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UPDATE ON THE PROPOSED DEVELOPMENT OF A WCPFC RISK-BASED ASSESSMENT FRAMEWORK FOR THE COMPLIANCE MONITORING SCHEME

WCPFC18-2021-CMS-RBAF 25 November 2021

Prepared by the Lead on Risk-Based Assessment Framework

Update on the Proposed Development of a WCPFC Risk-Based Assessment Framework for the Compliance Monitoring Scheme

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Introduction

This paper provides a summary of discussion to date and proposes next steps on the work to develop a Risk-Based Assessment Framework (RBAF) for the Compliance Monitoring Scheme (CMS). It recaps key material primarily from the following papers, as well as the discussions at the RBAF workshop on 10 November 2021:

- WCPFC-TCC17-2021-13B_rev2 (paper and spreadsheet): <u>Compliance Monitoring Scheme</u>: <u>Risk-Based Assessment Framework revision 2 | WCPFC Meetings</u>;
- WCPFC-CMS-RBAF1-2021-02 (paper): <u>Proposed Development of a WCPFC Risk-Based</u>
 <u>Assessment Framework for the Compliance Monitoring Scheme (Discussion Document for consideration and feedback at workshop on 10 November 2021)</u> | WCPFC Meetings;
- WCPFC-CMS-RBAF1-2021-03 (spreadsheet): Working RBAF spreadsheet for RBAF workshop | WCPFC Meetings

Objective

The objective of a risk-based assessment framework (RBAF) for the Compliance Monitoring Scheme (CMS) is to:

 assist CCMs to prioritise obligations for inclusion in the annual CMS based on the risk of non-compliance of achieving CMM objectives.

Background on CMS context for the Risk-Based Assessment Framework

- 1. Under the CMS, there is an annual assessment of compliance with a selection of obligations within CMMs for each CCM. The selection of these obligations is agreed on by CCMs at WCPFC each year.
- 2. As set out in **paragraph 6** of CMM 2019-06, the WCPFC will update what obligations shall be assessed using a risk-based approach. Until this risk-based approach is developed, in considering the obligations to be assessed in the following year, the WCPFC shall take into account:
 - (i) the needs and priorities of the Commission, including those of its subsidiary bodies;
 - (ii) evidence of high percentages of non-compliance or persistent non-compliance by CCMs with specific obligations for multiple years;
 - (iii) additional areas identified through the risk-based approach to be developed; and
 - (iv) the potential risks posed by non-compliance by CCMs with CMMs (or collective obligations arising from CMMs) to achieve the objectives of the Convention or specific measures adopted thereunder.

Enhancing the Compliance Monitoring Scheme

3. Under paragraph 46 of the CMM 2019-06 (and paragraph 45 of the preceding CMM 2018-07) on the Compliance Monitoring Scheme (CMS), the WCPFC committed to a multi-year workplan to enhance the CMS with the aim of making it more efficient and effective by streamlining processes. This includes the development, during 2020-21, of "a risk-based assessment framework to inform compliance assessments and ensure obligations are meeting the objectives of the Commission".

Obligations for CCMs

- 4. With the assistance of the WCPFC Secretariat, a spreadsheet setting out a comprehensive list of obligations has been developed. The spreadsheet sets out 219 obligations¹ and 18 Convention obligations. A further six obligations are crossed out as non-binding.
- 5. In addition, the spreadsheet sets out compliance history (when obligations were assessed and the overall compliance history). It also indicates whether the obligation was assessed in 2021. The obligations can also be organised by categories (Limit, Implementation, Report, Deadline) or

¹ Since the spreadsheet provided for the 10 November workshop, it has been judged that for CMM 2009-09, only para 5 is binding – so this brings the number of obligations down from 220 to 219. There remain questions as to whether a number of other obligations should be included in this process – many of these obligations have never been assessed through the CMS. It is hoped this may be clarified through the Audit Points work.

according to the draft thematic groups proposed by the WCPFC Secretariat². With regard to "Implementation" obligations, there is an indication as to whether reporting is "held on file" for relevant obligations.

