

OPAGAC FIP: Year 2 workplans FINAL, 17 January 2018

1. Introduction

This document presents a set of workplans for Year 2 of implementation (2018) of the OPAGAC FIP. The workplans are numbered as follows:

1. Principle 1 and Principle 3: ICCAT
2. Principle 1 and Principle 3: IOTC
3. Principle 1 and Principle 3: IATTC
4. Principle 1 and Principle 3: WCPFC
5. Principle 2

This final version of the workplans was prepared after the FIP Scientific Advisory Group (SAG) meeting which was held in Marrakech on November 13, 2017. OPAGAC, WWF and the members of the SAG have all had the opportunity to review a draft provided to OPAGAC on 30 November 2017 and the other stakeholders on 19 December 2017.

2. Summary of SAG comments

The key comments from the SAG are summarised below – along with OPAGAC's experience of Year 1 (see Year 1 review report; Gascoigne, 2017), these form the main basis for the Year 2 workplans.

2.1 General comments for Principle 1

- Key building blocks for a harvest strategy: priorities, clear objectives, timetable, budget, capacity building.
- Where there is an agreed timetable, maintain pressure on all parties to stick to it.
- Clear management objectives are vital and cannot be provided by the scientists; industry can participate in their definition, e.g. via dialogue meetings organised by the RFMOs or others, or via one-on-one meetings with member countries, or by providing input to work on socio-economic targets (if this is part of the strategy).
- Capacity building: Always useful to support existing ongoing and planned activities, which mainly focus on capacity within governments and management agencies (e.g. from RFMOs and ABNJ). Industry can also make a contribution by considering capacity building within industry – provide information about the nature, role and importance of harvest strategies to, for example, vessel owners and captains, buyers and retailers.
- Industry should be clear that this process is important for them, and also why it is important (i.e. for MSC) – transparency about this is useful.
- Engagement opportunities: i) existing planned opportunities (e.g. dialogue meetings); ii) individual member countries where OPAGAC has links; iii) other industry participants (vessels, buyers and retailers); iv) other stakeholder bodies such as the EU LDAC.

2.2 General comments for Principle 3

- The focus should be on compliance with RFMO requirements, particularly in relation to data.
- Observer coverage is of key importance; regional observer programmes are the ideal (but currently the data directly from OPAGAC is better than from these programmes – quality improvements are needed). Supporting the development and capacity of these programmes would be an important role for the FIP.
- OPAGAC's work on electronic monitoring (EMS) is important; can support transfer of know-

how to other fleets (including non-purse seine fleets); via WWF or via coastal states (licence conditions) or via direct technology transfer.

- Compliance: Longline fishery considered more of an issue than purse seine; discussion as to if/how OPAGAC can influence longline fleets. May be possible to use OPAGAC influence in some coastal / flag states to encourage moves towards more transparency, including on longline fleets, or via participation in projects within the WWF network.
- OPAGAC can (continue to) provide an example of transparency in relation to its operations, bycatch data etc.
- Can continue to put forward proposals for improvements in other areas, but not a key focus of the FIP¹.

2.3 General comments for Principle 2

The main discussion for P2 specifically was about FADs and FAD data. Other P2 issues also arose; the main one being observers, but this is considered under Principle 3; i.e. as a question of improving the management framework, rather than improving the data from the OPAGAC fleet specifically. The ongoing work to address data on bycatch etc. in relation to Principle 2 (i.e. for OPAGAC specifically) was considered appropriate and sufficient, and was not extensively discussed by the SAG.

