

# IATTC Ad hoc Working Group on FADs

2nd Meeting – 2nd Part  
Mexico City, Mexico, 21 July 2017



# Agenda

1. Opening of the meeting (second part)
2. Adoption of the agenda (second part)
3. Summary and main conclusions of the first part of the meeting
4. Conclusions of the Scientific Advisory Committee regarding the first part of the meeting
5. Identification of potential management measures for FADs
6. Development of a Work Plan for the Group for the 2017-2018 period
7. Recommendations to the Commission
8. Other business
  - Current situation of the FAD marking
9. Adjournment

### 3- Summary and main conclusions of the first part of the meeting

- Review of the intersessional activities 2016-2017
- Main conclusions of the first part of the meeting

## 4- Conclusions of the Scientific Advisory Committee regarding the first part of the meeting

- [Recommendations of the SAC based on Advice received from the 2nd Meeting of the Ad Hoc Working Group on FADs](#)

## 4- Conclusions of the Scientific Advisory Committee regarding the first part of the meeting

- 1. Data on FADs:** .... submit a [revised form](#) for consideration by the next meeting of the Ad Hoc Working Group scheduled for July 2017, which will in turn pass the document to the Commission for **consideration at its 92nd Meeting**
- 2. FAD database:** ... the IATTC staff develop a common database for the management of FAD data collected pursuant to Resolution C-16-01. [informal workshop 2017 / CPCs designate a representative responsible for transmitting the data to IATTC]
- 3. Workshops on FAD data:** .... organize training workshops that will help vessel captains and crew learn how to properly fill out FAD data forms.
- 4. Collection of data on FADs:** ... the Commission consider the appropriate levels of observer coverage (using both observers and electronic monitoring systems)
- 5. Definitions of FAD-related terms:** ...the Commission, through the Ad Hoc Working Group on FADs, develop [definitions](#) for a suite of terms related to FAD fishing operation

## 4- Conclusions of the Scientific Advisory Committee regarding the first part of the meeting

6. **FAD research:** ... the Commission support the research plan prepared by the Ad Hoc Working Group ([Appendix 1](#)) and work to identify priority areas for research.
  7. **Biodegradable FADs:** ...take into account the social, economic and environmental sustainability of the materials evaluated.
  8. **Funding for FAD research:** ...work plans and budgets for priority FADs research, and identify possible sources of alternative funding
  9. **Future actions on FADs:** Agrees with the key areas for future action identified by the Joint Tuna-RFMO FADs Working Group Meeting. ... develop a planning roadmap for future actions to be taken in support of progress on these key areas.
  10. **FAD questionnaire:** .... circulate an additional request
- Need to clarify the extent of the mandate regarding the Definitions of FAD-related terms [exclusively those terms that appear in Res c-16-01?]

# 4- Conclusions of the Scientific Advisory Committee regarding the first part of the meeting

1. Impacts of FADs on target species (SKJ BET YFT)
Sub-regional study of FAD impacts on BET catch rate: global look at % BET composition on FAD sets useful for management, including size structure of BET in catch and hotspot analyses.
Acoustic discrimination of tuna species at FADs using echo-sounder buoys and equipment onboard to address tuna mortality and support science
Influence of vessel, captain, technology used and FAD/Gear attributes on BET catch
Study a science based FAD number/FAD set limit
Impact of FAD density on tuna associative behaviour
Behavior of tuna in the net. And mortality differences within the net by spp/size
Influence of the length of FAD tails on drift trajectories and catch performance
Impact of FAD derived mortality of juvenile YFT and BET and SKJ on spawning stock biomass and availability of free schools
Diurnal, residence time and spatial behavior of tuna at FADs
Local fisheries independent estimates of abundance (using FADs)
Study the use of stimuli (light, bubbles, etc..) to attract or deter tuna species
2. Impacts of FADs on biodiversity (non-target species)
Release by-catch from the net with a special focus on sharks
Acoustic discrimination of species at FADs using echo-sounder buoys and equipment onboard to address mortality and support science
Behavior of non-target species in the net
Estimates of bycatch and discard rates, by species, and identification of hot spots
Diurnal, residence time and spatial behavior of non-target species at FADs
Estimates of numbers of entangling and non-entangling FADs deployed and fished
Avoidance of non-target vulnerable FAD associated species prior to setting
3. Impacts of FADs on the ecosystem (modification of habitat, beaching)
Biodegradable FADs tests (design and implementation of biodegradable materials)
FAD tracking and beaching hotspots to identify areas of high beaching rates and recovery places
Test ecological trap hypothesis

- Projects shaded in yellow are those which the FAG Working Group considered as priorities.
- Pilot project on the recovery of FADs in sensitive habitats was also given high priority.
- Project on release practices.