What might a Risk-Based Assessment Framework for CMS look like?

- 6. With reference to ISO 31000 2018, risk can be defined as the effect of uncertainty on objectives. It is typically expressed as a function of likelihood and consequence:
 - Likelihood = the chance of an event happening
 - Consequence = the outcome of an event on objectives.
- 7. There is agreement that the RBAF should serve as a tool to *guide* the selection of obligations but there will be a requirement for judgement and flexibility. In this respect, the RBAF does not need to be an exact science. The ratings for obligations produced by the RBAF may not be appropriate in all cases.

Likelihood

8. It is proposed that likelihood be rated based on data from previous compliance history under the Compliance Monitoring Scheme [reflecting para 6 (ii) of CMM 2019-06]. It would be scored as follows:

Likelihood	Description
Rare	Experience indicates that non-compliance with a CMM is rare (<1% of non-
	compliance from "recent" assessments)
Unlikely	Experience indicates that non-compliance with a CMM is unlikely (1-5% of non-
	compliance from "recent" assessments)
Moderate	Experience indicates that non-compliance with a CMM is moderate (6-20% of
	non-compliance from "recent" assessments)
Likely	Experience indicates that non-compliance with a CMM is likely (21-50% of non-
	compliance from "recent" assessments)
Almost certain	Experience indicates that non-compliance with a CMM is almost certain (51-
	100% of non-compliance from "recent" assessments)

- 9. At this point, likelihood has been based on compliance history over the 2013-19 period. Future risk ratings could use the average of the most recent three years compliance history (and default to "moderate" where that is not possible).
- 10. At least 85 obligations have no compliance history. In the absence of compliance history, there is general agreement on using compliance history for a similar obligation or using a precautionary "moderate rating".

² See Annex 1 in **WCPFC18-2021-08A** *Overview of Compliance Monitoring Scheme matters for TCC17*: https://meetings.wcpfc.int/node/13751

11. There is general agreement that new or amended obligations should not automatically be included in the following year's list of obligations, given the need to generate relevant data relating to the obligation. It may depend on the nature of the obligation — this should be discussed at the time of adoption with a view to ensuring that the obligation is assessed at an appropriate juncture (e.g. within one or two years of adoption if appropriate).

Consequence

12. It is proposed that consequence be rated as the impact of non-compliance with an obligation on meeting the objective of the relevant CMM [reflecting para 6 (iv) of CMM 2019-06]. It would be scored as follows:

Consequence	Description
Minor	The consequence of non-compliance presents a <i>minor threat</i> to the objective of
	the CMM
Moderate	The consequence of non-compliance may undermine the objective of the CMM
Major	The consequence of non-compliance will probably undermine the objective of the
	CMM
Serious	The consequence of non-compliance will seriously undermine the objective of the
	CMM

- 13. There is general agreement that establishing **objectives for each CMM** against which to measure "consequence" is useful. But in assessing "consequence" against a specific CMM's objective, this should also take account the implications for achieving the objectives of the Convention. The objectives for each CMM could also be considered in the context of Audit Points
- 14. There is concern that assessing "consequence" is relatively subjective compared with assessing "likelihood". Some considered that "consequence" is more important than "likelihood" and should have more weighting. It has been proposed that objective criteria would be useful to assist CCMs to rate "consequence" of non-compliance with obligations. Lead of RBAF agreed to consider the development of some draft criteria to assist CCMs with assessing "consequence" of non-compliance with obligations.

Criteria for Consequence ratings

- 15. Upon further consideration, the view of the Lead of RBAF is that developing criteria could further add to perceptions of subjectivity and also over-complicate the RBAF, particularly given that it is designed to be *tool to guide* the development of the list (rather than producing an automatic outcome for decision-making). It may also cut across the work underway on Audit Points.
- 16. Instead, CCMs are reminded that objectives have been proposed for each CMM. Consequence should be measured as the impact of non-compliance on the achievement of that objective, bearing in mind the broader context of the Convention. Most of the objectives for each CMM are reflected in several parts of the Convention.

