

Comparison among Proposals on DFADs (Prop A, B, and D)

1. Definition

- The colored portions (A: blue, D: green, C: red) are those that are different from the current Resolution definitions.

Current Measure	Prop A (EU)	Prop D (KEN, etc)	Prop B (India)
<p>a) Fish Aggregating Device (FAD) means a permanent, semi-permanent or temporary object, structure or device of any material, man-made or natural, which is deployed and/or tracked, for the purpose of aggregating target tuna species for consequent capture.</p> <p>b) Drifting Fish Aggregating Devices (DFADs) means a FAD not tethered to the bottom of the ocean. A DFAD typically has a floating structure (such as a bamboo or metal raft with buoyancy provided by buoys, corks, etc.) and a submerged structure (made of old netting, canvass, ropes, etc.).</p> <p>c) Anchored Fish Aggregating Devices (AFADs) means a FAD tethered to the bottom of the ocean. It usually consists of a very large buoy and anchored to the bottom of the ocean with a chain.</p> <p>d) Instrumented buoy means a buoy</p>	<p>a) “Fish Aggregating Device (FAD)” means a permanent, semi-permanent or temporary object, structure or device of any material, man-made or natural, which is deployed and/or tracked, for the purpose of aggregating target tuna species for consequent capture.</p> <p>b) “Drifting Fish Aggregating Device (DFAD)” means a FAD not tethered to the bottom of the ocean (full stop).</p> <p>c) “Anchored Fish Aggregating Device” (AFAD) means a man-made FAD tethered to the bottom of the ocean (full stop).</p> <p>d) “Log” means a floating object of natural source or accidentally lost from anthropic activities and that was not built and deployed for the purpose of aggregating and/or locating target tuna species for subsequent capture.</p> <p>e) “Instrumented buoy” means a buoy clearly marked with a unique</p>	<p>a) “Fish Aggregating Device (FAD)” means a permanent, semi-permanent or temporary object, structure or device of any material, man-made or natural, which is deployed and/or tracked and may aggregate fish (full stop).</p> <p>b) “Drifting Fish Aggregating Device (DFAD)” means a FAD not tethered to the bottom of the ocean (full stop).</p> <p>c) “instrumented buoy” means a buoy clearly marked with a unique reference number allowing identification of its owner and equipped with a satellite tracking system to monitor its position</p> <p>d) “activation of a buoy” means the act of initialising satellite communication service, which is done by the buoy supplier company at the request of the buoy owner. The buoy can be transmitting or not, depending if it has been manually switched on.</p>	<p>a) Fish Aggregating Device (FAD) means a permanent, semi-permanent or temporary object, structure or device of any material, man-made or natural, which is deployed and/or tracked, for the purpose of aggregating target tuna species for consequent capture.</p> <p>b) Drifting Fish Aggregating Devices (DFADs) means a FAD not tethered to the bottom of the ocean. A DFAD typically has a floating structure (such as a bamboo or metal raft with buoyancy provided by buoys, corks, etc.) and a submerged structure (made of old netting, canvass, ropes, etc.).</p>

<p>with a clearly marked with a unique reference number allowing identification of its owner and equipped with a satellite tracking system to monitor its position.</p> <p>e) Operational buoy means any instrumented buoy, previously activated, switched on and deployed at sea on a drifting FAD or log, which transmit position and any other available information such as eco-sounder estimates.</p> <p>f) Activation of a buoy means the act of initializing satellite communication service, which is done by the buoy supplier company at the request of the vessel owner or manager.</p> <p>g) Deactivation of a buoy means the act of cancelling satellite communications service, which is done by the buoy supplier company at the request of the vessel owner or manager.</p> <p>h) Buoy owner means any legal or natural person, entity or branch, who is paying for the communication service for the buoy associated with a FAD, and/or who is authorized to receive information from the satellite buoy, as well as to request its</p>	<p>reference number allowing identification of its owner and equipped with a satellite tracking system to monitor at least its position.</p> <p>f) “Operational buoy” means any instrumented buoy, previously activated, switched on and deployed at sea on a drifting FAD, which transmits position and any other available information such as eco-sounder data.</p> <p>g) “Responsible buoy operator” means the owner/master/operator of a fishing vessel who is in charge of tracking an instrumented buoy and is authorised to request its activation and/or deactivation.</p> <p>h) “Activation of a buoy” means the act of initialising satellite communication service, which is done by the buoy supplier company at the request of the responsible buoy operator.</p> <p>i) “Deactivation of a buoy” means the act of cancelling satellite communications service, which is done by the buoy supplier company at the request of the responsible buoy operator.</p>	<p>(Operational buoy definition absent)</p> <p>e) “deactivation of a buoy” means the act of cancelling satellite communications service, which is done by the buoy supplier company at the request of the vessel owner or buoy owner.</p> <p>f) “buoy owner” means any legal or natural person, entity or branch, who is paying for the communication service for the buoy associated with a DFAD that is registered on the DFAD Register, and/or who is authorised to receive information from the satellite buoy, as well as to request its activation and/or deactivation.</p> <p>g) “reactivation” means the act of re-enabling satellite communications services by the buoy supplier company at the request of the buoy owner.</p> <p>h) “abandoned DFAD” means a DFAD that was initially deployed with the intention of later retrieval but that is deliberately left at sea due to force majeure or other reasons.</p> <p>i) “lost DFAD” means a DFAD over which the buoy owner has lost control and that cannot be located and/or retrieved by the buoy owner.</p>	
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<p>activation and/or deactivation.</p> <p>i) Reactivation: the act of re-enabling satellite communications services by the buoy supplier company at the request of the buoy owner or manager.</p> <p>j) Buoy in stock means an instrumented buoy acquired by the owner which has not been made operational.</p>	<p>j) "Reactivation" means the act of re-enabling satellite communications services by the buoy supplier company at the request of the responsible buoy operator.</p> <p>k) "Abandoned DFAD" means a DFAD which the responsible buoy operator has deliberately left at sea due to <i>force majeure</i> or other reasons and over which the buoy supplier can transmit localisation information for the purpose of retrieving the DFAD.</p> <p>l) "Lost DFAD" means a DFAD previously tracked with an instrumented buoy by the responsible buoy operator and over which control has been lost due to several reasons (appropriation, beaching, sinking, etc.) and that cannot be located by neither responsible buoy operator nor the buoy supplier.</p> <p>m) "Discarded DFAD" means a DFAD that is released at sea without any attempt for further control or recovery by the responsible buoy operator.</p> <p>n) "Biodegradable material" means a renewable lignocellulosic material (i.e., plant dry matter - here described as natural material) and/or bio-based biodegradable plastic compound.</p>	<p>j) "discarded DFAD" means a DFAD that is released at sea without any attempt for further control or recovery by the buoy owner.</p> <p>k) "biodegradable materials" means renewable lignocellulosic materials (i.e., plant dry matter - here described as natural material) and/or bio-based biodegradable plastic compounds. Those materials shall degrade in normal conditions of the use of DFADs and both be biodegradable in marine environments in accordance with international relevant standards or certification labels for plastic compostability in marine environments and compostable on land. In addition, the substances resulting from the degradation of these materials shall not be toxic for the marine and coastal ecosystems or include heavy metals in their composition.</p>	
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	<p>Those materials shall degrade in normal conditions of use of DFADs and be biodegradable in marine environments. In addition, the substances resulting from the degradation of these materials shall not be toxic for the marine and coastal ecosystems or include heavy metals in their composition. Those materials shall be used provided they comply with international standards once advised by the IOTC Scientific Committee following the preparatory work by the <i>ad hoc</i> working group on FADs.</p>		
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2. Application

