Food and Agriculture Organization of the United Nations

Impact assessments and encounter protocols for deep-sea fisheries in the areas beyond national jurisdiction (ABNJ)

Background and objectives

In May 2015, FAO convened an informal, technical workshop to discuss and share best practices and lessons learned on vulnerable marine ecosystem (VME) impact assessments and encounter protocols, in the context of deep-sea fisheries in the areas beyond national jurisdiction (ABNJ). The Workshop discussions culminated in a suite of key messages, summarized below. The need for such a Workshop addressing these issues was highlighted at the 2010 Busan Workshop*, which looked at challenges and ways forward for the implementation of the FAO International Guidelines for the management of deep-sea fisheries in the high seas (FAO Deep Sea Guidelines).

The impact assessments and encounter protocols workshop:

- was technical in nature in order to stimulate informal dialogue and exchange between regional experts involved in deep-sea fisheries;
- was attended by experts from the sciences, fishing industry, NGOs, and fisheries managers, in their individual capacities;
- reflected on the various management mechanisms currently used to ensure sustainable fisheries and VME protection under the ecosystem approach;
- examined both national and regional experiences; and
- discussed relevant paragraphs of the *International Guidelines for the Management of Deep-sea Fisheries in the High Seas* (FAO, 2008) in relation to impact assessments (paragraph 47) and encounter protocols (paragraphs 67-68).

*FAO. 2010. Report of the FAO Workshop on the Implementation of the International Guidelines for the Management of Deep-sea Fisheries in the High Seas – Challenges and Ways Forward, Busan, Republic of Korea, 10–12 May 2010. FAO Fisheries and Aquaculture Report. No. 948. Rome, FAO. 2011. 74p.

Impact assessments and the FAO Deep Sea Guidelines

Paragraph 47. Flag States and RFMO/As should conduct assessments to establish if deep-sea fishing activities are likely to produce significant adverse impacts in a given area. Such an impact assessment should address, inter alia:

i. type(s) of fishing conducted or contemplated, including vessels and gear types, fishing areas, target and potential bycatch species, fishing effort levels and duration of fishing (harvesting plan);
ii. 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;
iii. identification, description and mapping of VMEs known or likely to occur in the fishing area;
iv. 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;
v. identification, description and evaluation of the occurrence, scale and duration of likely impacts, including cumulative impacts of activities covered by the assessment on VMEs and low productivity fishery resources in the fishing area;
vi. risk assessment of likely impacts by the fishing operations to determine which impacts are likely to be significant adverse impacts, particularly impacts on VMEs and low-productivity fishery resources; and
vii. the proposed mitigation and management measures to be used to prevent significant adverse impacts on VMEs and ensure long-term conservation and sustainable utilization of low-productivity fishery resources, and the measures to be used to monitor effects of the fishing operations.

Encounter protocols and the FAO Deep Sea Guidelines

Paragraph 67. States and RFMO/As should have an appropriate protocol identified in advance for how fishing vessels in deep-sea fisheries should respond to encounters in the course of their fishing operations with a VME, including defining what constitutes evidence of an encounter. Such protocol should ensure that States require vessels flying their flag to cease deep-sea fishing activities at the site and report the encounter, including the location and any available information on the type of ecosystem encountered, to the relevant RFMO/A and flag State.

Paragraph 68. In designing such protocols and defining what constitutes an encounter, States and RFMO/As should take into account best available information from detailed seabed surveys and mapping, other relevant information available for the site or area, and other conservation and management measures that have been adopted to protect VMEs pursuant to paragraphs 70 and 71.

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Key observations on impact assessments identified from the workshop

1. The general components of an effective impact assessment, according to the Convention on Biological Diversity (CBD), include: screening, scoping, analysis and evaluation, reporting, review, decision-making, monitoring, compliance and enforcement, and auditing. Earlier analyses have concluded that the FAO Deep Sea Guidelines are in line with the CBD Impact Assessment Guidelines for Biodiversity.

2. The FAO Deep Sea Guidelines have been used for guidance to develop regional protocols relating to impact assessments for deep-sea bottom fisheries by the RFMO/As and/or their members and Cooperating Non-Contracting Parties (CNCPs).

3. During the development of current RFMO/As, VME measures assessments (although not necessarily always formally structured according to 1) and 2) above) have been conducted. Most of the existing regional bodies responsible for the management of deep-sea bottom fisheries have developed protocols and processes in support of assessing the impacts of bottom fisheries for both existing and exploratory fisheries. In areas where RFMO/As are not yet fully operational or not established, some flag States have established such protocols and processes as interim unilateral arrangements.

