



**Commission for the Conservation and Management of
Highly Migratory Fish Stocks in the Western and Central Pacific Ocean**

4th FAD Management Options Intersessional Working Group

EMAIL CORRESPONDENCE
1 October – 17 November 2020

SUMMARY REPORT

WCPFC17-2020-FADMO-IWG4-01

WCPFC FAD Management Options Intersessional Working Group

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**The Commission for the Conservation and Management of
Highly Migratory Fish Stocks in the Western and Central Pacific Ocean**

**4th FAD Management Options Intersessional Working Group
(FADMO-IWG-4)**

Email Communication
1 October – 17 November 2020

SUMMARY REPORT

I. INTRODUCTION

1. The Chair of the FAD Management Options Intersessional Working Group (FADMO-IWG), Mr. Jamel James (FSM), has decided after extensive consultations with Members, Cooperating Non-Members and Participating Territories (CCMs) that the FADMO-IWG will not have an online meeting, instead it will progress its work by email communication according to the schedule in WCPFC Circular 2020/107. It was also advised that all the relevant documents to the work of the FADMO-IWG will be posted on the FADMO-IWG-4 website (<https://www.wcpfc.int/meetings/fadmo-iwg4>) and also distributed by email.
2. On October 1, 2021, the 1st email was sent by the Chair to the FADMO-IWG participants. He also acknowledged the work that has been accomplished in the previous FADMO-IWG meetings and the work of the FADMO-IWG drafting group. He noted that there may be several FAD related issues ahead but he referred back to the clear tasks currently assigned by the Commission to the FADMO-IWG in 2020. These two (2) main tasks of the FADMO-IWG are:
 1. *Paragraph 366, WCPFC16 Summary Report*
“The Commission agreed the FAD Management Options Intersessional Working Group would meet in 2020 and that the Working Group would consider the report and recommendations of the second Joint t-RFMO FAD Management Working Group and report back to the Commission on the merits and relevance for tropical tunas of those recommendations”
 2. Paragraph 22, CMM 2018-01
“The Commission at its 2020 annual session, based on specific guidelines defined by the FAD Management Options Intersessional Working Group and advice from SC16 and TCC16 shall consider the adoption of measures on the implementation of non-entangling and/or biodegradable material on FADs”.
3. The Chair informed the FADMO-IWG that the drafting group has commenced its work since late May 2020 and prepared two (2) draft documents related to the two issues above. He further noted that the guidelines on non-entangling and bio-degradable FAD materials are non-binding however subject to the Commission decision if these guidelines will be binding or non-binding. He requested participants for constructive comments/suggestions on the two (2) documents:
 - i. FADMO-IWG-04-2020/WP-01: Responses to the Recommendations in the Report of the 2nd Meeting of the Joint Tuna RFMOs Working Group on FADs

- ii. FADMO-IWG-04-2020/WP-02: Guidelines for Non-entangling and Biodegradable FAD Materials
4. The succeeding email communications of the Chair were sent as scheduled in the WCPFC Circular 2020/107.

II. EMAIL COMMUNICATIONS

A. FADMO-IWG's Responses to the Recommendations (Appendix 6) in the Report of the 2nd Meeting of the Joint Tuna RFMOs Working Group on FADs (*FADMO-IWG-04-2020/WP-01*)

