

TEMPLATE FOR RESOURCE EXECUTIVE SUMMARIES

PREPARED BY: IOTC SECRETARIAT, 9 AUGUST 2011

PURPOSE

To encourage the Working Party on Tropical Tunas (WPTT) to develop clear and concise draft resource Executive Summaries for the consideration of the Scientific Committee.

BACKGROUND

Each year the IOTC Scientific Committee (SC) provides stock status advice and recommendations to the Commission in two main formats based on stock assessments or other stock status indicators determined by the relevant Working Party, for each of the tuna and tuna-like species under the IOTC mandate. Firstly, advice is tabulated at the front of the SC report and includes recent annual catches, maximum sustainable yield estimates and the ratio of average catch to the MSY levels, in conjunction with stock status advice to the Commission. Secondly, a more detailed stock status description is provided in the report text outlining the current stock status, recommendations to the Commission and in some cases an outlook section. These two forms of advice are generally combined into an Executive Summary for each stock during the SC meeting however, due to time limitations the SC places little emphasis on how the information is presented in the Executive Summaries.

In 2009, the IOTC performance review panel published a report outlining 75 recommendations to improve the functioning of the IOTC (Anon 2009¹). Recommendation 30 from the review states: "New guidelines for the presentation of more user friendly scientific reports in terms of stock assessments should be developed. ...".

The advice provided by the working parties and the SC has at times, been unclear with some stocks being classified within one of the status categories based on fully quantitative stock assessments (e.g. yellowfin tuna) while others are given a status based on little more than qualitative evidence such as unstandardised catch-per-unit-effort series (e.g. skipjack tuna). As such, there is a clear need for the working parties to provide the SC with a clear set of recommendations and advice concerning stock status.

Stock status classifications: The IOTC currently uses the reference points of SB_{MSY} (or B_{MSY}) and F_{MSY} in providing its advice on stock status to the Commission and typically represents the advice as a ratio of current spawning biomass (SB_{curr}), total biomass (B_{curr}) or fishing rates/mortality to SB_{MSY} , B_{MSY} and F_{MSY} respectively; species with current spawning biomass estimates $<SB_{MSY}$ or $<B_{MSY}$ are considered **overfished**, and fishing mortality $>F_{MSY}$ is considered **overfishing**. There are currently no agreed harvest strategies, explicit target of limit reference points or decision rules that are followed when reference points are being approached or have been reached. Stocks of tuna and tuna-like species under the IOTC mandate are currently classified independently in each of the two categories described above (**overfished** and **overfishing**). Within these two categories there is a positive and a negative, as well as an uncertain status as detailed below:

Overfished refers to the spawning biomass or total biomass of a fish stock. A status of **overfished** would indicate that the spawning biomass or total biomass may be inadequate to sustain the stock in the long term—the stock has a spawning biomass or total biomass below the default limit reference point. The IOTC currently uses the spawning biomass or total biomass, depending on the stocks and assessment method that produces the maximum sustainable yield (SB_{MSY} or B_{MSY}) as a default. The ratio of current spawning biomass (SB_{curr}) to SB_{MSY} or of current total biomass (B_{curr}) to B_{MSY} is used as an indicator. On this basis a stock is considered **overfished** if the ratio of SB_{curr}/SB_{MSY} or B_{curr}/B_{MSY} is less than 1.

Not overfished refers to the spawning biomass or total biomass of a fish stock. A status of **not overfished** would indicate that the spawning biomass or total biomass is adequate to sustain the stock in the long term and

¹ Anon. 2009, Report of the IOTC Performance Review Panel, January 2009, Indian Ocean Tuna Commission.

the stock has a spawning biomass or total biomass above the default limit reference point. The IOTC currently uses the spawning biomass or total biomass that produces the maximum sustainable yield as a default (SB_{MSY} or B_{MSY}). The ratio of current spawning biomass (SB_{curr}) to SB_{MSY} or of the current total biomass (B_{curr}) to B_{MSY} is used as an indicator. Therefore, a stock is considered **not overfished** if the ratio of SB_{curr}/SB_{MSY} or B_{curr}/B_{MSY} is greater than 1.

