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South East Atlantic Fisheries Organisation (SEAFO)

YOUR REF: LOS/FISHERIES/SG report/2022 7 April 2022

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**RE: RESPONSE FROM SEAFO on General Assembly resolutions 64/72, 66/68; and 71/123**

Dear Vladimir

I acknowledged receipt of your said request. Below please find SEAFO response regarding ongoing assessments in the SEAFO Convention Area regarding the said.

The Convention Area of SEAFO are not rich in fisheries resources with about 2-3 % of the whole area being shallower than 2000m of depth. The fishing effort since 2005 never exceeded 5 vessels and 4 contracting parties in any one year. Since 2013, only Longline and Pot fishing were conducted with maximum catches of 60 tonnes and 196 tonnes respectively. The situation have not changed much over the years.

The fishing pressure in the SEAFO CA is therefor considered as very low. Due to the low level of exploitation, SEAFO finds itself in a data poor situation when it comes to stock assessment and ecosystem management.

In 2006, the SEAFO Scientific Committee adopted the closure of 12 areas where VMEs occurred. These areas were all on seamounts and seamount complexes with summit depths shallower than 2000 m.

## General Assembly resolution 64/72

***113.*** *Calls upon States to take action immediately, individually and through regional fisheries management organizations and arrangements, and consistent with the precautionary approach and ecosystem approaches, to implement the 2008 International Guidelines for the Management of Deep-sea Fisheries in the High Seas of the Food and Agriculture Organization of the United Nations ("the Guidelines") in order to sustainably manage fish stocks and protect vulnerable marine ecosystems, including seamounts, hydrothermal vents and cold water corals, from destructive fishing practices, recognizing the immense importance and value of deep sea ecosystems and the biodiversity they contain;*

RESPONSE: A framework regulation for the management of high seas bottom fisheries in the SEAFO Area in response to UNGA resolution 61/105 was first adopted as an interim measure in 2008.

Additional measures were adopted by SEAFO in subsequent years leading up to 2014, when the SEAFO Commission adopted a revised, consolidated set of measures for the management of bottom fishing, the Conservation Measure on Bottom Fishing Activities and Vulnerable Marine Ecosystems in the SEAFO Convention Area. This new Conservation Measure consolidated all the existing regulations at the time and established new measures for managing bottom fishing. It contains articles related to preventing impacts on VMEs, and lists area closures for the protection of VMEs, as well as improved measures in the event of encounters with VMEs. The 2014 Conservation Measure was amended slightly in 2015 (creating CM 30-15) in order to include some minor text edits, as well as indicating a new area open to longline fishing, and an area closed to all fishing gear except pot and longline gears.

SEAFO's Conservation Measures closely mirror the improved bottom fisheries regulation adopted by NEAFC in 2014. SEAFO essentially manages bottom fisheries for impacts on VMEs through a combination of mechanisms, including the establishment of a series of "existing bottom fishing areas" (a bottom fisheries "footprint" based on historic patterns of fishing in the SEAFO area) where bottom fishing is permitted; a 'move-on' rule; areas closed to all bottom fishing designed to protect "representative" areas of VMEs; and the requirement that any bottom fishing in the remaining areas can only take place provided a prior impact assessment is submitted and reviewed by the SEAFO Scientific Committee, and a permit for "exploratory" fishing is approved by SEAFO. Based on the outcome and review of the results of exploratory fisheries (several have been conducted thus far by Japan), additional areas have been reclassified as "existing bottom fishing areas" by a decision of the SEAFO Parties. The management of fishing for deepsea species focuses on setting quotas for the principal target deep-sea species.

***117**. Also welcomes the substantial work of the Food and Agriculture Organization of the United Nations related to the management of deep sea fisheries in the high seas and the protection of vulnerable marine ecosystems, in particular the development and adoption of the Guidelines, and urges States and regional fisheries management organizations or arrangements to ensure that their actions in sustainably managing deep sea fisheries and implementing paragraphs 80 and 83 to 87 of resolution 61/105 and paragraphs 119, 120 and 122 to 124 of the present resolution are consistent with the Guidelines;*

***119.** Considers that, on the basis of the review carried out in accordance with paragraph 91 of resolution 61/105, further actions in accordance with the precautionary approach, ecosystem approaches and international law are needed to strengthen the implementation of paragraphs 80 and 83 to 87 of resolution 61/105, and in this regard calls upon regional fisheries management organizations or arrangements with the competence to regulate bottom fisheries, States participating in negotiations to establish such organizations or arrangements, and flag States to take the following urgent actions in areas beyond national jurisdiction:*

*(a) Conduct the assessments called for in paragraph 83 (a) of resolution 61/105, consistent with the Guidelines, and ensure that vessels do not engage in bottom fishing until such assessments have been carried out;*

**RESPONSE:**

The Commission has adopted Conservation Measure 30/15 on Bottom Fishing Activities and Vulnerable Marine Ecosystems in the SEAFO Convention Area pursuant to articles 6 and 7 of the Convention

The objective of this Conservation Measure is

1. to ensure the implementation by SEAFO of effective measures to prevent significant adverse impacts of bottom fishing activities on vulnerable marine ecosystems that, based on the best available scientific information, are known or likely to occur in the Convention Area.
2. This Conservation Measure takes into account SEAFO's responsibility as a regional fisheries management organization to adopt measures with regards to bottom fishing activities in the Convention Area which contribute to fulfill the key objectives of the UN General Assembly Resolutions on the protection of vulnerable marine ecosystems.
3. For the purpose of this Conservation Measure, SEAFO will take into account the guidance provided by the FAO in the framework of the Code of Conduct for Responsible Fisheries and any other internationally agreed standards, as appropriate.

The Commission adopted Conservation Measure 30/15 (Art. 3, 6 7) to address

assessments associated with exploratory fisheries.

Article 3. Regulation of bottom fishing activities

The Commission shall, taking account of the advice provided by the Scientific Committee, as well as data and information arising from reports pursuant to Article 8 adopts conservation and management measures to prevent significant adverse impacts on VMEs. Such measures may include:

(a) allowing, prohibiting or restricting bottom fishing activities;
(b) requiring specific mitigation measures for bottom fishing activities;
(c) allowing, prohibiting or restricting bottom fishing activities with certain gear types, or changes in gear design and/or deployment; and/or
(d) any other relevant requirements or restrictions to prevent significant adverse impacts on VMEs.

Article 6. Exploratory bottom fishing

1. Prior to undertake exploratory bottom fishing, Contracting Parties shall gather relevant data to facilitate assessments of exploratory bottom fishing by the Scientific Committee. Such data should preferably include data from sea-bed mapping programmes, i.e. data from echo-sounders, if practicable multi-beam sounders, and/or other data relevant to the preliminary assessment of the risk of significant adverse impacts on VMEs.

2. The relevant Contracting Party shall forward to the Executive Secretary a Notice of Intent to undertake exploratory bottom fishing at least 60 days prior to the proposed start of the fishery. The Notice of Intent shall be accompanied by the following information:

(a) harvesting plan, which outlines target species, proposed dates and areas and the type of bottom fishing gear to be used. Area and effort restrictions shall be considered to ensure that fishing occur on a gradual basis in a limited geographical area;

(b) mitigation plan, including measures to prevent significant adverse impact to VMEs that may be encountered during the fishery;

(c) catch monitoring plan, including recording/reporting of all species caught;

(d) a sufficient system for recording/reporting of catch, detailed to conduct an assessment of activity, if required;

(e) data collection plan to facilitate the identification of VMEs in the area fished;

And make every effort to also include the following information:

(f) fine-scale data collection plan on the distribution of intended tows and sets, to the extent practicable on a tow-by-tow and set-by-set basis;

(g) plans for monitoring of bottom fishing activities using gear monitoring technology, including cameras if practicable; and

(h) monitoring data obtained pursuant to paragraph 1 of this Article.

