



Analysis of the results of the FAD questionnaire

IATTC Working GROUP on FADs

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Objective of the document

The document presents the analysis of the results of the questionnaire [Questionnaire FADs.docx] with the information received so far. The questionnaire was prepared to obtain the perception of the members of the Working GROUP on the different FAD management measures: pros, cons, applicability, effectiveness, acceptance and controllability. This document presents some preliminary results of the evaluation of methods to achieve the following FAD 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,...)

The criteria considered for this assessment have been: applicability, effectiveness, acceptance and controllability. For each of the four criteria the range of options has been between 1 and 6: (1): null, (2): very low, (3): low, (4): medium, (5): high, (6): very high

Summary table of the questionnaires received

A total of 21 persons coming from 10 different countries have completed the questionnaire.

Origin	Number
Industry	5
Management	6
NGO	4
Science	7



Management objective 1: Reduce PS FAD effort

GROUP	GROUP									
	1-Management	2-Science	3-NGO	4-Industry	TOTAL	6	5		4	3
1-Management	5.33	5.00	4.83	5.33	4.25	2.40	4.67	1_Effectiveness		
1-Management	4.67	3.83	3.80	4.33	4.00	2.20	5.00	1_Applicability		
1-Management	3.17	3.33	3.17	3.50	3.50	2.20	4.50	1_Acceptance		
1-Management	4.83	3.67	3.83	4.33	3.75	2.60	5.33	1_Controllability		
2-Science	5.14	5.00	3.71	5.00	4.17	4.00	4.14	2_Effectiveness		
2-Science	5.29	4.57	3.71	4.43	4.17	2.86	5.29	2_Applicability		
2-Science	3.86	3.57	3.71	4.00	3.83	2.14	4.43	2_Acceptance		
2-Science	5.29	3.71	3.14	4.29	3.17	2.29	5.43	2_Controllability		
3-NGO	4.75	5.25	5.00	5.25	5.00	4.50	4.50	3_Effectiveness		
3-NGO	3.50	4.25	5.00	4.75	5.00	3.75	4.75	3_Applicability		
3-NGO	3.00	4.25	3.25	3.25	4.33	4.25	4.50	3_Acceptance		
3-NGO	5.00	4.25	4.25	5.00	4.00	3.25	4.75	3_Controllability		
4-Industry	4.40	4.00	3.00	4.00	2.00	2.00	4.00	4_Effectiveness		
4-Industry	5.20	2.80	3.20	2.80	3.50	1.60	5.00	4_Applicability		
4-Industry	3.60	2.60	3.80	2.40	2.50	2.20	4.20	4_Acceptance		
4-Industry	4.80	2.60	3.40	3.40	2.50	1.80	4.80	4_Controllability		
TOTAL	4.95	4.82	4.09	4.91	3.82	3.24	4.32	EFFECTIVENESS		
TOTAL	4.77	3.91	3.86	4.09	4.12	2.57	5.05	APPLICABILITY		
TOTAL	3.45	3.41	3.50	3.36	3.53	2.57	4.41	ACCEPTANCE		
TOTAL	5.00	3.55	3.59	4.23	3.29	2.43	5.14	CONTROLLABILITY		
	Capacity limitation	Catch limits	Limit number of FAD	Limit number of FAD sets	Limit tender vessels	Set only on own FADS	Temporal closures			



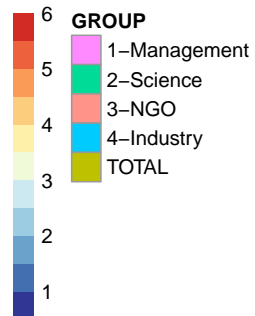
Management objective 2: Minimize mortality of small BET and YFT

