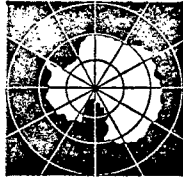


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N° CONFÉRENCE CONSULTATIVE

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ATCM XV

NEW ZEALAND

WORKING PAPER ON THE PROTECTION OF THE
ANTARCTIC ENVIRONMENT

INTRODUCTION

Since the adoption of the Antarctic Treaty thirty years ago, the Antarctic Treaty Parties have taken a series of steps in recognition of the special nature of Antarctica and its importance to the global environment. They have adopted a range of measures to minimise the impact of human activity on the Antarctic environment, usually through the mechanism of Recommendations adopted pursuant to Article IX of the Treaty.

The nature of the measures has varied according to the matters under consideration. Some measures have set out general controls, such as the Agreed Measures for the Conservation of Antarctic Fauna and Flora and Recommendation XIV-2 on the application of environmental impact assessment procedures to scientific and logistic support activities. Others have stated general principles such as the Recommendations on human impact on the Antarctic environment that preceded Recommendation XIV-2. Yet others have dealt with particular issues such as waste disposal or the effects of tourism.

In addition, the Treaty Parties have adopted a number of separate legal instruments to control and minimise the impact of particular forms of activity; i.e. the Convention for the Conservation of Antarctic Seals, the Convention on the Conservation of Antarctic Marine Living Resources and the Convention on the Regulation of Antarctic Mineral Resource Activities.

It has become increasingly apparent, however, that notwithstanding the breadth in coverage of the instruments already in place, there are some significant gaps in the system and that the implementation of some of the instruments previously adopted has not always been up to the required or desired standards. It has also been recognised that the various elements of the system need to be more integrated and a greater degree of coordination achieved.

These facts, together with the recent and rapid growth in global environmental awareness, have alerted the Treaty Parties to the need to take a more comprehensive look at the protection and conservation of the Antarctic

environment. This is shown by the inscription of the item on Comprehensive Measures for the Protection of the Antarctic Environment and its Dependent and Associated Ecosystems which is to be considered for the first time at the Fifteenth Antarctic Treaty Consultative Meeting.

The New Zealand Government has recently reviewed its approach to environmental protection in Antarctica. A White Paper on the Antarctic Environment was presented to the New Zealand House of Representatives by the Prime Minister and Minister for the Environment, the Right Honourable Geoffrey Palmer, on 9 August. The White Paper sets out the elements of an integrated and binding environmental protection regime for Antarctica that is to be promoted by New Zealand. A process of consultation with interested non-governmental organisations in New Zealand was also undertaken. A measure of agreement was reached and is reflected in the proposals set out in this paper.

It is against this background that the New Zealand delegation puts forward the following proposals for the consideration of the Antarctic Treaty Parties. New Zealand believes that this Consultative Meeting should agree that a further Consultative Meeting should be held in 1990 to consider detailed measures of environmental protection for Antarctica within an integrated framework.

OBJECTIVES AND PRINCIPLES

In New Zealand's view, the Treaty Parties need to review the measures that have already been put in place and identify and fill the gaps in the coverage of those measures. But in order to ensure a properly integrated, comprehensive and internally consistent regime of environmental protection, it is desirable that there be elaborated a series of basic standards that must be met by all forms of human activity in the Treaty area. Such a set of principles would ensure that the protection of the Antarctic environment is a fundamental consideration in the planning and performance of all human activity in Antarctica.

As a first step it would be appropriate for the Recommendation of the Fifteenth Consultative Meeting that calls for the convening of a further Consultative Meeting on environmental protection next year to set out basic principles of environmental protection as part of the mandate for next year's meeting. There is a good deal of material in measures that have already been adopted within the Treaty system that provide a basis for the elaboration of these principles; e.g. the Agreed Measures for the

Conservation of Antarctic Fauna and Flora and the Recommendations leading to the adoption of Recommendation XIV-2: In addition, some of the separate treaties that have been adopted by the Treaty Parties might be drawn upon. For example, Article 4 of the Convention on the Regulation of Antarctic Mineral Resource Activities provides a number of criteria, cast in the form of prohibitions, that must be met by all activities covered by that Convention. Principles of more general application, however, would have to be framed rather differently.