Current Measure	Prop A (EU)	Prop D (KEN, etc)	Prop B (India)
<p>2. This Resolution shall apply to CPCs having purse seine vessels and fishing on Drifting Fish Aggregating Devices (DFADs), equipped with instrumented buoys for the purpose of aggregating target tuna species, in the IOTC area of competence. Only purse seiners and associated supply or support vessels are allowed to deploy DFADs in the IOTC Area of Competence.</p>	<p>2. This Resolution shall apply to Contracting Parties and Cooperating Non-Contracting Parties (CPCs) having vessels fishing on FADs aggregating tuna species in the IOTC area of competence.</p> <p>3. Only purse seiners and associated supply vessels are allowed to deploy DFADs instrumented buoys in the IOTC Area of Competence.</p>	<p>2. This Resolution shall apply to Contracting Party and Cooperating Non-Contracting Party (CPC) flag purse seine vessels fishing on DFADs aggregating target tuna species in the IOTC area of competence as well as associated supply or support vessels.</p> <p>10. CPCs shall ensure that only purse seine vessels and associated supply or support vessels use DFADs in the IOTC area of competence.</p>	<p>2. This Resolution applies to all CPC flag purse seine vessels and associated supply and support vessels fishing for tuna or tuna-like species in the high seas within the IOTC area of competence.</p>

3. DFAD Register

Current Measure	Prop A (EU)	Prop D (KEN, etc)	Prop B (India)
No provision	No provision	<p>3. The IOTC Executive Secretary shall maintain a register for all DFADs deployed in the IOTC area of competence (DFAD Register). The IOTC Executive Secretary shall provide detailed guidelines and a dedicated technological tool. The DFAD Register shall be effective as of 1 January 2024.</p> <p>4. CPCs shall submit electronically to the IOTC Executive Secretary, for each of their flag purse seine vessels that is authorised to operate in the IOTC area of competence, the following information for inclusion in the DFAD Register:</p> <ul style="list-style-type: none"> a) unique instrumented buoy reference number that will allow the identification of its owner; b) name of the purse seine vessel to which the instrumented buoy is assigned; c) name of the buoy owner; d) unique IOTC Vessel Register number of the purse seine vessel that is assigned to the instrumented buoy; e) flag State of the purse seine vessel that is assigned to the instrumented 	No provision

		<p>buoy; f) manufacturer of the instrumented buoy; g) model name of the instrumented buoy.</p> <p>7. Flag CPCs shall submit the information under paragraph 4 to the IOTC Executive Secretary at least 24 hours before an instrumented buoy is activated, switched on and deployed at sea on a DFAD or any floating object.</p> <p>8. CPCs shall promptly notify, after the establishment of their initial DFAD Register record, the IOTC Executive Secretary of any addition to, any deletion from and/or any modification of the information mentioned in paragraph 4 as included in the DFAD Register at any time such changes occur.</p> <p>9. The IOTC Executive Secretary shall make the DFAD Register available in a secure section the IOTC website that is accessible to CPCs. The IOTC Executive Secretary shall make the data contained in the DFAD Registry available for purposes of scientific research and monitoring of compliance. For other users, the data</p>	
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4. DFAD limits