GROUP	Management objective 2: Minimize mortality of small BET and YFT										GROUP
	Area/time of FADs deployment	Capacity limitation	Catch limits	Dynamic time-area closures	FAD designs	Fixed time/area closures	Gear configuration	Limit number of FAD sets	Temporal closures	Time of day of set	
1-Management	3.83	5.33	5.00	4.17	3.50	4.67	3.33	5.33	4.67	3.00	1_Effectiveness
1-Management	4.00	4.67	3.83	4.33	3.83	5.00	3.67	4.33	5.00	3.33	1_Applicability
1-Management	3.83	3.17	3.33	3.50	4.00	4.17	3.50	3.50	4.50	2.83	1_Acceptance
1-Management	3.67	4.83	3.67	3.83	4.00	4.83	3.83	4.33	5.33	2.83	1_Controllability
2-Science	3.43	5.14	5.00	4.86	3.83	4.00	2.43	5.00	4.14	2.86	2_Effectiveness
2-Science	3.43	5.29	4.57	4.29	4.17	4.57	3.14	4.43	5.29	3.00	2_Applicability
2-Science	2.71	3.86	3.57	3.86	3.83	4.29	2.14	4.00	4.43	1.86	2_Acceptance
2-Science	3.57	5.29	3.71	4.43	4.57	4.71	3.71	4.29	5.43	3.86	2_Controllability
3-NGO	3.50	4.75	5.25	5.00	4.00	4.50	3.50	5.25	4.50	4.00	3_Effectiveness
3-NGO	3.25	3.50	4.25	4.00	4.75	5.00	4.00	4.75	4.75	4.25	3_Applicability
3-NGO	3.25	3.00	4.25	2.67	4.25	4.50	3.75	3.25	4.50	3.25	3_Acceptance
3-NGO	3.00	5.00	4.25	3.50	4.00	5.00	3.00	5.00	4.75	4.25	3_Controllability
4-Industry	2.00	4.40	4.00	4.00	3.00	4.20	2.20	4.00	4.00	2.20	4_Effectiveness
4-Industry	2.20	5.20	2.80	3.20	3.00	4.40	2.80	2.80	5.00	2.60	4_Applicability
4-Industry	2.00	3.60	2.60	3.20	3.40	4.20	2.40	2.40	4.20	2.00	4_Acceptance
4-Industry	2.80	4.80	2.60	4.20	3.40	4.80	3.40	3.40	4.80	2.80	4_Controllability
TOTAL	3.23	4.95	4.82	4.50	3.57	4.32	2.82	4.91	4.32	2.95	EFFECTIVENESS
TOTAL	3.27	4.77	3.91	4.00	3.90	4.73	3.36	4.09	5.05	3.23	APPLICABILITY
TOTAL	2.95	3.45	3.41	3.43	3.86	4.27	2.86	3.36	4.41	2.41	ACCEPTANCE
TOTAL	3.32	5.00	3.55	4.05	4.05	4.82	3.55	4.23	5.14	3.41	CONTROLLABILITY