# 5- Identification of potential management measures for FADs

- FAD Symposium (Santa Monica, March 2017)
  - [What does well-managed FAD use look like within a tropical purse seine fishery?](#)
- 1st Joint T-RFMO FAD Working Group Meeting
  - [Key areas for future action for the joint t-RFMO FAD WG](#)
- The Working Group to identify areas of priority for the 2nd Joint T-RFMO FAD Working Group Meeting. Some potential priorities:
  - Data needs
  - Data harmonization
  - FAD research coordination



# 5- Identification of potential management measures for FADs



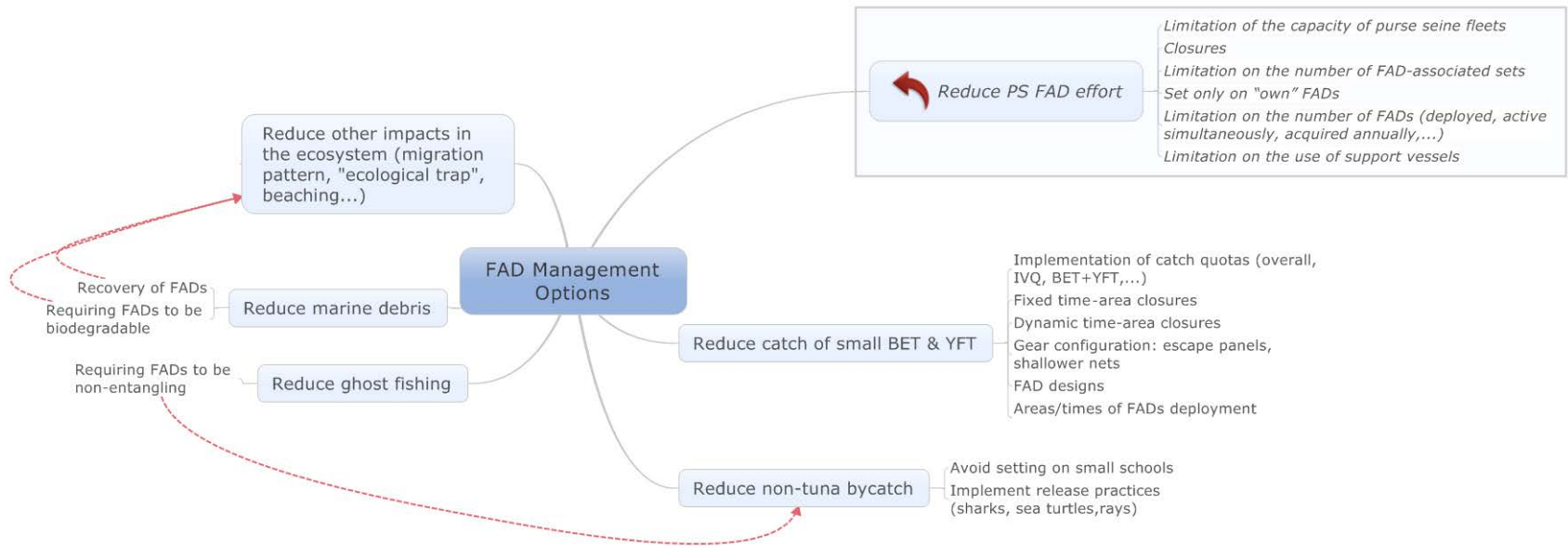
**Josu Santiago**

## **Management of FADs: Tasks and work schedule**

I enclose a diagram identifying potential FAD management measures. These measures are framed within what could be different management objectives. In addition to the diagram, a Word document is attached with the same information. With this information as background, the tasks that I propose to the Group under this heading [2017-03: Management of FADs] are as follows (deadline and responsible are also indicated):

- Task 1: Complete the table with the potential objectives and management measures [12 Mar 2017 - Group Members] - Use the attached Word document to send the contributions with track changes.
- Task 2: Design a questionnaire to gather the perception of the members of the Working Group on the different FAD management measures: pros, cons, applicability, effectiveness, acceptance, controllability, .... [19 Mar 2017 - Chairman of the Group]
- Task 3: Complete the form [23 Apr 2017- Group Members]
- Task 4: Analysis of the survey results [6 May 2017- Chairman of the Group]
- Task 5: Present the results and conclusions during the Group's face-to-face meeting [7 May 2017- Chairman of the Group]

# 5- Identification of potential management measures for FADs



## Management objectives:

1. Reduce PS FAD effort
2. Minimize mortality of small BET and YFT
3. Reduce non-tuna bycatch
4. Reduce other impacts in the ecosystem (marine debris, beaching,...)