3. The Notice of Intent along with the accompanying information shall be forwarded to the Executive Secretary. Then the Notice of Intent will be evaluated by the Scientific Committee and the Commission during their respective annual meetings. If need be, this process can be done by correspondence allowing Scientific Committee 30 days for scientific evaluation and an additional 30 days for the Commission to approve the proposal.

4. Exploratory bottom fishing shall only commence after having been assessed by the Scientific Committee and approved by the Commission.

5. Preference shall be given by the relevant Contracting Party to exploratory bottom fishing using fishing gear and methods with the least bottom contact, in well-mapped areas and at times when impacts are likely to have the least adverse impacts on organisms other than the target species.

6. The relevant Contracting Party shall ensure that vessels flying their flag conducting exploratory fishing have a scientific observer on board. Observers shall collect data in accordance with a VME Data Collection Protocol set out in Annex 4.

7. The relevant Contracting Party shall provide promptly a report of the results of such activities to the Executive Secretary for circulation to all Contracting Parties. It shall ensure that the data, which derives from exploratory bottom fishing, will be made available to the Scientific Committee.

8. The Commission shall review the assessments undertaken in accordance with Article 7 and the results of the fishing protocols implemented by the participating fleets. The Commission may decide to authorise new bottom fishing activities based upon the results of exploratory bottom fishing, taking due account of the rules and procedures set out in Annex 5. Areas where such new bottom fishing activities are authorised shall be defined as “existing bottom fishing areas” pursuant to Article 4.

Article 7. Assessment of proposed exploratory bottom fishing activities

1. Each Contracting Party proposing to undertake exploratory bottom fishing shall submit to the Executive Secretary, in addition to the Notice of Intent, a preliminary assessment of the known and anticipated impacts of the proposed bottom fishing activity as described in Annex 3.

2. The Executive Secretary shall promptly forward the assessment to all Contracting Parties and the Scientific Committee. The elaboration of the assessment shall be carried out in accordance with guidance developed by the Scientific Committee, or, in the absence of such guidance, to the best of the Contracting Party's ability. The Scientific Committee shall, either at its next session or through correspondence, undertake an evaluation, in accordance with the precautionary approach, of the submitted documentation, taking account of the risks of significant adverse impact on VMEs. Such evaluation shall take place no later than 30 days following the date of submission of the Notice of Intent.

3. The Scientific Committee shall undertake an evaluation of the impact assessment, according to procedures and standards it develops, and provide advice to the Commission as to whether the proposed bottom fishing activity would have significant adverse impacts on VMEs and, if so, whether mitigation measures would prevent such impacts. The Scientific Committee may use in its evaluation additional information available to it, including information from other fisheries in the region or similar fisheries elsewhere. The Commission shall, within 30 days of receiving this advice, either give or withhold its approval for the proposed bottom fishing activities.

*(b) Conduct further marine scientific research and use the best scientific and technical information available to identify where vulnerable marine ecosystems are known to occur or are likely to occur and adopt conservation and management measures to prevent significant adverse impacts on such ecosystems consistent with the Guidelines, or close such areas to bottom fishing until conservation and management measures have been established, as called for in paragraph 83 (c ) of resolution 61/105;*

**RESPONSE:**

SEAFOs definition of VMEs is derived from paragraph 42 and paragraph 43 of the FAO Guidelines for the Management of Deep-Sea Fisheries in the High Seas (CM 30/15).

The Scientific Committee agreed to create a set of closures constituting a biogeographically representative selection of subareas likely to have VMEs. Due to limited bathymetric and biological information for the area, the Scientific Committee applied the

precautionary approach. Consequently, the Scientific Committee focused its analyses on seamounts and seamount complexes with summit depths shallower than 2000 m.

SEAFO, in 2006, first closed 11 areas to bottom fishing. These closures have been reviewed seven times within eight years, reflecting a progression of measures as knowledge of bottom fisheries, and of known or likely VMEs, has increased. Beyond this, the actual measures also establish procedures for reviewing decisions adopted at previous meetings. This is entirely consistent with the management process used by other regional fisheries bodies, and allows for amendments to adapt to changes in the fish stocks, ecosystems, or fishing methods. At present, 11 areas are closed to all gears and one area is closed to all gears except pots and longlines.

Review procedures continue to be included in the measures, and now also apply to existing bottom-fishing areas (CM 30/15). Currently, the closed areas are closed to all types of fishing that are managed by SEAFO, and no review date is set. However, with the approval of SEAFO, research activities are permitted within the closed areas, and further information may still lead to changes in adopted measures, including the closures. In 2014, SEAFO adopted guidelines for scientific research being conducted in the SEAFO Convention Area. These guidelines are considered to be the first developed amongst RFMOs, and differentiates exploratory fishing from scientific research (SEAFO Research Guidelines).

Research surveys by the RV Dr Fridtjof Nansen was conducted during January - February 2015 and April 2019. The scope of the research cruise was to conduct basic mapping and identification of vulnerable marine ecosystems (VMEs) and SEAFO fisheries resources in a selection of seamounts and seamounts complexes, some of which are currently closed to fishing and some of which are open to fishing. The investigation included studies at the following seamounts: Schmitt-Ott (Closure no. 9), Wüst (2 locations, SEAFO Closure no. 7), Vema (SEAFO Closure no. 6), Valdivia (4 locations), and Ewing. Unfortunately bad weather forecasts prevented studies in the Discovery seamounts, i.e. the southernmost planned study area where fisheries for Patagonian toothfish are being conducted.

The Objectives of the research cruise were to obtain more information on bathymetry, VME indicator organisms, fisheries resources and evidence of human footprint in the different study areas. The lead Organisation and/or Partners were the EAF Nansen programme, the GEF/FAO ABNJ Deep Seas project and SEAFO

The data collected during the research cruise indicated that in some knolls to the south and southeast of the Valdivia Bank the density and diversity of corals were such that the features would be classified as coral gardens and/or reefs, indeed more well developed features than in all other areas explores. These features would in all likelihood be classified as VMEs. Based on the information the Commission has closed the area to all fishing gears except for pots and longlines.

This emphasises the continued need for ground-truthing and probably also a need for science-based advice underpinning fine-scale spatial management, preferably based on observations. With continuous support from the EAF Nansen program another survey is planned for 2022.

*(c) Establish and implement appropriate protocols for the implementation of paragraph 83 (d) of resolution 61/105, including definitions of what constitutes evidence of an encounter with a vulnerable marine ecosystem, in particular threshold levels and indicator species, based on the best available scientific information and consistent with the Guidelines, and taking into account any other conservation and management measures to prevent significant adverse impacts on vulnerable marine ecosystems, including those based on the results of assessments carried out pursuant to paragraph 83 ( a) of resolution 61/105 and paragraph 119 (a) of the present resolution;*

**RESPONSE:**
Conservation Measure 30/15 on Bottom Fishing Activities and Vulnerable Marine Ecosystems in the SEAFO Convention Area contains a definition of an encounter.

(b) “encounter” means an incidental catch of a VME indicator species above threshold levels as set out in Annex 6. (Any encounter with a VME indicator species or merely detecting its presence is not sufficient to identify a VME. That identification should be made on a case-by-case basis through assessment by the Scientific Committee);

Furthermore, the Conservation Measure **Article 8. Encounters with possible VMEs** contains protocols on the reporting of an encounter.

