

## **International implementation of the ecosystem approach to achieve the conservation of Antarctic marine living resources**

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### **ABSTRACT**

The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), which held its first meeting in 1982, was the first international organisation charged with achieving an ecosystem approach to the conservation of exploited stocks, notably krill, as well as the conservation of the wider ecosystem. Since its beginning, the Commission has evolved from (i) initially reacting to over-exploitation of stocks, a situation largely inherited from previously unregulated fisheries prior to the Convention, to (ii) establishing the precautionary approach for new and developing fisheries, as well as (iii) establishing a process for implementing an ecosystem-approach, including monitoring and assessments that take account of the ecosystem requirements. The evolution of the Commission and its Scientific Committee over its first twenty five years provides a strong lesson in what can and cannot be achieved using different management approaches both in terms of how a governing commission can effectively use the best scientific evidence available and what is diplomatically achievable in a regional commission.

CCAMLR has been successful in implementing its ecosystem approach because of the emphasis on the conservation of the marine ecosystem and only permitting rational utilisation of marine living resources in the region. Whales and seals are excluded from consideration by CCAMLR except as they may be impacted by fisheries.

In the first instance, CCAMLR only reacted to the need for management measures (conservation measures) once there was demonstrable proof, i.e. consensus in the Scientific Committee, that those measures were needed. This method was recognised to fail in the late 1980s following difficulties in curbing fishing activities until stocks were obviously depleted. A second phase began in the late 1980s with the introduction of the precautionary approach that achieves scientific consensus on conservation measures, notably catch limits, before problems arise. An important component of

this phase was to interpret the ecosystem objectives of the Convention in population and ecosystem quantities that could be defined and measured scientifically. In so doing, the new methods used to assess catch limits were designed to take account of scientific uncertainties and estimate the likelihood of achieving the population and ecosystem objectives of the Convention given a specific harvest strategy, which at present is total allowable catch. Approaches to new and exploratory fisheries were also developed that restrict harvesting until such time as sufficient data are available to properly assess whether a harvest strategy would be consistent with the objectives of CCAMLR. In most cases, the Commission has specified, in conservation measures, the data required to be collected from the fisheries to facilitate assessments in the future. This is achieved primarily through the annual submission of catch and effort data, and through the CCAMLR Scheme of Scientific Observation, which requires 100% coverage on finfish vessels to obtain suitable data.

The third phase has been the implementation of compliance and enforcement measures, such as vessel monitoring systems, catch documentation schemes and Port and Flag State controls. These developments have almost completed an internationally coordinated management system from data acquisition, assessments, and harvest controls to compliance and enforcement. Current work is adding to the means by which conservation objectives will be met for predators of krill as well as for investigating and implementing further compliance and enforcement activities, further reducing bycatch and examining the use of area management and other tools to minimise the impacts of fishing and to conserve biodiversity.

CCAMLR has established almost all the mechanisms necessary for the effective administration of fisheries and conservation activities. However, despite the strong will of the Members of CCAMLR to achieve the objectives of the Convention, the Commission will fall short of that goal if full international cooperation is not achieved. In terms of regional cooperation, CCAMLR needs complementary binding regional arrangements in areas to the north of CCAMLR in which Antarctic marine living resources are found in order to achieve the conservation objectives for those taxa, such as toothfish and especially seabirds, notably albatrosses. More importantly, cooperation from all States with an interest in conservation and utilisation of high seas resources needs to be achieved. At present, any State can choose not to become a party to CCAMLR but still allow their flag vessels to fish in CCAMLR waters as unregulated fishers; such activities are also often illegal and unreported. This common practice seriously threatens the CCAMLR's ability to achieve its conservation and rational use objectives. Mechanisms are needed to ensure that States are obliged to only allow their vessels to fish in the region if that State is a Party to CCAMLR and participates fully in the activities and obligations of the Commission, including contributing to the costs of managing fishing.