

Harvest Strategies and Climate Change - A Review of the Literature

Harvest strategies are an effective adaptation tool for managing stocks under changing climate conditions: NPFC could test saury MP performance under various biological or fishery scenarios - linked to historical and future climate/env. driven changes – e.g., growth (NPFC-2024-SSC PS14-IP02), recruitment etc. Developing review points and Exceptional Circumstances (EC) protocols is also essential.

Opportunities and limitations exist to incorporate explicit climate-related environmental factors into MPs and MSE: Research can inform what approach to take in current saury MP development and help SSC PS plan what research and data requirements are required for future.

“Climate-informed” MPs can be designed to include extreme events as ‘Exceptional Circumstances’: What do current studies tell us about likelihood of extreme events under climate change scenarios – e.g., marine heatwaves affecting stock development, production or distribution - What monitoring do we need in place to better observe these events? And how do we manage an extreme event when/if we observe it? NPFC should develop suitable EC Protocols for a saury MP.

“Climate-informed” MPs can account for shifts in geographic distribution across management regimes: For example, how does NPFC respond to expected changes in stock distribution, fisheries catch and effort – saury shift northwards/ eastwards etc. Domestic vs. high seas. Coordination with other management regimes.

Management options available for data-rich and data-poor fisheries: Where data is limited and models are less complex, it may make sense to focus on plausible "scenario-based" explorations to climate change and simple performance statistics for Pacific saury.