Current Measure	Prop A (EU)	Prop D (KEN, etc)	Prop B (India)
<p>4. This Resolution sets the maximum number of operational buoys followed by any purse seine vessel at 300 at any one time. The number of instrumented buoys that may be acquired annually for each purse seine vessel is set at no more than 500. No purse seine vessel shall have more than 500 instrumented buoys (buoy in stock and operational buoy) at any time. An instrumented buoy shall be made operational only when physically present on board the purse-seine vessel to which it belongs or its associated supply or support vessel, and the event shall be recorded in the appropriate logbook, specifying the instrumented buoy unique identification number and the date, time and geographical coordinates of its deployment.</p> <p>5. A CPC may adopt a lower limit than the one set out in paragraph 4 for</p>	<p>4. CPCs shall require, in respect of its flag vessels operating in the IOTC area of competence that:</p> <p>a) the maximum number of operational buoys followed at any one time by any purse seine vessel:</p> <p>i. from the 1 January 2024, to be 280; and</p> <p>ii. from the 1 January 2026, to be 260.</p> <p>b) the maximum number of instrumented buoys that may be acquired annually for each purse seine vessel shall not be more than 450.</p> <p>5. No additional instrumented buoy shall be attributed to supply vessels.</p> <p>6. A CPC may adopt lower limits than the one provided in paragraph 4 for its flag vessels and may adopt lower</p>	<p>5. The maximum number of instrumented buoys that may be registered on the DFAD Register to any purse seine vessel, at any one time, shall not exceed 150 (DFAD Limits). Notwithstanding the completion of any study undertaken at the request of the Commission, the Commission may review the DFAD Limits. This paragraph is without prejudice to the right of CPCs to adopt more stringent DFAD Limits for their flag vessels or within their EEZ.</p> <p>6. Reactivated instrumented buoys shall not count as new instrumented buoys under the DFAD Limits but shall be counted as part of the original limit of instrumented buoys that is allowed for each purse seine vessel.</p>	<p>No provision</p>

<p>vessels flying its flag. Further, any CPC may adopt a lower limit for DFADs deployed in its EEZ than that stated in paragraph 4. The CPC shall review the adopted limit to ensure that such limit is not more than the limit fixed by the Commission.</p> <p>6. CPCs shall ensure that as from the effective date of this Resolution, each of its purse seiners already in operation does not exceed the maximum number of operational and instrumented buoys at any one time as set out in paragraph 4.</p> <p>9. Notwithstanding the completion of any study undertaken at the request of the Commission including the study to be undertaken by the Working Group adopted at Resolution 15/09 in relation to FADs, the Commission may review the maximum number of instrumented buoys set out in paragraph 4.</p>	<p>limits for DFADs deployed in its exclusive economic zone (EEZ).</p> <p>7. In order to reduce the amount of DFAD used, data of operational buoy can be shared among multiple purse seine vessels only provided that:</p> <p>a) shared buoys are reported for each single purse seine vessel receiving the information, and not only for the responsible buoy operator, when reporting information as defined in paragraph 4a;</p> <p>b) shared buoys are accounted for as a fraction of the number of purse seiners sharing the same buoy, remaining within the limit set in paragraph 4; and</p> <p>c) no instrumented buoy shall be attributed to supply vessels.</p>		
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5. FAD Management and Reporting

Current Measure	Prop A (EU)	Prop D (KEN, etc)	Prop B (India)
<p>3. This resolution requires the use of instrumented buoy, as per the above definition, on all DFADs and prohibits the use of any other buoys, such as radio buoys, not meeting this definition.</p> <p>7. All purse seine vessel, supply or support vessel shall declare to its respective CPC, the number of instrumented buoys onboard, including each unique identifier of the instrumented buoy before and after each fishing trip.</p> <p>8. Reactivation of an instrumented buoy shall only be possible once it has been brought back to port, either by the vessel tracking the buoy/ associated supply or support vessel or by another vessel and has been authorized by the CPC.</p>	<p>9. In order to support the monitoring of compliance with the limitations established in this Resolution, CPCs shall:</p> <p>a) ensure their flag vessels use instrumented buoys on all DFADs and prohibit the use of any other buoys, such as radio buoys, that do not meet the definition in paragraph 1;</p> <p>b) ensure their flags vessels only deploy DFADs with an operational buoy ;</p> <p>c) ensure that their flag vessels only make their instrumented buoys active when physically present on board the purse seine vessel to which it belongs or its associated supply vessel, and that the event shall be recorded in the appropriate logbook, specifying the instrumented buoy unique identification number, the DFAD biodegradability category and the date, time and geographical coordinates of its deployment;</p> <p>d) ensure that reactivation of an instrumented buoy is only possible after it has been brought back to port</p>	<p>11. CPCs shall ensure that their flag vessels exclusively use instrumented buoys registered to them in the DFAD Register on all DFADs and shall prohibit the use of any other buoys, such as radio buoys.</p> <p>12. CPCs shall ensure that their flag purse seine vessels and associated supply and support vessels do not attach their own instrumented buoys to DFADs that are already equipped with the instrumented buoy of another vessel.</p> <p>13. CPCs shall ensure that their flag vessels activate instrumented buoys only when physically present on board the purse seine vessel to which they are registered or its associated supply or support vessel.</p> <p>14. CPCs shall ensure that their flag vessels record the activation of each DFAD in the appropriate logbook, specifying the instrumented buoy unique reference number and the date, time and geographical coordinates (in degrees, minutes and seconds) of its deployment.</p>	<p>No provision</p>