**Article 8. Encounters with possible VMEs**

1. Each Contracting Party shall ensure that fishing vessels flying their flag abide by the following rules, where, in the course of bottom fishing activities, evidence of VMEs is encountered:

(a) fishing vessels shall quantify catch of VME indicators;

(b) if the quantity of VME indicators caught in a fishing operation (such as trawl tow or set of a longline) is beyond the thresholds defined in Annex 6, the following shall apply:

(i) if an encounter is discovered the vessel master shall cease fishing and move away at least 2 nautical miles from the end point of the trawl tow in the

direction least likely to result in further encounters, defining a buffer area with a 2 nautical mile radius;

(ii) if an encounter is discovered in connection with other bottom fishing gears the fishing vessel shall cease fishing and move away at least 1 nautical miles from the position that the evidence suggests is closest to the exact encounter location, defining a buffer area with a 1 nautical mile radius. The master shall use his or her best judgment based on all available sources of information; and

(iii) the master shall report the incident, including the track of the trawl or position determined under sub-paragraphs (i) and (ii), without delay to its flag State, which shall forward the information to the Executive Secretary immediately. Contracting Parties may if they so wish also require their vessels to report the incident directly to the Executive Secretary.

2. The Executive Secretary shall immediately inform all Contracting Parties, and archive the information received pursuant to paragraph 1, and shall, if the encounter happened outside existing fishing areas, at the same time implement a temporary closure. The temporary closure shall correspond to the buffer area defined pursuant to paragraph 1 (b) of this article.

3. In order to assess accurately the position and the extent of the possible VME encountered in terms of paragraph 1 of this article, sea bed mapping should be carried out using echo-sounders, and if practicable, multi-beam sounders. The result of any mapping shall be submitted to the Scientific Committee for its evaluation and advice. This advice shall be forwarded to the Commission and contribute to the basis for a decision by the Commission to reopen the temporary closure or add the temporary closure to the SEAFO fishing closures (Annex 2).

4. The Scientific Committee shall examine the temporary closure at its next meeting or by correspondence. If the Scientific Committee advises that the area has sufficient evidence of a VME, the Executive Secretary shall request Contracting Parties to maintain the temporary closure until such time that the Commission has acted upon the advice from the Scientific Committee. If the Scientific Committee evaluation does not conclude that the temporary closed area has sufficient evidence of a VME, the Executive Secretary shall inform Contracting Parties which may re-open the area to their fishing vessels.

**VME indicators and threshold levels**

1. Definition of encounter -

An encounter is defined to be an incidental catch, above threshold levels as set out

in paragraph 2, of corals and sponges comprising taxa listed as VME indicators by the SEAFO SC. The selected indicators constitute a regionally relevant subset of VME indicator organisms exemplified in the Annex of the FAO International Guidelines for the Management of Deep-sea Fisheries in the High Seas (2009).

2. Threshold levels

An encounter with VME indicator species is defined for each of the following fishing gears as follows:

Trawl tow – more than 600 kg of live sponges and/or 60 kg of live coral in existing fishing areas and more than 400 kg of live sponges and/or 60 kg of live coral in new fishing areas.

Longline set – at least 10 VME-indicator units (1 unit = 1kg or 1 litre of live coral and/or live sponge) in one 1200m section of line or 1000 hooks, whichever is the shorter, in both existing and new fishing areas;

Pot set – at least 10 VME-indicator units (1 unit = 1kg or 1 litre of live coral and/or live sponge) in one 1200m section of line in both existing and new fishing areas.

The definition of VME indicator units for bottom longlines and pots is as follows:

The quantity of VME-indicator organisms (i.e. live corals and/or live sponges) recovered during hauling should be reported for each 1200m section of the longline or potline (in the case of longlines - or 1000 hooks whichever is the shorter) as:

(a) Volume (litre) for VME-indicator organisms which fit into 10-litre container;
(b) Weight (kg) for VME-indicator organisms which do not fit 10-litre container (e.g. branching species); and

(c) VME-indicator units which is the combined total of volume of VME-indicator organisms which fit into 10-litre and weight of VME-indicator organisms which do not fit into containers of 10-litre (i.e. unit = volume + weight).

The Scientific Committee compiled a provisional list of benthic invertebrate VME indicator species/groups for SEAFO and the Commission adopted a coral and sponges guide to assist the observers on board of vessel with the identification of VME indicator species.

| **Group / Species code** | **Phylum / Order / Family** | **Common name** |
|---|---|---|
| PFR | Porifera (Phylum) | Sponges |
| GGW | Gorgonacea (Order) | Gorgonian corals |
| AZN | Anthoathecatae (Family) | Hydrocorals |

| | | |
|---|---|---|
| CSS | Scleractinia (Order) | Stony corals |
| AQZ | Anthipatharia (Order) | Black corals |
| ZOT | Zoantharia (Order) | Zoanthids |
| AJZ | Alcyonacea (Order) | Soft corals |
| NTW | Pennatulacea (Order) | Sea pens |
| BZN | Bryozoa (Phylum) | Erect bryozoans |
| CWD | Crinoidea (Class) | Sea lilies |
| OWP | Ophiuroidea (Class) | Basket stars |
| SZS | Serpulidae (Family) | Annelida |
| SSX | Ascidiacea (Class) | Sea squirts |
| ATX[#] | Ceriantharia (Order) | Tube-dwelling Sea anemones |

Conservation Measure 30/15: “encounter” means an incidental catch of a VME indicator species above threshold levels as set out in Annex 6. (Any encounter with a VME indicator species or merely detecting its presence is not sufficient to identify a VME. That identification should be made on a case-by-case basis through assessment by the Scientific Committee);

*(d)Adopt conservation and management measures, including monitoring, control and surveillance measures, on the basis of stock assessments and the best available scientific information, to ensure the long-term sustainability of deep sea fish stocks and non-target species, and the rebuilding of depleted stocks, consistent with the Guidelines; and, where scientific information is uncertain, unreliable, or inadequate, ensure that conservation and management measures are established consistent with the precautionary approach, including measures to ensure that fishing effort, fishing capacity and catch limits, as appropriate, are at levels*

*commensurate with the long-term sustainability of such stocks;*

**RESPONSE:**

Scientists from Contracting Parties contribute to the assessment of marine resources in the SEAFO Convention Area and provide their scientific advice to the Commission through the Scientific Committee. Information related to the main SEAFO marine living resources are updated annually, and include catch and effort information as well as additional information relevant to the stocks e.g. spatial and temporal distributions of fishing, length-frequency distributions, life history parameters and other population information, and incidental mortality (sea birds, mammals and turtles) and by-catch of fish and invertebrates.

In 2015, the Commission adopted a recommendation from the Scientific Committee to implement harvest control rules to manage deep-sea red crab, Patagonian toothfish, amourhead, and alfonsino.

SEAFO scientists, continue to operate in a data poor environment due to limited historical /time series data and low recent fishing effort. Moreover, performing stock assessment, defining reference points, and determining actual stock status continues to be a challenging task for SEAFOs Scientific Committee.

The SEAFO Convention Area (CA) is a large area with several seamount chains, isolated seamounts, guyots and banks, beyond national jurisdictions. All fishing in SEAFO occurs on or around seamounts. Vessels concentrate fishing operations in three distinct areas: Valdivia Bank seamounts complex, Meteor, and Discovery Seamounts.

Based on the best available scientific advice, the Commission has adopted two recommendations and several Conservation Measures relating to the conservation and management deep sea fish stocks and non-target species; namely (Conservation Measures are attached):

- Recommendation 1/2008 Banning of deep-water shark catches
- Recommendation 2/2010 on Banning of gillnets
- Conservation Measure 04/06 on the Conservation of Sharks Caught in Association with Fisheries Managed by SEAFO
- Conservation Measure 14/09: To Reduce Sea Turtle Mortality in SEAFO Fishing Operations.
- Conservation Measure 25/12: On Reducing Incidental By-catch of Seabirds in the SEAFO Convention Area.

