9 September, 2011

Mr Andrew Penney
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South Pacific Regional Management Fisheries Organisation
Wellington

Dear Andrew

The following are comments on the Australian Bottom Fishery Impact Assessment report for the South Pacific Regional Fisheries Management Organisation (SPRFMO). They should be read together with the DSCC Comments on the Revised Draft Bottom Fishery Impact Assessment Standard, dated 11 July 2011.

We welcome this opportunity to comment on the Assessment, but regret that it has taken so many years to notify the Assessment: four years after the Interim Measures were adopted in Renaca and well after Australian flagged vessels continued bottom fishing in the area. Nonetheless, in view of the upcoming meeting of the Science Working Group (SWG) on 19-23 September, we believe that it is crucial that the SWG ensures that all future assessments comply with the UNGA resolutions 61/105 (2006), 64/72 (2009) and the 2009 FAO Guidelines.[1]

Overall Framework

The 2007 Interim Measures agreed at Reñaca, Chile, provide that;

"Participants resolve to:

11. *Assess, on the basis of the best available scientific information, whether individual bottom fishing activities would have significant adverse impacts on vulnerable marine ecosystems, and to ensure that if it is assessed that these activities would have significant adverse impacts, they are managed to prevent such impacts, or not authorized to proceed.*
12. *Apply the following procedures regarding the assessment described in paragraph 11 above:*

    a) *Participants are to submit to the interim Science Working Group their assessments of whether individual bottom fishing activities would have significant adverse impacts on vulnerable marine ecosystems, including the proposed management measures to prevent such impacts, and make these assessments publicly available.*

b) The interim Scientific Working Group will review the assessments and proposed management measures and provide comments to the submitting Participant. For the purposes of carrying out such reviews, the interim Scientific Working Group will design a preliminary interim standard for reviewing the assessments and develop a process to ensure comments are provided to the submitting Participant and all other Participants within two months. In the meantime, the submitting Participant may provisionally apply their proposed management measures.

c) Participants may, on the basis of the assessments submitted under sub-paragraph (a) above and the comments provided under sub-paragraph (b) above, authorize vessels flying their flag to undertake bottom fishing activities in the region of the Area for which the assessment was conducted and require such vessels to implement conservation and management measures to prevent significant adverse impacts.

d) Participants are to notify the interim Secretariat of the measures required under sub-paragraph (c) above and a list of the vessels to which the measures relate, and to make that information publicly available.

13. *In undertaking the assessments as described in paragraphs 11 and 12 above, take into account any international technical guidelines regarding standards, criteria or specifications for identifying vulnerable marine ecosystems and the impacts of fishing activities on such ecosystems that may have been developed."*

This schema shows that States should have firstly carried out the assessment, and then, based on the assessments, and the comments made by the SWG, authorize vessels flying their flag to undertake bottom fishing, and require measures to prevent significant adverse impacts. Instead, Australian vessels continued to be authorized to fish, despite the lack of an assessment. It has now been made crystal clear in paragraph 120 of UNGA resolution 64/72 that States are not to authorize bottom fishing activities until the stated measures have been adopted and implemented.

UNGA resolution 61/105 in 2006 called on regional fisheries management organizations and arrangements (RFMO/As) in paragraph 83:

A. To assess, on the basis of the best available scientific information, whether individual bottom fishing activities would have significant adverse impacts on vulnerable marine ecosystems, and to ensure that if it is assessed that these activities would have significant adverse impacts, they are managed to prevent such impacts, or not authorized to proceed.