The principles should take account of the following considerations:

- a recognition of the importance of Antarctica to the global environment;
- a recognition of the vulnerability of the Antarctic environment to adverse impacts from human activity;
- a recognition that activities in Antarctic must not affect global or regional climate or weather patterns;
- the need to guard against unacceptable impacts on the atmospheric, ice, fresh water and marine environments of Antarctica and their associated and dependant ecosystems;
- the need to conserve the ecosystems and physical processes of the region and to protect threatened and endangered species or populations of such species;
- the need to preserve the genetic diversity of species;
- the need to protect areas of special biological, scientific, historic, aesthetic or wilderness value;
- the need to ensure continuation of scientific research and cooperation;
- the need to ensure that all decisions about activities likely to have an impact on the environment are taken on the basis of adequate information.

It follows from the above that New Zealand believes that the integrated regime of protection for the Antarctic environment should build on and strengthen what has already been achieved by the Treaty system. New Zealand does not seek to duplicate or replace the work of the past thirty years of successful international cooperation. Clearly, the existing arrangements taken as a whole are

not yet sufficient in scope or implementation to provide the protection that Antarctica warrants, but they do provide a solid foundation on which to build.

MEASURES OF GENERAL APPLICATION

This paper does not attempt to address in detail the whole range of issues that need to be considered in an integrated approach to environmental protection for Antarctica. The following is intended to highlight a number of measures of a general nature that apply to all human activity in Antarctica as well as a series of specific issues which, in New Zealand's view, need attention at the XV Consultative Meeting and at the Consultative Meeting on Environmental Protection proposed for next year.

Pollution

Pollution is one of the most obvious adverse impacts on the Antarctic environment and is an issue that must be considered by every visitor to the Antarctic Treaty area. A range of steps to minimize pollution of the Antarctic environment have been taken over the years but, as the events of recent sessions have shown, more needs to be done to prevent pollution of the continent and its surrounding waters. Pollution issues can be considered under the following headings:

Waste Management

In the past, waste disposal practices have not been satisfactory. Improvements have been made but it is clear that wastes from human activities have the potential to despoil parts of Antarctica, particularly where permanent facilities have been set up in or near sensitive areas. A number of measures have been adopted to deal with this issue, in particular the Code of Conduct for Antarctic expeditions and station activities adopted pursuant to Recommendation XIII-11.

New Zealand supports the adoption of the Revised Code of Conduct that has been prepared by the SCAR Panel of Experts on Waste Disposal and which is to be considered at the Fifteenth Consultative Meeting. The revised Code represents a major step forward in controlling the impact of human activity in Antarctica. At the same time New Zealand believes that the provisions of the revised Code should be strengthened in a number of respects by:

- removing some of the exceptions to its provisions to make it more binding on Antarctic operators;

- providing for stronger provisions to monitor waste disposal procedures;
- ensuring that the Code is applied to all activities in Antarctica, including tourist operation.

In addition, New Zealand believes that the Treaty Parties should give a stronger commitment to increasing the amount of waste removed from Antarctica and returned to the country of origin for final disposal.

Marine Pollution

New Zealand supports the proposals put forward by the United States at the Preparatory Meeting for the Fifteenth Consultative Meeting in May in Document PREP/WF/2 for the adoption of measures to minimise the dangers of the pollution of Antarctic waters, especially from vessel-sourced pollution. In particular, the Treaty Parties should agree to take the following series of steps:

- undertake a common commitment to adhere to the relevant international Conventions dealing with marine pollution, particularly the International Convention for the Prevention of Pollution from Ships 1973 and its Protocol and Annexes (MARPOL) and the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 (the London Dumping Convention);
- work for the designation of the waters around Antarctica as "special areas" under MARPOL;
- agree to apply as far as possible the MARPOL standards to all vessels operating in the Treaty area, including naval and other government vessels;
- work for the adoption of agreed standards for vessel design and operation, including the promotion of an appropriate ice classification;
- develop procedures, as envisaged in Recommendation XIV-10, to ensure the availability of more up to date data and information on weather and ice conditions and ensure the widespread availability of charts and maps showing hazards, protected and other vulnerable coastal areas, and navigational aids;
- cooperate in the application of appropriate risk assessment procedures for vessel operation in Antarctic waters.