- Issue of what data are required for what purpose; the SAG considered that the key reasons for asking for data were i) for improved CPUE standardisation (the most critical) and ii) to evaluate the ecological impact of FAD density. The problem with i) is that you do not know which types of data are important for CPUE standardisation until you have done the analysis.
- Feeling that RFMOs are starting to converge in terms of their data requirements (type, structure and resolution); meanwhile following ICCAT requirements is a reasonable approach.
- Suggestion for two complementary approaches: i) to provide high resolution and detailed data to trusted collaborators (AZTI, IEO), alongside ii) more aggregated data to RFMOs – but informed by the analyses in i) i.e. to know which types of data are likely to be important for CPUE standardisation. The results of the research undertaken by AZTI/IEO can also be presented to RFMOs (via their internal FAD working groups or other relevant forums) and the joint FAD technical working group, to help inform their work, as well as to provide an example of transparency to other fleets.
- Biodegradable FADs – important work; continue via EU project. Also to get a handle on lost FADs (but difficult; no great suggestions as to how).
- Also useful to work with other stakeholders; e.g. relevant countries and other FIPs, e.g. to support development of national FAD management plans and data collection systems.
- Historical data may be useful? e.g. purchase of FAD materials.
- Data that cannot currently be used (e.g. FAD echosounder data) could be archived in case of future usefulness.
- Question of integrated data management (in general, not only in relation to FADs); various sources of data (observers, EMS, logbooks (including FAD logbook), landings) – currently it is difficult to cross-check these different data sources because they are in different formats and different places.
- OPAGAC has put a great deal of work into the FAD data project; suggested that they could share lessons learned, materials and good practice with other fleets – ISSF offered support for this.

2.4 Comments for ICCAT workplan

¹ Nothing specific has been included in the workplans in relation to this point

- Schedule for harvest strategy for three tropical species is for SCRS to provide advice to the Commission in 2020, although SCRS prefers 2021 (because of the stock assessment cycle). General consensus from industry participants of SAG that this was not soon enough! But SCRS note a series of limiting factors: i) lack of clear management objectives; ii) lack of capacity within the TTWG to consider all four stocks in detail and within SCRS to consider these stocks plus the temperate stocks; iii) other stocks have been given higher priority than the tropicals (i.e. bluefin, N. albacore and swordfish) because more progress already made.
- SCRS feel that they lack guidance on how to go about the task (e.g. management objectives, priorities); have decided to focus initially on bigeye.
- Capacity building: Suggested to support planned activities (by ICCAT and ABNJ) and supplement with meetings in individual countries / industry partners. Proposal for further dialogue meetings next year.
- ICCAT will hold a Panel 1 inter-sessional meeting in July in Bilbao. The terms of reference for the meeting are not yet public, but there is a need to discuss management objectives, so that SCRS have a basis for their analyses. Proposed that the FIP participate in the meeting if it takes place, as well as supporting countries to prepare for a discussion of management objectives (capacity building).
- Data: Key issues for ICCAT identified to be i) observer data (development of Regional Observer Programme with COMAFAT, EMS); ii) real-time monitoring to avoid quota overshoot for bigeye and yellowfin (weekly reporting)

2.5 Comments for IOTC workplan

Note: Alejandro Anganuzzi, the IOTC representative on the SAG, was not able to participate in the meeting on 13 November. The comments below are therefore mainly based on a separate skype meeting with Dr Anganuzzi on 30 November, 2017.

- IOTC have an agreed workplan to develop harvest strategies for yellowfin and bigeye (IOTC 2017a); CSIRO is working on MSE (IOTC 2017b); the Technical Commission on Management Procedure is the newly-formed formal body which provides a link between the scientists and the Commissioners. The MSE process should be progressing but not finalised by the next IOTC meeting.
- The harvest strategy process has been accepted in principle by IOTC members, but progress still needs positive inputs from members; this is best achieved if all members of a delegation and all industry participants speak with one voice. This means that preparation before Commission meetings is essential.
- Management objectives: MSE has taken a list of objectives provided by the WP Methods, but eventually it is for IOTC member countries to make a decision on the choice and weighting of objectives.
- As well as participating in delegations, there is the option to register as an independent observer; have the opportunity to take the floor at plenary.
- In terms of compliance with data requirements, main issues are in fisheries where OPAGAC cannot do much. Supports expanding the use of EMS.
- OPAGAC support for the ABNJ project has been very effective; would like it to continue.

2.6 Comments for IATTC workplan

- Despite MSC scoring, general consensus that the HCR, and the tools used to implement it, could be improved 'dramatically'.
- Concern about increasing fishing capacity and allocation of effort. A proposal for capacity

management plans was approved in 2005 but has never been implemented.