Management objective 3: Reduce non-tuna bycatch

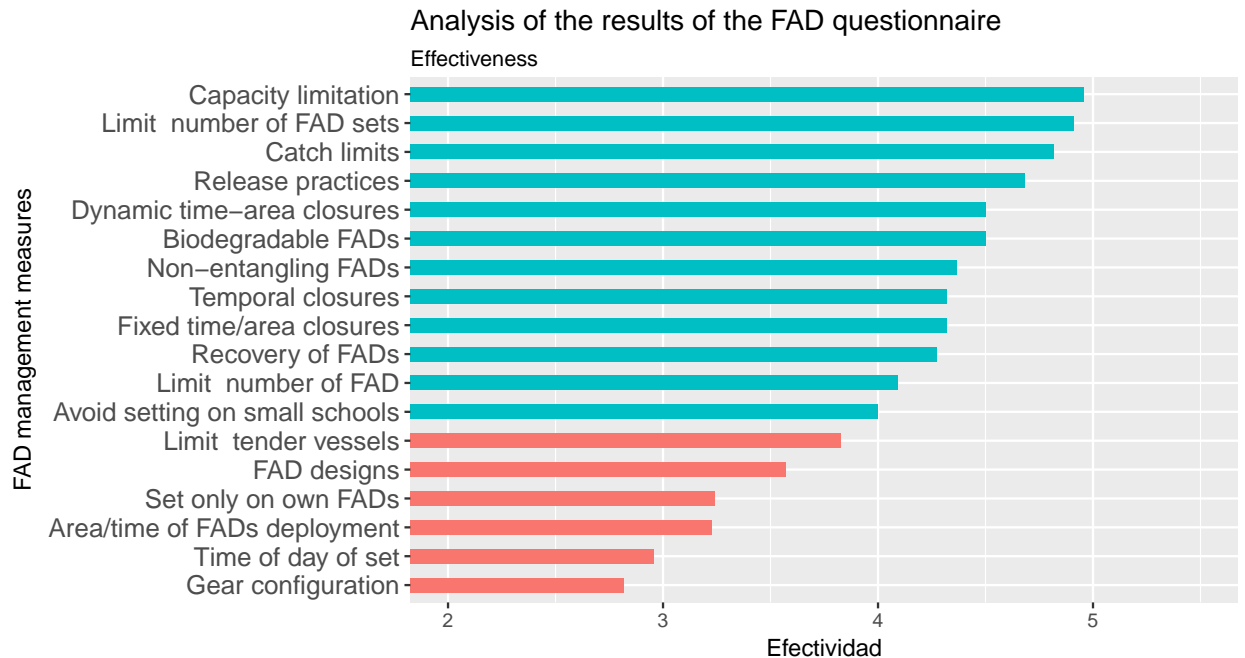
GROUP	Area/time of FADs deployment	Avoid setting on small schools	Capacity limitation	Catch limits	Dynamic time-area closures	FAD designs	Fixed time/area closures	Limit number of FAD sets	Non-entangling FADs	Release practices	Temporal closures	Time of day of set		
1-Management		3.83	4.67	5.33	5.00	4.17	3.50	4.67	5.33	4.33	4.83	4.67	3.00	1_Effectiveness
		4.00	2.83	4.67	3.83	4.33	3.83	5.00	4.33	4.50	4.33	5.00	3.33	1_Applicability
		3.83	2.83	3.17	3.33	3.50	4.00	4.17	3.50	4.33	4.83	4.50	2.83	1_Acceptance
		3.67	3.00	4.83	3.67	3.83	4.00	4.83	4.33	3.83	4.17	5.33	2.83	1_Controllability
2-Science		3.43	3.71	5.14	5.00	4.86	3.83	4.00	5.00	4.57	4.29	4.14	2.86	2_Effectiveness
		3.43	3.29	5.29	4.57	4.29	4.17	4.57	4.43	4.71	4.71	5.29	3.00	2_Applicability
		2.71	2.86	3.86	3.57	3.86	3.83	4.29	4.00	4.86	4.57	4.43	1.86	2_Acceptance
		3.57	2.86	5.29	3.71	4.43	4.57	4.71	4.29	4.43	4.29	5.43	3.86	2_Controllability
3-NGO		3.50	5.75	4.75	5.25	5.00	4.00	4.50	5.25	5.50	5.75	4.50	4.00	3_Effectiveness
		3.25	4.00	3.50	4.25	4.00	4.75	5.00	4.75	5.25	5.25	4.75	4.25	3_Applicability
		3.25	3.75	3.00	4.25	2.67	4.25	4.50	3.25	4.75	4.50	4.50	3.25	3_Acceptance
		3.00	3.25	5.00	4.25	3.50	4.00	5.00	5.00	4.00	4.75	4.75	4.25	3_Controllability
4-Industry		2.00	2.20	4.40	4.00	4.00	3.00	4.20	4.00	3.20	4.20	4.00	2.20	4_Effectiveness
		2.20	2.25	5.20	2.80	3.20	3.00	4.40	2.80	3.60	4.20	5.00	2.60	4_Applicability
		2.00	1.80	3.60	2.60	3.20	3.40	4.20	2.40	4.00	4.40	4.20	2.00	4_Acceptance
		2.80	1.80	4.80	2.60	4.20	3.40	4.80	3.40	2.80	4.00	4.80	2.80	4_Controllability
TOTAL		3.23	4.00	4.95	4.82	4.50	3.57	4.32	4.91	4.36	4.68	4.32	2.95	EFFECTIVENESS
		3.27	3.10	4.77	3.91	4.00	3.90	4.73	4.09	4.50	4.59	5.05	3.23	APPLICABILITY
		2.95	2.77	3.45	3.41	3.43	3.86	4.27	3.36	4.50	4.59	4.41	2.41	ACCEPTANCE
		3.32	2.73	5.00	3.55	4.05	4.05	4.82	4.23	3.82	4.27	5.14	3.41	CONTROLLABILITY