Subject to overfishing refers to the rate of fishing. The stock is subject to a level of fishing pressure that would move the stock to an **overfished** state, or prevent it from returning to a **not overfished** state; more technically, the rate of fishing exceeds the limit reference point. The IOTC currently uses the rate of fishing that produces the maximum sustainable yield (F_{MSY}) as a default. The ratio of current fishing rate/mortality (F_{curr}) to F_{MSY} is used as an indicator. Therefore, a stock is considered **subject to overfishing** if the ratio of F_{curr}/F_{MSY} is greater than 1. **Note:** Fishing mortality in excess of F_{MSY} (F_{curr}/F_{MSY} is greater than 1) is not defined as overfishing if the stock is well above the B_{MSY} level. However, this level is not currently defined.

Not subject to overfishing refers to the rate of fishing. The stock is not subject to a level of fishing pressure that would move the stock to an **overfished** state—the rate of fishing does not exceed the limit reference point. The IOTC currently uses the rate of fishing that produces the maximum sustainable yield (F_{MSY}) as a default. The ratio of current fishing rate/mortality (F_{curr}) to F_{MSY} is used as an indicator. Therefore, a stock is considered **not subject to overfishing** if the ratio of F_{curr}/F_{MSY} is less than 1.

Uncertain refers to the overfished or overfishing status of a fish stock for which there is inadequate information to determine status.

DISCUSSION

The advice and recommendations provided to the Commission varies greatly among the reports of the various Working Parties depending on the indicators used to determine stock status and the level of information available to the Working Parties and SC. Where possible, indicators should be standardised and a minimum level of information be contained in the resource Executive Summaries. To this aim, a Template for Resource Executive Summaries has been developed (Attachment A) so that the WPTT may more readily communicate its opinion of stock status to the Scientific Committee.

RECOMMENDATION

That the WPTT **note:**

- 1) that Recommendation 30 from the IOTC performance review panel states: “New guidelines for the presentation of more user friendly scientific reports in terms of stock assessments should be developed. ...”.)
- 2) that the IOTC currently uses the reference points of SB_{MSY} (or B_{MSY}) and F_{MSY} in providing its advice on stock status to the Commission and typically represents the advice as a ratio of current spawning biomass (SB_{curr}), total biomass (B_{curr}) or fishing rates/mortality to SB_{MSY} , B_{MSY} and F_{MSY} respectively; species with current spawning biomass estimates $<SB_{MSY}$ or $<B_{MSY}$ are considered overfished, and fishing mortality $>F_{MSY}$ is considered overfishing. There are currently no agreed harvest strategies, explicit target of limit reference points or decision rules that are followed when reference points are being approached or have been reached. Stocks of tuna and tuna-like species under the IOTC mandate are currently classified independently in each of the two categories described above (overfished and overfishing). Within these two categories there is a positive and a negative, as well as an uncertain status
- 3) that, at the Fifteenth Session of the Indian Ocean Tuna Commission, the Commission made the following request of the Scientific Committee, and by default, the Working Parties:

“The Commission noted the provision by the Scientific Committee of the Kobe II matrix for bigeye tuna and swordfish, and recognized that it is a useful and necessary tool for management. The Commission requests that such matrices be provided for all stock assessments by the species

Working Parties, in particular for yellowfin tuna, and for these to be included in the report of the Scientific Committee in 2011 and all future reports.” (IOTC-2011-S15-R, para. 37)

- 4) the new Executive Summary format to be used in developing the draft resource Executive Summaries for the Scientific Committee’s consideration.

That the WPTT **recommends**:

- 1) that the Scientific Committee **note** the current definition of overfishing used by the IOTC, where fishing mortality is in excess of F_{MSY} (F_{curr}/F_{MSY} is greater than 1) is considered overfishing
- 2) that the Scientific Committee **note** that fishing mortality in excess of F_{MSY} is not always defined as overfishing (within tRFMOs) if the stock is well above the B_{MSY} level, although no specific threshold has been defined
- 3) that the Scientific Committee **consider** the current definition of overfishing ($F_{curr}/F_{MSY} > 1$), and determine that if in situations where the biomass of a given stock is well above B_{MSY} , but $F_{curr}/F_{MSY} > 1$, under what circumstances should a stock be classified as subject to overfishing.
- 4) that the IOTC Secretariat **update** the draft stock status summaries with 2010 catch data once obtained, and for these to be provided to the Scientific Committee as part of the Draft Executive Summaries, for its consideration.

ATTACHMENTS

Attachment A: Revised template for resource Executive Summaries.