Tuesday, 05 June 2018

Mr Naiten Bradley Phillip Jr
Chair, FAD Management Options IWG

By email: bradley.phillip@norma.fm
CC: Anthony.Beeching@wcpfc.int

Dear Mr Phillip,

The Pew Charitable Trusts, Sustainable Fisheries Partnership (SFP) and the World Wide Fund for Nature (WWF) would like to thank you for the opportunity to comment on the draft workplan of the FAD Management Options Intersessional Working Group and respond to your request for relevant best practices and guidelines. With FADs such a critical component to the purse seine fishery, the Working Group should provide robust management recommendations to enable their sustainable use. As such, we would like to highlight the following comments in two parts:

Regarding the IWG's workplan's tasks and format:

- **Catch of juvenile bigeye and yellowfin on FADs and other FAD issues should be incorporated into an extended workplan**

  We note the working group has been tasked with developing recommendations on three specific issues: guidelines on non-entangling FADs, and biodegradable FADs, and the appropriateness of the limit on the number of activated FAD buoys that can be deployed in the water at any one time. However, the terms of reference also include recommending a way forward with respect to FAD management options, recognising that the previous three issues are not the only ones associated with the sustainability of FADs. As such, we strongly advise that the Working Group should recommend ways to improve (i) the data collection on FADs and (ii) the management of impacts on juvenile tunas, both of which remain significant outstanding issues. This is especially pertinent given that the tonnage of predominantly juvenile bigeye tuna is now approximately level to the tonnage taken in the longline fishery and that this represents a disproportionately large number of individual fish. If these items cannot be progressed this year due to limited time, they should be added to a list of future work to enable FAD use within sustainable parameters.

- **The proposed workplan also must be able to incorporate new information presented at Scientific Committee**

  Regarding the tasks on the workplan, we would like to thank you for proposing clear steps and timelines to maximize the opportunities for participants to engage on these three issues and reach consensus. Since there may be papers presented at SC14 that will directly impact on the draft guidelines for the implementation of non-entangling and/or biodegradable materials, it would be helpful if participants in the Working Group could be notified prior to SC14 of any

relevant papers submitted to SC14 so that all members have had the opportunity to review them prior to the IWG at SC14 (items vi and vii).

Regarding best practices:

- **Clear management objectives related to FADs should be agreed now to guide the IWG's recommendations, in accordance with best practice**

  Recommendations from the IWG should be based on clear management objectives. Attached as an annex is a brief with an explanation of the following candidate objectives for managing FADs:

  1. To maximize fishing efficiency of purse seine fisheries targeting skipjack, while avoiding adverse impacts to the fishing opportunities of fleets that use other gear or other fishing strategies;
  2. To minimize the impact of FAD fishing on the productivity of other stocks such as bigeye and yellowfin tunas, that result from the capture of large numbers of juveniles that aggregate with skipjack on FADs;
  3. To minimize the impact of FADs and FAD fishing on non-target species, where appropriate, particularly those of conservation concern, such as sharks and turtles;
  4. To minimize the impact of FADs and FAD fishing on pelagic and coastal ecosystems, including by limiting the contribution of FADs to marine debris and preventing the beaching or grounding of FADs in sensitive habitats.

  With clearly defined objectives, any management measures adopted by the Commission can readily be assessed against such objectives. For example, objective #3 could be quantified to provide the parameters by which the efficacy of a measure mandating non-entangling FADs could be evaluated (e.g., via an observed reduction in the number of reported entanglements).

- **Best practices pertaining to the three specific items on the Working Group's agenda exist, and in our view, necessitate that:**
  - The design of FADs should be mandated to minimize entanglement of sharks and turtles. WCPFC is the only tRFMO without a mandatory non-entangling FAD measure. Published and tested design criteria are available;
  - The definition of a biodegradable FAD should be clarified (e.g. do all materials on the FAD need to be biodegradable including the buoy? Are photodegradable plastics classed as biodegradable?), and a measure should be in place to minimize the use of plastic and synthetic materials on FADs as a contribution to a wider strategy to minimize marine debris; and
  - The buoy limitation should be adjusted to minimize both marine debris from FADs and impacts on the pelagic ecosystem. This may require analyses to understand the number of FADs in the water, the relationship between those deployments and the number of FADs lost, and the number of FAD sets. Projects such as the PNA FAD tracking programme have the potential to inform such analyses.

- **The Global FAD Science Symposium and outcomes from the Joint tRFMO FAD WG provide examples of best practice**

  The advice above is informed by the proven and promising strategies to manage FADs that have now been identified by several sources. The findings of the Global FAD Science Symposium held in March 2017 were presented to and noted by SC13 as the best practice recommendations from a range of global experts including those familiar with WCPO fishery (WCPFC-SC13-2017/ MI-WP-06). The outcomes of the Joint tRFMO FAD Working Group also provide guidance on the issues before the IWG. These outputs should provide additional guidelines to improve management of the FAD fishery, and we recommend that both documents be posted on the IWG's website prior to the October meeting.

