

Global climate change will inexorably affect Australia's climate and weather, its fringing oceans and its diverse natural ecosystems, in the coming decades. To meet these challenges, better predictions of future change are needed. However, the development of national policy – to realise the opportunities and minimise the risks of future environmental change – demands a high level of scientific understanding.

Antarctica and the high latitude Southern Ocean are especially relevant to Australia because of their proximity and influence on regional climate processes, and the importance of the Southern Ocean to our marine industries. Thus, Australia's Antarctic science program plays a significant role in advancing our understanding of how global climate processes arise, how they interact with the natural environment and what their consequences might be.

To support this understanding, a new Science Strategy has been proposed by the Antarctic Science Advisory Committee for the five-year period 2004/05–2008/09. Unlike the previous Strategic Plan, which was based on scientific disciplines (such as glaciology, biology and oceanography), the new Strategy is underpinned by multi-disciplinary research and focuses on four priority science programs:

- Ice, Ocean, Atmosphere and Climate;
- Southern Ocean Ecosystems;
- Adaptation to Environmental Change; and
- Impacts of Human Activities in the Antarctic.

Each of the priority programs has developed a set of strategic questions that it will address during the life of the Strategy. What is the role of the cryosphere in the global climate system and sea-level change? How are Southern Ocean ecosystems structured? What are the consequences of Antarctic environmental change and how do high latitude ecosystems, communities and species respond to change? Are Antarctic ecosystems more vulnerable to human activities than those of other regions? These are a few examples of what our scientists will be working on over the next five years. All proposals for research in the priority areas will be externally refereed and only the highest quality will be supported.

Fundamental or basic science will not be left out in the cold. The Australian Antarctic Program will continue to support research that does not fall into one of the priority programs, provided that it is of high quality and does not make enhanced demands on logistic and support facilities.

Further information on the Science Strategy and priority programs is available on the AAD website at <<http://www.aad.gov.au/default.asp?casid=13949>>. Copies of the Science Strategy are available from the Chief Scientist.

—MICHAEL STODDART
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New Directions in Antarctic Science

Research into atmosphere, climate and adaptation to environmental change forms part of the new strategic direction for Antarctic science.

Australian Antarctic Science Grants

This year's \$760 000 in grants for Australian Antarctic science was distributed amongst 54 projects that predominantly fall into the four priority science categories. Projects include:

- Understanding the role of ice shelves in the global climate system;
- Investigating the importance of sea ice as a major source of primary production for Antarctic food webs;
- Exploration of ocean water masses and their sensitivity to climate change;
- The impact of ozone depletion on marine microbes;
- The influence of El Niño on the Antarctic and subantarctic;
- Geological studies into the formation of the Earth's crust, climate change, sea level change and changes to the sea floor and oceanic circulation since the break-up of Gondwana; and
- Examining various aspects of Southern Ocean seabirds and seals that are needed to assist with their conservation.