- Conservation Measure CM-TAC-01 (2021): on Total Allowable Catches and related conditions for Patagonian Toothfish, Deep-Sea Red Crab, Alfonsino, Orange Roughy and Pelagic Armourhead for 2022 and 2023 in the SEAFO Convention Area.
- SYSTEM OF OBSERVATION, INSPECTION, COMPLIANCE AND ENFORCEMENT

The SYSTEM OF OBSERVATION, INSPECTION, COMPLIANCE AND ENFORCEMENT addresses issues like gear retrieval, catch and fishing effort as well as VMS information namely:

- Article 8 – Retrieval of lost or abandoned fishing gear
- Article 10 - Information on fishing activities – logbook
- Article 11 – Communication of catches by vessels – 5 day catch report
- Article 12 – Periodic reporting of catch and fishing effort by Contracting Parties – quarterly report on aggregated retained and discarded catch of fishery resources listed in Annex I, and by-catch species,
- Article 13 – Vessel Monitoring System (VMS)
- Article 18 – Scientific observer programme
- Article 30 – Vessels conducting fishing research

The Commission, taking account of the scientific advice provided by the Scientific Committee and pursuant to Article 6 of the Convention, has adopted the following measures:

**1. Total allowable catches (2019 and 2020)**

a) Patagonian toothfish: 275 tonnes for Sub-area D and zero tonnes for the remainder of the SEAFO CA;

b) Deep-sea red crab: 171 tonnes in Division B1 and 200 tonnes in the remainder of the Convention Area;

c) Alfonsino: 200 tonnes for the SEAFO CA of which a maximum of 132 tonnes may be taken in Division B1;

d) Orange roughy: zero tonnes and a 4 tonnes bycatch allowance in Division B1, and 50 tonnes in the remainder of the SEAFO CA subject to exploratory fishing protocols, and

e) Pelagic amourhead: 135 tonnes for the SEAFO CA.

**2. Vessel reporting requirements**

Each Contracting Party shall ensure that their vessels fishing in the SEAFO CA shall send reports as *cf*. Article 10, 11, 12, 13 and 18 of the System of Observation, Inspection, Compliance and Enforcement to the Secretariat.

**3. Bycatch of Alfonsino/Pelagic Armourhead**

Taking into account that highly selective fishery for pelagic armourhead and alfonsino is practically possible by trawl fishery in the CA, following measures should be applied for trawl fishery targeting armourhead and alfonsino in the CA:

(a) Any vessels engaging in trawl fisheries targeting armourhead and/or alfonsino should send daily catch reports to the Secretariat;

(b) Based on these daily catch reports, the cumulative catches of armourhead and alfonsino should be closely monitored by the Secretariat;

(c) Fishing activities should be developed by first targeting one species (first target species);

(d) When the Secretariat determines that 95% of the TAC for one of that species is reached in a management area, the fleet should be instructed by the Secretariat to target the other species (second target species). A total by catch of 5% of the first target species TAC is allowed to be taken when targeting the second species in the same management area; and

(e) If 95% of the TAC for the second species is already reached by other vessels, the vessel can fish its second target species as long as the TAC is not exhausted.

**4. Closure of fisheries**

The Executive Secretary shall close the fisheries when the total allowable catches referred to in paragraph 1 are deemed to be exhausted.

*120. Calls upon flag States, members of regional fisheries management organizations or arrangements with the competence to regulate bottom*

*fisheries and States participating in negotiations to establish such organizations or arrangements to adopt and implement measures in accordance with paragraphs 83, 85 and 86 of resolution 61/105, paragraph 119 of the present resolution, and international law, and consistent with the Guidelines, and not to authorize bottom fishing activities until such measures have been adopted and implemented;*

*121. Recognizes the special circumstances and requirements of developing States and the specific challenges they may face in giving full effect to certain technical aspects of the Guidelines, and that implementation by such States of paragraphs 83 to 87 of resolution 61/105, paragraph 119 of the present resolution and the Guidelines should proceed in a manner that gives full consideration to section 6 of the Guidelines on special requirements of developing countries;*

**RESPONSE:**

**Impact assessments**

SEAFO initially adopted a measure in 2008, similar to those adopted by NEAFC and NAFO, requiring that "each Contracting Party proposing to participate in bottom fishing shall submit to the Executive Secretary information and an initial assessment, where possible, of the known and anticipated impacts of its bottom fishing activities on vulnerable marine ecosystems, in advance of the next meeting of the Scientific Committee. These submissions shall also include the mitigation measures proposed by the Contracting Party to prevent such impacts".

In 2011, SEAFO adopted a fishing footprint of "existing bottom fishing areas" where bottom fisheries were permitted without requiring an impact assessment. The footprint was based on any area fished during a reference period between 1987 and 2011 (extended from the original end date of 2007) and delineated in 1 degree longitude by 1 degree latitude blocks. Depending on the latitude, blocks of 1 degree longitude by 1 degree latitude in the SEAFO area would be approximately 8,000 to 12,000 square kilometers in size and would likely result in the inclusion of areas or features (e.g. seamounts) that had not been previously fished in the footprint, although much of the footprint would also encompass areas too deep for bottom fishing to occur (e.g. deep abyssal plain). The regulation further stipulated that bottom fishing in areas outside the "existing bottom fishing areas" or footprint would be subject to an Interim Exploratory Bottom Fishing Protocol that required an initial, though undefined, assessment of the known and anticipated impacts of its bottom fishing activities on VMEs.

The move-on rule and the closure of some VME areas (although most closures are not in areas where bottom fishing occurs) are the main measures that have been established to prevent SAIs.

In 2014, SEAFO adopted a new measure, CM 29-14, that defined SAIs according to the criteria established in the FAO Guidelines. It also required that impact assessments for exploratory fisheries be conducted in a manner consistent with the criteria established in the International Guidelines with respect to potential impacts on VMEs. However, the criteria incorporated into Annex 3 of CM 29-14 left out the reference to assessing the impacts on "low-productivity fishery resources" contained in the FAO Guidelines.

In 2014, the SEAFO also adopted Guidelines for fisheries research and basic marine science activity in the Convention Area. The primary purpose of these guidelines is to ensure that highquality scientific research and analysis can be conducted freely and to the benefit of all, and in a manner which does not cause SAIs on the marine ecosystems and organisms, including fisheries resources.

Japan submitted preliminary impact assessments to the Scientific Committee in conjunction with its proposals for exploratory bottom longline fishing in 2012, 2013, 2014 and 2015. While the impact assessments submitted in 2012, 2013 and 2014 were not consistent with the criteria for conducting impact assessments contained in the FAO Guidelines, the proposal submitted by Japan for exploratory fishing in 2015 was deemed by the Scientific Council and the Commission to have met the new requirements for impact assessments agreed in CM 29-14 and CM 30-15.

Exploratory fishing and areas re-opened to bottom fishing In 2012, Japan submitted a proposal to review the bottom fishing footprint after having conducted an 'exploratory' bottom longline fishery in several areas outside of, and adjacent to, the footprint in the southern portion of the SEAFO area and proposed that these areas be reopened to commercial fishing; that is, reclassified as "existing bottom fishing" areas. The Scientific Committee reviewed the proposal and concluded that Japan should re-apply for exploratory fishing access to the same areas during 2013. A concern was raised that, in light of the fact that occurrences of VMEs were recorded in some sections of the exploration area, more information on these areas would be needed before the proposal by Japan to open these areas to bottom fishing could be endorsed. The Commission noted that there were no guidelines at the time regarding the way forward after exploratory fishing had been conducted in the Convention Area. It was therefore agreed that SEAFO would follow guidelines set by NAFO at the time, namely that the Scientific Committee would evaluate bottom fishing activities taking into account the risks of significant adverse impacts on VMEs and that the Commission would then either authorize bottom fishing activity for part or all of the area, discontinue the bottom fishing activity, or authorize continued exploratory bottom fishing to gather more information.

The Commission adopted the recommendation for Japan to proceed with the exploratory fishing proposal under the set guidelines for exploratory fishing in the SEAFO Convention Area. The Commission later adopted new rules regarding the opening of new fishing areas.