- The EU is funding a project for MSE to test the IATTC HCR, which could be supported with data etc. as required.
- ABNJ and WWF continue to work on capacity building; OPAGAC can support these efforts in coordination with the Ecuador FIP.

2.7 Comments for WCPFC workplan

- Noted the WCPFC are the only RFMO left with no requirement to use non-entangling FADs.
- Suggested approach for OPAGAC is to support the activities of the Ecuador FIP, which includes vessels fishing on both sides of the Pacific (e.g. Trimarine).

3. References

Gascoigne, J. 2017. OPAGAC FIP – Year 1 progress report and benchmarking.

IOTC 2017a. Report of the 21st session of the Indian Ocean Tuna Commission. Yogyakarta, Indonesia, 22-26 May, 2017 (see Appendix 9)

IOTC 2017b. Chair report of the 1st IOTC Technical Committee on Management Procedures. Yogyakarta, Indonesia, 20 May, 2017

4. YEAR 2 WORKPLANS

WORKPLAN 1: Year 2 (2018) work plan for the Atlantic Ocean (ICCAT) – Principle 1 and Principle 3

Activity	Working group	Ending date
A. Harvest strategy and control rules, stock rebuilding MSC PIs: 1.2.1, 1.2.2 (all stocks); 1.1.1 (yellowfin and bigeye) and 1.1.2 (bigeye); IPGs 1-4; high priority		
<i>Objectives for Year 2:</i>		
<ol style="list-style-type: none"> 1. Agreed management objectives are in place prior to the SCRS meeting so that SCRS have a basis for the development of a MSE 2. Progress towards real-time catch monitoring to avoid TAC overshoots 		
A1	Participate in Panel 1 inter-sessional meeting and encourage the EU and others to ensure that discussion of management objectives is on the agenda	OPAGAC in support of Pew and others
A2	Engage with relevant member countries to ask them to support proposals to develop management objectives as soon as possible; in preparation for key meetings, e.g. the Standing Working Group on Science-Management Dialogue, SWGSM, SCRS	OPAGAC with countries with which it has links
A3	Engage with the EU, via the LDAC or directly to ask the EU to support proposals to develop management objectives as soon as possible	via the LDAC and/or directly to DG MARE
A4	Explain the importance of harvest strategies to other industry stakeholders (e.g. buyers, retailers, other fleets) urge them to support activities A1-3.	via other FIPs and directly in meetings with buyers
A5	Explain the role and importance of harvest strategies to management agencies in relevant countries.	Countries with links, other FIPs
A6	Participate in planned capacity-building activities (dialogue meetings, ABNJ and WWF workshops) as considered useful	ICCAT, ABNJ, WWF
A7	Engage with member countries and the industry in support of real-time catch monitoring	Countries with links, other FIPs
A8	Work with member countries to help them improve their technology, if required, so that catches by their fleets can be monitored in real time (e.g. e-logbooks, data handling systems)	Countries with links, other FIPs, through ABNJ if relevant
A9	Support the activities of ABNJ in the eastern Atlantic	ABNJ
B. Information MSC PI: 1.2.3; IPGs 5-6; Eastern skipjack; medium priority		