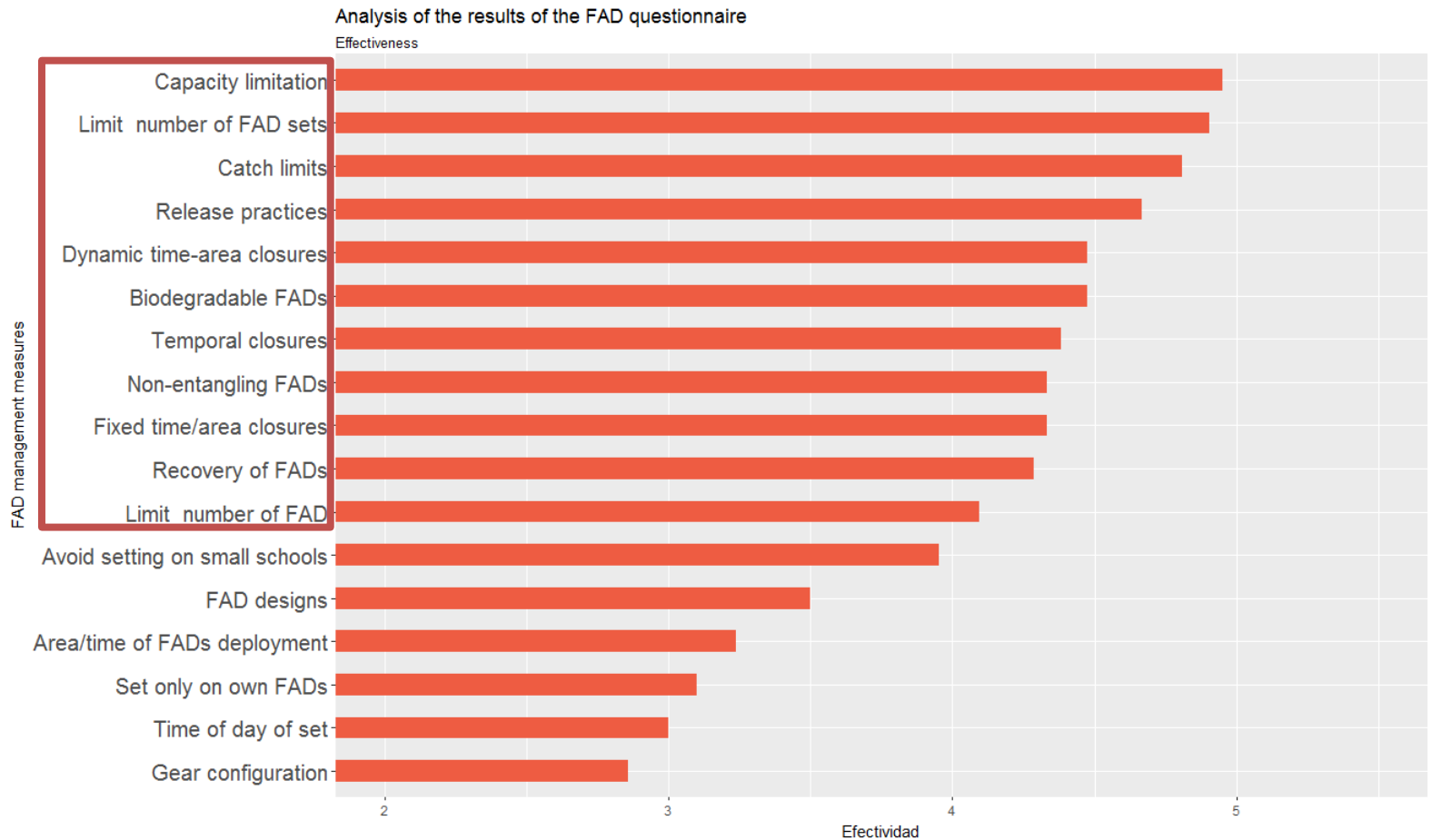
# 5- Identification of potential management measures for FADs

## Methods to achieve objectives:

Methods	Objectives			
	1	2	3	4
1.1 Limitation of the capacity of purse seine fleets	Yellow	Yellow	Yellow	Yellow
1.2 Temporal closures	Yellow	Yellow	Yellow	Yellow
1.3 Limitation on the number of FAD-associated sets	Yellow	White	Yellow	White
1.4 Set only on "own" FADs	Yellow	White	White	White
1.5 Limitation on the number of FADs (deployed, active simultaneously, acquired annually...)	Yellow	White	White	Yellow
1.6 Limitation on the use of tender vessels	Yellow	White	White	White
2.1 Implementation of catch limits (national or individual vessel; single species or multi-species)	Yellow	Yellow	Yellow	White
2.2 Fixed time-area closures	White	Yellow	Yellow	White
2.3 Dynamic time-area closures	White	Yellow	Yellow	White
2.4 Gear configuration: escape panels, shallower nets	White	Yellow	White	White
2.5 FAD designs	White	Yellow	Yellow	White
2.6 Area/time of day of FADs deployment	White	Yellow	Yellow	White
2.7 Time of day of set	White	Yellow	Yellow	White
3.1 Avoid setting on small schools	White	White	Yellow	White
3.2 Implement/improve release practices (sharks, sea turtles, rays)	White	White	Yellow	White
3.3 Reduce ghost fishing by requiring non-entangling FADs	White	White	Yellow	Yellow
2.8 Recovery of FADs	White	White	White	Yellow
2.9 Requiring FADs and materials connected to FADs to be biodegradable	White	White	White	Yellow