- 17. For example, with regard to CMM 2009-06 on transhipment, both FFA members and the Philippines have agreed that non-compliance with the requirement [paragraph 35 (a) (iii)] to provide advance notification to the WCPFC Executive Director would have a *severe* impact on the achievement of the objective for this CMM, which is to manage and monitor transhipment in the Convention Area.
- 18. With regard to CMM 2018/20 -01, both FFA members and the Philippines have agreed that non-compliance with the requirement [paragraph 17] to notify the WCPFC Secretariat of the choice of additional two month FAD closure on the high seas would have a *low* impact on the achievement of the objective for this CMM, which is to provide for a robust transitional management regime that ensures the sustainability of bigeye, skipjack, and yellowfin tuna stocks, pending harvest strategies.
- 19. In the below table, the objectives for CMMs have been arranged according to the WCPFC Secretariat's proposed thematic groups The objectives are also set out in the spreadsheet.

Thematic Group		Objective		
1.Annual Fishing Activity Related (39 obligations)	CMM 2006-08 (41)	 Boarding and inspection and related activities to ensure compliance with the provisions of the Convention and CMMs adopted by the Commission and in force. 		
	CMM 2009-05 (1,3,5)	 To prevent fishing on data buoys or damage/interference to data buoys 		
	CMM 2009-06 (11,29,34,35,	 To manage and monitor transhipment in the Convention Area 		
	CMM 2009-09 (5)	 To take action against vessels with nationality in the Convention Area 		
	CMM 2013-05 (1,2,3,4)	 To ensure vessels fishing on the high seas complete daily catch and effort reports 		
	CMM 2016-02 (6)	 To address IUU fishing in the Eastern High Seas Pocket 		
	CMM 2019-04 (22)	 To ensure long-term conservation and sustainable use of sharks, including the prohibition of finning. 		
	CMM 2019-08 (2,3,7)	 To ensure that charter arrangements do not promote IUU fishing activities or undermine CMMs 		
	CMM 2019-07 (22)	 To take action against vessels conducting IUU fishing within the Convention Area 		
	CMM 2018-01 (52,54)	 To provide for a robust transitional management regime that ensures the sustainability of bigeye, skipjack, and yellowfin tuna stocks, pending harvest strategies 		
	Sci Data (1,2,3,5)	 To ensure scientific data and information necessary to achieve the objectives of the WCPFC Convention is available to the Commission 		

