



**COMMISSION
TWELFTH REGULAR SESSION**
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**AGREED WORK PLAN FOR THE ADOPTION OF HARVEST STRATEGIES
UNDER CMM 2014-06**

This plan is intended to give effect to the requirements contained in paragraph 13 of CMM 2014-06:

“The Commission shall agree a workplan and indicative timeframes to adopt or refine harvest strategies for skipjack, bigeye, yellowfin, South Pacific albacore, Pacific bluefin and northern albacore tuna by no later than the twelfth meeting of the Commission in 2015. This workplan will be subject to review in 2017. The Commission may agree timeframes to adopt harvest strategies for other fisheries or stocks.”

A proposed schedule of actions to adopt or refine harvest strategies is provided for skipjack, bigeye, yellowfin and South Pacific albacore (it is noted that under the CMM the Northern Committee will be responsible for developing a schedule for Pacific bluefin and north Pacific albacore). These actions in the draft work plan are based upon the “Elements of a harvest strategy” in paragraph 7 of CMM 2014-06:

“Elements of a harvest strategy

7. Each harvest strategy developed in accordance with this CMM shall, wherever possible and where appropriate, contain the following elements:

- a. Defined operational objectives, including timeframes, for the fishery or stock (‘management objectives’)
- b. Target and limit reference points for each stock (‘reference points’)
- c. Acceptable levels of risk of not breaching limit reference points (‘acceptable levels of risk’)
- d. A monitoring strategy using best available information to assess performance against reference points (‘monitoring strategy’)
- e. Decision rules that aim to achieve the target reference point and aim to avoid the limit reference point (‘harvest control rules’), and
- f. An evaluation of the performance of the proposed harvest control rules against management objectives, including risk assessment (‘management strategy evaluation’).”

Explanatory Notes

For detailed information on the objectives, principles and elements of harvest strategies, members are referred to CMM2014-06 and its annex.

Stocks or Fisheries?

This work plan anticipates that the Commission will agree initial harvest strategy elements on a stock basis (limit reference points and acceptable levels of risk of breaching a limit reference point). All other harvest strategy elements, including objectives, target reference points, Harvest Control Rules, and monitoring strategies, may be developed for stocks and/or fisheries. As such, this work plan is organized assuming that harvest strategies will be initially developed on a stock-specific basis, but the Commission will reorganise it as needed if harvest strategy elements are adopted on a fishery-specific basis. Any harvest control rules developed for fisheries should be designed and evaluated to achieve the TRP for each of the [main] stocks caught by that fishery.

The plan also reflects the different level of progress amongst the four tuna stocks included in the work plan. More rapid progress on harvest strategy elements for some stocks should not undermine the progress on other elements.

Rationale for Sequencing

The sequencing of the harvest strategy elements through the plan has been designed to allow efficient development of harvest strategies. Under the plan, the recording of management objectives and agreement on target reference points and risks of breaching limits reference points are planned to be undertaken first and these are followed by the development of harvest control rules. Management strategy evaluation is planned to ensure that harvest control rules meet objectives and target reference points. It is anticipated that management strategy evaluation and the development of harvest control rules will be an iterative process.

It is recognised that, for south Pacific albacore and skipjack tuna, the development of target reference points early has been dependent on a substantial body of analysis and modelling to explore the candidate targets suitability and alignment with objectives. Similar preparatory analysis will be required before adoption of target reference points for yellowfin and bigeye tunas. The work plan for bigeye tuna differs from the other stocks to reflect its current status (below limit reference point). The first steps in the plan for bigeye tuna relate to rebuilding the stock above its limit reference point.

Recording Objectives

It is proposed that the Commission can initially 'record' a range of candidate management objectives rather than 'agree' management objectives. This will allow development of relevant performance measures for management strategy evaluation. It is noted that the Commission has previously recorded a range of candidate objectives for tuna stocks and fisheries, including those in the final 'Report of the Expert Working Group Management Objectives, Performance Indicators and Reference Points' (MOW2-IP/01Rev 1), which was developed in the course of the first two Management Objectives Workshops (2012 and 2013) and accepted by WCPFC10.

Review and Amendment of the plan

It is recognised that there is a need for some flexibility in the plan as work progresses. The workplan should be considered a living document and it is proposed that progress against the plan be reviewed annually by the Commission as a permanent agenda item. The plan may be amended following this review or following the advice of a subsidiary body.

	South Pacific Albacore	Skipjack	Bigeye	Yellowfin
2015	<p>Record management objectives for the fishery or stock (a).</p> <ul style="list-style-type: none"> • SC provide advice on implications of a range of Target Reference Points for south Pacific albacore. • Commission record management objectives for south Pacific albacore noting advice provided by the SC on a range of target reference points. 	<p>Record management objectives for the fishery or stock (a).</p> <p>Agree Target Reference Point (b).</p> <ul style="list-style-type: none"> • Commission record management objectives for skipjack noting advice provided by the SC on a range of target reference points. • Commission agree to a Target Reference Point for skipjack. 	<ul style="list-style-type: none"> • Commission task SC to determine a biologically reasonable timeframe for rebuilding bigeye tuna to [or above] its limit reference point. 	