5. On recommendation 1: The mandate and responsibilities of the Joint t-RFMO Working Group on FADs (JWG) be discussed within each t-RFMO, and that guidance on these matters be provided by the RFMOs (perhaps through the Kobe process steering committee) in order to clarify and define the respective roles of the JWG and the Joint Technical Working Group (JTWG).
6. PNA¹ commented that PNA and other FFA Members expressed their reservations about participation in the JWG at WCPFC15 and WCPFC16, and have the understanding that the WCPFC does not participate in the JWG beyond the agreed attendance by the Chair of the WCPFC FADMO-IWG and a member of the WCPFC Secretariat. At WCPFC16, PNA Members supported consideration of relevant recommendations of the JWG through the FAD IWG. PNA considers that this recommendation and similar recommendations relating to the JWG are not relevant to the WCPFC.
7. On recommendation 3: t-RFMOs should prioritize scientific studies which provide advice on potential limits on FAD deployment/sets and/or the current active FAD/buoy limits, in relation to management objectives.
8. PNA does not support consideration of this recommendation by the Commission for the following reasons:
 - a) The recommendation does not take into account the importance of the FAD closure in the WCPO, noting that this measure is also applied by two (2) other t-RFMOs
 - b) WCPFC has previously applied FAD set limits in CMM 2015-01. That application failed and was removed from the CMM. The experience showed that allocated FAD set limits are unworkable when there are large changes occurring in the sizes of fleets. Therefore, there is no basis for attaching priority to scientific studies on this kind of measure.
9. In addition PNA viewed that recommendation 3 does not take into account the situation in the WCPO where over 90% of FAD sets are made in national waters, and that coastal state CCMs have a range of other options for FAD management, including FAD charging.
10. Related to PNA views in recommendation 3, the USA does not support the following: i) that FAD set limits in CMM 2015-01 was a failure and ii) that WCPFC does not take into account the situation in the WCPO where over 90% of FAD sets are made in national waters, and that coastal state CCMs have a range of other options for FAD management.

¹ PNA interventions are made on behalf of the eight Parties of the Nauru Agreement plus Tokelau

- 10bis. The EU stressed that the participation of WCPFC to future Joint Tuna RFMO meetings would allow highlighting and sharing broader the management arrangements in place in the WCPO. That would be a valuable contribution of WCPFC to the work of other RFMOs. The EU does not interpret recommendation 3 in the way that it would exclude or contest the merits of other management options. In addition to that, SC has recently reviewed and proposed continuation of work on some of the options included in this recommendation. Our suggestion would be to support the recommendation and add also text to include the merits of other options such as spatio-temporal closures (e.g. FADs closures in WCPFC, PS closures in IATTC, etc.). Finally, the EU is not aware of FADs management options in the WCPO other than those included in CMM 2018-01 and apply throughout the WCPFC Convention area. Should any WCPFC CCMs implement different management options for FADs they are kindly requested to inform the Commission, including in particular supporting evidence regarding their compatibility with WCPFC requirements.
11. On recommendation 4: The t-RFMO should explore opportunities for consistency and harmonization, if possible, across t-RFMOs in FAD management measures.
12. PNA commented that it is premature to include reference to a separate FAD CMM in these responses. This comment also applies to other references to a FAD CMM in this document (FADMO-IWG-04-2020/WP-01). The FAD fisheries in the WCPO and EPO are substantially different and further consideration is needed before a shared approach with the IATTC is proposed.
13. Chinese Taipei viewed that currently, FAD management measures are included in the tropical tuna CMM, while the complexity continues to increase for FAD regulations. Having separate CMMs may allow more focused discussions on both tropical tuna and FAD issues. This could also enhance the efficiency when reviewing FAD regulations and their implementations. Chinese Taipei suggested to keep the concept of a FAD CMM in the IWG response and keep the flexibility for further consideration of the Commission. Chinese Taipei further viewed that harmonizing FAD definitions across the Pacific could reduce ambiguity in implementation, allow execution to be solid and efficient, which are critical elements in strengthening measures. Chinese Taipei also believed that there are certain elements that might be undermining measures, such as the inclusion of exemptions.
14. Related to responses in recommendation 4, Japan does not support mandatory provision of echosounder data by CCMs.
15. PEW gave comment in recommendation 4 that given the general westward track of drifting FADs across the Pacific, this recommendation has some merit given the number IATTC FADs that drift into the WCPFC region. Chinese Taipei suggested that a reference be provided, to give clarity on the purposes of this statement.
16. On recommendation 5: Each t-RFMO should develop, as a matter of priority, systematic monitoring and reporting procedures on the number of active FADs/buoys in its Convention Area.
17. ISSF have noted the progress made by PNA in monitoring and reporting the number of active FADs/buoys in WCPC Convention area. Chinese Taipei commented that to develop reporting

procedures, relevant terms should be defined, for instance, WCPFC has not defined “active” buoys.

