

A framework for qualitatively evaluating management plans in a results-based perspective

Rochet M.J., Trenkel V.M., Rice J.C.

Abstract

Currently many multi-year management plans are being developed either for rebuilding depleted stocks or for avoiding difficult negotiations when management decisions must be revisited on a regular basis. Management plans are commonly evaluated by intensive model simulations that describe the ecological and economic dynamics, and the management loop. Under the results-based management paradigm, the fishing industry or particular fishing sectors will develop their own management plans, potentially leading to a huge number of plans to be evaluated. Guidelines for evaluating the plans on a qualitative level before launching quantitative evaluations will be essential.

Here we propose a framework for evaluating management strategies in a qualitative way. A strategy is defined by i) an objective ii) a coordinated plan of actions to reach this objective. We evaluate i) under which assumptions the stated management objective is sustainable and ii) whether the proposed plan of actions can reach the objective, against theoretical criteria derived from general fishery models, and practical rules determining success of management plans from empirical review papers. We demonstrate this framework by analysing a series of management plans recently implemented in the EU.

Keywords

Management strategy, stock rebuilding, qualitative evaluation, sustainability, management plans.

Authors: M-J Rochet and V.M. Trenkel, Ifremer, rue de l'île d'Yeu, BP 21105, 44311 Nantes cedex 3, France [Tel: +33 2 40 37 41 21, Fax: +33 2 40 37 40 75, email : mjrochet@ifremer.fr] ; J. C. Rice: National Advisor – Ecosystem Sciences, Department of Fisheries and Oceans, 200 Kent Street, Ottawa, Ontario, Canada K1A 0E.