	<p>by the flag vessel tracking the buoy, by an associated supply vessel or by another flag vessel, and has been authorised by the CPC;</p> <p>e) require that the responsible buoy operator reports any deactivation of an operational buoy at sea in the logbook, including the unique reference number, date, time, last geographical coordinates and the reasons for deactivation; and</p> <p>f) require, while protecting business confidential data, its flag vessels or the instrumented buoy supplier company to report, daily information on all active DFADs, including the date, instrumented buoy ID, and assigned vessel and daily position (latitude, longitude). CPCs shall compile this information at monthly intervals and submit with a time delay of at least 60 days, but no longer than 90 days to the Secretariat.</p>	<p>15. CPCs shall ensure that their flag vessels reactivate instrumented buoys only once this has been authorised by the flag CPC and once the instrumented buoys have been brought back to port.</p> <p>16. CPCs shall ensure that their flag vessels fishing on DFADs annually submit the number of instrumented buoys assigned to them. This shall include instrumented buoys which have been lost, abandoned and/or discarded by 1° by 1° grid area and month strata and DFAD type.</p> <p>17. CPCs shall ensure that their flag vessels record fishing and fishing-related activities in association with DFADs using the specific data elements found in Annex II (DFAD) in the section of the “FAD-logbook”.</p> <p>18. CPCs shall report any factual information showing reasonable grounds for suspicion of violations against paragraphs 10-17 to the IOTC Executive Secretary.</p>	
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6. FAD Management Plans

Current Measure	Prop A (EU)-DFAD MPs	Prop D (KEN, etc)-DFAD MPs	Prop B (India)
<p>12. CPCs having vessels flying their flag and fishing on FADs shall submit, to the Commission, on an annual basis, Management Plans for the use of FADs. Due to their specificity in terms of users, type of boat/vessel involved, fishing method and gear used and materials used in their construction, the Management Plans and Reporting Requirements for Drifting FADs (DFAD) and Anchored FADs (AFAD) shall be addressed separately for the purposes of this Resolution. The Plans shall at a minimum follow the Guidelines for Preparation for FAD Management Plans by each CPC as provided for DFADs in Annex I and AFADs in Annex II.</p> <p>13. The Management Plans shall be analysed by the IOTC Compliance Committee.</p> <p>14. The Management Plans shall include initiatives or surveys to investigate, and to the extent possible minimise the capture of small bigeye tuna and yellowfin tuna and non-target species associated with fishing on FADs. Management Plans shall also</p>	<p>19. CPCs with flag vessels fishing on DFADs shall submit to the Secretariat, each year in their annual Implementation Report, a DFADs Management Plan for the use of DFADs and associated technologies (instrumented buoys and supply vessels).</p> <p>20. The objectives of the DFAD Management Plan shall be, to the extent possible, to monitor and keep at sustainable levels the impact on small bigeye tuna and yellowfin tuna and non-target species associated with fishing on DFADs and to prevent the loss or abandonment of DFADs.</p> <p>21. The DFAD Management Plan shall at a minimum follow the Guidelines for Preparation for DFAD Management Plan provided in Annex IV and include the assessment of the implementation of this Resolution and measures taken to achieve the objectives presented in paragraph 18.</p> <p>22. The DFAD Management Plans shall be analysed by the IOTC Compliance Committee and by the IOTC Scientific Committee each in</p>	<p>19. CPCs having flag vessels fishing on DFADs shall submit, to the IOTC Executive Secretary, on an annual basis, Fish Aggregating Device (FAD) Management Plans in accordance with the Guidelines for Preparation of FAD Management Plans as provided for DFADs in Annex I.</p> <p>20. The Management Plans shall include initiatives or surveys to investigate and shall, to the extent possible, minimise the capture of juvenile bigeye tuna and yellowfin tuna and non-target species associated with fishing on DFADs. Management Plans shall also include guidelines to prevent the abandonment, discarding and loss of DFADs.</p> <p>21. The IOTC Compliance Committee and the IOTC Scientific Committee shall analyse the Management Plans and report the results of this analysis to the Commission.</p> <p>22. CPCs shall submit to the Commission, 60 days before the Annual Meeting, a report on the</p>	<p>No provision</p>

<p>include guidelines to prevent, to the extent possible, the loss or abandonment of FADs.</p> <p>15. In addition to the Management Plans, all CPCs shall ensure that all fishing vessels flying their flag and fishing on FADs, including supply vessels, shall record fishing activities in association with FADs using the specific data elements found in Annex III (DFAD) and Annex IV (AFAD).</p> <p>16. CPCs shall submit to the Commission, 60 days before the Annual Meeting, a report on the progress of the management plans of FADs, including, if necessary, reviews of the initially submitted Management Plans, and including reviews of the application of the principles set out in Annex III.</p>	<p>their respective role.</p>	<p>progress of their Management Plans, including, if necessary, reviews of the initially submitted Management Plans, and including reviews of the application of the principles provided in Annex I.</p>	
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7. DFAD Closure

