

## BACKGROUND FOR AGENDA ITEM V.d.ii<sup>1</sup>

### Topic: Kobe III Guidelines - Addressing overfishing and/or stocks that are overfished

At Kobe I, the five tuna regional fisheries management organizations (RFMOs) Commissioners agreed to the “Kobe Plot” (or Chart, see below) as a harmonized diagram showing the current and historical level of biomass ( $B$ ) and fishing mortality ( $F$ ) versus  $B_{MSY}$ <sup>2</sup> and  $F_{MSY}$  in three colors (green, yellow and red) to illustrate the status of a given stock of tunas. The Kobe Plot has become a standard feature of scientific and policy documents at the tuna RFMOs, and facilitates presentation of stock assessment results in an easily understood, clear and concise manner.

Kobe II produced the “Kobe II Strategy Matrix” (K2SM) as a harmonized format for presentation of fishery management alternatives. The K2SM is expected to improve the way in which the tuna RFMOs’ Scientific Committees communicate to the Commissioners the potential risks and consequences of management options. When possible, K2SM tables, or similar tools, can guide Commission discussions when adopting conservation and management measures with the aim of providing a high probability of achieving and maintaining stocks at levels consistent with Convention objectives. The precautionary approach, which reflects the UN Fish Stocks Agreement as well as certain tuna RFMO Conventions, may be implemented by adopting a higher level of probability.

The Kobe III meeting presents an opportunity to develop this process further by establishing guidelines for decision-making on conservation and management measures that are based on objectives stipulated in the Convention of the applicable tuna RFMO and/or objectives that have been previously agreed. This work should build upon the stock status represented in the Kobe Plot as well as the options in the K2SM, taking a precautionary approach through specific probability levels. These guidelines can consist of harvest control rules that establish a target level of biomass (*e.g.*  $B_{MSY}$ ) and a limit level of fishing mortality (*e.g.*  $F_{MSY}$ ). The precautionary approach may also be incorporated by setting target  $B$  sufficiently above  $B_{MSY}$  and/or limit  $F$  sufficiently below  $B_{MSY}$  to take uncertainties into account.

#### *Potential guidelines for decision-making on conservation and management measures*

1. For stocks that are in the green zone, management measures should be established which result in a low probability of exceeding limit  $F$ .
2. For stocks that are in the lower left-hand yellow zone, management measures should be established which result in a reasonably high probability of rebuilding biomass to target  $B$  within a certain timeframe, with a low probability of exceeding limit  $F$ .
3. For stocks that are in the upper right-hand yellow zone, management measures should be established that result in a low probability of exceeding limit  $F$  within a certain timeframe, and with a reasonably high probability of maintaining biomass at target  $B$ .
4. For stocks that are in the red zone, management measures should be established which result in a reasonably high probability of rebuilding biomass to target  $B$  within a certain timeframe and which result in a low probability of exceeding limit  $F$  within a certain timeframe.
5. When the relevant Commission is unable to reach agreement on management measures, a default

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<sup>1</sup> This background paper was developed to provide information and help frame the discussion on this agenda item. It does not necessarily reflect the position of any delegations participating in Kobe III, and is not meant to limit the discussions on this or any other topic.

<sup>2</sup> MSY = Maximum sustainable yield

measure will be in effect. The default measure, (*e.g.* set fishing mortality at the level with a low probability of exceeding  $F_{MSY}$ ) must be specified in advance.

6. For stocks that are in the red zone and whose fishing mortality levels and biomass levels are such that, according to scientific advice, the stock is in imminent danger of collapse, fishing mortality should be set at a level of zero (closure).