Hazardous Materials

The increasing level of operations in Antarctica has inevitably led to an increase in the storage of hydrocarbons and other hazardous materials on land. It has brought with it the increased risk of spills and potentially serious damage to the local terrestrial and marine environments. New Zealand believes attention should be given to the establishment of agreed procedures for the safe storage and handling of hydrocarbons and other hazardous materials on land, and the development of contingency plans, including international cooperation, to contain and clean up spills which should include the identification of coastal and other areas at greatest risk and the storage of equipment to contain and clean up spills.

Environmental Impact Assessment Procedures

The concepts and principles of environmental impact assessment have developed steadily since the 1970s and have been applied in stages in the Antarctic since that time. A landmark in this process was achieved with the adoption of Recommendation XIV-2 at the Fourteenth Consultative Meeting which provides for the application of standard Environmental Impact Assessment procedures or Comprehensive Environmental Evaluations to scientific research and associated support activities. The adoption of this Recommendation marked a recognition by the Treaty Parties of the considerable benefits of EIA procedures. These include:

- providing a means for weighing the advantages expected to be derived from a proposed activity against the likely environmental impacts;
- ensuring due account is taken of cumulative impacts on the environment and on other uses of Antarctica;
- providing a means for outside advice to be utilized into the planning process.

The full benefits of EIA, however, have not yet been realized in Antarctica. At present, Recommendation XIV-2 applies only to scientific research and support activities, whereas the nature, extent, duration and probability of impacts need to be assessed regardless of the type of activity e.g. science or tourism. Accordingly, New Zealand proposes that the scope of Recommendation XIV-2 should be broadened to cover all activities in Antarctica or, as an alternative, that

arrangements worked out in respect of particular activities (e.g. tourism) must include the application of EIA procedures. It is also important that the procedures should apply to all stages of an activity. In this respect, New Zealand endorses the comment by SCAR that EIA procedures should be applied to the decommissioning of facilities.

Even within the parameters of the current scope of Recommendation XIV-2, there is room for a considerable enhancement of the benefits of EIA. For example, useful work could be done in identifying the measures envisaged in paragraph (v) (f) of Recommendation XIV-2, particularly in developing programmes to monitor impacts and to evaluate the effectiveness of procedures adopted to minimize or mitigate environmental damage. In this way compliance with project approvals, measures to protect special areas and other controls could be monitored to assist proposers of projects to ensure that their activities are environmentally acceptable in practice as well as principle.

Advantage could also be taken of comments on Comprehensive Environmental Evaluations offered by other Treaty Parties, as well as interested intergovernmental and non-governmental organisations and other experts. Giving due weight to such comments in the final decision making process is one way of making environmental impact assessment an integral and indispensable part of a comprehensive environmental protection regime for Antarctica.

Protected Areas

Establishment of areas within Antarctica to be given special protection is an effective way of ensuring the preservation of unique wildlife and vegetation sites and other outstanding natural, cultural, historic and scientific features.

Existing measures under the Antarctic Treaty system provide for six categories of protected area; viz, Specially Protected Area, Site of Special Scientific Interest, Seal Reserve, Historic Monument, Tomb, and Marine Sanctuary. Under active consideration is an additional category, Antarctic Protected Area, which would extend the scope of existing protection to cover also areas of scenic beauty and areas critical for the ecology of exploitable living resources, and would provide for management planning and zoning in multiple-use areas of diverse values.

Although there has been a concerted and commendable effort to meet the needs of special protection in Antarctica, New Zealand believes a comprehensive review of the protected area network and policy is required. This review should build on existing measures and put in place comprehensive arrangements providing for a range of categories sufficient to accommodate the required range of protection objectives. It should extend representation of geographical and ecological diversity, improve site protection for historic monuments, promote a management planning process which would allow for public participation and cover the selection and establishment of sites and the adoption of management policies and programmes. It should ensure active management of protected areas and enforcement of protection regulations, and improved information especially to assess the effectiveness of protected areas in meeting management objectives.

