3rd MEETING OF THE FAD MANAGEMENT OPTIONS INTERSESSIONAL WORKING GROUP

Majuro, Republic of the Marshall Islands
3 October 2018

Draft FAD MO IWG3 Guidelines for Biodegradable and Non-Entangling FADs V2 CLEAN

FADMO-IWG3-WP-01
26 July 2018

Draft FAD MO IWG3 Guidelines for Biodegradable and Non-Entangling FADs V2 CLEAN

The Commission has expressed concern regarding the environmental impacts of FADs, including beaching, ghost fishing, entanglement [notably shark and turtles and the release of non-biodegradable [or very slowly degrading] materials into the marine environment.

Following a review of submitted and other material, the following concise information is provided for consideration by the group, and all constructive comments are welcome.

Background

Biodegradable dFAD: dFAD constructed with natural or biodegradable materials that reduce the impact of beaching and debris. The term biodegradable refers to a material or substance that is subject to a chemical process, during which microorganisms in the environment convert materials into natural substances such as water and carbon dioxide and decompose organic matter. The time required for biodegradation of different materials varies. Its biodegradation should be as fast as possible after the desired life span for fishing, which is believed to be from 5 months to 1 year, depending on the ocean. Degradation products should not be pollutants to the ecosystem. (SC13-EP- WP-02).

It is noted that it is currently possible to use biodegradable materials for hanging structures, whereas making the body of the raft biodegradable is more difficult.

Raft:

An appropriate buoyancy is crucial for a FAD to be effective and last enough to be useful for fishing purposes. One of the main challenges is finding biodegradable flotation for a FAD:

- Bamboo loses buoyancy with time due to seeping of water inside the cane´s air chambers, eventually making the FAD sink. That is why fishers today still need to add plastic flotation to prevent the FAD from sinking.
- An alternative worth exploring are natural oils, waxes or other treatments that are already used in some countries to enhance the lifetime of bamboo canes.
- Although they have not been tested yet in FADs, current research with new polymers from natural origin (potatoes, algae, etc.) to manufacture containers,
  open up a series of alternatives to be used for FAD flotation, as long as the product of their degradation is innocuous for the marine environment.
- Shallower, simpler FAD requires less flotation components and thus reduces the use of plastics at FADs.

Hanging Structure:

Appropriate biodegradable materials may include:

- Palm leaves
- Coconut fibre
- Cotton
- Bamboo
- Coir
- Sisal
- Various twines

Research into non-biodegradable FADs designs is complete, however research into biodegradable components is current and ongoing.

The move towards non-entangling materials on the upper surface of FADs is to reduce potential entanglement of turtles.

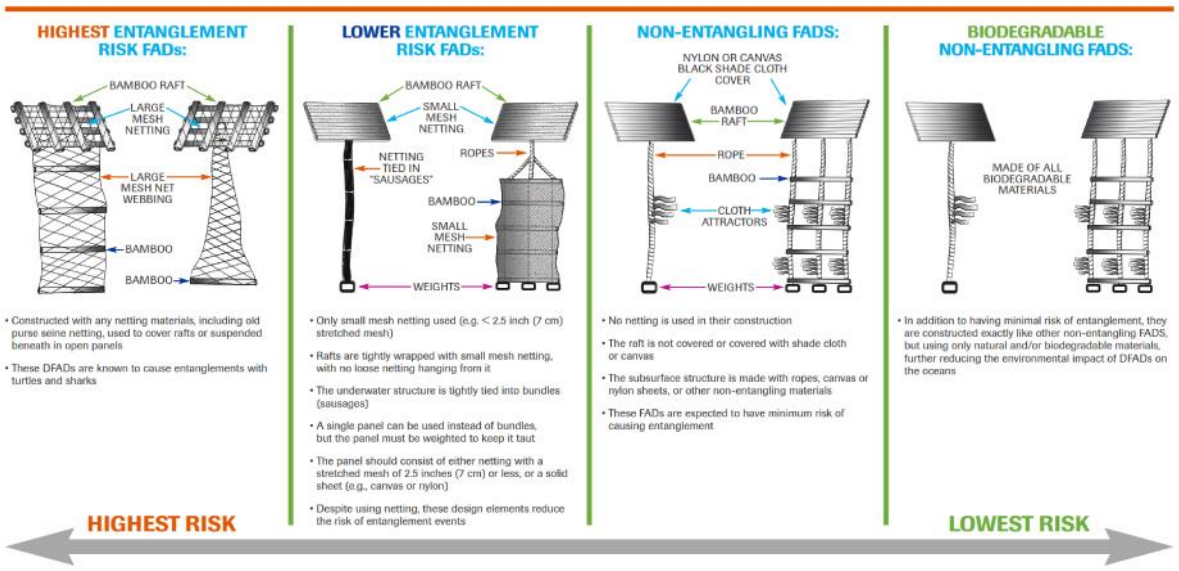
Guidelines

There are existing examples of tRFMO **guidelines** to reduce the ecological impact of FADs in fisheries, e.g. for ICCAT

a) The surface structure of the FAD shall not be covered or only covered with material implying minimum risk of entangling by-catch species.
b) The sub-surface components shall be exclusively composed of non-entangling material (e.g. ropes or canvas).
c) When designing FADs the use of biodegradable materials should be prioritised.