<i>Objective for Year 2: OPAGAC is providing the best possible data to support the skipjack stock assessment (NB: For details on FAD data specifically see Principle 2 workplan)</i>			
B1	Prepare summary report on data provided by OPAGAC to support E. skipjack stock assessment; request review by WPTT member as to whether anything further could be provided	OPAGAC, AZTI, WPTT	March 2018
B2	Evaluate results of review and how the proposed additional data could be provided if necessary	OPAGAC, AZTI	June 2018
B3	Work with AZTI to provide the additional data, if necessary	OPAGAC, AZTI	End Year 2 and ongoing
C. Management system (compliance, data); IPGs 7-11; all stocks; medium priority			
<i>Objective for Year 2: Improve the quality and quantity of data available from relevant ICCAT member countries and from on-board observation</i>			
C1	Continue work with COMAFAT to support the development of a Regional Observer Programme for ICCAT	OPAGAC, COMAFAT, other regional stakeholders	throughout Year 2 and ongoing
C2	Promote the use of EMS as a complement to observers in relevant ICCAT member countries; support the development / transfer of technology in these countries as required	OPAGAC with countries where there are links	throughout Year 2
C3	Promote the use of EMS in the industry, e.g. via presentation of the OPAGAC system, best practice, lessons learned	Industry stakeholders (other fleets, buyers, retailers), other FIPs	throughout Year 2
C4	Participate in existing projects aimed at improving compliance with data requirements, as considered useful (e.g. ICCAT, ABNJ, WWF)	ICCAT, ABNJ, WWF	throughout Year 2
C5	Encourage relevant member countries to prioritise compliance with ICCAT requirements by all their fleets, including longline; provide support if necessary, e.g. in data management	Countries with links	throughout Year 2

WORKPLAN 2: Year 1 work plan for the Indian Ocean (IOTC) – Principle 1 and Principle 3

Activity	Working group	Ending date	
A. Harvest strategy and control rules, stock rebuilding MSC PIs: 1.2.1, 1.2.2 (yellowfin and bigeye); 1.1.1 and 1.1.2 (yellowfin); IPGs 12-14; high priority			
<i>Objectives for Year 2:</i> <ol style="list-style-type: none"> 1. MSE completed for yellowfin and bigeye harvest strategy 2. Progress towards agreement on management objectives for yellowfin and bigeye 			
A1	Support the industry in putting forward a strong position in favour of progress on the development of yellowfin and bigeye harvest strategies, via participation in the LDAC and the Indian Ocean FIP, as well as direct planning meetings with other industry participants, as relevant; draft position statements as relevant	OPAGAC, LDAC, Indian Ocean FIP, other industry stakeholders	May 2018
A2	Support the EU delegation in putting forward a strong position in favour of progress on the development of yellowfin and bigeye harvest strategies, emphasising the early development of management objectives, via participation in the LDAC and direct meetings with DG MARE prior to IOTC plenary	OPAGAC, LDAC, DG MARE	May 2018
A3	Work with delegation members in countries where OPAGAC has links, to support them in preparing for IOTC plenary (e.g. in agreeing joint objectives for the outcome of the meeting, putting forward position statements etc. as relevant)	OPAGAC with countries where there are links	May 2018
A4	Consider how best to put forward a clear position during the IOTC plenary (e.g. as a delegation member vs as an observer)	OPAGAC	May 2018
A5	Review progress on the MSE as reported to IOTC; evaluate likely appropriate management objectives (or potential weighting of different objectives)	OPAGAC with other industry stakeholders, LDAC if relevant	September 2018
A6	Prepare industry position statement on management objectives for yellowfin and bigeye, working with other industry stakeholders as relevant and working with eNGOs where they have overlapping positions	OPAGAC, LDAC, Indian Ocean FIP, other industry stakeholders	end Year 2
A7	Work with the LDAC and the DG MARE to develop a clear EU position on management objectives	OPAGAC, LDAC, DG MARE	end Year 2
A8	Work with countries where OPAGAC has links, to ensure that they have a clear understanding of i) the MSE process, ii) the issue of management objectives and iii) the consequences of different choices in relation to management objectives. Support	OPAGAC with countries where there are links	end Year 2