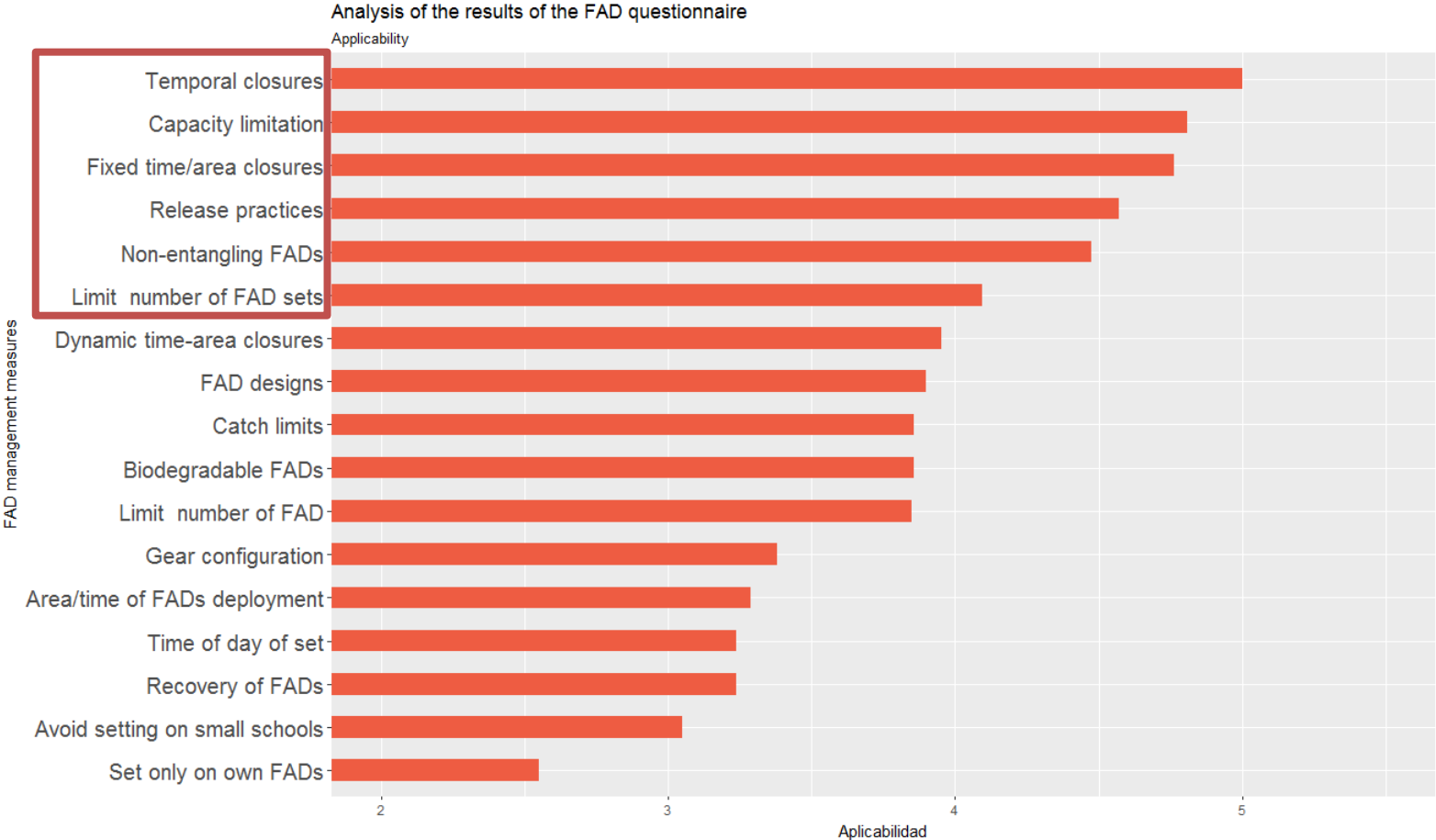


# 5- Identification of potential management measures for FADs



Effectiveness

