

**Comparison of Conservation and Management Measures for Exploratory Fishing**

	NPFC	Central Bering Sea Pollock	CCAMLR	NAFO	NEAFC	SPRFMO	SEAFO
Convention Text on EF	<p>Article 3:</p> <p>The Convention “<i>will ensure that any expansion of fishing effort, development of new or EF, or change in the gear used for existing fisheries, does not proceed without prior assessment of the impacts of those fishing activities on the long-term sustainability of fisheries resources and a determination that those activities would not have SAs on VMEs, or ensuring that those activities are managed to prevent those impacts or are not authorized to proceed</i>”.</p>	<p>Article IV states that terms and conditions for any trial fishing to occur in the Convention Area, and any cooperative scientific research on living marine resources other than pollock shall be established at the annual meetings.</p> <p>Trial fishing may be authorized by the Convention for any year in which the AHL is zero.</p>				<p>Article 22 provides that a fishery that has not been subject to fishing or has not been subject to fishing with a particular gear type or technique for ten years or more shall be opened as a fishery or opened to fishing with such gear type or technique only when the Commission has adopted cautious preliminary CMMs in respect of that fishery and, as appropriate, non-target and associated or dependent species, and appropriate measures to protect the marine ecosystem in which that fishery occurs from adverse impacts of fishing activities;</p>	

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Highlights of CMM	<p>CMM 2017-05 and CMM 2017-06</p> <p>These CMMs describe requirements to affect the conservation and management of all fisheries in the northeastern and northwestern Pacific Ocean, respectively.</p> <p>Each of these CMMs includes, in Annex 1, protocols for EF in their respective Convention Areas. These Annexes describe EF as “all bottom fishing activities in new fishing areas and areas where fishing is prohibited in a precautionary manner or with bottom gear not previously used in the existing fishing areas”.</p> <p>The Annexes call for precautionary CMM including precautionary effort limits, precautionary spatial catch limits, regular review of appropriate indices of stock status, and measures to prevent adverse impacts on VMEs. If approved, all EF are to be permitted only where the assessment concludes that they would not cause SAI on marine species or any VMEs, and on the</p>		<p>Conservation Measure 21-02 (2016) addresses EF in the Convention Area. EF are defined as:</p> <ol style="list-style-type: none"> <li>1. a fishery that was previously defined as a “new fishery” by Conservation Measure 21-01;</li> <li>2. an EF shall continue to be classified as such until sufficient information is available: <ol style="list-style-type: none"> <li>a. to evaluate distribution, abundance and demography of the target species, leading to an estimate of the fishery’s potential yield;</li> <li>b. to review the fishery’s potential impacts on dependent and related species;</li> <li>c. to allow the SC to formulate and provide advice to the Commission on appropriate harvest catch levels, as well as effort levels and fishing gear, where appropriate.</li> </ol> </li> </ol> <p>The Commission will annually establish a precautionary catch limit at a level that will provide the information specified in</p>	<p>EBF activities mean bottom fishing activities conducted outside the footprint, or within the footprint with significant changes to the conduct or in the technology used in the fishery.</p> <p>EBF may be conducted outside of the “Footprint” only if the EBF Activities Protocol, outlined in Chapter II of the NAFO Conservation and Enforcement Measures, is followed.</p> <p>Note: The Footprint (otherwise known as the Existing bottom fishing areas) is defined in the NAFO Conservation and Enforcement Measures as the portion of the NAFO Regulatory Area where bottom fishing has historically occurred.</p> <p>The Exploratory Protocol shall consists of:</p> <ul style="list-style-type: none"> <li>- A harvesting plan which outlines target species, dates and areas. Area and effort restrictions should be considered to ensure fisheries occur on a gradual basis in a limited geographical area</li> <li>- A mitigation plan including measures to prevent SAI to VMEs that</li> </ul>	<p>In 2014, the Commission adopted Recommendation 19: Protection of VME’s in NEAFC Regulatory Areas.</p> <p>This recommendation defines EF as “all commercial bottom fishing activities outside area closures and existing bottom fishing areas, or if there are significant changes to the conduct and technology of bottom fishing activities within existing bottom fishing areas”. Article 6 of Recommendation 19 specifically addresses EBF, and Article 7 addresses the assessment of proposed EBF.</p> <p>EBF shall only commence after having been assessed by PECMAS and approved by the Convention.</p> <p>Preference shall be given by the relevant CP to EBF 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.</p>	<p>New and EF should not be permitted to expand faster than the acquisition of information necessary to ensure that the fishery can and will be developed in accordance with the principles set out in Article 2 of the Convention;</p> <p>A fishery is an “EF”:</p> <ol style="list-style-type: none"> <li>a) if it has not been subject to fishing in the previous ten years; or</li> <li>b) for the purposes of fishing with a particular gear type or technique, if it has not been subject to fishing by that particular gear type or technique in the previous ten years; or</li> <li>c) if fishing in that fishery has been undertaken in the previous ten years pursuant to this CMM, and a decision has not yet been taken in accordance with paragraph 23 or 24 of this CMM to either close or manage the fishery as an established fishery.</li> </ol>	<p>“EBF” means all commercial bottom fishing activities outside area closures and existing bottom fishing areas, or fisheries within existing bottom fishing areas when a new fishing method and/or strategy are attempted to be used;</p> <p>5. Preference shall be given by the relevant CP to EBF 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.</p>

