Plays an essential role: assessment of DSF/VMEs. There is a diversity of approaches with regard to conservation and management measures related to scientific research. Potential elements for research framework

- 5. *Observers*** -> Wide variability in coverage (% ,gears, fisheries), recording and reporting formats, etc. Potential elements for observer programme

- 6. *Framework for VMEs*** -> Wide variety across RFMOs. Further research to fill gaps (VMEs distribution, biological data). Alternative approaches (e.g. SDMs) and methods (e.g. eDNA)

- 7. *Data collection and reporting*** -> Collection and reporting of data (footprint, VMEs), including quality control, play a crucial role. However, the availability of data varies greatly throughout RFMOs Therefore, there is room for improvements.

- 8. *SAI assessment, including activities other than fishing*** -> Not all RFMOs have completed them. Recommendations to promote consistency: Quantitative assessments, identifying appropriate protection levels; standardized approach to assess cumulative impacts Importance of other human activities: mapping, cumulative impacts (e.g. NAFO approach).

- 9. *Work plans*** -> Wide variety across RFMOs. Guidelines for standardizing data collection, research on Impacts of activities other than fishing - cumulative impacts.

- 10. *Management options (balance -> protection – loss of fishing opportunities),*** Reduce the risk of SAI and improve the protection of VMEs while limiting potential losses to fishers (e.g. NAFO approach). Importance of Socio-economic studies. This is a highly topical issue (e.g. EU waters)

- 11. *Measures to combat IUU fishing*** -> Monitoring and surveillance are crucial for addressing IUU fishing, which can harm VMEs. All RFMOs have implemented measures but there is room harmonization (e.g. IUU vessel lists, cooperation, sharing information).

Task 7 – Options for promoting consistency among RFMOs as well as for any possible revision of Council Regulation (EC) No 734/2008

Conclusions

Regarding “**key concepts**” and **definitions**:

- In most of RFMOs, main “**key concepts**” are defined based on the FAO DSF Guidelines (e.g. SAI, VME, bottom fishing). However, the list of “key concepts” described by the Guidelines is brief and could be expanded and improved;
- Some concepts are **not clearly defined** by the FAO DSF Guidelines, nevertheless the different RFMOs have adopted similar definitions based (or inspired) on the “spirit” of the Guidelines (e.g. fishing footprint, encounter);
- There are **different approaches** in the RFMOs regarding the implementation of some concepts: lists of VME indicators; VME indicator units/threshold levels;
- Framework for VMEs in **Council Regulation (EC) No 734/2008**:
 - The concept “VME” is defined, but not “VME indicator”,
 - A move-on rule is specified but the concept “encounter” is not clearly defined (e.g. VME indicators and threshold levels),
 - There is no definition for “fishing footprint”.
- The use of similar definitions of main “key concepts” related to VME/DSF management could help in promoting consistency between organizations and DSF regulations: The main “key concepts” should be clearly defined and equivalent concepts should have the same meaning.

Task 8 – Support the evaluation of Council Regulation (EC) No 734/2008

Objectives

Support the evaluation of Council Regulation (EC) No 734/2008 on the protection of VMEs from the impacts of bottom fishing gears. Specifically:

- Analyse the extent to which the regulation is effective, efficient, still relevant given the current needs, coherent both internally and with other EU rules (CFP, MSFD), and has achieved EU added value.
- Identify where the Regulation needs to be updated to reflect best practices, particularly within RFMOs, best available science, as well as providing recommendations on how the Regulation can be updated to reflect the findings.

Methodology

- Literature review including synthesis of information from the other tasks in this project
- Online survey
 - Likert scale answer categories
 - Open-ended responses
 - Translated into all 23 EU languages

Results, achievements

- Comparison of measures in Regulation with those of RFMOs
 - Measures contained in the VME Regulation match closely to those of most RFMOs - apart from GFCM and SIOFA.
 - Most RFMOs include the requirements of the Regulation under their VME sampling protocols and in many cases they are more advanced.
 - Emphasis on the importance of entities applying the requirements to conduct effective assessments (and updating if the fishing plan changes), collection and sharing of scientific data, promoting compliance with measures to protect VMEs and make the results of the any assessments publicly available.
 - The Regulation does not define threshold levels or follow up actions once the move on rule has been.

Results, achievements

- Is the Regulation still sufficient?
 - Under international law, vessels fishing in the high seas are subject to regulation by their respective flag States.
 - The UN resolutions which are binding for contracting parties to implement, have had challenges when it comes to enforcement.
 - Since the introduction of resolution 61/105 there have been a number of developments to strengthen it, resolution 64/72, 66/68 and 71/123.
 - In contrast, Regulation 734/2008 has remained unchanged since its adoption.
 - EU vessels fishing in these areas will submit their assessments and data to the RFMO in question (normally through their Member State) following the RFMO guidelines, rather than anything under 734/2008.
 - Does not apply to Area 41 which falls under the UNGA resolutions

Conclusions

- With the introduction of the newer resolutions, the Regulation will need updating to bring it more into line with the more recent developments.
- There was no need to engage with a lot of the stakeholders as used here.
- Need for a further stakeholder consultation that focuses on understanding how cooperation mechanisms among the flag States whose vessels undertake bottom fishing activities in Area 41 could be achieved including the creation of an appropriate RFMO.



IMPROVING ENVIRONMENTAL SUSTAINABILITY OF DEEP SEA FISHERIES WITH EMPHASIS ON THE CONSERVATION OF VULNERABLE MARINE ECOSYSTEMS (VMES)

EUROPEAN MARITIME AND FISHERIES FUND (EMFF)

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