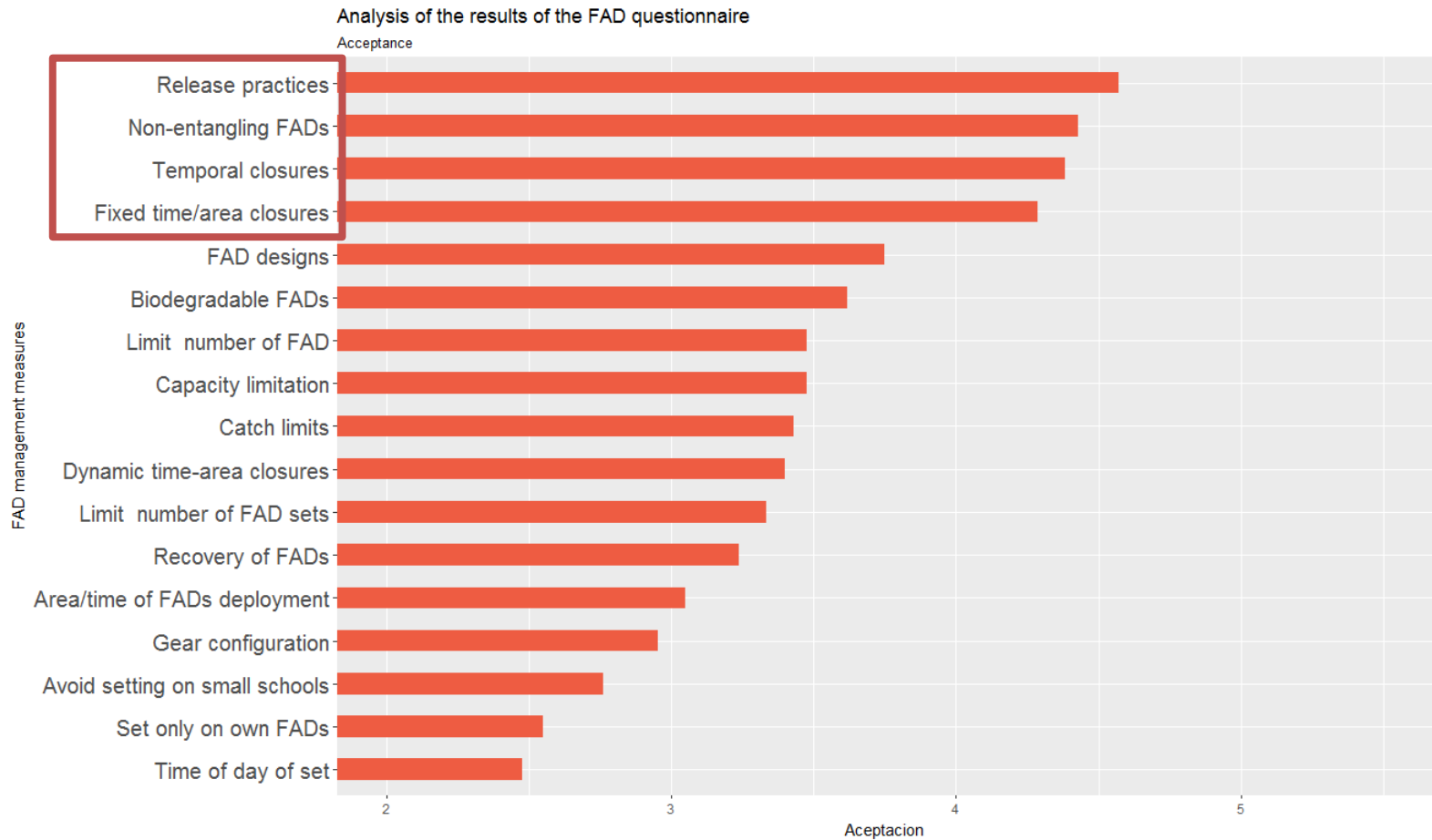
# 5- Identification of potential management measures for FADs