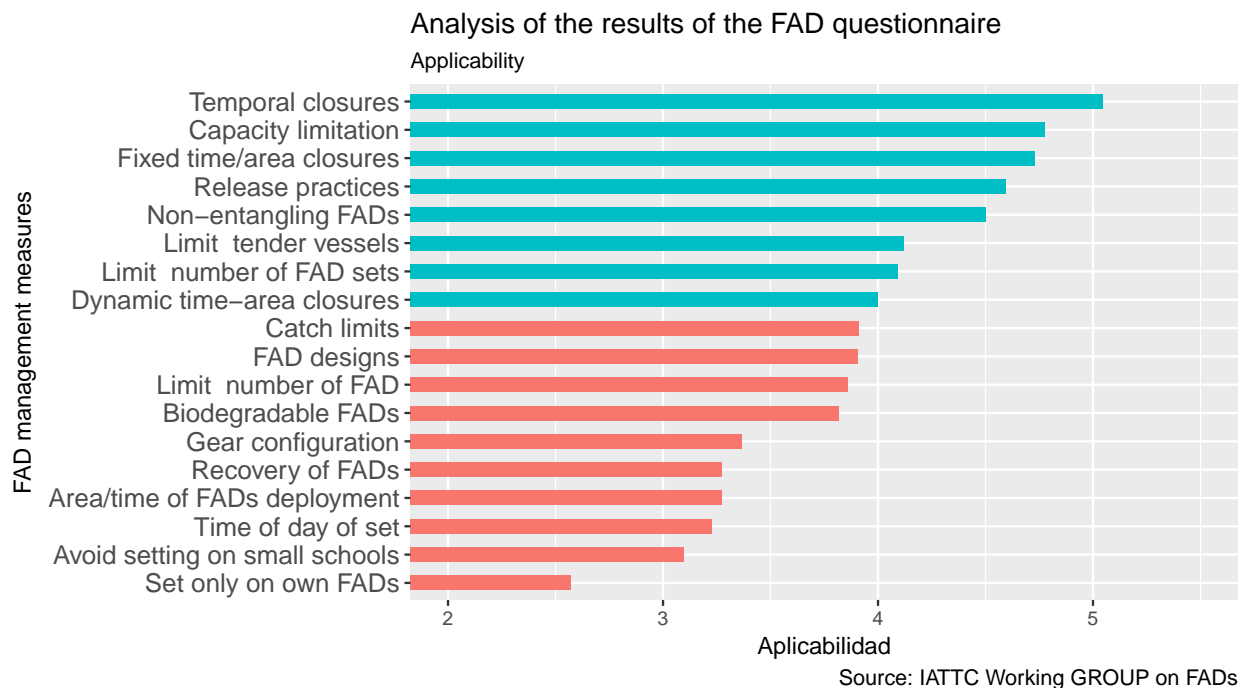
Management objective 4: Reduce other impacts in the ecosystem

