

**Ross Sea Region 2001:  
A State of the Environment Report for the Ross Sea Region of Antarctica**

**Process, Follow-up, and Options for Future Reporting**

**Working Paper  
New Zealand**

**1. Introduction**

In November 2001, Antarctica New Zealand, in association with the New Zealand Ministry of Foreign Affairs and Trade, published *Ross Sea Region 2001: A State of the Environment Report for the Ross Sea Region of Antarctica*. The report is the first comprehensive state of the environment report produced for any region of Antarctica and the Southern Ocean. It represents over 3 years of work by more than 20 leading authors and other experts. The report includes over 250 pages of detailed information about the state of the atmosphere, terrestrial, and marine environments of the Ross Sea region of Antarctica and the activities that occur there. Overall, the report provides insights into the environment of this diverse and unique region, identifies where we lack information and knowledge, and where we have improved our environmental performance.

State of the environment reporting is a process for describing, analysing and communicating information on the condition and trends in the environment and their significance. It is about pulling together disparate information which by itself may mean very little, but when combined provides a clearer picture of the environment. *Ross Sea Region 2001: A State of the Environment Report for the Ross Sea Region of Antarctica* aimed to achieve this.

The overall conclusion from the report was:

*"Most of the Ross Sea region environment is in a pristine state, exceptionally so by global standards. The region contains some of the most undisturbed ecosystems in the world, and its value as a vast natural area, and for the conduct of scientific research, is immeasurable."*

New Zealand has submitted to CEP V a separate information paper summarising the report's key findings.

New Zealand is continuing to explore opportunities to promote the report and its findings and to facilitate action to address the key issues and challenges that it identifies. In addition, and, through this paper, New Zealand will continue to work to contribute our experience to the CEP in its discussion on state of the environment reporting for Antarctica.

## 2. Process for Producing the Report

Terms of Reference for the project were confirmed by an ad hoc working group in 1998. The group was comprised of officials and scientists from relevant government departments and institutions. The Terms of Reference confirmed the objectives of the report and established a management structure. A three-tier structure was put in place for the production of the report. Table 1 provides an overview of the project management structure and associated responsibilities.

**Table 1: Overview of Project Management Structure for *Ross Sea Region 2001***

	<b>Membership</b>	<b>Responsibilities</b>
<b>Oversight Group</b>	<ul style="list-style-type: none"> <li>• Ministry of Foreign Affairs &amp; Trade (Chair)</li> <li>• Ministry for the Environment</li> <li>• Department of Conservation</li> <li>• Ministry of Research Science &amp; Technology</li> <li>• Department of Prime Minister &amp; Cabinet</li> <li>• Invited experts as required</li> </ul>	<ul style="list-style-type: none"> <li>• Steering or reference group</li> <li>• Quarterly meetings</li> <li>• Briefings on progress</li> <li>• Policy overview</li> <li>• General advice</li> </ul>
<b>Executive Committee</b>	<ul style="list-style-type: none"> <li>• Antarctica New Zealand (3 members including CEO, Science Manager and Project Manager)</li> <li>• Royal Society of New Zealand (3 members with two Antarctic scientists)</li> </ul>	<ul style="list-style-type: none"> <li>• More direct advisory role</li> <li>• Work largely by email</li> <li>• Regular briefings from Project Manager</li> </ul>
<b>Project Manager</b>	<ul style="list-style-type: none"> <li>• Environmental Manager, Antarctica New Zealand</li> </ul>	<ul style="list-style-type: none"> <li>• Day to day management</li> <li>• Supervises technical editing</li> <li>• Quarterly reports</li> </ul>

Antarctica New Zealand, through the Project Manager, had responsibility for the day to day management and development of the report including all aspects of drafting, author liaison and coordination, consultation, peer review, editing, design and publication.

An essential element of the management of the project was the early appointment of a professional technical editor. The Technical Editor worked very closely with the Project Manager (overall Editor) to form the principle editing team.