	<p>basis and recommendation of the SC.</p>		<p>the Data Collection Plan and required to undertake the evaluations described in paragraph 1(ii) [above].</p>	<p>may be encountered during the fishery</p> <ul style="list-style-type: none"><li>- A catch monitoring plan that includes recording/ reporting of all species caught, 100% satellite tracking and 100% observer coverage. The recording/ reporting of catch should be sufficiently detailed to conduct an assessment of activity, if required.</li><li>- A data collection plan to facilitate the identification of VMEs/species in the area fished.</li></ul>			
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	NPFC	Central Bering Sea Pollock	CCAMLR	NAFO	NEAFC	SPRFMO	SEAFO
Evaluations and Assessments before EF can begin	<p>When a member of the Commission would like to conduct EF, it is to follow the following procedure:</p> <p>(1) Prior to the commencement of fishing, the member of the Commission is to circulate the info and assessment in Appendix 1.1 to the members of the SC for review and to all members of the Commission for info, together with the impact assessment. Such info is to be provided to the other members at least 30 days in advance of the meeting at which the information shall be reviewed.</p> <p>(2) The assessment in (1) above is to be conducted in accordance with the procedure set forth in "Science-based Standards and Criteria for Identification of VMEs and Assessment of Significant Adverse Impacts on VMEs and Marine Species (Annex 2)", with the understanding that particular care shall be taken in the evaluation of risks of the significant adverse impact on VMEs, in line with the precautionary approach.</p>		<p>While fisheries are considered EF, the SC will develop (and update annually) a DCP for the fishery that identifies the data needs and describe any operational research actions necessary to obtain the relevant data to enable an assessment of the stock to be made. The DCP should include:</p> <ol style="list-style-type: none"> <li>i. a description of the catch, effort and related biological, ecological and environmental data required to undertake the evaluations described in paragraph 1(ii) [above], and the date by which such data are to be reported annually to CCAMLR;</li> <li>ii. a plan for directing fishing effort during the exploratory phase to permit the acquisition of relevant data to evaluate the fishery potential and the ecological relationships among harvested, dependent and related populations and the likelihood of adverse impacts;</li> <li>iii. where appropriate, a plan for the acquisition of any other research data by FVs, including activities that may require the cooperative activities of scientific observers and the vessel, as may be</li> </ol>	<p>CPs that wish to engage in EBF activities shall provide to the Executive Secretary a "NOI to Undertake EBF" in accordance with the EBF Activities Protocol together with the assessment required under Article 19.1 of the NAFO Conservation and Enforcement Measures no less than two weeks before the regularly scheduled (June) meeting of the SC.</p> <p>The NOI must contain:</p> <ol style="list-style-type: none"> <li>a) Harvesting plan that outlines target species, dates and areas, anticipated effort, proposed gear types, and IMO number of participating vessels;</li> <li>b) Mitigation plan including measures to prevent significant adverse impacts to VMEs that may be encountered during the fishery;</li> <li>c) Catch monitoring plan that includes recording/reporting of all species caught, 100% satellite tracking and 100% observer coverage; and</li> <li>d) DCP to facilitate identification of VMEs and species in the area fished.</li> </ol> <p>Annex I.E also contains a template for a complete NOI.</p>	<p>Article 6 includes 8 paragraphs that address requirements to which CPs must adhere to consider EF in NEAFC Convention waters. Requirements include:</p> <ol style="list-style-type: none"> <li>1. Obtaining and distributing relevant data to allow PECMAS and ICES to conduct a preliminary risk assessment of the risk of SAI to VMEs.</li> <li>2. Preparing and NOI to undertake EBF least six months prior to the proposed start of fishing. The NOI must contain: <ol style="list-style-type: none"> <li>a. Harvesting plan that outlines target species, proposed dates and areas and the types of bottom fishing gear to be used. Area and effort restrictions shall be considered to ensure that fishing occurs on a gradual basis in a limited geographic area;</li> <li>b. Mitigation plan, including measures to prevent SAI to VMEs that may be encountered during the fishery;</li> <li>c. Catch monitoring plan, including</li> </ol> </li> </ol>	<p>Any Member or CNCP seeking to permit a vessel that flies its flag to fish in an EF, or to fish in an EF with a gear type that has not been used in that fishery for the previous ten years; shall, not less than 60 days in advance of the next annual meeting of the SC:</p> <ol style="list-style-type: none"> <li>a) submit an application to the Commission to permit a vessel or vessels that fly its flag to fish in that EF. This application shall include information that satisfies paragraphs 2 and 3 of Annex 1 of CMM 05-2016 (Record of Vessels);</li> <li>b) prepare and submit a FOP to the SC. The FOP shall include the following information, to the extent it is available: <ol style="list-style-type: none"> <li>i. a description of the EF, including area, target species, proposed methods of fishing, proposed maximum catch limits and any apportionment of that catch limit among areas or species;</li> <li>ii. specification and full description of the types of fishing gear</li> </ol> </li> </ol>	<p>CMM 30/15</p> <p>Article 6. EBF</p> <ol style="list-style-type: none"> <li>1. Prior to undertaking EBF, CPs shall gather relevant data to facilitate assessments of EBF by the SC. Such data should preferably include data from sea-bed mapping programs, i.e. data from echosounders, if practicable multi-beam sounders, and/or other data relevant to the preliminary assessment of the risk of significant adverse impacts on VMEs.</li> <li>2. The relevant CP shall forward to the Executive Secretary a NOI to undertake EBF at least 60 days prior to the proposed start of the fishery. The NOI shall be accompanied by the following information: <ol style="list-style-type: none"> <li>(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;</li> </ol> </li> </ol>