18. SPREP commented that while they agree in recommendation 5, there is also need to consider ways of determining numbers of abandoned and lost FADs. SPREP suggested that this could be included as part of the minimum standards for data collection related to recommendations 10 and 12 (marking and tracking).
19. SPREP also supported the idea of an electronic logbook system for identification and tracking of FADs and the need to mark both buoys and the FADs. Collection of data on the construction materials for FADs would also be useful to understand the rate of uptake of new designs.
20. On recommendation 6, FAD management objectives should be defined, both within each t-RFMO and jointly, to guide research, data collection, and the development of effective conservation measures.
21. PNA viewed that it might be useful for the Commission to adopt management objectives but it is not essential. PNA notes that the Commission has not been able to agree on management objectives for the purposes of the proposed WCPFC Strategic Plan and Harvest Strategies because of the differences in objectives among CCMs.
22. With regards to the view of several CCMs that over 90% of FAD sets in the WCPO are made in national waters, it will be important for WCPFC objectives to be compatible with the national and sub-regional objectives of the coastal states. Chinese Taipei noted that WCPFC objectives in the context of this IWG should be the tropical tuna management and the CMM strengthening. Chinese Taipei viewed that the suggestion of having WCPFC objectives be compatible with national objectives seems to be inconsistent with the fundamental purpose of RFMOs. The United States also supported the views of Chinese Taipei.
23. On recommendation 7: Each t-RFMO should adopt definitions of priority terms related to the FAD fishery.
24. Chinese Taipei viewed that WCPFC needs to firstly take the practices of FAD fishing operations in the WCPO as reference to adopt the definition of FAD and then to make a list of priority terms related to the FAD fishery. Chinese Taipei further suggested that to facilitate further discussion and consideration of the IWG and the Commission, it will be helpful if the Chair could consolidate the current measures related to FADs into a draft comprehensive text for the FAD CMM. Chinese Taipei noted that under current FAD definitions, WCPFC can manage buoys but not necessarily FADs which include small debris. Related terms such as “active FADs” could be discussed. USA also supported the idea of a FAD specific CMM.
25. On recommendation 9: Any definitions proposed by the JTWG should be reviewed by the Scientific Committee of each t-RFMO.
26. PNA does not consider that it is necessary or relevant for the Commission to review all definitions on the list from the JTWG. It would be sufficient for relevant definitions proposed by the JTWG to be considered for adoption by the SC, the TCC and the FADMO-IWG.
27. On recommendation 10, EU viewed that consideration should be also given to the work that is already being carried out in the IATTC, particularly in relation to the information that is being

collected by the crew (i.e. avoid duplication in the overlap area). It will also be beneficial for any collaborative work, for data transmission, and others. EU also proposed that WCPFC task the SC to develop minimum standards for data collection for FAD management.

28. Related to one of the responses in recommendation 10, Chinese Taipei noted that WCPFC does not have FAD data provision regulations and therefore, does not have relevant discussion or progress. Also, if FAD data is to be provided, it should include both data in national waters and on high seas.
29. On recommendation 12: Given the possibility of buoys becoming separated from a FAD or being replaced, a system for marking both buoys and FADs should be explored.
30. SPC mentioned that there are a number of existing FAO and Global Ghost Gear Initiative (GGGI) guidelines on the marking of gear, with FAD such as the FAO Guidelines for gear marking (<http://www.fao.org/3/ca3546t/ca3546t.pdf>) and GGGI Best practices for Abandoned, Lost or otherwise Discarded Fishing Gear (ALDFG) (https://static1.squarespace.com/static/5b987b8689c172e29293593f/t/5bb64b578165f5891b931a6b/1538673498329/wap_gear_bp_framework_part_2_mm_lk-2017.10.23.pdf).
31. On recommendation 13: High-resolution buoy position data should be made available for research purposes.
32. USA proposed that the Commission may consider the mandatory provision of longer-term complete high-resolution buoy position data with an appropriate time lag be made available for scientific research compliance and management purposes. But Japan viewed that provision of this type of data should be made on voluntary basis. PNA considered that the recommendation needs to be broadened to cover the provision of high-resolution buoy position data for research, compliance, and management purposes, both in national and high seas to be relevant to WCPFC. Japan further commented that currently, no discussion has been made if this type of data will be expanded to be used for compliance and management purposes, that needs further discussion by the WCPFC. EU noted that the proposal of the JWG referred just to research purposes and compliance should be set aside.
33. Related to recommendation 13, Chinese Taipei raised the following questions to the Chair followed by the Chair's responses:
 - a. How is high resolution buoy position data defined?
The reference to resolution refers to the time between each transmitted position record. This should be up to the FAD IWG and the Commission to decide what high-resolution buoy position data is (i.e. time between position records). However, based on the experience of SPC, most buoys (depending on the brand) transmit one position per hour. This resolution will be the finest available, and one that would allow research, compliance and management purposes, including the ability to match with fishery data (observer, logsheet and VMS data) using date/time and latitude/longitude.
 - b. Does the Commission currently hold any buoy data?
Currently, the Commission does not hold any buoy data. The PNA has provided data from their PNA FAD tracking program to the Scientific Science Provider (SPC) to perform research as presented to WCPFC meetings (e.g. SC16-EB-IP-14).
 - c. How are tagging and biological sampling relevant to buoy data?
Based on the SPC's clarification, accurate position data on buoy drift histories allows SPC to glean the maximum information possible from genetic samples, otoliths and other