2.Additional	CMM 2019/20-		To implement the Harvest Strategy for Pacific
Measures for Pacific	02	•	To implement the Harvest Strategy for Pacific
Bluefin Tuna (6	(6,7,8, 10, 11)		Bluefin Tuna Fisheries (Harvest Strategy 2017-
obligations)	(0,7,8, 10, 11)		02), noting concern about the status of the stock
3.Additional	CMM 2018-01		To provide for a rejust transitional management
Measures for	(16, 17, 19, 23,	•	To provide for a robust transitional management regime that ensures the sustainability of bigeye,
Tropical Tuna (11			
obligations)	31, Att 2 – 3,4,8)		skipjack, and yellowfin tuna stocks, pending harvest strategies
4.Inspection Activity	CMM 2006-08	•	Boarding and inspection and related activities to
(26 obligations)	(30, 33, 32 & 36,	•	ensure compliance with the provisions of the
(20 obligations)	40)		Convention and CMMs adopted by the
	40)		Commission and in force.
	CMM 2014-02	•	To ensure an effective vessel monitoring system
	(7.2.4, 7.2.5)		for vessels fishing in the Convention Area
	CMM 2017 -02	•	To establish processes and procedures for CCMs
	(2 (b), 6, 8, 10,	•	to request that port inspections be undertaken
	12, 14, 15, 16,		on fishing vessels suspected of engaging in IUU
	17, 19, 20, 21,		fishing or fishing related activities in support of
	22, 23-24, 26,		IUU fishing.
	27)		100 listillig.
	CMM 2017-03	•	To ensure that ROP observers are not assaulted,
	(12)		obstructed, resisted, delayed, intimidated,
	()		interfered with, influenced, bribed or attempted
			to be bribed in the performance of their duties.
5. Mitigating	CMM 2008-04	•	To prohibit the use of large scale drift nets in the
Impacts of Fishing	(2, 5)		Convention Area
on species of special	CMM 2011-03	•	To prohibit purse seine vessels from setting in
interest Inspection	(1,2,3,5)		cetaceans in the Convention Area
Activity	CMM 2017-04	•	To prohibit the discharge of plastics from fishing
(49 obligations)	(2,8)		vessels and manage other discharges which have
	()- /		a harmful impact on the marine ecosystem
	CMM 2018-03	•	To mitigate seabird bycatch from longline fishing
	(1,2,6,8,13)		and ensure seabird conservation.
	CMM 2018-04	•	To reduce sea turtle mortality in the Convention
	(2,4,5(a), 5 (c) &		Area
	7 €, 6, 7 (a), 7		
	(c),		
	CMM 2019-04	•	To ensure long-term conservation and
	(11, 12,13, 14-		sustainable use of sharks, including the
	15, 16, 18, 20,		prohibition of finning.
	21, 23, Annex 2		-
	07, 09		
	CMM 2019-05	•	To reduce the impact of fishing on vulnerable
	(3, 4-6, 8)		mobulid rays
6.Observer Related	CMM 2009-06	•	To manage and monitor transhipment in the
(22 obligations)	(13)		Convention Area
	CMM 2012 -03	•	To ensure minimal observer coverage of vessels
	(2)		fishing North of 20°N
	CMM 2017-03	•	To ensure that ROP observers are not assaulted,
	(6,8,9,10,11)		obstructed, resisted, delayed, intimidated,
	•		

	<u> </u>		
			interfered with, influenced, bribed or attempted to be bribed in the performance of their duties.
	CMM 2018 -05 (7,8,9,10,11,14, 15(g), Annex c 4, 6,8)	•	To establish an effective Observer Programme to collect verified catch data, other scientific data, and additional information related to the fishery from the Convention Area and to monitor the implementation of CMMs.
	CMM 2018-01 (34, 35, Att 2 5- 6)	•	To provide for a robust transitional management regime that ensures the sustainability of bigeye, skipjack, and yellowfin tuna stocks, pending harvest strategies
7.Operational Requirements for	CMM 2004-03 (2,3)	•	Implement the FAO Standard Specifications for the Marking and Identification of Fishing Vessels
Fishing Vessels (25 obligations)	CMM 2006-08 (7)	•	Boarding and inspection and related activities to ensure compliance with the provisions of the Convention and CMMs adopted by the Commission and in force.
	CMM 2014-02 (4, 9(a), 2.8, 5.4- 5.5, 7.2.2,	•	To ensure an effective vessel monitoring system for vessels fishing in the Convention Area
	CMM 2014-03 (2)	•	To ensure an effective Record of Fishing Vessels for the Convention Area.
	CMM 2017 -02 (5)	•	To establish processes and procedures for CCMs to request that port inspections be undertaken on fishing vessels suspected of engaging in IUU fishing or fishing related activities in support of IUU fishing.
	CMM 2018-06 (2,3,4,7,9, 11, 17, 18)	•	To ensure flag States authorise and manage vessels fishing in the Convention Area
	CMM 2018-01 (33)	•	To provide for a robust transitional management regime that ensures the sustainability of bigeye, skipjack, and yellowfin tuna stocks, pending harvest strategies
8.Overarching Requirements (10 obligations)	CMM 2013-07 (1-3, 4-5, 7,9,11, 18, 19)	•	To ensure that the special requirements of SIDS and territories is recognised and there is no disproportionate conservation burden on SIDS and territories
	CMM 2018 -06 (16)	•	To ensure flag States authorise and manage vessels fishing in the Convention Area
	CMM 2019-06 (17, 45)	•	To ensure CCMs implement and comply with obligations arising under the Convention and CMMs
9.Quantitative Limits for Tuna & Billfish	CMM 2006 – 04 (1, 4)	•	To prevent increases in fishing mortality of striped marlin until stock status more certain
(32 obligations)	CMM 2009-03 (1, 2, 3, 8)	•	To limit the catch and effort for swordfish S 20 S as precautionary measure until more certainty about the stock status
	CMM 2010 -01 (5, 8)	•	To reduce catch of North Pacific striped marlin given concerns about the status of the stocks