- ***Are there any objection to the WCPFC adopting a recommendation to adopt similar or identical guidelines?***

The following diagram presents highest to low risk of environmental impact, left to right.



- ***Does the group support guidelines that require adoption of 'lowest risk' FAD construction whilst appreciating a 'partial solution' in the interim?***

In line with the guidelines above, ICCAT requires the replacement of existing FADs with non-entangling FADs by 2016 (Rec. 16-01) and the IATTC by 2019 including the use of biodegradable materials (C-17-02).

The cost for going from a traditional FAD to one with minimum risk of entanglement is relatively minor, compared to the cost of going to a biodegradable one. And, speaking of relativity, these costs are minor compared to the cost of an echo-sounder buoy.

- ***Clearly ICCAT and IATTC have developed measures to reinforce their guidelines; should WCPFC consider the same approach?***

FAD Numbers

Reminder: SC14 will consider FAD numbers following submission of analysis by SPC.

Estimates of the number of FADs active and FAD deployments per vessel in the WCPO.
https://www.wcpfc.int/node/30939

Also posted on the SC14 website:

Evaluation of dFAD construction materials in the WCPO
https://www.wcpfc.int/node/30940

Research

Although the working group is focused on the scope provided by WCPFC 14, i.e. to provide guidelines in relation to biodegradable/non-entangling FADs, and FAD numbers, time permitting, the group may wish to review and update the previous FAD Research Plan [Attached].

Comments on Draft FAD MO IWG3 Guidelines V1

1. ISSF comments incorporated in this document.
2. USA:
   a. it's important that any guidelines developed for FADS related to non-entangling and biodegradable materials be clear, well-defined, and easily enforceable.
   b. open to considering guidelines adopted by other RFMOs but are wary of adopting them wholesale without contemplating their practicability and feasibility in the WCPO.
   c. Our industry has shared a few concerns with us over the materials prescribed/required in ISSF and ICCAT guidelines.
   d. The IATTC guidelines offer more flexibility, but we have some concerns over how they would be implemented and enforced in the WCPFC.
3. Letter from PEW attached below.

THE PEW CHARITABLE TRUSTS

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Dear Chair,

Thank you for putting together these guidelines and posing three questions to the Working Group. Our comments are as follows:

Pew supports WCPFC adopting guidelines that meet the design criteria for 'lowest risk' FAD construction, as shown in the graphic in your email. We also support these guidelines being made mandatory, through adoption of a Conservation and Management Measure (CMM) in December.

This means FADs would be required to be built without netting or mesh on the surface or subsurface, and without underwater appendages, which can eliminate the risk of entangling marine life, principally sharks and turtles without impacting catches of targeted tunas (See WCPFC-SC13-2017/EB-WP-02). Use of biodegradable materials in FAD construction also eliminates plastic pollution in the ocean, which is a growing concern.

We appreciate your specification of materials that are biodegradable in your email. It would be helpful to include that information in the guidelines to provide clarity to industry and managers. In addition, we urge the group to agree on a definition of biodegradable and would suggest: "a material that is decomposed by bacteria, fungi, or other biological means."

We consider instrumented FAD buoys and floatation devices to be part of a FAD. Buoys are not currently biodegradable, and may never be. Floatation devices are generally plastic, though, as you note, substitution of entirely natural materials is being investigated.

Therefore, as an interim step, Pew supports a 'partial solution' relative to the adoption of a CMM requiring 'lowest risk' FAD construction guidelines. The CMM could take effect in 2020, giving industry time to prepare. Acknowledging the current availability of biodegradable materials, the CMM could require that all FAD components – except for buoy and floatation devices – shall be biodegradable. However, research into use of biodegradable floatation devices should be prioritized in the FAD Research Plan and the Commission should prioritize development of strategies to eliminate the loss/abandonment of FADs and instrumented FAD buoys. The CMM should be reviewed at regular intervals to incorporate results of those examinations into biodegradable materials and loss-prevention strategies.

We also would like to highlight that the Committee on Fisheries (COFI) of the United Nations Food and Agriculture Organization (FAO) earlier this month at its 33rd meeting highlighted the need for recovery of abandoned or lost fishing gear in its adoption of voluntary guidelines on the marking of fishing gear, including FADs.

We recognize that there are a very large number of FADs already deployed and in use that do not meet the criteria and there will need to be a period of transition for all FADs in the WCPO to meet the criteria. As such, we recommend that FADs that do not meet that criteria should be removed from the water permanently if set upon or encountered.

In keeping with our initial comments to the group, we also encourage the group to agree upon clearly defined management objectives that these guidelines are designed to achieve.

Of the four tropical tuna RFMOs, the greatest number of FAD deployments likely occurs within the waters of the WCPFC. The WCPFC has the opportunity to lead the way in improving the sustainability of the FAD-associated purse seine fishery.

With best regards,

Glen Holmes
Officer, Global Tuna Conservation