B. To identify vulnerable marine ecosystems and determine whether bottom fishing activities would cause significant adverse impacts to such ecosystems and the long-term sustainability of deep sea fish stocks, inter alia by improving scientific research and data collection and sharing, and through new and exploratory fisheries;

C. In respect of areas where vulnerable marine ecosystems, including seamounts, hydrothermal vents and cold water corals, are known to occur or are likely to occur based on the best available scientific information, to close such areas to bottom fishing and ensure that such activities do not proceed unless it has

established conservation and management measures to prevent significant adverse impacts on vulnerable marine ecosystems; and

D. *To require members of the regional fisheries management organizations or arrangements to require vessels flying their flag to cease bottom fishing activities in areas where, in the course of fishing operations, vulnerable marine ecosystems are encountered, and to report the encounter so that appropriate measures can be adopted in respect of the relevant site;*

We draw the attention of the Science Working Group of the call in paragraph C to carry out the assessments, and to ensure that if it is assessed that these activities would have significant adverse impacts, they are managed to prevent such impacts, or not authorized to proceed.

UNGA resolution 64/72 in 2009 was even more specific. In paragraph 119, States and RFMO/As were called upon to:

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

Subparagraph (c) of the same paragraph called on States and RFMOs to:

"(c) Establish and implement appropriate protocols for the implementation of paragraph 83 (d) of its 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 its resolution 61/105 and paragraph 119 (a) of the present resolution;"

Principal concerns held by the DSCC are as follows. Absence of comment does not constitute approval.

The 50 kg Threshold

DSCC is concerned about the application of a 50 kg limit and the absence of VME indicator species for the move-on rule. No scientific justification for this is cited. It is also inconsistent with the thresholds applied by another SPRFMO participant, New Zealand: 30 kg for stony corals, 6 kg for hydrocorals and 1 kg for each of black, soft and fan corals, and the presence of VME indicator species (see page 22). The assessment itself notes that the New Zealand threshold weights *"more closely reflect the weights Rogers et al (2008) suggest for discussion by management agencies (Appendix 4)."* Indeed, the Rogers suggestions include *"A single haul constituting >5kg of stony coral or coral Rubble, or >2kg of black corals or octocorals or more than 2 coral colonies"*, and *"A single haul constituting >5kg of sponge or other habitat-forming epifauna"*. These are in fact one tenth of the thresholds applied by Australia. Indeed, as the Assessment notes, *"This comparison, the paucity of detailed data in observer records, and the scattered records of invertebrate bycatch (including VME taxa) in*

AFMA's databases, indicate a need for consideration of different thresholds for different gears and the relative priority for collecting information on VME taxa among the long list of observers' other at-sea duties." We note that insufficient observer data is not a reason for a larger threshold but the reverse. Instead, where information is limited, States and RFMO/As should apply the precautionary approach in their determinations regarding the nature and duration of impacts (FAO Guidelines para. 20, and see para. 12).

UNGA resolution 64/72 addresses the encounter protocol in paragraph 119 (c) when it calls upon RFMO/As and States to

"(c) Establish and implement appropriate protocols for the implementation of paragraph 83 (d) of its 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 its resolution 61/105 and paragraph 119 (a) of the present resolution." (emphasis added).

The clearly stated test is what constitutes evidence of an encounter with a vulnerable marine ecosystem (VME), and the threshold must be:

(a) based on the best available scientific information;

(b) consistent with the Guidelines; and

(c) based on the required prior assessments.

These must include an assessment of each biogeographic region to identify VMEs and vulnerable fish species, such as sharks, including rare and endemic species. The FAO Guidelines state that assessments should use (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"* in the (iii) *"identification, description and mapping of VMEs known or likely to occur in the fishing area."* (From FAO Guidelines para 47).

We also note that New Zealand's own implementation of the encounter rule is not consistent with the FAO Guidelines. The method for deriving threshold weights is logically flawed, since it is based on the median of the cumulative distribution of observed bycatch weights. This is not correlated with actual VMEs, and simply relies on a statistical formulation based on past fishing data, as opposed to data of VMEs. The exercise is intended to identify VMEs. But unlike Australia, New Zealand does consider the presence of VME indicator species in applying the move-on rule.