	CMM 2015-02 (1, 4)	To ensure there is no increase in the number of fishing vessels actively fishing for south Pacific albacore S 20°S
	CMM 2019-03 (2,3)	To limit fishing catch and effort for North Pacific Albacore
	CMM 2018-01 (25, 26, 27, 39, 41, 43, 45, 47, 48, 51)	To provide for a robust transitional management regime that ensures the sustainability of bigeye, skipjack, and yellowfin tuna stocks, pending harvest strategies
	CMM 2020 – 02 (2,3,5)	To implement the Harvest Strategy for Pacific Bluefin Tuna Fisheries (Harvest Strategy 2017-02), noting concern about the status of the stock
TOTAL: 219 obligations		

Risk matrix

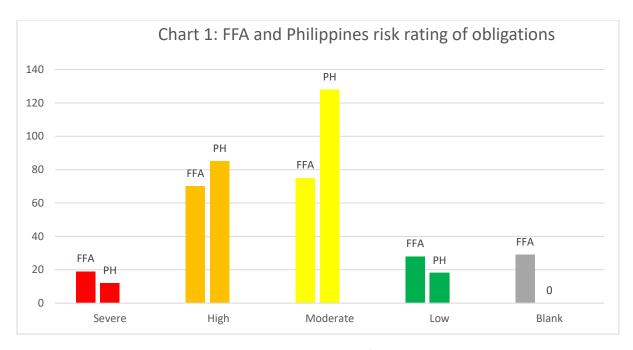
20. The product of scores for both likelihood and consequence can be set out in a matrix. Those non-compliance events with lower likelihood and lower consequence pose a lower risk. Non-compliance events with higher likelihood and higher consequence pose a higher risk. (see matrix below for example).

CONSEQUENCE				
LIKELIHOOD	Minor	Moderate	Major	Severe
Rare	Low	Low	Moderate	High
Unlikely	Low	Moderate	High	High
Moderate	Moderate	Moderate	High	Severe
Likely	Moderate	High	Severe	Severe
Almost Certain	High	Severe	Severe	Severe

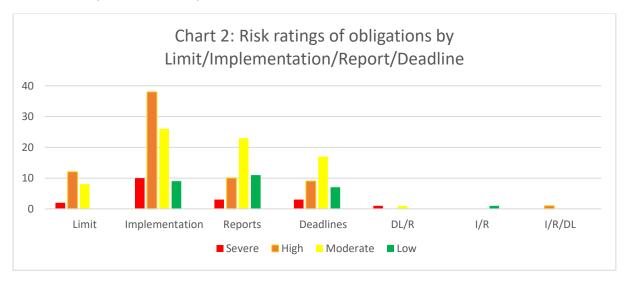
- 21. There is a general view that those obligations rated "severe" or "high" risk deserve greater compliance attention.
- 22. There is also a general view that a mix of risk-rated obligations should be considered in the list of obligations for CMS. But also comments that decisions on the compilation of the list are a separate process and that other factors may need to be taken into account.
- 23. FFA and PNA proposed that the list should be limited to 60 obligations for the next CMS review given resource implications and time constraints. PNA note that a larger number of obligations could be considered in a face to face setting.
- 24. Some obligations should be weighted differently and assessed every year. This is also discussed further below.

Risk rating of obligations

25. Chart 1 below illustrates the risk rating results (sorted into severe, high, moderate, and low) as a result of the assessments done by FFA members collectively and the Philippines.