<p>(3) The SC is to review the info and the assessment submitted in (1) above in accordance with “SC Assessment Review Procedures for Bottom Fishing Activities (Annex 3).”</p> <p>(4) The EF are to be permitted only where the assessment concludes that they would not have SAIs on marine species or any VMEs and on the basis of comments and recommendations of SC. Any determinations, by any Member of the Commission or the SC, that the EF activities would not have SAIs on marine species or any VMEs, shall be made publicly available through the NPFC website.</p> <p>Appendix 1.1 and 1.2 to Annex 1 (identical in both CCMs) provide information to be provided before the start of EF, and information to be included in a report to the SC.</p> <p>Information to be submitted before EF commence include:</p> <ol style="list-style-type: none"> <li>1. A harvesting plan including <ol style="list-style-type: none"> <li>a. Name of vessel</li> </ol> </li> </ol>		<ol style="list-style-type: none"> <li>iv. an evaluation of the timescales involved in determining the responses of harvested, dependent and related populations to fishing activities.</li> </ol> <p>Any Commission Member that proposes to participate in an EF is required to submit notice to the Secretariat that identifies the vessels that will participate and contains a FOP for the fishing season. The FOP will be reviewed by several standing Working Groups, the SC, and the Commission. FOPs are required to provide, as possible:</p> <ol style="list-style-type: none"> <li>a) the nature of the EF, including target species, methods of fishing, proposed region, and maximum catch levels proposed for the forthcoming season;</li> <li>b) specification and full description of the types of fishing gear to be used;</li> <li>c) biological information on the target species from comprehensive research/survey cruises, such as distribution,</li> </ol>	<p>required for the SC to evaluate the fishery potential and the ecological relationships among harvested, dependent and related populations and the likelihood of adverse impacts;</p> <p>In addition to the NOI, a CP shall submit a preliminary assessment of known and anticipated impacts of the BF activity on VMEs.</p> <p>The preliminary assessment shall</p> <ol style="list-style-type: none"> <li>(a) Be sent to the Executive Secretary no less than 2 weeks in adv of the opening of the June mtg of the SC</li> <li>(b) be IAW guidance developed by the SC,</li> <li>(c) address the elements in accordance with the EBF protocol</li> </ol> <p>The Commission will request the SC to:</p> <ol style="list-style-type: none"> <li>(a) Undertake an analysis of the preliminary assessment at its meeting immediately following the submission by a CP</li> <li>(b) consider any available additional info, including info from other fisheries in the region are similar fisheries elsewhere; and</li> <li>(c) in line with the PA, provide advice to the Commission on possible adverse impacts on VMEs and on the mitigation measures to prevent them.</li> </ol> <p>The joint Commission-SC Working Group on Ecosystem</p>	<p>reporting/recording of all species caught;</p> <ol style="list-style-type: none"> <li>d. A sufficient system for recording/reporting of catch, detailed to conduct an assessment of activity, if required;</li> <li>e. Fine-scale DCP on the distribution of intended tows and sets, to the extent practicable on a tow-by-tow and set-by-set basis;</li> <li>f. Plans for monitoring of bottom fishing activities using gear monitoring technology, including cameras if practicable, and</li> <li>g. Monitoring data obtained pursuant to paragraph 1 of the article.</li> </ol> <p>3. The NOI, along with the accompanying information shall be forwarded by the Secretary to all CPs as well as to PECMAS for review. The relevant CP shall also provide an assessment of the proposed EBF in accordance with Article 7 of the Recommendation.</p>	<p>to be used, including any modifications made to gear intended to mitigate the effects of the proposed fishing on non-target and associated or dependent species or the marine ecosystem in which the fishery occurs the time period the FOP covers (up to a maximum period of three years);</p> <ol style="list-style-type: none"> <li>iii. the time period of the FOP (max period of 3 yrs)</li> <li>iv. any biological information on the target species from comprehensive research and/or survey cruises, such as distribution, abundance, demographic data and information on stock identity;</li> <li>v. details of non-target and associated or dependent species and the marine ecosystem in which the fishery occurs, the extent to which these would likely be affected by the proposed fishing activity and any measures that will be taken to mitigate these effects;</li> </ol>	<p>(b) mitigation plan, including measures to prevent significant adverse impact to VMEs that may be encountered during the fishery;</p> <p>(c) catch monitoring plan, including recording/reporting of all species caught;</p> <p>(d) a sufficient system for recording/reporting of catch, detailed to conduct an assessment of activity, if required;</p> <p>(e) DCP to facilitate the identification of VMEs in the area fished; And make every effort to also include the following information:</p> <p>(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;</p> <p>(g) plans for monitoring of bottom fishing activities using gear monitoring technology, including cameras if practicable; and</p> <p>(h) monitoring data obtained pursuant to paragraph 1 of this Article .</p> <p>3. The NOI along with the accompanying information shall be forwarded to the</p>