Lead authors were appointed for each section of the report (16 authors in total). All lead authors were resident in New Zealand. A further 48 New Zealand and international scientists and other experts were involved in various other roles including minor drafting and peer review. Contracts were agreed with all authors, which included a detailed brief of the scope and specific objectives of their section or chapter. Based on the brief, the author was asked to provide a detailed outline of their section. A fixed fee was offered to each author for completion of the initial text based on the outline provided. Any costs for revision of the text following peer review were negotiated separately with each author.

An important element of the process for preparing the report was consultation. Key stakeholders in the process included the science community, managers/operators, NGOs, industry groups (tourism and fishing) and other relevant experts. Many of these groups were involved in peer review of the initial texts and were consulted by authors directly. Two open workshops were held in 1999 and 2000 to provide an opportunity for authors to interact and for any interested party to provide input to the report.

### **3. Costs**

The total cost for producing the report has been estimated at \$NZ361,718 (\$US166,390 at a conversion rate of \$NZ1 to \$US0.46). Annex I provides a summary of the costs associated with producing the report. The only direct funding for the production of the report came from the New Zealand Ministry of Foreign Affairs and Trade (MFAT) with a contribution of \$NZ180,000 (\$US82,800). Printing costs (1000 copies) are being recovered through sales of the report. All other costs have been absorbed by Antarctica New Zealand. Costs associated with the contributions of the Oversight Group (time and travel) are not included and were absorbed by the agencies involved. All peer review was completed on a no cost basis.

### **4. Follow-up**

Follow-up to the publication of *Ross Sea Region 2001: A State of the Environment Report for the Ross Sea Region of Antarctica* has been immediate, and recognised that state of the environment reporting is not a static process. In May 2002, Antarctica New Zealand hosted a workshop to identify the steps required to move forward on the many issues and challenges identified in the report. The aim of the workshop was to examine how the issues identified in the report should be addressed and by whom, whether the challenges should be taken up, and what the priorities should be for future action

Over 70 people participated in the workshop including representatives from Australia, Brazil, Chile, Germany, Italy, the United Kingdom and the United States, the science and NGO communities, and the tourism and fishing industries.

Workshop participants heard about the outcomes and key issues identified in the report as well as recent Australian work on state of the environment reporting in Antarctica. Participants learnt about the development and growth of state of the environment reporting worldwide and different approaches to reporting to suit particular circumstances. Examples of successful approaches to dealing with some of the key issues identified in the report, such as cumulative impacts, were also presented. Important links were made to the development of research strategies aimed at providing good scientifically based information to assist environmental management.

Discussions focused on identifying priorities for future action, the next steps, and on how state of the environment reporting could be achieved in the Ross Sea region in the future. Antarctica New Zealand has published detailed proceedings of the workshop which are available on its website ([www.antarcticanz.govt.nz](http://www.antarcticanz.govt.nz)). It is building the workshop outcomes into its environmental strategies and action plans for the future, and will follow up with other Ross Sea region operators on possibilities for future collaborative work.

## **5. Lessons Learnt**

The production of the report turned out to be an iterative process. While many aspects of the process were well thought out and followed through, a number of important lessons were also learnt. The following points are considered to be some of the key recommendations from the process used for *Ross Sea Region 2001*.

- Ensure clear terms of reference are established, including objectives, management structure, accountabilities and reporting.
- Identify consultation requirements early on and programme these into the timeline.
- Set a realistic timeline, in particular for the initial drafting and peer review process.
- Set a realistic budget. The major costs were for project management, author and editor fees, graphics and design and printing. However, many other costs (most of which were incurred at the end of the project) such as the sourcing of images, reference checking, and indexing were underestimated.
- Ensure the project manager/editor or team understands both the content and overall objectives of the entire report.
- Appoint a technical editor early on in the process.
- Ensure that authors have a very clear understanding of what is required including the scope, level of detail, structure, and audience.
- Appoint a design/graphics team early on to agree on styles and commence drafting of figures and other graphics as early as possible.
- Plan follow-up to the publication of the report.