biological samples taken from tuna captured and/or tagged at FADs. This data can generate important insights into past movement, school cohesion processes, population connectivity and stock structure in FAD-associated tropical tunas (SC15-EB-WP-08).

- 33bis. The EU reminded that the purpose of this recommendations was to support scientific research. It also noted in relation to data transmission intervals that although they depend on the brand and model but can be adjusted by the user, who can set them depending on the interest in a particular buoy (e.g. given the proximity to the buoy etc.).
34. Chinese Taipei viewed that for reviewing compliance against buoy-related obligations, high resolution buoy data maybe unnecessary. For reviewing other obligations, buoy data may not be an appropriate tool, as FADs are not navigated like vessels, and from the data itself we cannot determine whether a buoy is approached/recovered by vessel or not. Chinese Taipei does not support mandatory provision of this data.
35. ISSF suggested that there is a need to specify the “high resolution” buoy position data. ISSF viewed that “high resolution” buoy position data would be the provision of raw data on FAD positions, and if not possible, a minimum of two positions per day would be necessary to match with fishery data.
36. On recommendation 15: Those indicators should be extended to include research on overall biomass indicators, such as buoy-derived indices and the status of stocks/species.
37. Japan commented that it is not clear why we can evaluate the effectiveness of FAD number limits by “beaching patterns and frequencies”, so, it would be helpful if scientific rationales could be provided. Chinese Taipei also noted that on the current WCPFC definition of “active FAD buoy,” it only allows us to manage buoy number and the term “active” has not been defined yet.
38. On recommendation 14-17:
- 14. The suite of indicators prepared by the JTWG and presented during the meeting should be reviewed, and used as appropriate, by each t-RFMO.*
 - 15. Those indicators should be extended to include research on overall biomass indicators, such as buoy derived indices and the status of stocks/species.*
 - 16. Time series should be developed by each t-RFMO for all the indicators, including buoy-related indicators, using historical data to capture fishery evolution and seasonality and ENSO-cycle JWG-FAD-02 - Meeting report 38 variability.*
 - 17. The development of indicators should be consistent with data collection criteria and definitions*
39. On recommendation 16, Chinese Taipei noted that current definition only allows us to manage buoy number and buoy destiny.
40. PNA commented in recommendations 14 - 17 that some of the indicators in the JTWG paper are already included in the Annual Fishery Overview paper and the Annual Fisheries Indicators Papers provided to the SC. The PNA prefers consideration of the development of sets of indicators for fisheries, such as the purse seine fishery and longline fishery rather than separate indicators for the FAD fishery. PNA notes the difference between the WCPO where most of the purse seine catch is taken in unassociated sets or free schools compared to some other ocean regions where 70-80% of the purse seine catch is taken in FAD sets, and information on the FAD fishery is therefore more important in those regions.