In addition, the threshold quantities should take into account the fact that nets are not designed to retain taxa and that significant amounts of taxa will fall through the net. Moreover, sparse benthic VME indicator species could be the living remnants of a previously more extensive VME, such as is likely to be the case in heavily or historically heavily fished

areas. In such cases a 'representative' area or areas of the feature should be permanently closed to allow for some level of regeneration of the VME(s). These are reasons for much lower thresholds than New Zealand applies, let alone the apparently random Australian 50 kg threshold.

The threshold weights should be derived by indication that there is a VME[2] present. Any evidence of contact with VME indicator taxa may constitute an encounter with a VME. This should be the starting point, and the area must remain closed to bottom fishing until an assessment has been undertaken and appropriate measures have been adopted to protect VMEs from significant adverse impacts. This includes ensuring that all vessels cease bottom fishing in any area where VMES are likely to occur, in addition to the vessel which encountered the VME.

If the exercise to set threshold levels is to be scientifically based, then a rigorous assessment must be carried out, recognizing that the likely result would be that any fishery may be subject to multiple threshold levels for each gear type, biogeographic region and species.

We welcome the agreement on what constitutes VME taxa which applies the list agreed by CCAMLR.

The Move-On Rule

Firstly, we are pleased to see that there is a move on rule applicable to all areas (section 4.2.1; page 21).

However, the implementation of the move-on rule is not based on any clear scientific basis: there is no discussion of derivation of the 5 NM distance (page 21). This distance can be less than the trawl distance or longline length used in fishing for deepwater species. DSCC is concerned that moving fishing activity after an encounter could expand the footprint of VME encounters and hence increase, rather than reduce, harm to VMEs. A key factor to be considered is if the area has been subject to significant levels of historical fishing effort or not. In new areas, it is much more likely that moving from one VME encounter could precipitate another such encounter in the local area. To reduce such a likelihood, for new and exploratory fisheries, and for fisheries in new areas, a longer move-on distance is suggested, such as 10 nautical miles rather than the current 5 nm standard for existing areas.

No Assessment of Stock Sustainability or Bycatch

There is no assessment of stock sustainability and only historical catches are presented.

Resolution 64/72 in paragraph 119(d) calls on States and RFMO/As to

"(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 be 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;"*

This means that assessments must not only address target species but all potential by-catch species, including their status and potential impacts.

DSCC has stated similarly in its comments on other assessments, that the long term sustainability of deep sea stocks must be ensured. This means that there must be stock assessments. Instead, the Assessment notes that *"Historical trends of catch and effort are provided for the SPRFMO Area for the period 2002 to 2009. No stock impact assessment is provided as part of this BFIA because there have been no stock assessments for the Australian fishery in the SPRFMO Area to this point in time."* (page 51). This is not in compliance with the two resolutions or with the Interim Measures.

The Footprint

We observe that Australia notes that the Australian footprint (2002-2006) includes ten 20' blocks that have been closed to trawling by New Zealand vessels (page 22). Clearly a management regime which closes areas to vessels of one flag State and which allows other vessels to fish in the same area is deficient. Therefore it is clear that the cumulative impacts of fishing, including by more than one flag State, on VMEs and stocks must be assessed and controlled through multilateral measures.

The areas identified in the assessment includes areas additional to the New Zealand assessment.

We welcome the assessment looking at areas smaller than 20' blocks to refine the footprint area. As noted in the Assessment the 1km blocks are applied in Australian domestic fisheries, reported by scientific observers in CCAMLR, and used predictive environmental monitoring (page 26). At this scale the footprint requires a reporting regime providing start and end point of any unit of effort and whether the effort was straight between these points or following a contour.