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	<ul style="list-style-type: none"> <li>b. Flag member of vessel</li> <li>c. Description of area to be fished (location and depth)</li> <li>d. Fishing dates</li> <li>e. Anticipated effort</li> <li>f. Target species</li> <li>g. Bottom fishing gear-type used</li> <li>h. Area and effort restrictions to ensure that fisheries occur on a gradual basis in a limited geographical area</li> </ul> <p>2. A mitigation plan including measures to prevent SAI to VMEs that may be encountered during the fishery</p> <p>3. A catch monitoring plan including</p> <ul style="list-style-type: none"> <li>a. Recording/reporting of all species brought onboard to the lowest possible taxonomic level</li> <li>b. 100% satellite monitoring</li> <li>c. 100% observer coverage</li> </ul> <p>4. A DCP: - Data is to be collected in accordance with "Type</p>		<p>abundance, demographic data, and information on stock identity;</p> <ul style="list-style-type: none"> <li>d) details of dependent and related species and the likelihood of their being affected by the proposed fishery;</li> <li>e) information from other fisheries in the region, or similar fisheries elsewhere, that may assist in the evaluation of potential yield;</li> <li>f) if the proposed fishery will be undertaken using bottom trawl gear, information on the known and anticipated impacts of this gear on VMEs, including benthos and benthic communities.</li> </ul>	<p>Approach Framework to Fisheries Mgmt shall:</p> <ul style="list-style-type: none"> <li>(a) Examine the advice from of the SC and</li> <li>(b) make recommendations to the Council.</li> </ul> <p>The Commission shall, taking account of the advice and recommendations provided by the SC and the Joint Commission-Science Council Working Group on Ecosystem Approach Framework to Fisheries Mgmt, either:</p> <ul style="list-style-type: none"> <li>(a) Authorize the bottom fishing activity for port or all of the area in which EBF and include this area in the footprint, or</li> <li>(b) discontinue the EBF activity, and if necessary close part or all of the area where EBF was carried out, or</li> <li>(c) authorize the continued conduct of EBF activity with a view to gather more info.</li> </ul> <p>When the completed NOI and Assessment is received by the Executive Secretary, the SC will undertake an independent analysis of the preliminary assessment submitted, taking into account the risks of SAls to VMEs. The SC should consider any available additional information, including information from</p>	<p>Article 7 includes 4 paragraphs that address how proposed EF activities are assessed before they are approved. Specifically, each CP must submit a preliminary assessment of known and anticipated impacts of the proposed activity. Once received, the Secretary will forward the assessment to all CPs and to PECMAS. PECMAS will conduct an evaluation of the assessment, taking into account the risks of SAI to VMEs, and any advice provided by ICES. When the evaluation is completed, PECMAS will provide advice to the Commission as to whether the proposed EBF activity should be approved or would have SAI on VMEs. If SAI is expected, PECMAS will provide advice on mitigation measures to prevent such impacts. The Commission will then, within 30 days, provide or withhold approval for the proposed EF activities.</p> <p>The Permanent Committee on Management and Science, in 2015, published their procedures and standards for consideration of proposals for EF pursuant to NEAFC Recommendation 19. The procedures ensure that the required evaluation and recommendation to the Commission can take place</p>	<ul style="list-style-type: none"> <li>vi. the anticipated cumulative impact of all fishing activity in the area of the EF if applicable;</li> <li>vii. information from other fisheries in the region or similar fisheries elsewhere that may assist in the evaluation of the relevant EF's potential yield, to the extent the Member or CNCP is able to provide this information;</li> <li>viii. if the proposed fishing activity is bottom fishing, as defined in CMM 03-2018 (Bottom Fishing), the assessment of the impact of their flagged vessels' bottom fishing activities, prepared pursuant to paragraphs 10 and 11 of CMM 03-2018, or paragraphs 16 and 17 of CMM 03-2018, as applicable; and</li> <li>ix. where the target species is also managed by an adjacent RFMO or similar organization, a description of that neighboring fishery sufficient to allow the SC to formulate its</li> </ul>	<p>Executive Secretary. Then the NOI will be evaluated by the SC and the Commission during their respective annual meetings. If need be, this process can be done by correspondence allowing SC 30 days for scientific evaluation and an additional 30 days for the Commission to approve, withhold or reject the proposal.</p> <p>4. EBF shall only commence after having been assessed by the SC and approved by the Commission.</p> <p>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 authorize new bottom fishing activities based upon the results of EBF, taking due account of the rules and procedures set out in Annex 5. Areas where such new bottom fishing activities are authorized shall be defined as "existing bottom fishing areas" pursuant to Article 4.</p>