Current Measure	Prop A (EU)	Prop D (KEN, etc)	Prop B (India)
No provision	No provision	<p>23. With the objective of reducing the fishing mortality of juvenile bigeye and yellowfin tunas, CPCs shall ensure that their flag purse seine vessels fishing for bigeye, yellowfin and skipjack tunas, as well as associated supply or support vessels, do not fish on DFADs or deploy or maintain DFADs in the IOTC area of competence between 0000hrs of 1 July and 0000hrs 30th September each year (DFAD Closure Period).</p> <p>24. CPCs shall ensure that, if their flag purse seine vessels and associated supply and support vessels retrieve the electronic equipment on their DFADs during the DFAD Closure Period, they retrieve the entire DFAD and keep it on board the vessel until landed in port or until the end of the DFAD Closure Period.</p> <p>25. CPCs shall ensure that their flag vessels do not deploy or maintain DFADs during a period of 15 days prior to the beginning of the DFAD Closure Period.</p> <p>26. CPCs shall ensure that during the</p>	<p>DFAD prohibition</p> <p>3. The use of DFADs within the IOTC area of competence shall, as a precautionary measure, be prohibited from 1 January 2024, without prejudice to the adoption of an earlier prohibition of DFADs by the Commission.</p> <p>4. For the purpose of this Resolution, DFADs deployed in the territorial waters of coastal States by small-scale artisanal fishery will be exempted from this prohibition.</p> <p>5. CPCs shall take all measures necessary to prevent their fishing vessels and associated supply and support vessels from using DFADs in the IOTC area of competence by 1 January 2024.</p> <p>6. CPCs shall take all necessary measures to ensure that owners and operators of their flag vessels retrieve all DFADs deployed by their flag vessels by 1 January 2024.</p> <p>7. CPCs shall include in their annual</p>

		<p>DFAD Closure Period, their flag purse seine vessels or associated supply or support vessels do not conduct any part of a set within five nautical miles of a DFAD, meaning that at no time may the vessel or its fishing gear or tenders be located within five nautical miles of a DFAD while a set is being conducted.</p> <p>27. CPCs shall ensure that during the DFAD Closure Period their flag purse seine vessels or associated supply or support vessels are not used to aggregate fish, or move aggregated fish, including through the use of underwater lights and chumming.</p> <p>28. The Commission shall review the DFAD Closure Period and associated measures and, if necessary, revise them based on advice by the IOTC Scientific Committee, taking into account monthly trends in free school and DFAD-associated catches.</p>	<p>Report of Implementation a summary of monitoring, control and surveillance measures related to DFAD use in the IOTC area of competence.</p> <p>8. The measure contained in this Resolution shall not prevent CPCs from taking more stringent measures to regulate the use of DFADs in the IOTC area of competence.</p>
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8. FAD Monitoring System

Current Measure	Prop A (EU)	Prop D (KEN, etc)	Prop B (India)
No provision	No provision	<p>29. To support the monitoring of compliance with the DFAD Limits, and to ensure the effective management of DFADs, the IOTC Executive Secretary shall establish and administer, with the support of external service providers as appropriate, a DFAD Monitoring System (DFAD-MS) to be activated by 1 January 2025.</p> <p>30. The IOTC Compliance Committee shall develop rules and procedures for the operation of the DFAD-MS, to be adopted by the Commission. These rules and procedures shall include, <i>inter alia</i>: a) minimum data standards and formats;</p> <p>b) rules on polling of instrumented buoys;</p> <p>c) cost recovery;</p> <p>d) cost sharing;</p> <p>e) measures to prevent tampering, and</p> <p>f) obligations and roles of fishing vessels, CPCs, the IOTC Executive Secretary and any external service providers.</p>	No provision

		<p>31. Once the DFAD-MS is operational, CPCs shall ensure that their flag vessels report the following real-time information about each instrumented buoy on the DFAD Register to the DFAD-MS when DFADs on the DFAD Register are first activated and until they are deactivated:</p> <ul style="list-style-type: none">a) the geographical location (in degrees, minutes and seconds);b) the date;c) the time;d) the instrumented buoy unique reference number of each instrumented buoy; ande) the name and IOTC registration number of the vessels assigned to the instrumented buoy. <p>32. Until the DFAD-MS is operational, CPCs shall ensure that their flag vessels report daily information containing the information mentioned in paragraph 31 on all active DFADs on the DFAD Register to the IOTC Executive Secretary. Such information shall be compiled at monthly intervals, to be submitted with a time delay of at least 60 days, but no longer than 90 days.</p>	
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		<p>33. CPCs shall ensure that their flag vessels report real-time information on the geographical location (in degrees, minutes and seconds) of each instrumented buoy in 6-hourly intervals to the DFAD-MS.</p>	
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9. FAD Marking, Tracking and Recovery

Current Measure	Prop A (EU)	Prop D (KEN, etc)	Prop B (India)
<p>20. A new marking scheme shall be developed by the ad-hoc FAD working group and shall be considered by the Commission at its regular annual session in 2020.</p> <p>21. Until the marking scheme referred to in paragraph 20 is adopted, CPCs shall ensure that the instrumented buoy attached to the DFAD contain a physical, unique reference number marking (ID provided by the manufacturer of the instrumented buoy) and the vessel unique IOTC registration number clearly visible.</p> <p>24. In order to support the monitoring of compliance with the limitation established in Paragraph 4, while protecting business confidential data, the instrumented buoy supplier company or the CPCs shall, starting 1 January 2020, report, or require their</p>	<p>14. CPCs shall ensure that the instrumented buoy attached to the DFAD is permanently marked with a physical tag in a non-degradable material on which the unique reference number marking (ID provided by the manufacturer of the instrumented buoy) and the IOTC unique vessel identifier number permanently and clearly visible.</p> <p>15. As of 1st of January 2025, and with the specific objective to collect information on how to mitigate FAD loss and abandonment, in addition to the marking of the instrumented buoy referred to in paragraph 13, CPCs shall ensure that each DFAD is permanently marked with a specific IOTC DFAD unique identifier. This IOTC DFAD unique identifier shall be attributed by the Secretariat to the CPC who will communicate them to</p>	<p>34. CPCs shall ensure that their flag vessels report, within 24 hours, any loss of a DFAD, or parts of a DFAD, owned by them to the flag CPC and the IOTC Executive Secretary. If the loss of a DFAD occurs in the EEZ of a coastal CPC, the flag CPC shall additionally report this information to the relevant coastal CPC within 24 hours of that loss. The report shall contain the following information:</p> <ul style="list-style-type: none"> a) unique reference number of the instrumented buoy; b) unique IOTC Vessel registration number and name of the vessel; c) construction materials and dimension of the DFAD components, including the raft and subsurface structure; d) time when the DFAD or part thereof was lost; e) geographical position (degrees, 	<p>No provision</p>