Source: IATTC Working GROUP on FADs

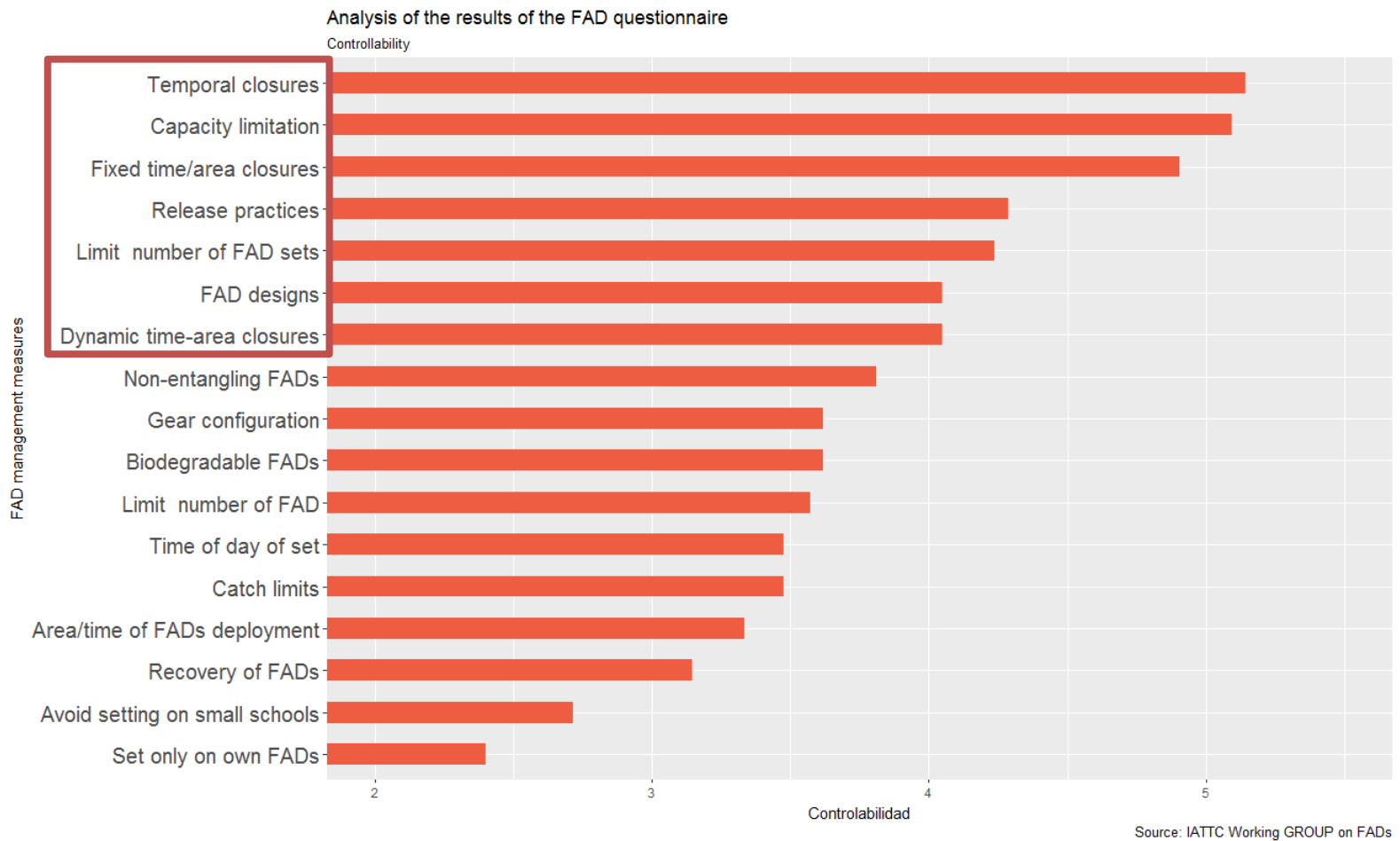
Applicability

# 5- Identification of potential management measures for FADs



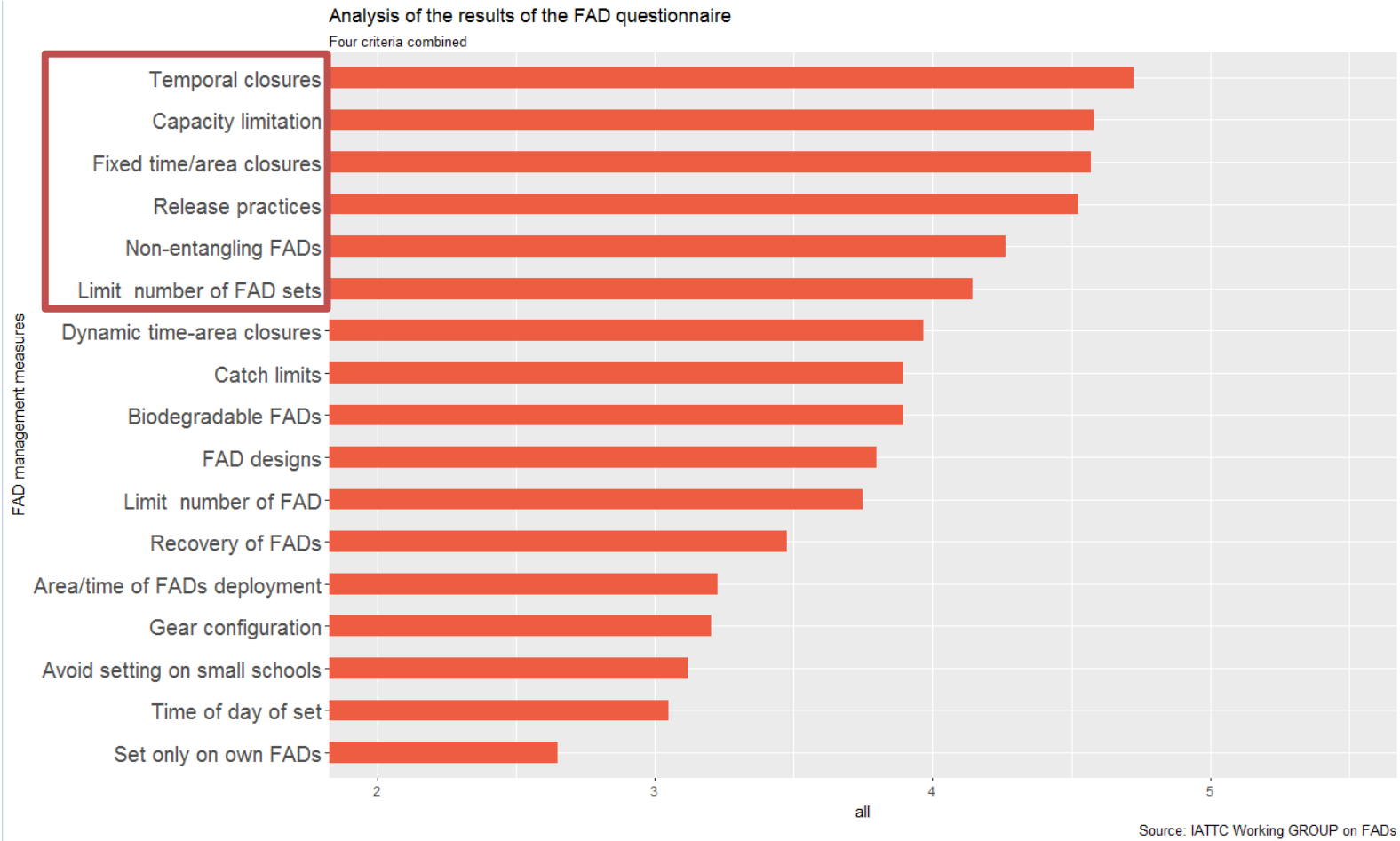
Acceptance

# 5- Identification of potential management measures for FADs



Controllability