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	<p>and Format of Scientific Observer Data to be Collected” (Annex 5)</p>			<p>other fisheries in the region or similar fisheries elsewhere in their analysis. When the analysis is complete, the SC and Joint Fisheries Commission-Scientific Council Working Group will provide advice on possible adverse impacts to VMEs and on mitigation measures to prevent them.</p> <p>The Commission may allow, prohibit, or restrict bottom fishing activities, taking into account the advice and recommendations provided by the SC and Joint Fishing Commission-Scientific Council Working Group. Restrictions may include specific mitigation measures for bottom fishing activities, allowing, prohibiting, or restricting bottom fishing with certain gear types, or changes in gear design or deployment, and any other relevant requirements or restrictions necessary to prevent SAIs to VMEs.</p>	<p>within three months of the NOI and accommodate the request for comments from ICES. Initially, the chairman of PECMAS will determine if the submitted documentation is complete.</p> <p>To be considered complete, the documentation must contain:</p> <ul style="list-style-type: none"> <li>a) Harvesting plan that outlines target species, proposed dates and areas and the type of bottom fishing gear to be used;</li> <li>b) Mitigation plan, including measures to prevent SAI to VMEs that may be encountered during the fishery;</li> <li>c) Catch monitoring plan, including recording/reporting of all species caught;</li> <li>d) Sufficient system for recording/reporting of catch, with sufficient detail to conduct an assessment of activity, if required;</li> <li>e) Fine-scale DCP on the distribution of intended tows and sets, to the extent practicable on a tow-by-tow and set-by-set basis;</li> <li>f) DCP to facilitate the identification of VMEs in the areas fished;</li> <li>g) Plans for monitoring of bottom fishing activities</li> </ul>	<p>advice in accordance with paragraph 8.</p> <p>c) provide a commitment in its proposal to implement the DCP for the EF developed in accordance with paragraph 9, should the Commission approve fishing in accordance with the FOP.</p> <p>6. The requirements in paragraph 5 shall be considered as a proposal for the next annual meeting of the Commission and will be made available to all Members and CNCPs in accordance with the Rules of Procedure.</p> <p>At its annual meeting, the SC shall consider all FOPs submitted pursuant to paragraph 5, all information provided in accordance with a DCP and any other relevant information.</p> <p>The SC shall provide recommendations and advice to the Commission on each FOP on the following matters, as appropriate:</p> <ul style="list-style-type: none"> <li>a) management strategies or plans for fishery resources;</li> <li>b) reference points, including precautionary reference points as described in Annex II of the 1995 Agreement;</li> </ul>	<p>Article 7.</p> <p>1. Each CP proposing to undertake EBF shall submit to the Executive Secretary, in addition to the NOI, a preliminary assessment of the known and anticipated impacts of the proposed bottom fishing activity as described in Annex 3.</p> <p>Annex 3 Annex 3 Assessment of EBF Activities Assessments should address, inter alia:</p> <ul style="list-style-type: none"> <li>(a) type(s) of fishing conducted or contemplated, including vessels and gear types, fishing areas, target and potential by catch species, fishing effort levels and duration of fishing (harvesting plan);</li> <li>(b) best available scientific and technical information on the current state of fishery resources and baseline information on the ecosystems, habitats and communities in the fishing area, against which future changes are to be compared;</li> <li>(c) identification, description and mapping (geographical location</li> </ul>
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					<p>using gear monitoring technology, including cameras if practicable; and</p> <p>h) Monitoring data.</p> <p>If PECMAS finds that any of the required elements are missing or described in a manner that does not allow evaluation, then the proposal would not be approved. Once the documentation is complete, the information will be sent to all PECMAS and to ICES, if necessary, for evaluation. Specifically, PECMAS will request comments from ICES to address the adequacy of the preliminary assessment, the level of precaution adopted, any significant gaps in the information on VMEs in the area, and the likely efficacy of mitigation measures proposed by the CPs. Any comments from ICES will be immediately sent to the CPs, who will then conduct an evaluation considering ICES' comments.</p> <p>The CPs' preliminary assessment must include:</p> <p>a) Type(s) of fishing conducted or contemplated, including vessels and gear types, fishing areas, target and potential bycatch</p>	<p>c) an appropriate precautionary catch limit;</p> <p>d) the cumulative impacts of all fishing activity in the area of the EF;</p> <p>e) the impact of the proposed fishing on the marine ecosystem;</p> <p>f) the sufficiency of information available to inform the level of precaution required and the degree of certainty with which the SC's advice is provided;</p> <p>g) the degree to which the approach outlined in the FOP is likely to ensure the EF is developed consistently with its nature as an EF, and consistently with the objectives of Article 2 of the Convention; and</p> <p>h) in respect of a FOP that proposes any bottom fishing activity, advice and recommendations in accordance with paragraph 12 of CMM 03-2018</p> <p>When considering a FOP submitted pursuant to paragraph 5 of this CMM in respect of an EF that meets the definition of paragraph 4(a) or (b) of this CMM, the SC shall develop a DCP in respect of that EF which</p>	<p>and extent) of VMEs known or likely to occur in the fishing area;</p> <p>(d) identification, description and evaluation of the occurrence, character, scale and duration of likely impacts, including cumulative impacts of the proposed fishery on VMEs in the fishing area;</p> <p>(e) data and methods used to identify, describe and assess the impacts of the activity, the identification of gaps in knowledge, and an evaluation of uncertainties in the information presented in the assessment;</p> <p>(f) risk assessment of likely impacts by the fishing operations to determine which impacts on VMEs are likely to be significant adverse impacts; and</p> <p>(g) mitigation and management measures to be used to prevent significant adverse impacts on VMEs and the measures to be used to monitor effects of the fishing operations.</p>