<p>vessels to report, daily information on all active FADs to the Secretariat. Such information shall contain, date, instrumented buoy ID, assigned vessel and daily position, which shall be compiled at monthly intervals, to be submitted with a time delay of at least 60 days, but no longer than 90 days.</p> <p>25. The Commission shall establish a DFAD tracking and recovery policy at its annual session in 2021, on the basis of recommendations from the ad-hoc FAD working group. The policy shall define DFAD tracking, reporting of lost DFADs, arrangements to alert coastal States of derelict/lost DFADs at risk of beaching in near real-time, how and who recovers the DFADs, how the recovery costs are collected and shared.</p>	<p>the master of the vessel. The marking shall be separate from the instrumented buoy. The standards for the individual marking of DFADs shall be developed by the IOTC Scientific Committee, following preparatory work by the <i>ad hoc</i> working group on FADs and in close collaboration with the Secretariat, at the latest at its 2024 session. These standards shall take into account the requirements of paragraph 11 on DFAD biodegradability to avoid the erasing or loss of the marking.</p> <p>16. CPCs shall require the responsible buoy operator to declare the end of use (retrieved, lost or abandoned) of the DFADs marked with an IOTC DFAD unique identifier which they deployed with their operational buoy.</p> <p>17. CPCs shall ensure that no DFAD are discarded by the responsible buoy operator. CPCs shall ensure that when an operational buoy is retrieved from the sea, no DFAD is left without an operational buoy, so that the DFAD is also retrieved if no other operational buoy is attached.</p> <p>18. CPCs shall require that, if a DFAD is abandoned, immediately after the deactivation of the instrumented buoy attached to it, the responsible</p>	<p>minutes and seconds) where the DFAD or part thereof was lost; f) measures taken to retrieve the DFAD or part thereof; g) any perceived threats of the imminent beaching of the DFAD; h) geographical position (degrees, minutes and seconds) of potential location of beaching; and i) plans to recover beached DFADs and how the recovery costs will be collected and shared.</p> <p>35. CPCs shall ensure that their flag vessels, before reporting the loss of a DFAD, or part of a DFAD, in accordance with paragraph 34, attempt to locate and retrieve such a DFAD as soon as possible and carry equipment on board for these purposes.</p> <p>36. CPCs shall ensure that if their flag vessels cannot retrieve an active DFAD before it enters the EEZs of a coastal CPC that they report the information provided in paragraph 34 to the relevant coastal CPC within 24 hours after the DFAD has entered its EEZ.</p>	
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	<p>buoy operator notify the flag State the date, time, last location of the buoy and the reasons for abandoning the DFAD. The flag State shall share this information with the Secretariat.</p>	<p>37. CPCs shall ensure that their flag vessels record additional information for all lost, discarded and abandoned DFADs in accordance with Annex II.</p> <p>42. Until a scheme to operationalise the FAO Voluntary Guidelines on the Marking of Fishing Gear (VGMFG) is developed in accordance with the <i>Proposal of Terms of Reference for developing a scheme to operationalise the FAO Voluntary Guidelines on the Marking of Fishing Gear (VGMFG); IOTC-2020-CoC17-14</i>, CPCs shall implement the measures provided for in the following paragraphs.</p> <p>43. CPCs shall ensure that the instrumented buoy attached to the DFAD contains a physical, unique reference number marking (ID provided by the manufacturer of the instrumented buoy) and that the vessel’s unique IOTC registration number is clearly visible on the instrumented buoy.</p> <p>44. CPCs shall ensure that their flag purse seine vessels and associated supply and support vessels only use DFADs whose raft and the sub-surface structure underneath the raft have a permanent mark showing the unique</p>	
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		<p>vessel IOTC registration number attached to it. Each mark must be:</p> <ul style="list-style-type: none">a) at least 75mm x 65mm in size;b) made of durable material; andc) securely fixed to the sub-surface structure and not removable. <p>45. CPCs shall conduct inspections, both at sea and at port, to ensure that their flag vessels comply with gear marking and other requirements. CPCs shall report deployed DFADs found without required markings to the relevant flag CPC. CPCs shall conduct port state inspections of fishing gear in accordance with the procedures set out in Annex B, paragraph e) of the FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (PSMA), including with respect to conditions relating to the marking of fishing gear.</p>	
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10. Non-entangling and Biodegradable FAD