Response Action and Liability

Another major issue for consideration is that of liability for damage to the environment as a result of human activity. Specific arrangements have been made or are in contemplation in respect of response action and liability for damage arising out of mineral resource activities. Consideration should now be given to the best means for dealing with this fundamental issue with regard to other activities in Antarctica. The questions that need to be addressed include:

- obligation to take response action in the event of actual or threatened damage;
- compensation for damage, including costs of response action;
- nature and levels of liability;
- defences;
- tribunals for adjudicating claims.

Monitoring and Inspection

Monitoring of ongoing activities to determine their impact on the environment is a standard environmental protection technique, but it has not been given a great deal of attention to date in measures adopted under the Treaty system. The Treaty Parties should agree to apply effective and open monitoring and reporting procedures to

all major activities in Antarctica such as the operation of stations and substantial field operations. These procedures should also be applied to other significant activities such as in areas where tourist activities are concentrated.

The inspection provisions of the Treaty are often cited as one of the strengths of the system. In fact, until recent years they have been used infrequently. There has been a marked increase in numbers of inspections undertaken and in the range of countries performing them in the last few years, but the coverage is uneven and there are no consistent criteria to be applied by the inspection teams. Moreover, there are at present no standard procedures to be applied by inspection teams to inquire into compliance with environmental protection requirements agreed to by the Treaty Parties.

Attention should also be given to the development of standard criteria to be applied by all inspection teams including the development of procedures, such as agreed guidelines, to verify the consistent application of environment protection standards.

Joint inspections by two or more Treaty Parties would be one way of ameliorating the logistic and financial constraints that limit the ability of Treaty Parties to undertake inspections. The joint New Zealand/United Kingdom inspection that was carried out in January this year is an example of a successful pooling of resources. Greater cooperation in this area should lead to the development of a more systematic programme of inspection visits.

Dispute Settlement Procedures

At present the Treaty system has only minimal procedures for ensuring compliance with mandatory measures that have or will be adopted to protect the environment. The exception is to be found in the procedures agreed in respect of mineral resource activities under the Convention on the Regulation of Antarctic Mineral Resource Activities. That Convention contains a comprehensive set of dispute settlement provisions, some of which are optional, but a number of which (e.g. those dealing with actual or potential damage to the environment) are compulsory for all Parties.

Following the example of the Minerals Convention, the Treaty Parties should develop a set of binding dispute settlement procedures that would apply to damage or potential damage to the Antarctic environment or its associated or dependent ecosystems arising out of activities not covered by other legal instruments. These procedures should include:

- the identification of agreed categories of disputes to be covered by the procedures;
- a mechanism for the convening of a tribunal or panel of arbitrators to hear and decide the disputes;
- a mechanism to enable the rapid hearing of and decision on any dispute involving serious or potentially serious damage to the environment.

Such procedures would considerably strengthen the Treaty system and would be a major advance in the protection of the Antarctic environment.

Information Requirements

Fundamental to any environmental protection regime is the requirement for accurate and authoritative information to enable informed judgments to be made. Much of the necessary information comes from the scientific research programmes that are the cornerstone of activities in Antarctica. There are, however, new initiatives which can be taken to expand the environmental information base and make it more accessible.

It is essential at least to maintain the present level of basic research, particularly into ecological and physical processes. These are the studies which, in the long term, will provide the information needed to understand the structure and functioning of the Antarctic environment and its relationships with the rest of the globe.

There remains a needs for a broad spectrum of other research. Experience suggests that environmental impact assessment requires site and project specific information, the nature of which is hard to predict in advance.

There is also a need for applied research and for monitoring of ecosystems to establish what constitutes a significant impact and what jeopardises systems. In particular, there is a need to identify a full range of environmental markers, or change indicators.