	them in developing a clear policy as to preferences for management objectives		
A9	Support the activities of ABNJ in the Indian Ocean	ABNJ	throughout Year 2
B. Information and monitoring MSC PI: 1.2.3; IPG 15; all stocks; low priority			
<i>Objective for Year 2: Improvement in the regional framework for monitoring and data collection</i>			
B1	See C	See C	See C
C. Management system (compliance, data); IPGs 16-18; all stocks; medium priority			
<i>Objective for Year 2: Improvement in the regional framework for monitoring and data collection</i>			
C1	Continue work with IOC to support the development of a Regional Observer Programme for IOTC	OPAGAC, IOC, Indian Ocean FIP, other regional stakeholders	throughout Year 2 and ongoing
C2	Promote the use of EMS as a complement to observers in relevant IOTC member countries; support the development / transfer of technology in these countries as required	OPAGAC with countries where there are links	throughout Year 2
C3	Promote the use of EMS in the industry, e.g. via presentation of the OPAGAC system, best practice, lessons learned	Industry stakeholders (fleets, buyers, retailers), other FIPs	throughout Year 2
C4	Participate in existing projects aimed at improving compliance with data requirements, as considered useful (e.g. ICCAT, ABNJ, WWF)	ICCAT, ABNJ, WWF	throughout Year 2
C5	Encourage relevant member countries to prioritise compliance with IOTC requirements by all their fleets, including longline; provide support if necessary, e.g. in data management	OPAGAC with countries where there are links	throughout Year 2

WORKPLAN 3: Year 1 work plan for the Eastern Pacific (IATTC) – Principle 1 and Principle 3

Activity	Working group	Ending date	
A. Harvest strategy and control rules, stock rebuilding; IPGs 20-23; medium priority			
<i>Objective for Year 2: Progress towards MSE and targets for improvement of harvest strategy</i>			
A1	Support EU-funded MSE project for the harvest strategy as required	EU, MSE scientists	throughout Year 2
A2	Lobby for continued improvements to the harvest strategy and tools via relevant member countries, in coordination with the Ecuador FIP	Ecuador FIP members, countries with links	throughout Year 2
A3	Lobby for implementation of the capacity management plan via relevant member countries, in coordination with the Ecuador FIP	Ecuador FIP members, countries with links	throughout Year 2
A4	Explain the importance of harvest strategies to other industry stakeholders (e.g. buyers, retailers, other fleets) urge them to support activities A1-3.	Ecuador FIP members; directly in meetings with buyers	throughout Year 2
A5	Explain the role and importance of harvest strategies to management agencies in relevant countries, in coordination with the Ecuador FIP.	Countries with links, Ecuador FIP	throughout Year 2
A6	Participate in planned capacity-building activities (Ecuador FIP, ABNJ and WWF workshops) as considered useful	IATTC, Ecuador FIP, ABNJ, WWF	throughout Year 2
A7	Support the activities of ABNJ in the eastern Pacific	ABNJ	throughout Year 2
B. Management system (compliance, data); IPGs 24-26B; all stocks; medium priority			
<i>Objective for Year 2: Improved ability of member countries to comply with IATTC data requirements</i>			
B1	With the Ecuador FIP, review key data compliance issues with IATTC; evaluate how the FIP could help	OPAGAC and Ecuador FIP with IATTC Secretariat	March 2018
B2	Develop a plan to support compliance with IATTC data requirements, in coordination with the FIP, via capacity-building, technology transfer or other means	OPAGAC and Ecuador FIP with IATTC Secretariat	June 2018
B3	Implement the plan, in coordination with the Ecuador FIP	OPAGAC and Ecuador FIP	Year 2 and ongoing

WORKPLAN 4: Year 1 work plan for the Western and Central Pacific (WCPFC) – Principle 1 and Principle 3

Activity		Working group	Ending date
A. Harvest strategy and control rules; stock rebuilding MSC PIs: 1.2.1, 1.2.2 (all stocks); IPGs 27-29; high priority			
<i>Objective for Year 2: Progress towards harvest strategies in line with the agreed workplan</i>			
A1	Review progress against updated 14-06 workplan during 2017 and any further revisions to the workplan	OPAGAC	After WCPFC plenary, Jan. 2018
A2	Review options for working with other stakeholders (e.g. other MSC-certified fisheries, FIPs and/or national authorities) to support the timely implementation of the agreed workplan during 2018	OPAGAC working with other stakeholders	Year 2 and ongoing
A3	Support the activities of other members of the Ecuador FIP to support the implementation of the harvest strategy workplan during 2018	Ecuador FIP participants with vessels in WCPO	Year 2 and ongoing
A7	Support the activities of ABNJ in the western Pacific	ABNJ	throughout Year 2
B. Information MSC PI: 1.2.3; IPG 30; all stocks; low priority			
<i>Objective for Year 2: See C below</i>			
B1	See C1	See C1	See C1
C. Management system (compliance, data); IPGs 31-32; all stocks; medium priority			
<i>Objective for Year 2: Improvements in compliance with data submission</i>			
C1	Support other stakeholders in their activities to improve compliance in data submission for WCPFC members	Ecuador FIP, other MSC fisheries and FIPs	March 2018

WORKPLAN 5: Workplan for Principle 2 (all oceans)

Note: This workplan covers the whole FIP duration.