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					<p>species, fishing effort levels and duration of fishing (harvesting plan);</p> <p>b) Best available scientific and technical information on the current state of fishery resources and baseline information on the ecosystems, habitats and communities in the fishing area, against which future changes are to be compared;</p> <p>c) Identification, description and mapping of VMEs known or likely to occur in the fishing area;</p> <p>d) Identification, description and evaluation of the occurrence, character, scale and duration of likely impacts, including cumulative impacts of the proposed fishery on VMEs in the fishing area;</p> <p>e) Data and methods used to identify, describe and assess the impacts of the activity, the identification of gaps in knowledge, and an evaluation of uncertainties in the information presented in the assessment;</p> <p>f) Risk assessment of likely impacts by the fishing operations to determine which</p>	<p>should include research requirements, as appropriate. The DCP shall identify and describe the data needed and any operational research actions necessary to obtain data from the EF to enable an assessment of the stock, the feasibility of establishing a fishery and the impact of fishing activity on non-target, associated or dependent species and the marine ecosystem in which the fishery occurs.</p> <p>The SC shall review and update the DCP for each EF annually as appropriate.</p> <p>The DCP shall require, as appropriate:</p> <p>a) description of the catch, effort and related biological, ecological and environmental data required to undertake the evaluations described in paragraph 24;</p> <p>b) the dates by which the data must be provided to the Commission;</p> <p>c) a plan for directing fishing effort in an EF to allow for the acquisition of relevant data to evaluate the fishery potential and the ecological relationships among harvested, non-target</p>	
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					<p>impacts on VMEs are likely to be significant adverse impacts; and</p> <p>g) Mitigation and management measures to be used to prevent significant adverse impacts on VMEs and the measures to be used to monitor effects of the fishing operations.</p> <p>If PECMAS determines that the submitted assessment is in complete or is insufficiently rigorous and balanced to assess the risk of significant adverse impacts, then the proposal shall not be approved. The evaluation from the CPs will be forwarded to the PECMAS chairman and members for their evaluation. Within 6 weeks, the PECMAS chairman and members will respond with their opinion of whether the proposed activities should be approved or declined. If possible, the assessment of the proposed activities will be reviewed at a PECMAS meeting. If members do not respond within the six-week deadline, it will be interpreted that the EF is unlikely to have SAIs on VMEs (a positive response is necessary to indicate that the proposed activities are likely to have SAI). The PECMAS chairman will</p>	<p>and associated and dependent populations and the likelihood of adverse impact;</p> <p>d) where appropriate, a plan for the acquisition of any other research data obtained by fishing vessels, including activities that may require the cooperative activities of scientific observers and the vessel, as may be required by the SC to evaluate the fishery potential and the ecological relationships among harvested, non-target, associated and dependent populations and the likelihood of adverse impacts; and</p> <p>e) an evaluation of the time scales involved in determining the responses of harvested, dependent and related populations to fishing activities.</p> <p>The Compliance and Technical Committee shall consider any FOP submitted pursuant to paragraph 5 and any advice of the SC thereon and provide advice and recommendations to the Commission on appropriate management arrangements, including in light of the obligations in</p>	
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					<p>summarize all evaluations and formulate a response to the Commission that includes any different views on the recommendations (recommendations need not be unanimous), within three months of the submission of the NOI.</p>	<p>CMM 03-2018 (Bottom Fishing), if applicable.</p> <p>At its annual meeting, the Commission shall consider all FOPs submitted pursuant to paragraph 5, any advice or recommendations provided by the SC and Compliance and Technical Committee pursuant to paragraphs 8 and 11, and any applicable obligations under CMM 03-2018 (Bottom Fishing) in respect of the proposed fishing activity. On the basis of this consideration, the Commission shall take a decision as to whether to approve fishing in the EF in accordance with the FOP and for what period of time, up to a maximum period of three years. If the Commission approves fishing in accordance with the FOP it shall adopt a CMM in respect of the EF which shall include a precautionary catch limit and any other management measures the Commission considers appropriate.</p>	
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	NPFC	Central Bering Sea Pollock	CCAMLR	NAFO	NEAFC	SPRFMO	SEAFO
