

## **Ecosystem-based fisheries management in Iceland Implementation and practical considerations**

by

Johann Sigurjonsson, Director General  
Marine Research Institute  
P.O. Box 1390, 121 Reykjavik, Iceland

### Abstract

Managers and fisheries scientists providing advice have for many years discussed and argued definitions of ecosystem-based approach to marine fisheries. This concept has been on the agenda of international fora in recent years and on several occasions dedicated international conferences and symposia have been held. The Reykjavik Conference on Responsible Fisheries in the Marine Ecosystem, held in 2001 addressed the scope of the concept and subsequently the FAO produced basic guidelines for implementation. As a follow-up, various fora have devoted immense efforts to define indicators and scientific criteria to be applied. Despite all the efforts, we still do not move very fast towards implementation and there is even some misconception as to what this is about.

The Reykjavik Conference concluded that there was no reason to wait, since many of the measures that are being implemented under single-species management schemes are in the spirit of ecosystem-based fisheries management. We need simply do it better. Also it was stressed that although a fully fledged ecosystem-based management scheme of the ocean resources is the ultimate goal, it needs to be understood that in order to achieve this we may have to undergo a lengthy incremental process. But it is urgent to start now.

In this presentation, some examples are given as to how such concept has been exercised in Iceland under the single-species scheme. While it is important to study and define criteria under the scope of holistic view of the marine ecosystem in its greatest complexity, a more simple approach may provide some steps forward. An inventory for mapping various relevant aspects while conducting single-species assessment of fish stocks, for scientists involved, is suggested. The presentation will report on this pragmatic approach, involving inventory of assessment methods and basis for scientific advice, the effects of fishery on discards of target and non-target species, the effects of fishery on the physical environment and certain ecosystem components, multispecies considerations and the effects of environmental changes on the target stocks. Such inventory is meant to help scientists to focus on aspects that are relevant in this context, to help identify gaps and research needs, and to draw attention of all stakeholders to these factors. Later it may contribute to a more holistic ecosystem approach to the management of the fisheries and other ocean resources.