Activity	Working group	Ending date	
A. Arabian Sea humpback whales; pygmy blue whales MSC PI: 2.3.1; IPG33; IOTC; high priority			
<i>Objective: Eliminate negative interactions, if any</i>			
A1	Evaluate spatial overlap between fishery and cetacean populations	OPAGAC and AZTI	Year 1
A2	Support observer and skipper training (including cetacean species identification)	OPAGAC and AZTI with relevant authorities	ongoing programme 2016-2021 (Year 1 ongoing)
A3	Compile available data on interactions with cetaceans in the Indian Ocean (observers)	OPAGAC and AZTI / IOTC observers	2017-2018 (Years 1-2)
A4	Evaluate impacts on Arabian Sea humpback whale and pygmy blue whale populations	AZTI	2018 (Year 2)
A5	Put in place measures to mitigate impacts, if required	OPAGAC	2019 (Year 3)
B. Improved data on bycatch / discards / interactions with improved mitigation as required MSC PIs: 2.2.1, 2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.3.; IPG34, IPG35, IPG36; all RFMOs; medium priority			
<i>Objective: Good observer data show no significant negative impacts on bycatch and ETP species</i>			
B1	Support for data gathering programmes in all oceans: observer training, observer support, EMS (see Activities under P3 in Workplans 1-4 above)	OPAGAC and AZTI	ongoing programme 2016-2021 (Year 1 ongoing)
B2	Support for the development of regional observer programmes in the Atlantic and Indian Ocean	COMAFAT, IOC; with Atlantic and Indian Ocean FIPs	Year 1 ongoing
B3	OPAGAC observer data consolidation and quality control	AZTI	2016 (Year 1)
B4	Observer data analysis (all oceans; sharks, turtles and cetaceans) and dissemination of results to RFMOs as necessary.	AZTI	2017-8 (Year 3)
B5	Other research as required to evaluate and mitigate impacts as required (e.g. identification of bycatch hotspots, tagging of whale sharks to assess post-capture survival)	AZTI	Year 1 ongoing
B6	Review and improvement of code of good practice to ensure mitigation of any issues raised	OPAGAC	Year 2 ongoing

	(see Activities in C)		
B7	Implementation of improved code of good practice (see Activities in C)	OPAGAC	Year 3 ongoing
C. Verification and improvement of the code of good practice MSC Pls: 2.2.1, 2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.3; IPG37, IPG38, IPG39; all RFMOs; medium priority			
<i>Objective: Code of good practice ensures that there are no significant negative impacts on bycatch and ETP species</i>			
C1	Verification of the implementation and outcome of the code of good practice	AZTI	Year 1 ongoing (already completed in Atlantic and Indian)
C2	Implementation of code, including consideration of tracking/compliance – 100% non-entangling FADs	OPAGAC and AZTI	Year 3
C3	Crew and skipper training in the code of good practice	OPAGAC and AZTI	Year 1 ongoing
C4	Inclusion of cetaceans in the code of good practice: identification of best practice for avoiding / handling	OPAGAC and AZTI	Year 2
C5	Inclusion of practice for the removal / alteration of entangling FADs where encountered into the code of good practice: establish what methods are effective and practical	OPAGAC working with skippers and external stakeholders such as ISSF	Year 2
C6	Evaluation of the code in the light of the outcome of C4 and C5 and Activities A, B and D; improvement as necessary	OPAGAC and AZTI	Year 3
C7	Implementation and verification of improved code	OPAGAC and AZTI	Year 3
C8	Establish a process for periodic review of data and best practice, updating of the code and implementation and verification of the updated code	OPAGAC	Year 4
D. Ecosystem impact of FADs MSC Pls: 2.5.1, 2.5.2, 2.5.3; IPG40, IPG41, IPG42; all RFMOs; medium priority			
<i>Objectives:</i>			
<ol style="list-style-type: none"> 1. Progress towards understanding of FAD quantities, impact on CPUE and impact on ecosystem 2. FAD ecosystem impacts restrained to acceptable levels (total quantity deployed, impact of lost FADs) 			
D1	Following on from the outputs of the tRFMO FAD WG and the Global FAD Science Symposium, work to establish a framework by which data on FAD movement and the total number of FADs can be analysed by an independent scientific body without prejudice to OPAGAC's commercial interests	OPAGAC, AZTI, IEO	By end Year 1