- 26. Note that the Philippines has assessed 243 obligations (219 obligations + 6 non-binding obligations + 18 Convention obligations). The FFA has assessed 192 obligations (*excluding* 6 non-binding obligations + 28 obligations for further consideration + 18 Convention obligations). The most significant difference between the risk ratings by FFA members and by the Philippines is in the number of obligations rated moderate.
- 27. Chart 2 below illustrates the risk rating of obligations (by FFA) across the categories of obligation (limits, implementation, reports and deadlines).



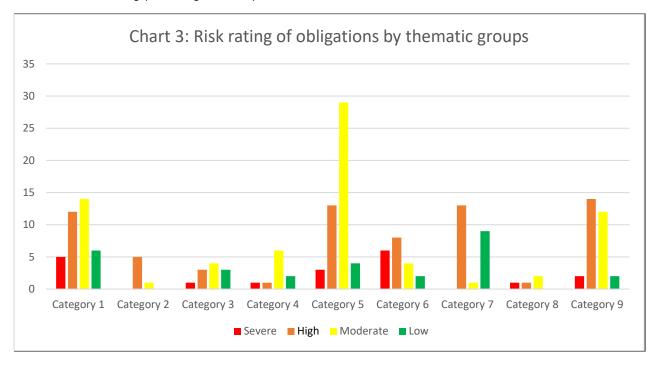
28. Table 1 below provides an indication of the risk rating of obligations organised into the "thematic groups" which the WCPFC Secretariat is developing. This is also illustrated in Chart 3 below.

Table 1: Risk rating of obligations by thematic groups:				
Thematic Group Number of Obligations (FFA) Obligations				
1.Annual Fishing Activity Related	39	5 obligations CMM 2009 -06 11		

		CMM 2009 -06 35 (a) (iii)
		CMM 2009 -06 35 (a) (iii)
		CMM 2009 -06 35 (a) (iv)
		CMM 2019 -08 02
		12 obligations
		14 obligations
		6 obligations
2.Additional Measures for Pacific	6	0 obligation
Bluefin Tuna		5 obligations
Bideiii Talid		1 obligation
		0
2 Additional Management Control	44	
3.Additional Measures for Tropical	11	1 obligation
Tuna		CMM 2018-01 Att 2 03
		3 obligations
		4 obligations
		3 obligations
4.Inspection Activity	26	1 obligation
imspection recurry	20	CMM 2017-03 12
		1 obligation
		6 obligations
		2 obligations
5.Mitigating Impacts of Fishing on	49	3 obligations:
species of special interest	43	CMM 2017-04 02
species of special interest		CMM 2019-04-02 CMM 2019-04-20 (2)
		CMM 2019-04 21 (1-7)
		13 obligations
		29 obligations
		4 obligations
6.Observer Related	22	6 obligations
o.observer Related	22	8 obligations
		4 obligations
7 Operational Description	25	2 obligations
7.Operational Requirements for	25	0 obligations
Fishing Vessels		13 obligations
		1 obligation
		9 obligations
8.Overarching Requirements	10	1 obligation
		CMM 2017-07 19
		I obligation
		2 obligations
		0 obligations
9.Quantitative Limits for Tuna &	32	2 obligations
	32	2 obligations CMM 2018-01 25
Billfish		CMM 2018-01 25 CMM 2018-01 26
		CIVIIVI 2010-01 20
		14 obligations
		14 ODIIgations

		12 obligations 2 obligations
TOTAL	220	

Note: The risk ratings are based on the FFA assessment. The ratings may not always add up to the number of obligations because there are some gaps in ratings which require further consideration.



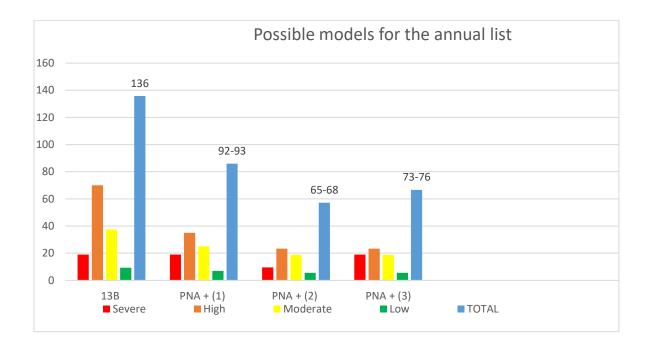
<u>Test driving the RBAF to guide the selection of the list of obligations</u>