Japan also submitted proposals for exploratory fishing for the 2013 fishing year. However,

a concern was raised by the Scientific Council that part of proposed areas enveloped Closed Area 12 and that fishing in one of their proposed areas might therefore encroach on this Area. Furthermore, a named seamount, Schwabenland Seamount, is located in one of the proposed areas.Despite these concerns, the Scientific Council concluded that both proposals met the conditions required for exploratory fishing and they were subsequently approved by the Commission.

Japan presented the results of the exploratory longline fishery to the Scientific Committee in 2013. Japan reported that the longline vessel conducting the fishery only caught 1.5 kg of gorgonians in three sets during 28 days of bottom longline fishing targeting Patagonian toothfish. Japan argued that VMEs "will not be significantly affected in the exploratory fishing area" because the amount of bycatch of the VME indicator species was less than the threshold levels established by SEAFO that would define an encounter with a VME and trigger the moveon rule. In 2013, the Commission adopted the recommendation of the Scientific Committee to expand the SEAFO fisheries footprint to include the three new areas proposed by Japan. In doing so, the Commission made it clear that only bottom longline fishing is permitted in these areas.

In 2015, 2016, 2017, 2018, 2019, 2020, 2021 and 2022 the Scientific Council assessed more proposasl submitted by Japan, to continue exploratory fishing and advised the Commission that the proposal met the requirements as per Annex 3 of CM 29/14. The Commission adopted the recommendation, and approved the extension of Japan's exploratory fishing.

The main criteria used to determine whether bottom fishing in a new fishing area would not cause significant adverse impacts on VMEs is if the bycatch of VME indicator species has been less than the amount, or threshold, established to trigger the move-on rule during the exploratory fishery. A number of studies have indicated that the impact of bottom longline fishing is likely to be considerably less severe on seamount ecosystems than bottom trawling. For example, a study published in 2014 by researchers at the University of the Azores estimated that the negative impact of bottom trawling on deep-water corals and sponges on seamounts in the Northeast Atlantic is likely to be 296–1,719 times higher than the impact of deep-sea longline fishing – the latter a fishing method common in the Azores and Madeira Islands.

**Identify and close areas where VMEs are known or likely to occur unless bottom fisheries are managed in such areas to prevent SAIs**

In response to the adoption of UNGA resolution 61/105, in 2007 SEAFO closed, on a temporary basis, ten seamount areas where VMEs (e.g. corals) were known or thought likely to occur.

These closures were revised in 2010, based on a review of SEAFO's area closures at the time carried out by the UK's National Oceanographic Centre (NOC) at the request of

SEAFO. The NOC report noted that "data on South Atlantic seamounts, especially in terms of biologicallysignificant data is at best described as very patchy and of variable quality" but that "any isolated topographic feature that rises to within 1000m of the ocean/sea surface should be regarded as having the potential to host vulnerable marine ecosystems". The Scientific Committee recognized that this should apply to any topographic feature rising to within 2000 meters of the surface as this is the current maximum depth at which bottom fishing takes place in the SEAFO area. As a result, several closed areas temporarily established in 2007 were reopened to bottom fisheries in 2010 (most, though not all, contained seamounts at depths greater than 2,000 meters and thus were considered too deep to fish) while several new area closures, the majority along the Mid-Atlantic Ridge, were adopted. The Mid-Atlantic Ridge closures – five in all – were designated to close "representative areas" of seamounts along the ridge system. The revisions adopted by SEAFO in 2010 regarding area closures did not always follow the advice of the SEAFO Scientific Committee.

A research survey in 2015 using the R/V Dr Fridtjof Nansen conducted basic mapping and identification of VMEs in a selection of seamount areas and seamount complexes, some of which are currently closed to fishing and others of which are being fished. Most seamounts investigated were found to contain VME indicator species.

As a result of the survey, the Commission agreed to maintain three of the existing closed areas– closures nos. 6, 7 and 9 – as these areas were shown to contain seamount summits inhabited by VME indicator species as well as coral gardens. The Commission also agreed to close an additional area of approximately 195 $km^2$ adjacent to the Valdivia Bank seamount to all fishing gear except pots and longlines. However, the Scientific Committee had recommended either closing the areas where VMEs were found to all fishing, or to leave these sub-areas open to pot fishing for crabs only. The Scientific Committee also noted that they did not have sufficient information to assess the risk of pot fishing. As of 2015, there were 12 areas closed to bottom trawling. Eleven of these areas are closed to all bottom fishing, but one of them is open to bottom fishing with pots and longlines. Seamount areas that fall within the existing bottom fishing areas remain open for fishing, and the fisheries permitted in these areas have not been assessed for potential significant adverse impacts on VMEs. Two of the open areas are open to bottom longline fishing only; the remainder are open to fishing with all types of bottom fishing gear – e.g. bottom trawls, longlines, pots etc.

In 2011, the Scientific Committee indicated that the seamounts closed in the SEAFO Convention Area represented 19% of total seamounts, but 27% of seamounts with a summit shallower than 2,000 meters deep – i.e. at fishable depths – and that the closed areas combined corresponded to 14% of the bottom area shallower than 2,000 m.125

**Move-on rule/cease fishing in areas where VMEs are encountered**

A move-on rule has been adopted by SEAFO, which is triggered in cases where threshold levels of bycatch of 100 kg of "live" coral or 1,000 kg of sponges or more are encountered

per tow or set of the gear. These thresholds were revised down in 2009 to 60 kg of live coral and 800 kg of live sponge. The Scientific Committee recommended in 2011 that an adapted version of the CCAMLR encounter protocols be applied in the SEAFO area for non-trawl gear. When the thresholds were again revised for various fishing gears, the levels used by CCAMLR were adopted for longline sets, resulting in a threshold of at least 10 VME indicator units (1 unit = 1 kg or 1 litre of live coral and/or live sponge) in one 1,200 m section of line or 1,000 hooks, whichever is the shorter, in both existing and new fishing areas. For pot sets, a threshold of at least 10 VME indicator units (1 unit = 1 kg or 1 litre of live coral and/or live sponge) in one 1,200 m section of line in both existing and new fishing areas was adopted. For bottom trawls, revised threshold levels of more than 60 kg of live coral and/or 600 kg of live sponge for existing bottom fishing areas, and more than 400 kg of live sponges and/or 60 kg of live coral for new fishing areas, were adopted.

The Scientific Committee recommended in 2012 that the threshold for the trawl tow be further reduced to no more than 300 kg of live sponges and/or 30 kg of live coral in existing fishing areas, and no more than 200 kg of live sponges and/or 30 kg of live coral in new fishing areas.

This recommendation was based on a review of available information from NAFO and NEAFC regarding their protocols for threshold levels of VME indicators. However, the Commission did not agree to lower the threshold to these levels.

The current move-on rule adopted by SEAFO stipulates that all encounters above the threshold levels are required to be reported to the Executive Secretary of SEAFO. Bottom trawl vessels are required to cease fishing and move 2 nm away from the end point of the trawl tow “in the direction least likely to result in further encounters”. For an encounter involving other fishing gears, the fishing vessel is required to move at least 1 nm away from the position that the evidence suggests is closest to the exact encounter location. For encounters with VMEs in existing fishing areas, the closure only applies to the vessel that reported the encounter. In new fishing areas, a temporary closure applies to all vessels. The Scientific Committee is required to evaluate the temporary closure and advise the Commission on whether to reopen the closure or make it a permanent closure. Pending a decision by the Commission, the temporary closure remains in effect.

While there is data available for the reported bycatch of benthic organism (corals, sponges, etc.), the threshold levels have never been reported as having been exceeded, thus the move on rule has never been applied.

**Ensuring the long-term sustainability of deep-sea fish stocks, including bycatch species**

In 2012, the Commission adopted a recommendation with the provision that all bycatch of TAC species shall be deducted from the respective TACs. However, the Commission did not reach a consensus on the TAC for armourhead in 2013, leaving this species open to potentially being overexploited.