GROUP	Management objective 4: Reduce other impacts in the ecosystem						GROUP
	Biodegradable FADs	Capacity limitation	Limit number of FAD	Non-entangling FADs	Recovery of FADs	Temporal closures	
1-Management	4.33	5.33	4.83	4.33	5.17	4.67	1_Effectiveness
1-Management	3.67	4.67	3.80	4.50	3.33	5.00	1_Applicability
1-Management	3.67	3.17	3.17	4.33	3.50	4.50	1_Acceptance
1-Management	3.83	4.83	3.83	3.83	4.00	5.33	1_Controllability
2-Science	5.00	5.14	3.71	4.57	4.00	4.14	2_Effectiveness
2-Science	4.29	5.29	3.71	4.71	3.43	5.29	2_Applicability
2-Science	4.00	3.86	3.71	4.86	3.29	4.43	2_Acceptance
2-Science	4.29	5.29	3.14	4.43	3.00	5.43	2_Controllability
3-NGO	5.25	4.75	5.00	5.50	5.00	4.50	3_Effectiveness
3-NGO	4.75	3.50	5.00	5.25	3.75	4.75	3_Applicability
3-NGO	4.00	3.00	3.25	4.75	3.50	4.50	3_Acceptance
3-NGO	3.50	5.00	4.25	4.00	3.00	4.75	3_Controllability
4-Industry	3.40	4.40	3.00	3.20	3.00	4.00	4_Effectiveness
4-Industry	2.60	5.20	3.20	3.60	2.60	5.00	4_Applicability
4-Industry	2.80	3.60	3.80	4.00	2.80	4.20	4_Acceptance
4-Industry	2.60	4.80	3.40	2.80	2.60	4.80	4_Controllability
TOTAL	4.50	4.95	4.09	4.36	4.27	4.32	EFFECTIVENESS
TOTAL	3.82	4.77	3.86	4.50	3.27	5.05	APPLICABILITY
TOTAL	3.64	3.45	3.50	4.50	3.27	4.41	ACCEPTANCE
TOTAL	3.64	5.00	3.59	3.82	3.18	5.14	CONTROLLABILITY

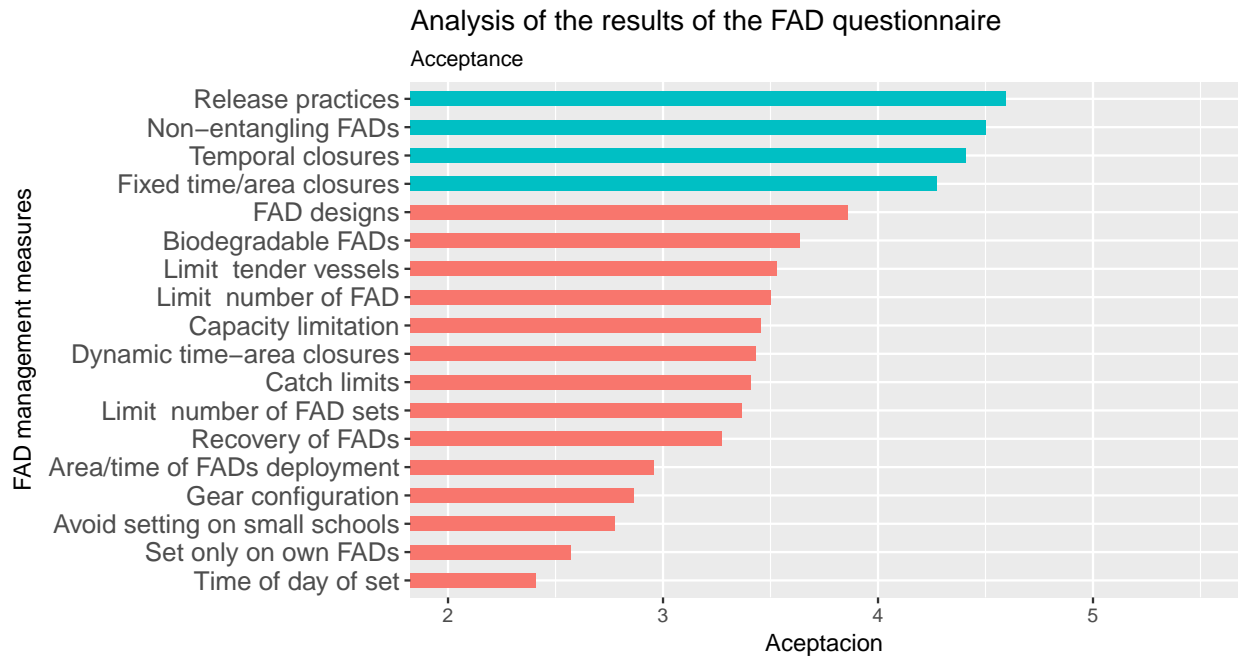
Ranking of management measures according to their EFFECTIVENESS