Greater attention should be given to inventory and environmental baseline monitoring to build up knowledge about the distribution of plant and animal communities in order to aid identification and protection of important natural areas. Mechanisms should be developed to standardise the collection and presentation of data. Above all, procedures must be instituted to ensure that information generated, regardless of source, is readily

accessible and is publicly available. It is essential that such information is provided promptly in order that its full benefits can be realized.

In addition, consideration should be given to:

- supporting and fostering international interdisciplinary Antarctic studies, such as those associated with the International Geosphere Biosphere Programme;
- requesting SCAR's ad hoc group on Environmental Data Management to report to the Consultative Meeting proposed for next year on the data needs for planning, managing and evaluating activities;
- requesting SCAR report to next year's Consultative Meeting on appropriate environmental indicators and long term monitoring programmes;
- considering the establishment of Antarctic environmental data centres;
- considering ways in which the annual Exchanges of Information can be coordinated with the annual reports of the National Committees constituting SCAR.

SPECIFIC ISSUES

Measures Specific to the Conduct and Support of Scientific Research Activities

Since the adoption of the Antarctic Treaty, scientific research has been the major human activity in Antarctica. It is likely to continue to be so for the foreseeable future. Its results, made freely available in accordance with the Treaty, are probably the most valuable contribution arising from human activity in the continent. They are essential to any efforts to understand and to protect Antarctica. Nevertheless, it has long been recognised that science and scientific support activities can themselves cause adverse impacts on the Antarctic environment. Such impacts can be minimized, and the scientific results maximized, through the use of appropriate technologies and by increased cooperation in scientific and logistic activities.

A wide range of measures to control the environmental impacts of science programmes in Antarctic has already been established through codes of conduct elaborated by SCAR and in Recommendations adopted by the Treaty Parties. Particularly relevant in this regard is

Recommendation XIV-2 providing for the application of environmental impact assessment procedures to the planning of decisions about scientific research programmes and their associated logistic support facilities. Attention needs now to focus on ensuring compliance with the measures already adopted and to discouraging practices that can result in avoidable impacts; e.g. through unnecessary duplication of activities or the use of inappropriate technologies or methodologies.

Accordingly, New Zealand proposes that consideration be given to:

- developing of incentives for greater sharing of facilities and resources, and disincentives to the establishment of new station facilities unless required for the performance of substantial new scientific research;
- developing, with SCAR, of means to encourage greater coordination of scientific endeavour and cooperation, the identification of research priorities and the promotion of multi-disciplinary and international studies;
- encouraging, in cooperation with the Council of Managers of National Antarctic Programmes (MNAPs), of greater sharing of information and advice on operational procedures and appropriate technologies for the benefit of those undertaking and those contemplating scientific research activities in Antarctica;
- requesting SCAR to advise on appropriate monitoring procedures for station operations and other significant scientific research activities;
- requesting SCAR and the Council of Managers of National Antarctic Programmes to review and propose any additions that may be necessary to Recommendation XIV-3 on scientific drilling, taking into consideration drilling codes of conduct such as those used by the Deep Sea Drilling Programme (DSDP).

Tourism

Tourism, including commercial flights and ship cruises with paying passengers, as well as privately-sponsored expeditions, is a well-established and growing part of Antarctic life. When considering the effects of tourism it is also necessary to take into account the numerous non commercial activities that can have an impact on the environment i.e. goodwill and VIP visits, the recreational activities of scientists and support personnel such as station staff and ship and air crews.

Properly regulated and managed tourist activities may have minimal environmental impact and can benefit Antarctic conservation by increasing public awareness of the special values of the region and engendering wider international support for environmental protection. Unregulated tourism, however, could cause serious environmental damage through overcrowding during short visits to sensitive areas, disruption of scientific activities, accidents resulting in costly rescue and clean-up operations, and construction of hotels, airfields and port facilities.