- 40bis. The EU noted that the average proportion of tropical tuna (TT) catches using FADs against the total PS TT catches for the 2011-2018 period was estimated as follows: IATTC - 54%, ICCAT - 77%, IOTC - 65%, and WCPFC - 45%.
41. ISSF suggested edits in recommendations 3-6, 9, 15, 24-25 and 27 were reflected in FADMO-IWG-04-2020/WP-01. ISSF further commented in recommendation 25 that SPC is doing research on overall biomass indicators from echosounder buoys.
 42. On recommendation 21: The Scientific Committees of the t-RFMOs should consider the positive experience of the workshops for vessel captains, owners and crew, and develop a mechanism for regular exchange of scientific information and stakeholder knowledge across t-RFMOs.
 43. Chinese Taipei expressed concern about the application of the methodology recommended by the ISSF workshop, such as the cost implication, the participants and other aspects. Chinese Taipei viewed that it would be appropriate to assess whether to include this in the working group response after provision of further information.
 44. On recommendation 24: t-RFMOs should accelerate progress to reduce contributions of FADs to marine litter and mitigate negative impacts on coastal habitats and marine ecosystems and endangered, threatened and protected species, such as use of FADs without netting and those made with biodegradable materials, as well as mechanisms and incentives for recovering FADs.
 45. French Polynesia expressed concern that there is a need to address how to recover FADs, where legal mechanisms and financial incentives could be explored.
 46. On recommendation 30: Hold a meeting to evaluate the information available to assess the effect of each t-RFMO's measures on FADs, with special focus on sharing information on challenges and successes.
 47. PNA reiterated its position that they do not support this recommendation for the reasons previously explained by FFA and PNA for not supporting the work of the JWG. While EU proposed that WCPFC continue engaging in the work of the joint tRFMO working on FADs.
 48. PNA also would like to share with FADMO-IWG participants the new PNA requirements for reporting of FAD data by vessel operators licensed to fish in PNA waters (**Attachment C**).
 49. USA comments and suggested edits were reflected in the document (FADMO-IWG-04-2020/WP-01).
 50. **Taking into account the various comments from FADMO-IWG which is summarized in FADMO-IWG-04-2020/WP-01, the Commission is invited to consider the FADMO-IWG's responses to the recommendations in the report of the 2nd meeting of the Joint Tuna RFMOs Working Group on FADs, on its merits and relevance for the management of tropical tunas.**

B. Guidelines for Non-entangling and Biodegradable FAD Materials (FADMO-IWG-04-2020/WP-02)

51. USA provided some suggested text in the background section of this document and also proposed that due to the paucity of additional scientific or technical information available on non-entangling and biodegradable FADs, the FAD-IWG should recommend retaining the existing guidelines at this time, and to revisit them when more information on non-entangling and biodegradable FADs is available. The USA noted that the COVID-19 pandemic has delayed some of the research planned on non-entangling and biodegradable FADs in the WCPO. The USA further noted that some research on non-entangling and biodegradable FADs is underway (see SC16-EB-IP-08), but results are not available yet for the FAD-IWG to consider. USA did not believe that describing the main impacts of FAD structures was necessary in the background section of the guidelines. The USA further noted that background information only mentioned the impacts of lost FADs and pointed that other impacts of FADs would include the capture of juvenile fish and other bycatch species (e.g. ghost fishing).
52. ISSF also gave some suggested edits in the background section of the document which included **options** to update the existing guidelines available for the Commission’s consideration.

Options

Based on the attached guidelines, the Commission may wish to consider adopting changes to CMM 2018-01 in order to require fully non-entangling FADs and/or a more binding requirement for the use of biodegradable materials in FADs at some point in the future. Example changes to paragraphs 19-20 of CMM 2018-01 are as follows:

19. To reduce the risk of entanglement of sharks, sea turtles or any other species, from [1st January 202x], CCMs shall ensure that the design and construction of any FAD to be deployed in, or that drifts into, the WCPFC Convention Area shall comply with the following specifications:

- The floating or raft part (flat or rolled structure) of the FAD can be covered or not. If covered, it must not be covered with mesh net of any size. If the FAD is covered, use only canvas, tarpaulin, shade cloth, or other non-entangling materials.*
- The design of the underwater or hanging part (tail) of the FAD must avoid the use of mesh net of any size. The tail structure can be made with ropes, canvas or nylon sheets, or other non-entangling materials.*

20. To reduce the amount of synthetic marine debris, from [1st January 202x], CCMs shall ensure that the design and construction of any FAD to be deployed in, or that drifts into, the WCPFC Convention Area shall comply with the following specifications:

- The floating or raft part (flat or rolled structure) of the FAD can be constructed with bamboo, balsa wood or other natural materials that degrade without causing impact on the ecosystem.*
- The design of the underwater or hanging part (tail) of the FAD must avoid the use of plastic-based materials. Use only natural and/or biodegradable materials—cotton ropes and canvas, manila hemp, sisal, coconut fiber—so that they degrade without causing ecosystem impact.*
- Use of plastic buoys and containers for flotation should be reduced as much as possible, for instance, by reducing the weight and volume of the FAD structure (Moreno et al. 2020: WCPFC-SC16-2020/EB-IP-08).*

53. SPREP responded to the text in the paper that the “main impacts of FAD structures on marine ecosystems are i) shark and sea turtle entanglements”, and noted that cetaceans are also at risk

from entanglement in fishing gear including active dFADs and FADs that have become abandoned lost or discarded. In addition, cetaceans are also at risk of ingesting degraded materials from FADS. In this regard, SPREP has noted and shared International Whaling Commission (IWC) Workshop report on Marine Debris, that was held in Spain in 2019, with the following highlights:

- globally 60/89 cetacean species have been impacted by entanglement (including active and non-active fishing gear);
- ingestion of parts of fishing gear is also an issue and plastic debris generally has been documented in 48 species;
- Studies in the Mediterranean Sea and in the Caribbean highlight that ALDFGs especially FADs greatly contribute to the litter-scape and potential harmful effects on biodiversity including cetaceans;
- Sperm whales seem to be especially vulnerable to ingestion and also entanglement
- The IWC SC has been asked to consider the development of a database on marine debris information from post-mortem examinations and development of standardized necropsy protocols;
- It is difficult to determine the origin of materials removed from entangled large whales especially differentiating between actively fished gear and ALDFG. Note that large whales can destroy the gear they become entangled in and can drag the remnants for many weeks or months over thousands of kilometers, or it can look like debris and be classed as 'undetermined rope or net' This highlights another important reason for marking of gear;
- IWC currently coordinates a Global Whale Entanglement Response Network made up of approximately 3000 trained members in 25 countries;
- Also noted and shared the presentation by David Mattila around whale entanglement in FADs.

54. SPREP further commented that the impact of dFADs on cetaceans is difficult to quantify and is likely underestimated. Also noting that seabirds, although unlikely to become entangled in the gear are highly susceptible to ingestion of plastics.

55. SPREP also made some specific comments to the draft guidelines for non-entangling and biodegradable FAD materials which is stated below.

- Use of mesh net in FADs is highly problematic for species such as sharks and sea turtles and is also the material that most commonly strands on coral reefs. Even the use of small mesh is unlikely to be satisfactory as tears and degradation over time results in larger holes. 'Sausages' likewise can loosen and become undone. Furthermore, the impact of the abandoned or lost dFADs which become dangerous marine litter to the marine environment remains. Even where FADs do not wash up on sensitive habitats such as coral reefs, the byproducts of plastic marine litter from dFADs will remain in the marine environment for centuries breaking down to become available to marine organisms in myriads of ways. As identified in the paper submitted to SC 16, WCPFC-SC16-2020/EB-IP-08 the submerged part of the dFAD is now often extremely large 60-80m and priority should be given to replacement of this tail with biodegradable materials so they degrade fast when the dFADs are lost or abandoned. The paper presents some new designs which should enable dFADs to be as effective in congregating tuna and drifting slowly as is required. In this regard, the Commission should consider prohibiting the use of mesh netting to achieve the greatest benefit for the environment as quickly as possible.

56. PNA noted paragraph 22 of CMM 2018-01: "*The Commission at its 2020 annual session, based on specific guidelines defined by the FAD Management Options Intersessional Working Group and*

advice from SC16 and TCC16 shall consider the adoption of measures on the implementation of non-entangling and/or biodegradable material on FADs.”