Overall Risk Assessment

Paragraph 47 (vi) of the FAO Guidelines states that impact assessments should address *"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."* Paragraph 48 states that *"48. Risk assessments referred to in paragraph 47 (vi) above should take into account, as appropriate, differing conditions prevailing in areas where DSFs are well established and in areas where DSFs have not taken place or only occur occasionally."*

There is no basis for the risk assessment becoming the overall assessment of significant adverse impact (SAI) based on *"limits on the amount of fishable seabed available for fishing, an 'evidence of VME' process with validation and move-on provisions, and infrastructure that transparently supports monitoring and compliance. Our evaluation of low overall risk also considers the low exposure of VMEs to fishing impact from Australian vessels because there are few issued permits and no trawling in the SPRFMO Area in 2008 and 2009."* (section 4.3.2; page 48). The Guidelines clearly state (para.17) that *"impacts should be evaluated individually, in combination and cumulatively."* The focus is on the specific site, not the area covered by the RFMO/A as a whole. Paragraph 48 refers to *"areas where DSFs have not taken place or only occur occasionally."* Paragraph 18 of the FAO Guidelines state that:

"18. When determining the scale and significance of an impact, the following six factors should be considered:

i. the intensity or severity of the impact at the specific site being affected;
ii. the spatial extent of the impact relative to the availability of the habitat type affected;
iii. the sensitivity/vulnerability of the ecosystem to the impact;
iv. the ability of an ecosystem to recover from harm, and the rate of such recovery;
v. the extent to which ecosystem functions may be altered by the impact; and
vi. *the timing and duration of the impact relative to the period in which a species needs the habitat during one or more of its life-history stages."*

In addition, the assessment only considers the Australian footprint from 2002 and does not consider the impacts of historic fishing, or the cumulative impacts of fishing by more than one nation on VMEs. Cumulative impacts assessment is required in paragraph (v) of paragraph 47 of the Guidelines. This must be done to ensure the assessment of the significant adverse effects on an area.

Likewise, paragraph 11 of the Interim Measures states that the assessment is whether *"individual bottom fishing activities would have significant adverse impacts on vulnerable marine ecosystems."*

In addition, the Assessment notes that *"poor knowledge of VME distribution at fine scales prevents accurate calculation of spatial overlap of fishing with VMEs."* (page 56).

As noted, a precautionary approach should be taken in assessing significant adverse impacts.

Recommendations

1. That Australia ceases to authorise its vessels to engage in deep sea fishing in the high seas until assessments have been carried out consistent with the FAO Guidelines for all areas in which deep sea fishing is to take place.
2. That Australia establishes and implements encounter protocols including indicator species as well as scientifically determined threshold limits consistent with the Guidelines, and taking into account the assessments carried out.

3. That the move-on rule included a move-on distance more appropriate to the fishing method used and be no less than 10 nautical miles.
4. That assessments be carried out so as 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 be 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.
5. That Australia should not permit fishing in areas closed by another fishing State in the area.
6. That the cumulative impacts of fishing, including by more than one flag State on VMEs, be assessed and controlled through multilateral measures. This must be done to ensure the assessment of the significant adverse effects on an area.
7. That risk assessments are based on specific areas fished, not the entire region.

Yours sincerely

For the Deep Sea Conservation Coalition

Endnotes

[1] The FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas, adopted on August 29th 2008 (2009).

[2] All species and habitats in the area which fit one or more of the following criteria (FAO Guidelines paragraph 42) should be identified as VMEs:

i. Uniqueness or rarity – an area or ecosystem that is unique or that contains rare species whose loss could not be compensated for by similar areas or ecosystems. These include:

• habitats that contain endemic species;
• habitats of rare, threatened or endangered species that occur only in discrete areas; or
• nurseries or discrete feeding, breeding, or spawning areas.

ii. Functional significance of the habitat – discrete areas or habitats that are necessary for the survival, function, spawning/reproduction or recovery of fish stocks, particular life history stages (e.g. nursery grounds or rearing areas), or of rare, threatened or endangered marine species.

iii. Fragility – an ecosystem that is highly susceptible to degradation by anthropogenic activities.

iv. Life-history traits of component species that make recovery difficult – ecosystems that are characterized by populations or assemblages of species with one or more of the following characteristics:

• slow growth rates;
• late age of maturity;
• low or unpredictable recruitment; or
• long-lived.

v. Structural complexity – an ecosystem that is characterized by complex physical structures created by significant concentrations of biotic and abiotic features.