# 5- Identification of potential management measures for FADs



All criteria combined

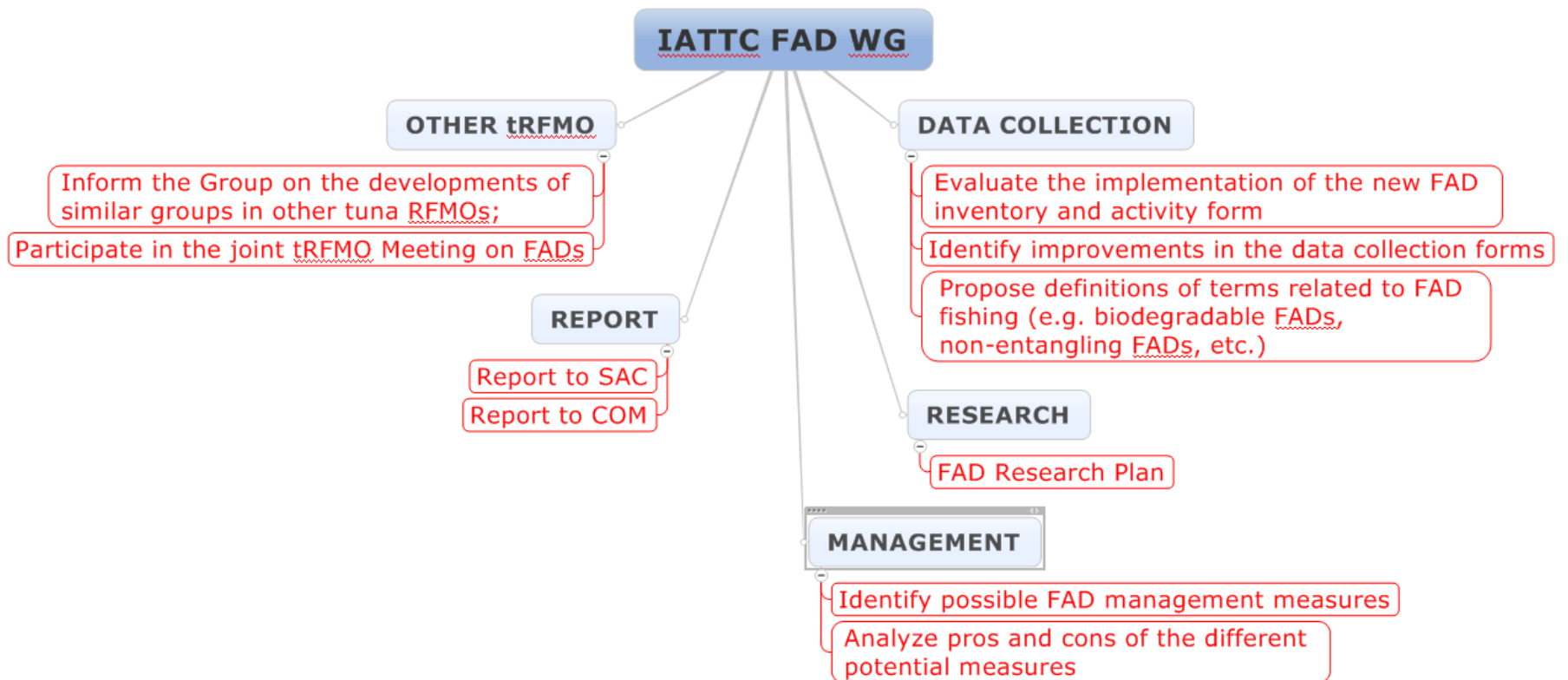


# 5- Identification of potential management measures for FADs

[Analysis of pros and cons](#)

