CCAMLR’s Response to Climate Change
ASOC Discussion paper for Session 4
Submitted by ASOC

Abstract:
CCAMLR has previously recognized the importance of considering climate change impacts when making management decisions. However, to date this has not been explicitly incorporated into the decisionmaking process, even though climate change and ocean acidification are relevant to a wide range of policy decisions. Government bodies often require the inclusion of an ‘implications statement’ to be included with the submission of new or revised legislation or regulations to explain how they might impact an important issue. ASOC therefore recommends that the Commission could better safeguard the Convention’s objectives in the face of climate change and ocean acidification by including an implications statement in all working papers and fisheries reports.

Introduction – key challenges for CCAMLR.
Few regions on this planet are as vulnerable to a changing climate as the Antarctic, and the ecosystems of the Southern Ocean have increasingly been affected by global climate change. Scientists have clearly shown that climate change and ocean acidification are occurring now in the Southern Ocean and will continue to produce a wide spectrum of changes that will directly affect many Antarctic species, including those that are currently targeted by fisheries. Together, climate change and ocean acidification are the largest threats to Antarctic ecosystems. Antarctica has faced a number of regime changes in recent decades that have set off alarm bells for scientists studying the region. Tremendous ice melt from the continental ice sheets is at the forefront of that concern, but there have also been changes to the Southern Annular Mode (SAM) (at its strongest in 1000 years), to the ACC, and to the sea ice surrounding the continent. There is a high degree of variability to these changes, with some areas becoming cooler (partially as a result of the ozone hole and the strengthened SAM) while others, like the Antarctic Peninsula, are among the fastest warming regions on the planet.

At the same time, research into Antarctic ecosystems has increasingly shown the complexities of these systems, highlighting that we may not be able to predict the future consequences of climate-related ecosystem changes. Krill, for example, are thought to sequester as much as 2.3 x 10⁹ g of carbon annually solely as a result of their feeding and defecation habits. The repeated vertical migration of krill also cycles nutrients, a phenomenon once thought to result primarily from physical processes; as a result, krill account for 24% of the total iron in the Southern Ocean’s surface waters¹.

While climate change promises large-scale impacts to ecosystems worldwide, it must also be recognized that appropriate management decisions can mitigate some of the negative impacts of climate change. A strong, concerted effort is needed to manage the accelerating changes experienced throughout the Southern Ocean.

CCAMLR is responsible for the conservation of marine living resources and in order to perform that role, it must recognize that the connection between climate change and ecosystem impacts is undeniable. Fortunately, the precautionary principle and the ecosystem approach provide CCAMLR with a strong foundation to address the challenges of climate change but success relies upon the willingness of CCAMLR to move beyond the recommendations set forth in Resolution 30. CCAMLR has always been a leader among international organizations in implementing new approaches to conservation and management and should continue to do so now.

To help ensure that ecosystems are provided with the necessary protections, CCAMLR should request implication statements to accompany the submission of all CCAMLR and SC-CAMLR working papers and fisheries reports. Used by many governments to achieve a uniform approach across multiple departments, implications statements can explicitly address critical matters requiring greater attention. In the case of CCAMLR, the implications statement would focus on climate change and ocean acidification, providing a simple and universal method to ensure that they are adequately considered in all relevant decisions. Essentially, the statement would identify how a proposed action or decision might be impacted by climate change (or ocean acidification) and would outline a plan to address those impacts.

**Conclusion**

Climate change must become an integral part of all conversations regarding the Antarctic and implication statements are a way of formalizing the conversation while fostering greater awareness of the increasing impacts faced by the region. In the years to come, anticipating and responding to climate change impacts will become increasingly critical if CCAMLR is to implement the Convention and achieve its objectives. It is for this reason that ASOC strongly recommends CCAMLR adopt the use of climate change implication statements in all future working papers and fisheries reports.