	South Pacific Albacore	Skipjack	Bigeye	Yellowfin
2016	<p>Record management objectives for the fishery or stock (a).</p> <p>Agree Target Reference Point (b).</p> <p>Agree acceptable levels of risk (c).</p> <p>Agree monitoring strategy (d).</p> <p>Develop harvest control rules (e).</p> <p>Management strategy evaluation (f)</p> <ul style="list-style-type: none"> • SC provide advice on a monitoring strategy to assess performance against reference points. • SC provide advice on a range of performance indicators to evaluate performance of harvest control rules. • Commission record management objectives for south Pacific albacore noting advice provided by the SC. 	<p>Record management objectives for the fishery or stock (a).</p> <p>Agree acceptable levels of risk (c).</p> <p>Agree monitoring strategy (d).</p> <p>Develop harvest control rules (e).</p> <p>Management strategy evaluation (f)</p> <ul style="list-style-type: none"> • SC provide advice on a monitoring strategy to assess performance against reference points. • SC provide advice on a range of performance indicators to evaluate performance of harvest control rules. • Commission record management objectives for skipjack. 	<p>Record management objectives for the fishery or stock (a).</p> <p>Agree acceptable levels of risk (c).</p> <ul style="list-style-type: none"> • Commission agree timeframes to rebuild stock to limit reference point. • Commission agree acceptable levels of risk for breaching Limit Reference Point for bigeye tuna. • Commission record management objectives for bigeye and ask SC for advice on a range of target reference points. 	<p>Record management objectives for the fishery or stock (a).</p> <p>Agree acceptable levels of risk (c).</p> <ul style="list-style-type: none"> • Commission agree to acceptable levels of risk for breaching Limit Reference Point for yellowfin tuna. • Commission record management objectives for yellowfin and ask SC for advice on a range of target reference points.

	South Pacific Albacore	Skipjack	Bigeye	Yellowfin
2016	<ul style="list-style-type: none"> • Commission agree to acceptable levels of risk for breaching Limit Reference Point for south pacific albacore. • Commission agree a Target Reference Point for south pacific albacore. • Commission agree to a monitoring strategy to assess performance against reference points. • Commission agree performance indicators to evaluate harvest control rules 	<ul style="list-style-type: none"> • Commission agree to acceptable levels of risk for breaching Limit Reference Point for skipjack. • Commission agree to a monitoring strategy to assess performance against reference points. • Commission agree performance indicators to evaluate harvest control rules 		

	South Pacific Albacore	Skipjack	Bigeye	Yellowfin
2017	<p>Develop harvest control rules (e).</p> <p>Management strategy evaluation (f).</p> <ul style="list-style-type: none"> • SC provide advice on candidate harvest control rules based on agreed reference points. • Commission consider advice on progress towards harvest control rules. 	<p>Develop harvest control rules (e).</p> <p>Management strategy evaluation (f).</p> <ul style="list-style-type: none"> • SC provide advice on candidate harvest control rules based on agreed reference points. • Commission consider advice on progress towards harvest control rules. 	<p>Agree Target Reference Point (b).</p> <ul style="list-style-type: none"> • SC provide advice on a range of Target Reference Points for bigeye. • Commission agree a Target Reference Point for bigeye. 	<p>Agree Target Reference Point (b).</p> <ul style="list-style-type: none"> • SC provide advice on a range of Target Reference Points for yellowfin. • Commission agree a Target Reference Point for yellowfin.

	South Pacific Albacore	Skipjack	Bigeye	Yellowfin
2018	<p>Develop harvest control rules (e)</p> <p>Management strategy evaluation (f)</p> <ul style="list-style-type: none"> • SC provide advice on performance of candidate harvest control rules. • TCC consider the implications of candidate harvest control rules. • Commission consider advice on progress towards harvest control rules. 	<p>Develop harvest control rules (e)</p> <p>Management strategy evaluation (f)</p> <ul style="list-style-type: none"> • SC provide advice on performance of candidate harvest control rules. • TCC consider the implications of candidate harvest control rules. • Commission consider advice on progress towards harvest control rules. 	<p>Agree monitoring strategy (d).</p> <p>Develop harvest control rules (e).</p> <p>Management strategy evaluation (f).</p> <ul style="list-style-type: none"> • SC provide advice on a monitoring strategy to assess performance against reference points. • SC provide advice on a range of performance indicators to evaluate performance of harvest control rules. • Commission agree to a monitoring strategy to assess performance against reference points. • Commission agree performance indicators to evaluate harvest control rules 	<p>Agree monitoring strategy (d).</p> <p>Develop harvest control rules (e).</p> <p>Management strategy evaluation (f).</p> <ul style="list-style-type: none"> • SC provide advice on a monitoring strategy to assess performance against reference points. • SC provide advice on a range of performance indicators to evaluate performance of harvest control rules. • Commission agree to a monitoring strategy to assess performance against reference points. • Commission agree performance indicators to evaluate harvest control rules