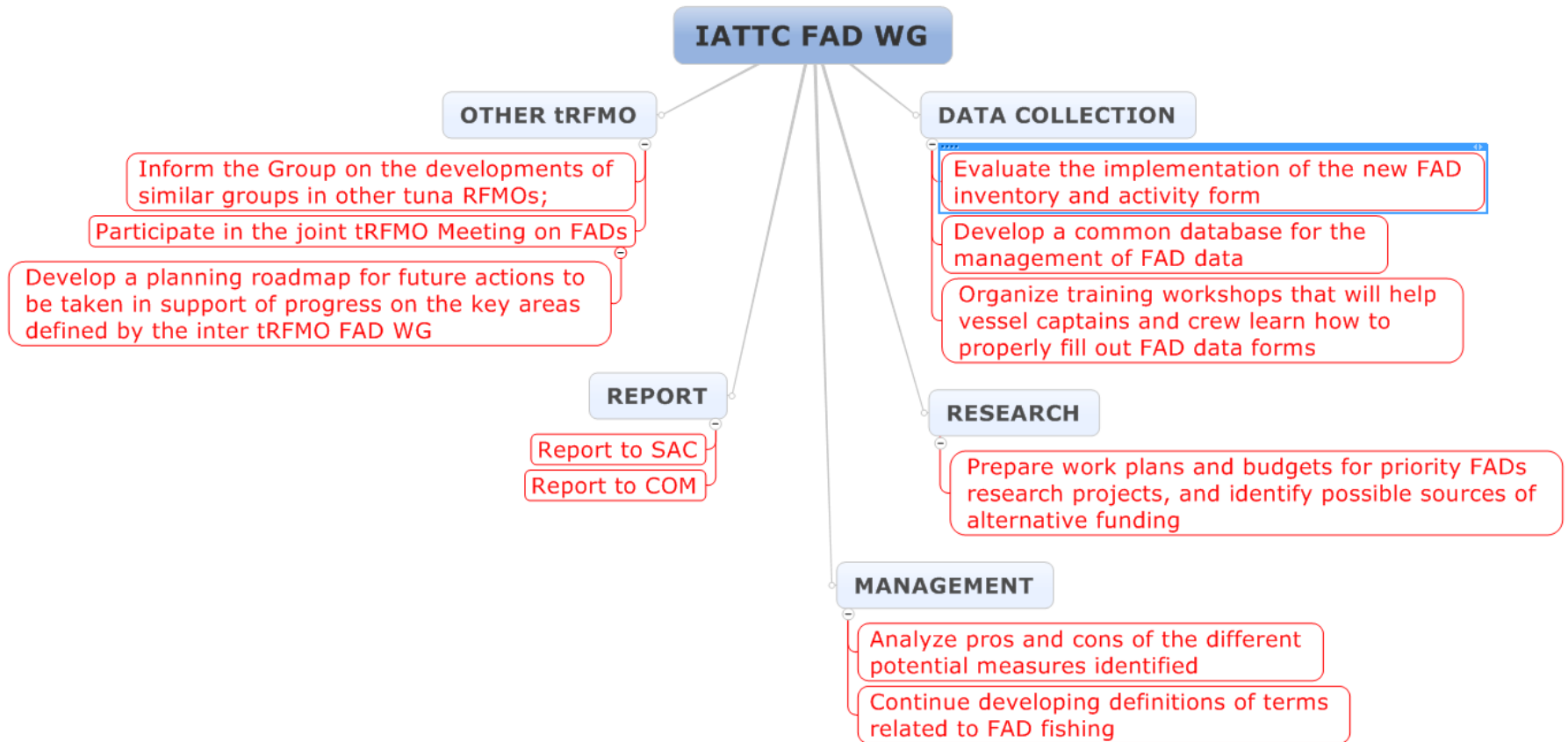


# 6- Development of a Work Plan for the Group for the 2017-2018 period



TASKS 2016-2017

# 6- Development of a Work Plan for the Group for the 2017-2018 period



TASKS 2017-2018

*To be refined after the 92nd Meeting of the IATTC*

7 - Recommendations to the Commission

8 - Other business

9 - Adjournment