In 2014, SEAFO adopted a bycatch regime for the trawl fisheries for alfonsino and pelagic armourhead. This regime includes the requirement that, when the Secretariat determines that 95% of the TAC for one of these species is reached in a management area, the fleet should be instructed by the Secretariat to target the other species (second target species). A total bycatch of 5% of the TAC of the first target species is allowed to be taken when targeting the second species in the same management area; and if 95% of the TAC for the second species is already reached by other vessels, the vessel can fish its second target species as long as the TAC is not exhausted.

SEAFO also agreed that, if a bycatch species exceeds the 10% threshold of the existing TACspecific species, SC will recommend a management measure. However, to date, no bycatch species has exceeded the 10% threshold. Spatial data on fishery-specific bycatch are incorporated in some of the stock status reports. Harvest control rules (HCRs) were also adopted by the Commission in 2014 for all the SEAFO stocks.

A preliminary analysis published in 2011 of species collected in an independent benthic survey of the Walvis Ridge Seamounts found 138 species of fish, 24 species of crustaceans, 15 species of cephalopods and benthic species from four taxonomic groups: actiniaria (sea anemones), echinoidea (echinoderms), taliacea and opistobranchia. This contrasts with the amount of reported bycatch from vessels operating in the fishing footprint since 2013, which has been relatively small, possibly as a result of decreased fishing effort and the relatively selective nature of the pot fishery for crabs. However, altogether some 100 tonnes of bycatch, consisting of some 20 different species or species groups, were observed or reported as taken – and mostly discarded – in the longline fishery for Patagonian toothfish in the period between 2009 and 2014, suggesting that bycatch impacts could be significant over time, particularly for longlived, low productivity deep-sea species and/or if a significant increase in effort in the fishery were to occur in the future.

**Other/gear restrictions**

The Scientific Committee of SEAFO in 2007 recommended a temporary prohibition on bottom trawling and bottom gillnet fishing in the Convention Area. The recommendation to prohibit bottom gillnet fishing was ‘adopted’ by the SEAFO Commission in 2009, though no formal prohibition was agreed. The recommendation to prohibit bottom trawling was not adopted and deep-sea bottom trawling continues to be permitted by SEAFO.

In 2015, in response to a request made by the EU, the Scientific Committee drafted a proposal for a binding Conservation Measure based on the bottom gillnet recommendation. The SEAFO Commission did not accept the EU proposal and instead asked the Scientific Committee to evaluate the impact of possible gillnet fisheries in the SEAFO Convention Area in light of scientific information that has become available since the recommendation to prohibit gillnet fishing was adopted in 2009.

*122. Calls upon States and regional fisheries management organizations or arrangements to enhance efforts to cooperate to collect and exchange scientific and technical data and information related to the implementation of the measures called for in the relevant paragraphs of resolution 61/105 and the present resolution to manage deep sea fisheries in areas beyond national jurisdiction and to protect vulnerable marine ecosystems from significant adverse impacts of bottom fishing by, inter alia:*

*(a) Exchanging best practices and developing, where appropriate,*

*regional standards for use by States engaged in bottom fisheries in areas beyond national jurisdiction and regional fisheries management organizations or arrangements with a view to examining current scientific and technical protocols and promoting consistent implementation of best practices across fisheries and regions, including assistance to developing States in accomplishing these objectives;*

SEAFO is playing an active role in promoting and setting standards, as well as enhancing the exchange of best practices, by participating in various forums like:

- Co-organized with CBD a South-eastern Atlantic regional Workshop to Facilitate the Description of Ecologically or Biologically Significant Marine Areas in Swakopmund, Namibia, April 2013,
- Co-organized with FAO a VME workshop on the South East Atlantic in Swakopmund, Namibia, April 2013,
- Active participant of the GEF/FAO ABNJ Deep Seas project as well as a Steering Committee member
- Co-author of a chapter of publication by the FAO to review best practices by RFMO in deep fisheries
- Member of CWP/FIRMS (FAO)
- Member of the RSN network (FAO)
- Observer at CCAMLR, NEAFC, NAFO, SIOFA NAMMCO, CECAF and BCLME annual meetings

Furthermore, SEAFO has sponsored two observer training workshops in Korea (2014) and Namibia (2015), respectively. Furthermore, several capacity building opportunities for developing countries arose from the Dr. Fridjof Nansen cruise.

During 2019 SEAFO conducted training to Port inspectors in South Africa and Namibian on the SEAFO port inspection procedures. Observer training of Namibian and Angolan

fisheries observers were also conducted with sponsoring from the Deep sea fisheries Project.

**The Commission recognizes the** special economic and geographic requirements of developing States, and their coastal communities, for equitable benefit from living marine resources, as depicted in Article 21 of the Convention

**ARTICLE 21. RECOGNITION OF THE SPECIAL REQUIREMENTS OF DEVELOPING STATES IN THE REGION**

1. The Contracting Parties shall give full recognition to the special requirements of developing States in the region in relation to conservation and management of fishery resources and the development of such resources.

2. In giving effect to the duty to cooperate in the establishment of conservation and management measures for stocks covered by this Convention, the Contracting Parties shall take into account the special requirements of such developing States, in particular:

(a) the vulnerability of developing States in the region which are dependent on the exploitation of living marine resources, including for meeting the nutritional requirements of their populations or parts thereof;

(b) the need to avoid adverse impacts on, and ensure access to fisheries by, subsistence, small-scale and artisanal fishers and women fishworkers; and

(c) the need to ensure that such measures do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States in the region.

3. The Contracting Parties shall cooperate through the Commission and other subregional or regional organisations involved in the management of fishery resources:

(a) to enhance the ability of developing States in the region to conserve and manage fishery resources and to develop their own fisheries for such resources; and

(b) to assist developing States in the region which may fish for fishery resources, to enable them to participate in fisheries for such resources, including facilitating access in accordance with this Convention.

4. Cooperation with developing States in the region for the purposes set out in this article shall include the provision of financial assistance, assistance relating to human resources development, technical assistance, transfer of technology, and activities directed specifically towards:

(a) improved conservation and management of the fishery resources covered by

this Convention through collection, reporting, verification, exchange and analysis of fisheries data and related information;

(b) stock assessment and scientific research; and

(c) monitoring, control, surveillance, compliance and enforcement, including training and capacity-building at the local level, development and funding of national and regional observer programmes and access to technology and equipment.

The Commission has approved the establishment of a Special Requirements Fund (SRF) during the 2009 annual meeting. The principals, guidelines and operational procedures for the SRF are available on the SEAFO webpage www.seafo.org. Both Norway and the EU have contributed to the SRF. Colleagues from one developing State had already benefited from capacity building using funds from the SRF.

*(b) Making publicly available, consistent with domestic law, assessments of whether individual bottom fishing activities would have significant adverse impacts on vulnerable marine ecosystems and the measures adopted in accordance with paragraphs 83, 85 and 86, as appropriate, of resolution 61/105, and promoting the inclusion of this information on the websites of regional fisheries management organizations or arrangements;*

**RESPONSE:**
The assessments conducted by SEAFO scientists are compiled in Scientific Reports and made available on the SEAFO webpage. Catch data are also submitted to FIRMS and FAO annually.

*(c) Submission by flag States to the Food and Agriculture Organization of the United Nations of a list of those vessels flying their flag authorized to conduct bottom fisheries in areas beyond national jurisdiction, and the measures they have adopted to give effect to the relevant paragraphs of resolution 61/105 and the present resolution;*

**RESPONSE:**
The SYSTEM OF OBSERVATION, INSPECTION, COMPLIANCE AND ENFORCEMENT ("SEAFO System") addresses measures pertaining to the authorisation and notification (Art. 4) to fish and vessel requirements.