Current Measure	Prop A (EU)	Prop D (KEN, etc)	Prop B (India)
<p>17. To reduce the entanglement of sharks, marine turtles or any other species, CPCs shall require their flagged vessels to use non-entangling designs and materials in the construction of FADs as outlined in Annex V.</p> <p>18. To reduce the amount of synthetic marine debris, the use of natural or biodegradable materials in FAD construction should be promoted. CPCs shall encourage their flag vessels to use biodegradable FADs in accordance with the guidelines at Annex V with a view to transitioning to the use of biodegradable FADs, with the exception of materials used for the instrumented buoys, by their flag vessel from 1 January 2022. CPCs shall, from 1 January 2022, encourage their flag vessels to remove from the water, retain onboard and only dispose of in port, all traditional FADs encountered (e.g. those made of entangling materials or designs). The reference year prescribed above shall be reviewed in light of the Scientific Committee’s recommendation pursuant to Resolution 18/04 On</p>	<p>10. To reduce the entanglement of sharks, marine turtles or any other species, CPCs shall ensure that the design and construction of any DFADs to be deployed in the IOTC Area of competence shall comply with the following specifications as outlined as an example in Annex II:</p> <ul style="list-style-type: none"> a) the use of mesh materials shall be prohibited for any part of a DFAD; and b) only non-entangling material and designs shall be used. <p>11. To reduce the amount of synthetic marine debris, CPCs shall ensure that their flag vessels:</p> <ul style="list-style-type: none"> a) no longer deploy any DFADs of category IV, as defined in Annex III; b) use only DFADs of biodegradability categories I, II or III, as defined in Annex III; c) as of 1st of January 2026, use only category I or II DFADs, as defined in Annex III; and d) as of the 1st of January 2029, at the latest, use only category I DFADs, as defined in Annex III. 	<p>38. To reduce the entanglement of sharks, marine turtles or any other species, CPCs shall ensure that the design and construction of any DFADs to be deployed in the IOTC Area of competence shall comply with the following specifications in accordance with Annex III:</p> <ul style="list-style-type: none"> a) the use of mesh materials shall be prohibited for any part of a DFAD; b) only non-entangling material and designs shall be used; and c) the sub-surface structure shall be limited to a length of 50 meters. <p>39. To reduce the amount of synthetic marine debris, CPCs shall ensure that their flag vessels:</p> <ul style="list-style-type: none"> a) use only DFADs of biodegradability categories I, II and III, as defined in Annex III; b) no longer deploy any DFADs of category IV, as defined in Annex III; c) as of 1 January 2025, use only DFADs of categories I and II, as defined in Annex III; and d) as of 1 January 2026, use only DFADs of category I, as defined in Annex III. 	<p>No Provision</p>

<p>BioFAD experimental project.</p> <p>19. CPCs are encouraged to conduct trials using biodegradable materials to facilitate the transition to the use of only biodegradable material for DFADS construction by their flagged vessels. The results of such trials shall be presented to the Scientific Committee who shall continue to review research results on the use of biodegradable material on FADs and shall provide specific recommendations to the Commission as appropriate.</p>	<p>12. Instrumented buoys shall not be deployed on DFADs which were deployed before the entering into force of this resolution and which do not comply with the requirements of paragraphs 10 and 11. Vessels encountering DFADs that are not compliant with the requirement of this resolution, shall automatically retrieve such DFADs from the water.</p> <p>13) Between the 1st of January 2024 and the 31st of December 2028, vessels deploying exclusively Category I DFADs shall be allowed to deploy a number of operational buoys equivalent to 10% more than the limit established in paragraph 4.</p>	<p>40. CPCs are encouraged to share their experiences and scientific knowledge on the use of biodegradable materials in DFADs.</p> <p>41. CPCs shall ensure that any observers deployed on their flag purse seine vessels collect detailed information on the DFAD design used and its conformity with the requirements set out in Annex III prior to the deployment of each DFAD.</p>	
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11. Data Reporting

Current Measure	Prop A (EU)	Prop D (KEN, etc)	Prop B (India)
<p>22. CPCs shall submit the data elements prescribed in Annex III and Annex IV to the Commission, consistent with the IOTC standards for the provision of catch and effort data, and these data shall be made available for analysis to the IOTC Scientific Committee on the aggregation level set by Resolution 15/02 (or any subsequent superseding Resolution), and under the confidentiality rules set by Resolution 12/02 (or any subsequent superseding Resolution).</p>	<p>8. CPCs shall:</p> <p>a) ensure that purse seine and supply vessels using DFADs record any fishing activity in association with a floating object by providing the data and information listed Annex I and following a template provided by the Secretariat;</p> <p>b) submit these data and information to the Commission, following the IOTC standards for the provision of catch and effort data; these shall be made available for analysis to the IOTC Scientific Committee at the aggregated level set by IOTC Resolution 15/02, and under the confidentiality rules set by IOTC Resolution 12/02.</p>	<p>46. CPCs shall submit the data elements provided in Annex II to the Commission, consistent with the IOTC standards for the provision of catch and effort data, and these data shall be made available for analysis to the IOTC Scientific Committee on the aggregation level set by Resolution 15/02 (or any subsequent superseding Resolution), and under the confidentiality rules set by Resolution 12/02 (or any subsequent superseding Resolution).</p>	