## **6. Options for Reporting on the State of the Antarctic Environment**

State of the environment reporting is a key environmental management tool used widely throughout the world. Common principles of reporting include:

- Report for a reason
- Identify who you are reporting for
- Link reporting with management (measurable outcomes)
- Good information is vital
- Ensure integration of monitoring and reporting

One of the functions of the Committee for Environmental Protection is to advise the ATCM on the state of the Antarctic environment (Article 12). Some system of reporting is required to achieve this.

New Zealand, through *Ross Sea Region 2001*, has shown one way in which such reporting can be done. With this first report, the emphasis has been on benchmarking the state of knowledge, making an initial assessment of the health of the environment, and characterising current activities, including assessing how well they are being managed. *Ross Sea Region 2001* includes data about various aspects of the Ross Sea region environment and the activities that occur there. This data is interpreted in the report, by experts, to provide an assessment of the state of the environment and to identify key challenges moving forward. Without this supporting information and analysis it can be difficult for policy makers and managers to fully understand the data they receive (if in fact it is available to them).

Although this approach was comprehensive, it is important to realise that there are probably just as many ways of reporting on the state of the environment as there are reasons for doing so. Other examples include:

- Reports on different geographic scales e.g. global, continental, regional, local.
- Reports in different timescales e.g. a benchmark report every 10 years with update reports every 2-3 years.
- Reports with different levels of detail e.g. comprehensive (*Ross Sea Region 2001*) to “report card” information reporting on selected indicators.
- Issue driven reports e.g. on fishing, the state of ice free areas, climate change.

For Antarctica, the way forward could encompass one or a number of these types of reporting systems. Given that a comprehensive report has now been produced for one large region of Antarctica, a “filling the gaps” approach could be taken for other regions. An Antarctic wide report could serve to benchmark current knowledge and the state of the continent’s environment and identify any management issues.

Alternatively, specific key issues for Antarctica could be identified and a very focused reporting system developed around them. The timescale of the reports might suit the particular nature of the issue and could be closely tied to the development of specific key indicators.

Whatever approach is used, the type of reporting system adopted and the way in which it is managed, should stem directly from a clear statement of the reasons for reporting.

## **7. Recommendations**

This paper provides information about the process New Zealand followed to produce *Ross Sea Region 2001* and suggests some possible approaches to Antarctic-wide reporting. New Zealand hopes that by contributing this information about our own experience, it will assist the CEP in its discussions on a possible way forward for Antarctic state of the environment reporting. To this end, the following recommendations are provided for consideration by the CEP:

- a. That the CEP further consider how state of the environment reporting might be carried out for Antarctica, including discussion on the reasons for reporting and a process for how it might be achieved.
- b. That the *Ross Sea Region 2001* report, and other relevant options for state of the environment reporting, including those identified in this paper, be used as a basis for discussions.

**Annex I: Estimate of Total Costs for Preparation of Ross Sea Region 2001**  
(Conversion rate \$NZ1=\$US0.46)

<b>TASK/ITEM</b>	<b>COST (\$NZ)</b>	<b>COST (\$US)</b>
<b><i>Project Management/Editor</i></b> - includes salary costs for project manager/editor, travel costs associated with Oversight Group meetings and workshops.	165,000	75,900
<b><i>Author Fees</i></b> - includes initial text preparation and post peer review revision of text.	71,920	33,083
<b><i>Editor Fees</i></b> - includes costs for technical editor.	12,138	5,583
<b><i>Consultation</i></b> - includes costs associated with two workshops (travel for authors, time, room hire etc) and other miscellaneous items.	5,500	2,530
<b><i>Research and Technical Assistance</i></b> - includes costs associated with supplementary research, reference checking, sourcing of images, quality control, proof reading, image duplication, and copyright agreements.	7,500	3,450
<b><i>Graphics and Design</i></b> - includes costs associated with preparation of all maps and figures, layout and design.	38,030	17,494
<b><i>Printing</i></b> - includes costs associated with printing of the document (1000 copies full colour).	59,680	27,453
<b><i>Miscellaneous</i></b> - includes purchase of other state of the environment reports, production of leaflets, and other information pre-publication.	1,950	897
<b>TOTAL</b>	<b>\$NZ361,718</b>	<b>\$US166,390</b>