- In relation to this, PNA expressed that SC16 and TCC16 have not been able to provide the advice anticipated by this text because of the constraints resulting from the abbreviation of the SC16 and TCC16 sessions. It seems clear therefore, that the FADMO-IWG is not in a position in 2020 to define specific guidelines for the implementation of non-entangling and/or biodegradable material on FADs as called for in paragraph 22 of CMM 2018-01.
- On this basis, PNA Members proposed that the FADMO-IWG advise the Commission that the IWG is not in a position to provide guidelines on the implementation of non-entangling and/or biodegradable material on FADs called for in paragraph 22 of CMM 2018-01, because SC16 and TCC16 were not able to address the issue in their virtual sessions, and that the provisions of paragraph 22 be rolled over to 2021.
- Notwithstanding this proposal, PNA Members continue to support the move to requiring non-entangling FADs made of biodegradable materials as set out in the FFA Delegation Paper WCPFC15-2018-DP08: Views on Tropical Tuna CMM.

57. The United States supports PNA’s position that the FADMO-IWG is not in the position to define specific guidelines for non-entangling or biodegradable this year and the taskings should be rolled over to 2021.

58. In the general section of the document, Japan viewed that definition of non-entangling/biodegradable FAD is not necessary. Japan requested clarification on biodegradable compounds complying with international standards, what international standards are? This could be related to what is describe in *WCPFC-SC15-2019/EB-WP-11 (Rev.01): “Preliminary results of the BIOFAD Project: Testing designs and identify options to mitigate impacts of drifting fish aggregation devices non the ecosystem”*. This was also related to some previous comments from the drafting group that proposed to add bio-based and/or biodegradable compounds certified by international standards, something like what it was proposed in the Indian Ocean: “Use only naturally occurring materials (e.g., cotton ropes, manila hemp, sisal, coconut fiber), or in their absence, of bio-based and biodegradable compounds complying with international standards that degrade without causing ecosystem impact”.

59. In the general section of the document, FSM expressed the view that to have **least** possible impact, the tail and the non-biodegradable weight of the FAD structure be removed. FSM believed that a FAD with a raft only (without netting or mesh in the raft structure), just like a natural drifting log (equipped with a FAD buoy only for tracking) will have least possible impact.

60. In the tail structure section of the document, FSM further suggested to explore areas of biodegradable materials for weights instead of just reusing them. But also wanted to clarify if weights are needed on the tail structure of the FAD noting that weights help slow down the drifting of the FAD based on limited research. FSM further commented that natural drifting logs works well without a tail structure. FSM suggested that the tail structure of the FAD needs further research on the types of biodegradable materials as well as the depth, width or size. Research on drifting FADs with raft only (without tail) could be explored just like natural drifting logs. FSM viewed that the tail structures of the FAD seem to be the main culprit that cause species (e.g. marine turtles, sharks) entanglement, marine pollution, ghost fishing and other negative impacts. But USA believed that a drifting FAD without a tail will not work.

61. SPC suggested that if biodegradable materials are intended for floatation, perhaps include these specifically or provide a recommended alternative if it exists.
62. **The FADMO-WG drafted revised guidelines for non-entangling and biodegradable FADs as reflected in the FADMO-IWG-04-2020/WP-02. Since SC16 and TCC16 were not able to discuss and/or give advice on specific guidelines related to the implementation of non-entangling and/or biodegradable material on FADs as noted in paragraph 22 of CMM 2018-01 due to its abbreviated agenda, the Commission should consider tasking SC17 and TCC17 to review the draft revised guidelines and tasking the FADMO-IWG to revisit the draft guidelines based on input from those bodies as well as any additional scientific and technical information on non-entangling and biodegradable FADs.**

III. CLOSE OF EMAIL COMMUNICATIONS

63. After all issues and concerns of the FADMO-IWG have been discussed and reflected in the summary report and/or related working papers. The email communications have been closed. The summary report of the FADMO-IWG-04 is expected to be posted in the FADMO-IWG webpage on 17 November 2020.