12. Purse Seine Vessels, Supply and Support Vessels

Current Measure (21/01)	Prop A (EU)	Prop D (KEN, etc)	Prop B (India)
<p>18. CPCs shall gradually reduce supply vessels² in purse seine operations targeting tropical tuna, by 31st December 2022 as specified below in (a) and (b). Flag States shall submit the status of reducing the use of supply vessel as part of the report of Implementation to the Compliance Committee.</p> <p>a. From 1 January 2022 to 31 December 2024: 3 supply vessels in support of not less than 10 purse seiners, all of the same flag State³.</p> <p>b. No CPC is allowed to register any new or additional supply vessel on the IOTC Record of Authorized Vessels.</p> <p>19. A single purse seine vessel shall not be supported by more than one single supply vessel of the same flag State at any point of time.</p> <p>20. Complementary to Resolution 15/08 and to Resolution 15/02, CPC/flag States shall report annually before the 1st of January for the coming year of operations which Purse seiners are served by each supply vessel. This information will be</p>	<p>No provision</p>	<p>48. CPCs shall only authorize purse seine vessels already authorized to fish in the IOTC area of competence under their flag in the previous year.</p> <p>49. Flag CPCs shall gradually reduce supply and support vessels by 31 December 2023. Flag CPCs shall submit information on the status of reducing the use of supply and support vessels in their annual Implementation Report.</p> <p>50. Flag CPCs shall ensure that, after 31 December 2023, no supply or support vessels support purse seine vessels in the IOTC area of competence.</p>	<p>No provision</p>

published on IOTC website so as to be accessible to all CPCs and is mandatory.			
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13. Scientific Work and Analysis

Current Measure	Prop A (EU)	Prop D (KEN, etc)	Prop B (India)
<p>23. The IOTC Scientific Committee will analyse the information, when available, and provide scientific advice on additional FAD management options for consideration by the Commission, including recommendations on the number of FADs to be operated, the use of biodegradable materials in new and improved FADs design. When assessing the impact of FADs on the dynamic and distribution of targeted fish stocks and associated species and on the ecosystem, the IOTC Scientific Committee will, where relevant, use all available data on abandoned FADs (i.e. FADs without a beacon or which have drifted outside the fishing zone).</p>	<p>36. information provided in paragraph 9.f. shall be stratified by fleet, year, month and 1x1 degrees grid, and expressed as the average daily number of operational buoys in each stratum and made available by the Secretariat to support scientific analysis in line with the confidentiality rules set by Resolution 12/02 <i>On data confidentiality policy and procedures</i>. Upon justified request by the IOTC Scientific Committee for specific analysis, and following the agreement by the Commission, data on DFAD trajectories shall be made available.</p> <p>37. IOTC Scientific Committee shall analyse further information, when available, and provide scientific advice on existing, additional or alternative FAD management options for sustainable fisheries to be submitted for consideration by the Commission.</p> <p>38. The IOTC Scientific Committee shall, by its annual session of 2025, provide a set of relevant indicators that would allow monitoring the effects of FAD fisheries and assessing</p>	<p>47. The IOTC Scientific Committee will analyse the information and data gathered under this Resolution, when available, and provide scientific advice on additional DFAD management options for consideration by the Commission, including recommendations on the number of DFADs to be operated and new and improved DFADs design. When assessing the impact of DFADs on the dynamics and distribution of targeted fish stocks and associated species and on the ecosystem, the IOTC Scientific Committee will, where relevant, use all available data on abandoned, lost and discarded DFADs.</p>	<p>No provision</p>

	<p>the efficiency of existing/additional/alternative DFAD and AFAD management options.</p> <p>39. The IOTC Scientific Committee shall provide scientific advice to the Commission by:</p> <p>a) assessing the impact that fishing gears or fishing using FADs have on juvenile mortality and provide adequate advice to the Commission. This assessment shall include, but not be limited to:</p> <p>i. a comparative analysis of the contribution of all fishing gears to the juvenile mortality of targeted tunas; and</p> <p>ii. an estimate of reference points for fishing mortality of juveniles of yellowfin and bigeye tunas with the view of recovering or maintaining stock size above levels which can produce the MSY and keep the risk of violating/exceeding limit reference points to a low probability;</p> <p>b) providing an analysis of the efficiency of current operational buoy limits, and examining the potential efficiency of alternative/complementary options to limit the number of FAD at sea.</p>		
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	<p>This will include, among other options, an advice on the definition and expected effectiveness of a measure to control the number of sets under DFAD".</p> <p>c) continuing reviewing research results on the use of biodegradable material on FADs and fishing gears, including on relevant international standards, with a view to provide specific recommendations to the Commission as appropriate; and</p> <p>d) researching and developing mitigating measures to avoid the loss and other impacts of AFADs. These recommendations may include guidelines on the design of AFADs or on the use of biodegradable material.</p>		
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14. Review and Entering into Force

Current Measure	Prop A (EU)	Prop D (KEN, etc)	Prop B (India)
<p>28. This resolution shall enter into force on 1 January 2020.</p>	<p>40. The Secretariat shall submit a report, on an annual basis, to the IOTC Compliance Committee on the level of compliance by each CPC with this Resolution.</p> <p>41. This Resolution shall enter into force on 1 January 2024 and shall be reviewed by the Commission no later than at its annual Session in 2028.</p>	<p>51. This Resolution shall be reviewed by the Commission, at the latest, at its Session in 2028 based on recommendations from the IOTC Scientific Committee.</p> <p>52. This Resolution shall enter into force on 1 January 2024.</p> <p>53. CPCs not yet involved in purse seine fisheries using DFADs are exempt from the application of this Resolution for a period of 6 months from when their vessels deploy DFADs for the first time.</p> <p>54. The IOTC Executive Secretary shall submit a report, on an annual basis, to the IOTC Compliance Committee on the level of compliance of each CPC with all the obligations under this Resolution</p>	<p>9. This Resolution shall enter into force on 1 January 2024.</p> <p>10. The Secretariat shall submit a report, on an annual basis, to the IOTC Compliance Committee on the level of compliance of each CPC with all the obligations under this Resolution.</p> <p>11. This Resolution shall be reviewed by the Commission, at the latest, at its Session in 2029 based on recommendations from the IOTC Scientific Committee.</p>