

SIOFA Workshop on Harvest Strategy Management Objectives (WS2023-HSMO)

Online via Zoom, 7–8 November 2023

WS2023-HSMO-05

Preliminary table of harvest strategy management objectives

SIOFA Scientific Committee Chair and vice-Chair, SIOFA Meeting of the Parties Chair

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| Abstract | |
| <p>To aid the discussions at the SIOFA Workshop on Harvest Strategy Management Objectives (WS2023-HSMO), this paper presents a blank table of potential Management Objective types and Management Objectives that may be developed during the Workshop.</p> <p>Potential Performance Indicators may also be developed that could be considered and expanded by the SIOFA Scientific Committee at SC9.</p> | |

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² Documents available only to members invited to closed sessions.

1. Introduction

At MoP10, the Meeting of Parties endorsed the development of harvest strategies for selected SIOFA stocks and agreed to hold joint MoP-SC intersessional workshop to define management objectives ([MoP10 report](#), paragraph 91).

To aid the discussions at the SIOFA Workshop on Harvest Strategy Management Objectives (WS2023-HSMO), this paper presents example table of potential Management Objective types and Management Objectives that may be developed during the workshop (Table 2) based on the objective types identified in paper [WS2023-HSMO-01](#) (2023).

For each stock, either a single Management Objective or any combination of multiple Management Objectives can be defined. These do not need to be consistent, as MSE will allow the MoP to evaluate trade-offs between objectives using the performance indicators. Ecosystem-based and social objectives can also be used to achieve broader goals across multiple stocks and fisheries.

Potential Performance Indicators may also be developed by the MoP that could be considered and expanded by the SIOFA Scientific Committee at SC9.

2. Potential table of Management Objectives by Objective Type

Table 1: Potential table summarising Management Objectives by Objective Type, and preliminary indicative performance indicators

| No. | Objective type | Management Objective | Preliminary performance indicators |
|-----|----------------|--|--|
| 1.1 | Status | Status objectives are aimed at maintaining the stock at or near the target reference point (TRP). E.g., the TRP for orange roughy be a 50% probability of being above 40% B_0 | e.g., $\text{Pr}(\text{Biomass} \geq \text{TRP})$ |
| 1.2 | Safety | Safety objectives are aimed at maximising the probability that the stock is above the limit reference point (LRP). E.g., the LRP for orange roughy be a 90% probability of being above 20% B_0 | e.g., $\text{Pr}(\text{Biomass} \geq \text{LRP})$ |
| 2.1 | Yield | Yield objectives typically are aimed at maximising the catch (or sometimes effort) for a stock across regions and/or fishing gears. E.g., yield be maximised using a MSY proxy | e.g., $\text{Mean}(\text{expected catch})$ |
| 2.2 | | | |
| 3.1 | Abundance | Abundance objectives are aimed at maximising catch rates or other economic outcome to enhance fishery profitability. E.g., Mean CPUE be maximised | e.g., $\text{Mean}(\text{CPUE})$ |
| 3.2 | | | |
| 4.1 | Stability | Stability objectives are aimed at maximising the stability of catches by minimising variability in catch from year to year, and hence reduce commercial uncertainty in annual catch limits. E.g., catch levels remain stable between assessments (i.e., over a 5-year period) and changes in catch limits between assessments have low variability | e.g., $\text{Mean}(\% \text{ annual change in catch})$ |
| 4,2 | | | |
| 5.1 | Other | Socio-economic and ecosystem goals. E.g., catch limits on bycatch and ecosystem objectives such as area-based protection goals | e.g., Expected minimum catch Expected maximum benthic footprint |
| 5.2 | | | |

3. References

SIOFA Scientific Committee Chair; SIOFA Scientific Committee Vice Chair; SIOFA Meeting of the Parties Chair (2023). An introduction to harvest strategy management objectives. WS2023-HSMO-01. SIOFA, 15 p.