Requirements during EF Ops	Members of the Commission must ensure that all vessels flying its flag conducting EF are equipped with a satellite monitoring device and have an observer onboard at all times.			<p>100% satellite tracking</p> <p>100% observer coverage.</p> <p>The observer is to:</p> <ol style="list-style-type: none"> <li>1. identify corals, sponges and other organisms to the lowest possible taxonomical level, using the EF Data Collection Form; and</li> <li>2. Deliver the results of such identification to the master of the vessel.</li> </ol> <p>If a master of a vessel encounters a VME indicator species, the master must:</p> <ol style="list-style-type: none"> <li>1. Quantify the catch of VME indicator species</li> <li>2. If the quantify of the VME indicator species is beyond the established threshold, the master is to report the encounter without delay to the flag State CP and provide certain info, and cease fishing and move away at least 2 nautical miles</li> </ol> <p>The CP receiving the above encounter info is:</p> <ul style="list-style-type: none"> <li>- to forward, without delay the info reported by the master to the Executive Secretary of the above vessel that encounters VME indicator species</li> </ul>	<p>Scientific observer on board.</p> <p>Observers shall collect data in accordance with the VME Data Collection Protocol as set out in Annex 3.</p>	<p>Members and CNCPs shall not permit their flagged vessels to fish in an EF without approval from the Commission.</p> <p>Members and CNCPs shall ensure that any vessel that flies their flag only fishes in an EF in accordance with the FOP prepared and approved in respect of that vessel's proposed fishing activity.</p> <p>Members and CNCPs shall ensure that where their flagged vessels fish in an EF, the data required by the DCP is provided to the Commission. That data shall be provided to the relevant standard prescribed in CMM 02-2018 (Data Standards). Members and CNCPs whose vessels participate in EF shall be prohibited from fishing in the relevant EF if the data specified in the DCP has not been submitted to the Commission for the most recent season in which the fishing occurred, until the relevant data has been submitted to the Commission and the SC has had the opportunity to review that data.</p> <p>Members and CNCPs whose vessels participate in EF shall ensure that each</p>	<p>CMM 30/15</p> <p>6. The relevant CP shall ensure that vessels flying their flag conducting EF have a scientific observer on board. Observers shall collect data in accordance with a VME Data Collection Protocol set out in Annex 4.</p>

				<ul style="list-style-type: none"> <li>- Issue an immediate alert encounter to all vessels entitled to fly its flag</li> <li>- Consider temporarily closing a 2 nautical mile radius around any reported VME encounter location outside of the Footprint</li> </ul> <p>The Executive Secretary shall:</p> <ul style="list-style-type: none"> <li>(a) Archives reported encounter info and without delay transmits it to all CPs</li> <li>(b) makes an annual report to the SC</li> <li>(c) requests all CPs to implement a temporary closure of a 2 NM radius around the reporting position of an encounter outside of the Footprint</li> <li>(d) requests CP to maintain the temporary closure until the Commission has adopted CMM if the SC concluded that the area covered by the temporary closure consists of VMEs</li> <li>(e) informs the CP that they may report the area if the SC does not close the area covered by a temporary closure consists of a VME</li> <li>(f) makes an annual report to the SC to also include reports from EBF activities that were conducted in the last year.</li> </ul>		<p>vessel that flies its flag carries one or more independent observers sufficient to collect data in accordance with the DCP.</p> <p>None of the obligations in this measure exempt a Member or CNCP from complying with any other obligations in the Convention or any CMM adopted by the Commission.</p> <p>Any fishing activity undertaken pursuant to this CMM will not be considered to be a precedent for future allocation decisions.</p> <p>Members and CNCPs shall be entitled to authorize fishing in an EF by a flagged vessel not identified in the FOP if a vessel specified in the FOP is prevented from fishing on account of legitimate operational or force majeure reasons and a replacement vessel is proposed pursuant to this paragraph. In such circumstances the Member or CNCP concerned shall immediately inform the Secretariat and provide:</p> <ul style="list-style-type: none"> <li>a) full details of the intended replacement vessel;</li> <li>b) a comprehensive account of the reasons for the replacement and any relevant</li> </ul>	
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				<p>Must have an observer with sufficient scientific expertise for the duration of the EBF activity.</p>		<p>supporting evidence; and c) specifications and a full description of the types of fishing gear to be used by the replacement vessel.</p> <p>The Secretariat shall circulate this information to all Members and CNCPs as soon as possible.</p>	
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	NPFC	Central Bering Sea Pollock	CCAMLR	NAFO	NEAFC	SPRFMO	SEAFO