New Zealand believes that comprehensive arrangements to regulate tourism are required. These should consolidate existing Treaty Recommendations and establish policies aimed at minimising harmful environmental impacts of tourism, avoiding conflicts between tourist and other uses of the region, and fostering safe and responsible tourist operations. Regulatory measures should address, in particular, the application of environmental impact assessment procedures to tourism proposals, the setting of conditions for visits to sensitive or vulnerable wildlife sites, and also for visits to scientific stations and sites of field parties operations, the establishment of safety standards, and the provision of codes of conduct, operation manuals, information and educational materials, visitor handbooks and guides.

Uses of Antarctic Ice

Although New Zealand is not convinced that this is a matter that warrants priority attention, it was raised at the Twelfth and Thirteenth Consultative Meetings and at sessions of the Fourth Special Consultative Meeting on Antarctic Mineral Resources. As noted in the Final Act of the Fourth Special Consultative Meeting, if harvesting of ice, including icebergs, were to become a possibility in the future, there could be impacts on the Antarctic environment and its dependant and associated ecosystems. That Meeting agreed that the question of harvesting Antarctic ice should be considered at the Fifteenth Consultative Meeting.

New Zealand proposes that, since there is at present no serious commercial interest in the harvesting of Antarctic ice and in order to avoid the possible environmental impact referred to above as well as potential legal difficulties, the Treaty Parties should agree to a moratorium on the commercial uses of Antarctic ice.

INSTITUTIONS

A Secretariat

There has been a growing recognition among the Treaty Parties, particularly as the membership has grown, of the need for some form of permanent infrastructure or secretariat for the Antarctic Treaty to increase its efficiency and to assist the Parties in dealing with the increasing complexity of the Treaty system. The issue was considered in some detail at the Thirteenth and Fourteenth Consultative Meetings. A substantial level of agreement was reached among a majority of Treaty Parties as to the advantages that a small secretariat would bring, particularly in providing a mechanism for servicing Treaty meetings, for ensuring continuity and for servicing the growing need for dissemination of information.

New Zealand believes that in addition to the arguments that have been made in the past in support of a Treaty secretariat, can be added a number of environmental considerations. In particular, a secretariat could play an invaluable role in assisting the Treaty Parties in:

- facilitating the exchange of information on environmental questions including such matters as reports on the preparation of Comprehensive Environmental Evaluations and the development of consistent environmental protection standards;
- coordinating the gathering of information, including environmental data, for example in compiling a register of areas of particular environmental sensitivity;
- acting as a central contact point for exchanging information with people outside the Treaty about measures adopted for the protection of the Antarctic environment.

For these reasons New Zealand supports the establishment of a small cost-efficient secretariat that would have, in addition to its other functions, specific environmental responsibilities and expertise.

Standing Working Group on the Antarctic Environment

New Zealand further believes that in order to address adequately the important policy issues involved in an integrated environmental protection regime, the Treaty Parties should agree to establish a Standing Environmental

Working Group. The Working Group would be able to give advice on environmental issues to Consultative Meetings and thus ensure that Consultative Meetings are used efficiently for policy decision making.

Furthermore, such a Standing Environmental Working Group, if it were authorised to meet between Consultative Meetings, would allow progress to be made on developing environmental policies or addressing environmental issues that may arise between Consultative Meetings.

It should be noted that it is not intended that the proposed Working Group should supplement or substitute in any way for the work being undertaken by SCAR in providing expert advice on environmental and other matters to the Treaty Parties.

Environmental Monitoring on Behalf of an Institution

As noted above, at present the Treaty system has only minimal procedures for ensuring compliance with mandatory measures that have or will be adopted to protect the Antarctic environment. A number of measures have been suggested in this paper for improving the availability of information on environmental issues, for more effective procedures to monitor activities likely to cause environmental impacts, for building up the operation of inspection provisions of the Treaty and for providing a dispute settlement mechanism to strengthen the compliance machinery of the Treaty system.

In addition to those measures, consideration might also be given to the precedent established by the Convention on the Regulation of Antarctic Mineral Resource Activities for inspections to be carried out on behalf of an institution. This precedent could be considered for application to the broad range of activities not covered by the Convention and which may impact on the environment. New Zealand believes that such consideration is necessary because of the growing recognition of the importance of the protection of the Antarctic environment and the need for the Treaty Parties to establish an effective environmental protection regime.