*(d) Sharing information on vessels that are engaged in bottom fishing operations in areas beyond national jurisdiction where the flag State responsible for such vessels cannot be determined;*

**RESPONSE:**
The "SEAFO System" addresses measures promoting compliance under Article 27 (Sightings and identifications of non-contracting party vessels) and Article 28 (Listing of IUU vessels). SEAFO also has an agreement with CCAMLR, NAFO, SIOFA and NEAFC to jointly list IUU vessels.

*123. Encourages States and regional fisheries management organizations or arrangements to develop or strengthen data collection standards, procedures and protocols and research programmes for identification of vulnerable marine ecosystems, assessment of impacts on such ecosystems, and assessment of fishing activities on target and non-target species, consistent with the Guidelines and in accordance with the Convention, including Part XIII thereof;*

**RESPONSE:**
The Commission has adopted data collection protocols, developed by the Scientific Committee, which ensures that a representative part of all catches are sampled.

#Length-weight samples can be a sub-sample of the Length (i.e. length-frequency) sample.

SEAFO also have a mandatory requirement to have a scientific observer on all vessels fishing in the Convention Area (SEAFO System Art.18), and further require logbooks to be submitted to the Scientific Committee to improve data collection (SEAFO System Art. 10). The Commission has also adopted Marine Research guidelines with the primary purpose to facilitate that high-quality science may be conducted freely and to the benefit of all while also ensuring that the activity is conducted in a manner which does not cause significant

| **Data required** | **Patagonian toothfish** | | **Deep-sea red crab** | | **Armourhead & Alfonsino & Orange roughy & Blackbelly rosefish** | |
|---|---|---|---|---|---|---|
| | **Type** | **Qty** | **Type** | **Qty** | **Type** | **Qty** |
| Length | Total length | 20 samples/set | Carapace width | 100 per set | Fork length | 200 samples/trawl |
| Maturity | Gonad stages | 20 samples/set | Vulvae stage, Berry | 100 samples/set | Gonad stages | 50 samples/trawl |
| GSI | Gonad weight | 20 samples/set | N/A | N/A | Gonad weight | 50 samples/trawl |
| #Length-Weight | Individual weight | 20 samples/set | Individual weight | 50 samples/set | Individual weight | 50 samples/trawl |
| Sex | Male & Female | 20 samples/set | Male & Female | 100 samples/set | Male & Female | 50 samples/trawl |
| Age | Otoliths | 5 samples/set | N/A | N/A | Otoliths | 50 samples/trawl |

adverse impacts (SAI) on the marine ecosystems and organisms, including fisheries resources. The Marine Research guidelines is published on the SEAFO webpage.

Collaboration with the UK territories research in the SEAFO CA

*124. Calls upon relevant States to cooperate and make efforts to establish, as appropriate, regional fisheries management organizations or arrangements competent to regulate bottom fisheries in areas beyond national jurisdiction where there are no such organizations or arrangements;*

**RESPONSE:**

The South East Atlantic Fisheries Organisation was established

**General Assembly resolution 64/72**

*121. Calls upon States to take action immediately, individually and through regional fisheries management organizations and arrangements, and consistent with the precautionary approach and ecosystem approaches, to continue implementing the 2008 International Guidelines for the Management of Deep-Sea Fisheries in the High Seas of the Food and Agriculture Organization of the United Nations ("the Guidelines") in order to sustainably manage fish stocks and protect vulnerable marine ecosystems, including seamounts, hydrothermal vents and cold water corals, from destructive fishing practices,recognizing the immense importance and value of deep-sea ecosystems and the biodiversity they contain;*

*126. Also welcomes the substantial ongoing work of the Food and Agriculture Organization of the United Nations related to the management of deep-sea fisheries in the high seas and the protection of vulnerable marine ecosystems, and urges States and regional fisheries management organizations and arrangements to ensure that their actions in sustainably managing deep-sea fisheries and implementing paragraphs 80 and 83 to 87 of resolution 61/105 and paragraphs 119, 120 and 122 to 124 of resolution 64/72 are consistent with the Guidelines;*

**See RESPONSES to paragraph 119,120 and 122 to 124 of resolution 64/72 above**

*129. Considers, on the basis of the review carried out in accordance with paragraph 129 of resolution 64/72, that despite the progress made, the urgent actions called for in the relevant paragraphs of resolutions 61/105 and 64/72 have not been fully implemented in all cases, and in this regard further actions in accordance with the precautionary approach, ecosystem approaches and international law and*

*consistent with the Guidelines are needed to strengthen the continued implementation, and in this regard calls upon States, through regional fisheries management organizations and arrangements with the competence to regulate bottom fisheries, States participating in negotiations to establish such organizations or arrangements and flag States to take the following urgent actions regarding bottom fishing in areas beyond national jurisdiction:*

*(a) To strengthen procedures for carrying out assessments to take into account individual, collective and cumulative impacts, and for making the assessments publicly available, recognizing that doing so can support transparency and capacity-building globally;*

*(b) To establish and improve procedures to ensure that assessments are updated when new conditions or information so require;*

*(c) To establish and improve procedures for evaluating, reviewing and revising, on a regular basis, assessments based on best available science and management measures;*

*(d) To establish mechanisms to promote and enhance compliance with applicable measures related to the protection of vulnerable marine ecosystems, adopted in accordance with international law;*

**RESPONSE:**

Potential impacts should be assessed by mapping VMEs in areas of interest for exploratory fishing prior to and/or as part of the exploratory fisheries permit and by assessing the impact of the longline gear while deployed, for example by using cameras attached to the gear. Cumulative impact assessments should be also conducted and used to determine the extent to which VMEs in the area have already been degraded by previous fishing and the extent to which further damage or degradation could occur even under limited impact scenarios.

*130. Notes that not all impact assessments have been made publicly available, and calls upon States, consistent with domestic law, and regional fisheries management organizations and arrangements to publish all assessments without delay;*

**RESPONSE:**
The impact assessments provided by Contracting Parties are evaluated by the Scientific Committee and published in the annual SEAFO Scientific Reports which is available on the SEAFO webpage.

*132. Encourages, in this regard, regional fisheries management organizations and arrangements with the competence to manage bottom fisheries, States*

*participating in negotiations to establish such organizations or arrangements and flag States to consider the results available from marine scientific research, including those obtained from seabed mapping programmes concerning the identification of areas containing vulnerable marine ecosystems, and to adopt conservation and management measures to prevent significant adverse impacts from bottom fishing on such ecosystems, consistent with the Guidelines, or to close such areas to bottom fishing until such conservation and management measures are adopted, as well as to continue to undertake further marine scientific research, for the above-mentioned purposes, in accordance with international law as reflected in Part XIII of the Convention;*

**RESPONSE:**
Refer to the response for 119b.

*133. Encourages States, regional fisheries management organizations and arrangements and States participating in negotiations to establish such organizations or arrangements to undertake further research on deep-sea species and ecosystems and assessments of fishing activities on target and non-target species, consistent with the Guidelines and in accordance with the Convention, including Part XIII of the Convention;*

**RESPONSE:**
Refer to the response for 119b.

*134. Recognizes in particular the special circumstances and requirements of developing States and the specific challenges they may face in giving full effect to certain technical aspects of the Guidelines, and that implementation by such States of paragraphs 83 to 87 of resolution 61/105, paragraph 119 of resolution 64/72, paragraph 129 of the present resolution and the Guidelines should proceed in a manner that gives full consideration to section 6 of the Guidelines on special requirements of developing countries;*

**RESPONSE:**
SEAFO do special training when needed by developing countries specifically with regard to port inspections and scientific observers.

***General Assembly resolution 71/123***

*156. Invites States and regional fisheries management organizations and arrangements with competence to manage deep-sea fisheries to share experiences and good practices, for example by considering organizing joint meetings, where*

*appropriate;*

**RESPONSE:**
SEAFO did attend joint meetings organized by the FAO, for example training on Port state measures and a special MCS workshop with SIOFA.