Reporting after EF completed	<p>Within 3 months of the end of the EF, or within 12 months of the commencement of fishing, the member of the Commission will provide a report of the results of their activities to the members of the SC and all Members of the Commission.</p> <p>The SC will review the report and decide whether the EF activities had SAIs on marine species or any VME. The SC will then send its recommendations to the Commission on whether the EF can continue and whether additional management measures shall be required.</p> <p>Members of the Commission shall only authorize continuation of EF activities or commencement of commercial fishing activities, under this protocol on the basis of comments and recommendations of the SC.</p> <p>The report to the SC must contain:</p> <ol style="list-style-type: none"> <li>1. Name of vessel</li> <li>2. Flag member of vessel</li> </ol>	<p>The Convention text does not require any advance notice for any party to conduct trial fishing, although at annual meetings Convention parties have been requested to inform other parties before conducting any trial fishing (one month notice before 2002, two weeks' notice, thereafter). The last reported trial fishing occurred in 2008.</p> <p>Article XI of the Convention text establishes requirements for fishing in the Convention Area when the AHL is not zero or for trial fishing. There are no requirements for evaluations or assessments of conditions before conducting trial fishing, but Convention parties have provided reports of their trial fishing at the annual meeting following the trial fishery.</p>		<p>Must provide to the Executive Secretary an "EBF Trip Report" within 3 months of the completion of the EBF activities.</p>	<p>The relevant CP shall provide a report of the results of such activities to the Secretary for circulation to ICES and to all other CPs. It shall ensure that the data, which derives from EBF, will be made available to ICES.</p> <p>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 authorize new bottom fishing activities based upon the results of EBF conducted in the previous two years. Areas where such new bottom fishing activities are authorized shall be defined as "existing bottom fishing areas" pursuant to Article 4.</p>		<p>CMM 30/15</p> <p>The relevant CP shall provide promptly a report of the results of such activities to the Executive Secretary for circulation to all CPs. It shall ensure that the data, which derives from exploratory bottom fishing, will be made available to the SC.</p>

	<ol style="list-style-type: none"><li>3. Description of area fished (location and depth)</li><li>4. Fishing dates</li><li>5. Total effort</li><li>6. Bottom fishing gear-type used</li><li>7. List of VME encountered (the amount of VME indicator species for each encounter, with latitude and longitude of encounter)</li><li>8. Mitigation measures taken in response to VME encounter</li><li>9. List of all organisms brought onboard by latitude and longitude.</li></ol>						
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	NPFC	Central Bering Sea Pollock	CCAMLR	NAFO	NEAFC	SPRFMO	SEAFO
Review	<p>The SC is to review the report, and decide whether the EF activities had SAIs on marine species or any VME. The SC then is to send its recommendations to the Commission on whether the EF can continue and whether additional management measures shall be required if they are to continue.</p> <p>The Commission is to strive to adopt CMM to prevent SAIs on marine species or any VMEs. If the Commission is not able to reach consensus on any such measures, each fishing member of the Commission is to adopt measures to avoid any SAIs on VMEs.</p> <p>Members of the Commission shall only authorize continuation of EF activity, or commencement of commercial fishing activity, under this protocol on the basis of comments and recommendations of the SC.</p>			<p>The SC will:</p> <ul style="list-style-type: none"> <li>- analyze info received from the Executive Secretary</li> <li>- -examine any temporary closures implemented, and</li> <li>- Provide advice to the Commission on whether a VME exists following encounters with VME indicator species.</li> </ul> <p>The Commission shall:</p> <ul style="list-style-type: none"> <li>- Consider advice provided by the SC</li> <li>- Adopt CMM as needed</li> <li>- Conduct an assessment of bottom fishing activities in 2021 and every 5 years thereafter, or when there is new scientific info indicating a VME in a given area, other new scientific info or there is a significant change in the fishery.</li> </ul>		<p>Once a FOP expires, a Member or CNCP may prepare a new FOP in accordance with paragraph 5.</p> <p>Once an EF has been fished for 10 years pursuant to this CMM, any further fishing in that fishery shall be undertaken only in accordance with a CMM adopted by the Commission in accordance with paragraph 24 to manage that fishery as an established fishery.</p> <p>At any time if the Commission is satisfied that sufficient information is available:</p> <ul style="list-style-type: none"> <li>a) to evaluate the distribution, abundance and demography of the target species to inform an estimate of the EF's potential yield; and</li> <li>b) to review the EF's potential impacts on non-target and associated or dependent species and the marine ecosystem in which the fishery occurs; and</li> <li>c) to allow the SC to formulate and provide advice to the Commission on appropriate</li> </ul>	

						<p>management arrangements;</p> <p>the Commission may take a decision, on the application of any Member, to manage the fishery as an established fishery.</p> <p>This measure shall be reviewed at the annual meeting of the Commission in 2019. Such review shall take into account, <i>inter alia</i>, the most recent advice of the SC on EF.</p>	
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Acronyms:

AHL	allowable harvest Level
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CMM	conservation and management measure(s)
CNCP	cooperating non-contracting party
CP	contracting party(s)
DCP	data collection plan
EBF	exploratory bottom fishing
EF	exploratory fishing/fisheries
FOP	fisheries operation plan
FV	fishing vessel
ICES	International Council for the Exploration of the Sea
IMO	International Maritime Organization
NAFO	Northwest Atlantic Fisheries Organization
NEAFC	North East Atlantic Fisheries Commission
NOI	notice of intent
NPFC	North Pacific Fisheries Commission
PA	precautionary approach
PECMAS	Permanent Committee on Management and Science (NEAFC)
SAI	significant and adverse impacts
SC	scientific committee
SEAFO	South East Atlantic Fisheries Organization
SPRFMO	South Pacific Regional Fisheries Management Organization
VME	vulnerable marine ecosystems