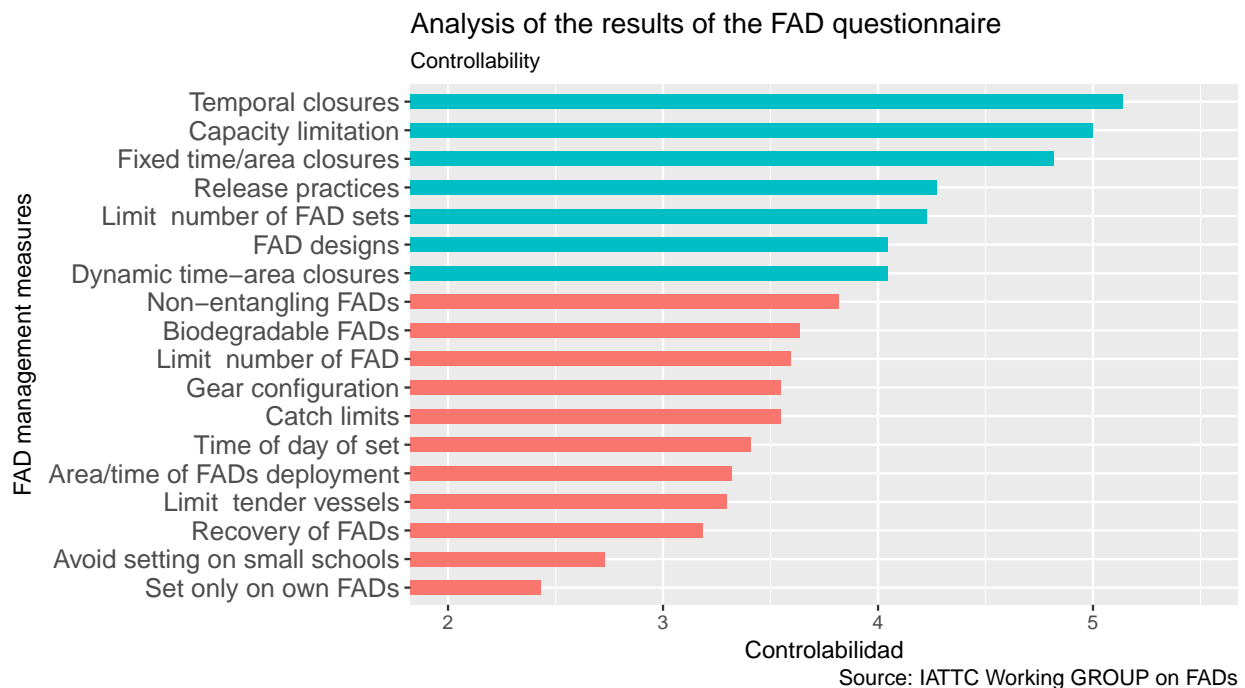
Ranking of management measures according to their APPLICABILITY



Ranking of management measures according to their ACCEPTANCE



Ranking of management measures according to their CONTROLLABILITY





**Ranking of management measures according to ALL CRITERIA COMBINED
(equal weighting)**