*171. Calls upon States to take action immediately, individually and through regional fisheries management organizations and arrangements, and consistent with the precautionary approach and ecosystem approaches, to continue to implement the 2008 International Guidelines for the Management of Deep-sea Fisheries in the High Seas of the Food and Agriculture Organization of the United Nations (the Guidelines) in order to sustainably manage fish stocks and protect vulnerable marine ecosystems, including seamounts, hydrothermal vents and cold water corals, from fishing practices with significant adverse impacts on vulnerable marine ecosystems, recognizing the immense importance and value of deep-sea ecosystems and the biodiversity they contain as documented in the First Global Integrated Marine Assessment;*

**RESPONSE:**
See response under paragraph 122

*175. Urges States and regional fisheries management organizations and arrangements to ensure that their actions in sustainably managing deep-sea fisheries and implementing paragraphs 80 and 83 to 87 of resolution 61/105, paragraphs 113 and 119 to 124 of resolution 64/72 and paragraphs 121, 129, 130 and 132 to 134 of resolution 66/68 are consistent with the Guidelines;*

**RESPONSE:**
See response under paragraph 120 and 121

*177. Notes in this regard the adoption by coastal States of conservation measures regarding their continental shelf to address the impacts of bottom fishing on vulnerable marine ecosystems, as well as their efforts to ensure compliance with those measures;*

*178. Reiterates the importance of marine scientific research for the sustainable management of deep-sea fishery resources, including target fish stocks and non-target species, and to protect the marine ecosystem including, inter alia, the prevention of significant adverse impacts on vulnerable marine ecosystems;*

**RESPONSE:**
Various Scientific surveys was conducted in the SEAFO CA

*179. Welcomes the important progress made by States, regional fisheries management organizations and arrangements and those States participating in negotiations to establish a regional fisheries management organization or arrangement competent to regulate bottom fisheries to implement paragraphs 80 and 83 to 87 of resolution 61/105, paragraphs 113, 117 and 119 to 124 of resolution 64/72 and paragraphs 121, 126, 129, 130 and 132 to 134 of resolution 66/68 and address the impacts of bottom fishing on vulnerable marine ecosystems, but notes with concern the uneven implementation of those provisions and that, in particular, bottom fishing continues to occur in certain areas beyond national jurisdiction without an impact assessment having been completed in the 10 years since the adoption of resolution 61/105, in which the General Assembly called for such assessments to be undertaken by 31 December 2008;*

*180. Calls upon, in this regard, States, regional fisheries management organizations and arrangements with the competence to regulate deep-sea fisheries, and States participating in negotiations to establish such organizations or arrangements to take, in particular, the following urgent actions regarding bottom fishing in areas beyond national jurisdiction:*

*(a) To use, as applicable, the full set of criteria in the Guidelines to identify where vulnerable marine ecosystems occur or are likely to occur as well as for assessing significant adverse impacts;*

**RESPONSE:**
See response under paragraph 119(b)

*(b) To ensure that impact assessments, including for cumulative impacts of activities covered by the assessment, are conducted consistent with the Guidelines, particularly paragraph 47 thereof, are reviewed periodically and are revised thereafter whenever a substantial change in the fishery has occurred or there is relevant new information, and that, where such impact assessments have not been undertaken, they are carried out as a priority before authorizing bottom fishing activities;*

**RESPONSE:**
See response under paragraph 129(a)

*(c) To ensure that conservation and management measures adopted by States and regional fisheries organizations and arrangements are based on and updated on*

*the basis of the best available scientific information, noting in particular the need to improve effective implementation of thresholds and move-on rules;*

**RESPONSE:**
See response under paragraph 119(c)

*181. Recognizes that different types of marine scientific research, such as, inter alia, seabed mapping, mapping of vulnerable marine ecosystems based on information from the fishing fleet, on-site camera observations from remote vehicles, benthic ecosystem modelling, comparative benthic studies and predictive modelling have resulted in identification of areas where vulnerable marine ecosystems are known or are likely to occur and in the adoption of conservation and management measures to prevent significant adverse impacts on such ecosystems, including the closure of areas to bottom fishing in accordance with paragraph 119 (b) of resolution 64/72;*

**RESPONSE:**
See response under paragraph 119(b)

*182. Encourages, in this regard, States, regional fisheries management organizations and arrangements with the competence to manage bottom fisheries, and States participating in negotiations to establish such organizations or arrangements, to consider the results available from different types of marine scientific research, including, as appropriate, those listed in paragraph 181 above, concerning the identification of areas containing vulnerable marine ecosystems, and to adopt conservation and management measures to prevent significant adverse impacts from bottom fishing on such ecosystems, consistent with the Guidelines, or to close such areas to bottom fishing until such conservation and management measures are adopted, as well as to continue to undertake further marine scientific research, for the above-mentioned purposes, in accordance with international law, as reflected in Part XIII of the Convention;*

**RESPONSE:**
See response under paragraph 119(b)

*183. Encourages, in this regard, States, regional fisheries management organizations and arrangements with the competence to manage deep-sea fisheries, and States participating in negotiations to establish such organizations or arrangements to carry out further marine scientific research to address the remaining knowledge gaps, in particular with regard to fish stock assessments, and to base and update conservation and management measures on the best available scientific information, in accordance with international law, as reflected in Part XIII of the Convention;*

**RESPONSE:**
See response under paragraph 119(b)

*184. Notes with concern that vulnerable marine ecosystems may also be impacted by human activities other than bottom fishing, and encourages in this regard States and competent international organizations to consider taking action to address such impacts;*

**RESPONSE:**
Not assessed yet, mainly due to data poor situation.

*185. Calls upon States, individually and through regional fisheries management organizations and arrangements, to take into account the potential impacts of climate change and ocean acidification in taking measures to manage deep-sea fisheries and protect vulnerable marine ecosystems;*

**RESPONSE:**
Not done

*186. Calls upon States, individually and through regional fisheries management organizations and arrangements with the competence to regulate deep-sea fisheries, to adopt conservation and management measures, including monitoring, control and surveillance measures, on the basis of the best available scientific information, including stock assessments, to ensure the long-term sustainability of deep-sea fish stocks and non- target species and the rebuilding of depleted stocks, consistent with the Guidelines and, where scientific information is uncertain, unreliable or inadequate, to ensure that conservation and management measures are established consistent with the precautionary approach, in particular with regard to vulnerable, threatened or endangered species;*

**RESPONSE:**
See response under paragraph 113

*187. Recognizes, in particular, the special circumstances and requirements of developing States and the specific challenges they may face in giving full effect to certain technical aspects of the Guidelines, and that implementation by such States of paragraphs 83 to 87 of resolution 61/105, paragraph 119 of resolution 64/72, paragraph 129 of resolution 66/68 and paragraph 180 of the present resolution and the Guidelines should proceed in a manner that gives full consideration to section 6 of the Guidelines on the special requirements of developing countries;*

**RESPONSE:**

See response under paragraph 134

*188. Recognizes the need to enhance the capacity of developing States, including with regard to stock assessments, impact assessments, scientific and technical knowledge and training, and encourages States to provide technical and financial support to developing countries to address their special requirements and challenges in implementing the Guidelines;*

**RESPONSE:**
Scientist have been working with more experienced scientist on specifically workup of survey results and publishing papers.

*219. Encourages States, regional fisheries management organizations and arrangements and other relevant bodies to assist developing States in the implementation of the actions called for in paragraphs 80 and 83 to 87 of resolution 61/105, paragraphs 113, 117 and 119 to 124 of resolution 64/72 and paragraphs 121, 126, 129, 130 and 132 to 134 of resolution 66/68, and paragraphs 156, 171, 175 and 177 to 188 of the present resolution;*

Yours sincerely

Lizette Voges

Executive Secretary