We look forward to working with the group to improve FAD management in the WCPFC area.

With best regards,



THE PEW CHARITABLE TRUSTS

Sustainable Fisheries PARTNERSHIP

WWF

FAD Management Objectives Should Be Adopted to Guide WCPFC Conservation and Management Measures

Fish aggregating devices (FADs) are a critical gear in the tropical tuna fishery of the Western and Central Pacific Fisheries Commission (WCPFC). While WCPFC has defined management objectives for the three tropical tunas in terms of desired levels of fishing biomass or mortality in successive conservation and management measures, most recently CMM 2017-01, it has managed FADs without quantifiable goals. Yet well-defined management objectives are an essential part of fisheries management. Given the importance and scale of the FAD fishery, defining objectives should be viewed as best practice. The need for such gear-specific objectives in tuna fisheries was a central conclusion of the 2017 Global FAD Science Symposium (Hampton *et al.* 2017) and the 2017 Joint tRFMO FAD Working Group Meeting (Joint WG 2017).

FAD management objectives would not replace the need for reference-point-based management objectives for the tropical tunas. They would complement them. FAD management by necessity should deal with a series of issues, some of which are not associated with management of tropical tunas – such as interactions with sharks and turtles – or even directly involve fishing activities – such as issues of marine debris and potential impacts on habitats. The benefits of developing these objectives are clear: Well-defined management objectives outline the intended outcome of a management measure, provide a way to assess its success, and set a framework around which to consider new measures.

Objectives are urgently needed; WCPFC this year will review several aspects of FAD management. The FAD Working Group will provide advice on guidelines for non-entangling and biodegradable FADs, and the appropriateness of the limit on the maximum number of activated FAD buoys an individual purse seine vessel can monitor at any one time. These provisions, new additions to the tropical tuna CMM, took effect in 2018. The Commission also will review the effectiveness of the other provisions of 2017-01, including the FAD closure period. Together, these provisions touch on a range of impacts of FADs, including incidental catch of juvenile bigeye (a longstanding concern), mortality of sharks and turtles, and marine debris. While the additional attention toward FAD management is welcomed, what is missing are the goals that any of these provisions are intending to accomplish.

Setting objectives can be accomplished as a two-part process. General objectives detailing WCPFC's philosophy for FAD management should be defined. Then quantitative objectives should accompany each individual management action to clearly define its purpose. General objectives will provide the framework around which management actions can be considered, while the quantitative objectives will provide the measuring stick that scientists require to answer questions about the effectiveness of any proposed or implemented actions.

General FAD management objectives should be broad enough to cover a wide range of potential issues associated with FAD fishing, including impacts on other tropical tuna fisheries that do not use FADs and risks to marine habitat. Candidate general objectives are offered below:

- To maximize fishing efficiency of purse seine fisheries targeting skipjack, while avoiding adverse impacts to the fishing opportunities of fleets that use other gear or other fishing strategies;
- To minimize the impact of FAD fishing on the productivity of other stocks such as bigeye and yellowfin tunas, that result from the capture of high numbers of juveniles that aggregate with skipjack on FADs;

- To minimize the impact of FADs and FAD fishing on non-target species, where appropriate, particularly those of conservation concern, such as sharks and turtles; and
- To minimize the impact of FADs and FAD fishing on pelagic and coastal ecosystems, including by limiting the contribution of FADs to marine debris and preventing the beaching or grounding of FADs in sensitive habitats.

Agreeing to objectives should not delay the steps the Commission must take to improve its management of FADs. WCPFC is estimated as having the greatest number of FAD deployments of the RFMOs that manage tropical tunas (Gershman *et al.* 2015). It also has the opportunity to lead the way on FAD management. A series of proven and promising strategies to manage the range of FAD impacts has been outlined by experts in several fora (Hampton 2017 and Joint WG 2017). As the Commission reviews the aspects of FAD management in CMM 2017-01, these objectives should be used to focus the drafting of language to update those provisions and move toward enabling FAD use within safe biological parameters.

References

Gershman, D., A. Nickson, and M. O'Toole. 2015. Estimating the use of FADs around the world. The Pew Charitable Trusts, Washington, D.C. Available at: http://pew.org/1XUPV4w

Hampton, J., G. Leape, A. Nickson, V. Restrepo, J. Santiago, *et al*. 2017. What does well-managed FAD use look like within a tropical purse seine fishery? A paper presented to the 13th Regular Session of the WCPFC Scientific Committee. Available at: https://www.wcpfc.int/node/29549

Joint WG. 2017. Chair report of the 1st Joint Tuna RFMO FAD Working Group Meeting. International Commission for the Conservation of Atlantic Tunas, Madrid. Available at: https://www.wcpfc.int/node/29553