4. Key steps in the assessment process for exploratory fisheries are: pre-assessment by the proposing contracting party; assessment of the pre-assessment by the competent body (often the scientific body) followed by a decision by the RFMO/As to allow or not allow the exploratory fishery to proceed; and assessment of the conducted exploratory fisheries and decision on possible action by the RFMO/As. There is limited experience with reviewing the different steps of the exploratory impact assessments, with the exception of CCAMLR, very few proposals for exploratory fishing have been put forward.

5. While tailoring the way impact assessments are conducted to regional needs is necessary, it should be an aim to achieve higher level of consistency across RFMO/As.

6. There are key challenges with respect to developing, using and implementing regional and national impact assessment frameworks, and in addressing the elements of paragraph 47 of the Guidelines. The challenges include: (i) access to adequate information and data to explain baseline situations with regards to the status of fish resources, ecosystems, habitats and communities (against which future changes can be measured); (ii) mapping of areas likely to contain VMEs, and (iii) evaluation of impacts including the need for having a transparent approach for assessing risks and incorporating uncertainty adapted to the regional situation.

7. Experience from CCAMLR shows that with a growing number of initial proposals and reviews, there is considerable demand on existing structures to analyze the pre-assessments, and conduct the required reviews of the impact assessments. The additional work associated with a rigorous impact assessment process may also be a particular burden for newer RFMO/As (such as NPFC, SIOFA, and SPRFMO), which may include a number of developing countries who may struggle to have the capacity to address all of the different aspects with the human and financial resources at hand.

8. Many developing countries and SIDS lack the capacity to develop pre-assessments. The FAO Deep Sea Guidelines recognizes the special requirements for developing countries and these should be addressed when developing new or amending existing frameworks in order to ensure the equal participation of all countries.

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Key observations on encounter protocols identified from the workshop

1. The role of encounter protocols can vary between regions and depends on the fisheries and the management system in place.

2. As stand-alone measures, encounter protocols are primarily useful as interim responses. However, as elements of more comprehensive measures, encounter protocols can remain useful in a fully developed and well enforced regulatory framework satisfying the objectives described in the UNGA resolutions and in the FAO Deep Sea Guidelines. Comprehensive measures would also include spatial management measures such as designated fishing areas, subareas only open to pre-assessed exploratory fisheries, and VME closures. A regionally tailored, risk-based approach should be considered, recognizing that when a more comprehensive framework is in place the need for encounter protocols will likely be reduced.

3. Encounter protocols must be practical and easy to apply, but sufficiently rigorous to serve the dual purpose of minimizing encounters with VMEs and facilitating continued fishing activity.

4. Regional adaptations of encounter protocols are required, reflecting the differing characteristics of the fisheries, the VMEs known or likely to occur in each region, and the level of knowledge and available information. Within a region, protocols may have to be most stringent for exploratory fisheries, as these are usually conducted in subareas where there is greater uncertainty about the presence and character of VMEs and potential for significant adverse impacts.

5. An ongoing challenge is the determination of suitable threshold levels for the encounter protocols (i.e. usually the quantity of VME-indicator species retained in a fishing operation which trigger the move-on response, a temporary closure, and other follow-up actions). Due to regional differences in fisheries, the character of VMEs (e.g. determining the composition of VME taxa that are identified as indicators), and the level of development of other elements of the VME-related management framework, it is likely that thresholds will differ between regions. While scientifically validated thresholds are preferable, such thresholds are likely to be unavailable in most regions. While established based on best judgment, current thresholds remain arbitrary, to a variable degree, hence the choice of thresholds should be re-evaluated as more experience with their application is gathered.

6. In regions where VME-indicator lists and/or associated practical identification guides are lacking, development of such lists and guides should be given priority in order to facilitate application at-sea by vessel crew or observers. The level of identification needs to match the vulnerability of the species. The reporting level for the VME indicator species is needed to be carefully considered to balance the need for specificity and operational feasibility, including the competence and tools available to those in charge of identifying the VME organisms.

7. Encounter protocols should incorporate requirements to accurately report encounter positions, and be designed to ensure that the move-on distances and directions meet conservation objectives, while not placing undue burden on the fishing operators. Further efforts may have to be made to derive move-on provisions better suited to specific geomorphological features, and the spatial distribution patterns of associated VMEs with different features such as seamounts, slopes, canyons, etc. For trawl fisheries, protocols requiring vessel movement away from the entire trawl track (rather than the endpoint of the tow, for example) would usually be the preferred option. The feasibility of using headline cameras or acoustics to monitor trawl tracks and VME indicator presence should be considered further.

8. It is important that recording and reporting of all catches and observations of defined VME taxa in a given region, irrespective of encounter thresholds, is submitted to the relevant scientific body in order to provide information for further analysis and assessments of VME presence in an area.