D2	Provide data to scientists for analysis of i) FAD effect on CPUE, ii) FAD effect on bycatch and iii) other questions as might be relevant	OPAGAC, AZTI, IEO	Year 2 ongoing
D3	Ensure that results of FAD data analyses are disseminated, e.g. via publication of scientific papers, presentations at RFMO meetings etc.	OPAGAC, AZTI, IEO, RFMO working groups	Year 1 ongoing
D4	Provide historical data on FADs as available	OPAGAC, AZTI, IEO	Year 2 ongoing
D5	With scientists, consider options for archiving of data (such as FAD sonar data) which cannot currently be analysed	OPAGAC, AZTI, IEO	Year 2 ongoing
D6	Implement the FAD data reporting requirements set out in ICCAT 16-01 across the OPAGAC fleet in all oceans	OPAGAC	Year 2 ongoing
D7	Support national authorities in countries where OPAGAC has links, in developing FAD data collection systems to meet RFMO requirements	OPAGAC, countries with links	Year 2 ongoing
D8	Work with the other RFMOs and the joint t-RFMO FAD group to encourage a coordinated approach to FAD data requirements, based on ICCAT 16-01	OPAGAC	Year 2 ongoing
D9	Support research into different designs of FADs including non-entangling and eco-friendly / biodegradable (e.g. via the BIOFAD project and other relevant initiatives)	OPAGAC, AZTI, IEO, ISSF, other FIPs	Year 1 ongoing
D10	Support research on the impact of FADs on sensitive marine habitats	OPAGAC and other stakeholders	Year 1 ongoing
D11	Support projects for retrieval of 'ghost nets' from islands	OPAGAC and AZTI	Year 1 ongoing
D12	Support national authorities in countries where OPAGAC has links, in developing FAD objectives and management plans	OPAGAC, countries with links	Year 3 ongoing
D13	Evaluation of results, identification and implementation of additional mitigation measures if required	OPAGAC, AZTI, IEO with other stakeholders	Year 3 ongoing
D14	Publish and/or present at RFMO meetings the results of the actions specified above, including recommendations on minimum standards for data gathering and compilation, and measures put in place to mitigate impacts.	OPAGAC, AZTI, IEO and 'FAD groups'	Year 3 ongoing
D15	Share technology and good practice in relation to FAD data collection and FAD design (non-entangling and biodegradable), via industry meetings, and/or publications, and/or RFMOs, and/or other FIPs	OPAGAC, other FIPs, ISSF	Year 2 ongoing
D16	Continue to support transparency from the industry in relation to FADs	OPAGAC with other FIPs	Year 1 ongoing
E. Integrated data management MSC PIs: 1.2.3, 2.2.3, 2.3.3, 2.5.3; IPG5, IPG6, IPG15, IPG30, IPG36, IPG42; all RFMOs; medium priority			
<i>Objective: Improved handling of data makes it easier to use different sources of data to evaluate status of target stocks and P2 impacts</i>			

E1	Establish a data handling system within OPAGAC with allows integration of different sources of data (landings, logbooks, EMS, observer data)	OPAGAC	Year 2
E2	Support scientists in using this system or developing a similar, such that scientific analyses integrating these difference sources of data are facilitated	OPAGAC, AZTI, IEO	Year 2 ongoing