- 29. Deciding which obligations have a lower risk and which have a higher risk could *guide* the prioritisation of the obligations in CMMs for assessment as part of the CMS, taking into account the needs and priorities of the Commission. The risk rating of obligations should not automatically dictate how obligations are treated in the CMS process. The decision on the list of obligations to be assessed through the CMS in the following year is a separate process.
- 30. There are a range of variables that also need to be taken into account, including the lack of data in some cases (e.g. lack of compliance history or the lack of verified data), a degree of subjectivity in assessing qualitative information (particularly for rating "consequence"), and the need to consider resource implications for managing the CMS each year.
- 31. There are proposals that **some obligations should be weighted differently** and therefore assessed annually. This should include all tuna quantitative limits (13 obligations). It could also include additional quantitative limits, spatial and temporal limits, and non-retention obligations.

32. Rationalising the list of obligations:

 There is potential agreement that "implementation" obligations which are "held on file" could be treated differently (i.e. focus on those obligations where there is insufficient evidence of implementation).

- There is no agreement on consolidation of obligations such as report and deadline –
 noting that compliance with transhipment deadlines, in particular, have significant
 consequences.
- 33. There has been no decision on a **possible formula for the annual list of obligations** based on the risk rating on obligations.
- 34. The following chart provides some options for consideration based on an initial proposal in WCPFC-TCC17-2021-13B_rev2; and adapted from PNA + Tokelau proposals ahead of the 10 November 2021 workshop. For the three PNA + Tokelau models, 13 quantitative limits have been "baked in" then the remaining obligations added in consistent with PNA + Tokelau's proposed ratio for each model.
- 35. The specific obligations for each of these models are set out in appropriate tabs in the spreadsheet. These models are provided for discussion they could provide options for consideration of a list of obligations for assessment in 2022.
- 36. Note that in the spreadsheets the obligations have been organised for each risk category (severe, high, moderate low risk) according to the number of obligations in each of those categories. But this may not be logical in every instance (e.g. CCMs may wish to consider whether there is value in organising obligations thematically, within each level of risk, so that there is a more logical grouping of obligations for each CMS).



Conclusion

37. It is hoped that the analysis in this paper and accompanying spreadsheets is useful to CCMs in understanding the potential to develop the annual list of obligations with the assistance of the risk rating of obligations. This could provide a more methodical, transparent way of developing the potential list of obligations for WCPFC consideration.

- 38. FFA members and the Philippines have risk-rated the obligations. This provides a basis for all members to consider a RBAF approach to developing the list of obligations for assessment in 2022.
- 39. As FFA and PNA + Tokelau members have emphasised, the RBAF should not automatically produce a list of obligations for the annual CMS. It is a tool to assist the process. Deciding on the list of obligations is a separate process and ultimately requires agreement by the WCPFC taking into account all relevant factors.

Recommendations

WCPFC18 is invited to:

- Note the work to develop a Risk-Based Assessment Framework (RBAF) to assist CCMs to prioritise
 obligations for inclusion in the annual CMS, based on the risk of non-compliance of achieving
 CMM objectives.
- 2. **Note** that, following discussion at TCC, intersessional communications, and the RBAF workshop on 10 November 2021, there is general agreement on the approach to likelihood, consequence and a risk matrix and that the RBAF could be a useful tool to guide CCMs in developing the annual list of obligations for consideration in the CMS process.
- 3. **Note** that, based on the risk ratings from FFA members and the Philippines, it is possible to develop models to inform the development of a list of obligations for consideration in 2022 and that four possible options have been developed for consideration.
- 4. **Agree** that it is useful to test drive the RBAF as a tool to help develop the list of obligations for consideration in 2022, with final decision on the list to be taken by WCPFC 18.
- 5. **Support** further work to refine the RBAF as part of the broader programme of work to enhance the CMS in 2022.