**FAD Management Options Intersessional Working Group
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ATTACHMENT B**Schedule for the Work of the FADMO-IWG**

Date	Activity
16 – 22 September 2020	Circular will be out to gather contacts for additional participants for the FADMO-IWG
1 – 15 October 2020	Email Communication 1: Two draft documents will be distributed by email for comments/suggestions due by 15 October
19 -30 October 2020	Email Communication 2: Revised draft documents will be distributed by email for further comments/suggestions due by 30 October
2-9 November 2020	Email Communication 3: Draft Summary Report of FADMO-IWG, attached with the updated two documents will be distributed by email for final comments/suggestions due by 9 November
11-13 November 2020	Final draft Summary Report will be emailed to all participants for adoption
17 November 2020	Final Summary Report will be submitted to the Commission (posted on the website) for its consideration at WCPFC17

Information Paper on PNA FAD Logsheet (FADMO-IWG-04-2020-IP-01)

A. Background

1. This note describes changes to the PNA requirements for reporting of FAD data by vessel operators licensed to fish in PNA waters. The changes are specifically designed for reporting of FAD data to PNA FIMS, but they may also contribute to the development of requirements for additional FAD data to be provided to the WCPFC.
2. The changes to the PNA requirements for reporting of FAD data by vessel operators described in this note respond to 2 initiatives:
 - a) Agreement among PNA Members there was a need to enhance the provision of FAD data by vessel operators for the management of FADs and fishing on FADs in PNA waters through e-reporting, including data on buoys on board, deployed and retrieved linked to the PNA FAD Buoy Register, and on FAD design and construction.
 - b) Agreement at WCPFC12 that:

“...vessel operators should provide data on FADs covering the following two major areas:

 - a. FAD design and construction of FAD to be deployed or encountered (materials, electronics, size etc)*
 - b. FAD activity (deploying, retrieving, setting, visiting, loss etc).*

where in addition: *“The Commission noted the FADMgmtOptions-IWG recommendations that:*

 - i) the FAD data fields to be reported by vessel operators should be based on the WCPFC ROP Minimum Standard Data Fields and the data fields collected by other RFMOs;*
 - ii) data collected by observers on FADs can be used for verification of FAD activities of vessels;*
 - iii) the FAD data should be provided to the Commission via flag State electronically using appropriate systems such as FAD e-logbooks or information systems such as PNA iFIMS etc.*
 3. The new PNA requirements for reporting of FAD data by vessel operators are in the process of being trialed before becoming a license condition for purse seine vessels licensed to fish in PNA waters. They are currently available to PNA licensed vessels through PNA FIMS.
 4. Since over 90% of the industrial FAD sets in the WCPO (excluding Indonesia and Philippine domestic FAD fisheries) are made in PNA waters and PNA requires full trip reporting by licensed vessels, the new PNA reporting requirements will substantially cover the WCPO tropical tuna industrial FAD fishery.

B. Discussion

5. The new PNA reporting requirements include five major changes to current FAD-related reporting requirements for vessel operators:
 - a) Adding a trip buoy inventory
 - b) Adding Buoy ID to FAD set data
 - c) Increasing the detail on FAD activities
 - d) Adding information on FAD design and construction
 - e) Linking the FAD Buoys to the PNA FAD Buoy Register

6. The new PNA reporting requirements follow the proposals by the then FADMO-IWG Chair in WCPFC-SC12-ST-WP-08 that were developed through joint work by SPC, WCPFC Secretariat and the FAD IWG Chair. Those in turn are largely based on the Regional Observer GEN-5 form (FAD/Payao and Floating Objects Information Record) with some reference to the PS-2 form (Regional Purse Seine Observer Daily Log), PNA needs related to FAD/Buoy Tracking, and forms from other RFMOs and Spain.
7. In addition, PNA appreciates the substantial contributions of the American Tunaboat Association, Forum Fisheries Agency, International Seafood Sustainability Foundation, Pew Charitable Trusts and the Pacific Community Oceanic Fisheries Programme to this work. However, the responsibility for the final specification of the new reporting requirements lies with the PNA Office.
8. The new PNA reporting requirements have been incorporated into PNA FIMS by FIMS Inc, a wholly PNA-owned software development company. The new requirements have been implemented in FIMS by an iFIMS eForms Android App. Use of the App is described in the FIMS User Guide for FAD's and FAD Activity.
9. PNA expects that there will be consequential changes to some observer/ROP fields, mainly deleting the FAD design and construction details except to the extent that those might be required to monitor compliance with any WCPFC requirements relating to bio-degradable and non-entangling FADs.

C. Conclusion

10. FAD Management Options Intersessional Working Group participants are invited to note the new PNA requirements for reporting of FAD data by vessel operators licensed to fish in PNA waters.