

CCMS: NATO's environmental programme is expanded and opened to the East

NATO's involvement in environmental problems dates back to April 1969 when, at the 20th Anniversary meeting of the North Atlantic Council in Washington, it was decided to give the Alliance a new "social and environmental dimension". The following November, the Committee on the Challenges of Modern Society (CCMS) was established with the aim of tackling at the international level practical problems already under study at the national level and, by combining existing expertise and technology, arriving fairly rapidly at conclusions and recommendations which would be of benefit to the member nations.

At the May 1989 NATO Summit in Brussels, Heads of State and Government highlighted the importance of CCMS. In their Declaration issued after the meeting, the leaders recalled that: "Convinced of the vital need for international cooperation in science and technology and of its beneficial effects on global security, we have for several decades maintained Alliance programmes of scientific cooperation. Recognizing the importance of safeguarding the environment, we have also cooperated, in the Committee on the Challenges of Modern Society, on environmental matters. We intend to give more impact to our programme with new initiatives in these areas." (1) They also agreed to explore all available avenues of cooperation and dialogue with the countries of Central and Eastern Europe and to seek to engage these countries in the development of cooperative strategies in areas such as the environment.

Accordingly, in April 1990, the North Atlantic Council agreed that CCMS should expand its programme and invite experts from Central and Eastern Europe and the USSR to participate in CCMS workshops, conferences and semi-



**Dr. Deniz
Yuksel-Beten,
Director of
NATO's CCMS
Programme**

nars. A few months later, at the CCMS 20th Anniversary meeting in Erice, Italy, eight new studies were launched and others were identified for implementation at a later date. The new studies, which not only span the spectrum of environmental concerns but also study the ecological effects of military activities, are:

- Applicability of national environmental expectations and requirements on NATO activities;
- Protection against marine biological fouling;
- Sea-lagoon interaction;
- Dose-response analysis and biologically-based risk assessment for initiator and promoter carcinogens;
- Impact on man and the environment of the agricultural use of pesticides;
- Reduction of air pollution from marine engines;
- Pollution prevention strategies for sustainable development;
- Use of simulators as a means of reducing environmental damage caused by military activities.

The Committee's mandate is to improve in every practical way the exchange of views and experience among the allied countries in the task of creating a better environment for their societies. It considers specific problems of the human environment with the deliberate objective of stimulating action by member governments.

The Committee, composed of government representatives, meets in plenary session twice a year, with an executive sub-committee, the National Coordinators, meeting in the intervals between plenary sessions. The Committee's Chairman is formally the Secretary General while the Assistant Secretary General for Scientific and En-

(1) See NATO Review N°3, June 1989, p.31

The CCMS has launched a new study on the impact of the agricultural use of pesticides.
(Nadia Sénépart)

Environmental Affairs is the Acting Chairman of the meetings. The National Coordinators sessions are chaired by the CCMS Programme Director, a member of the International Staff.

The CCMS is one of the committees of the Council, reporting directly to that body. Final reports of pilot studies are always submitted to the Council and, in addition, the Committee submits an annual report at the close of each year, which goes to the Council in Ministerial Session.

Pilot studies

At the creation of the CCMS, the North Atlantic Council decided that the Committee would not itself engage in any research activities and its work would be carried out on a decentralized basis. Its work is consequently pursued through pilot studies. As of June 1991, thirty-seven pilot studies have been completed and twenty-two were underway. In addition to the new studies already listed, some completed and continuing studies are listed in Figure 1. The proposals for studies are made by nations themselves and are prompted by the identification of environmental problems which lend themselves to international collaboration as well as the availability of resources to carry out the study.

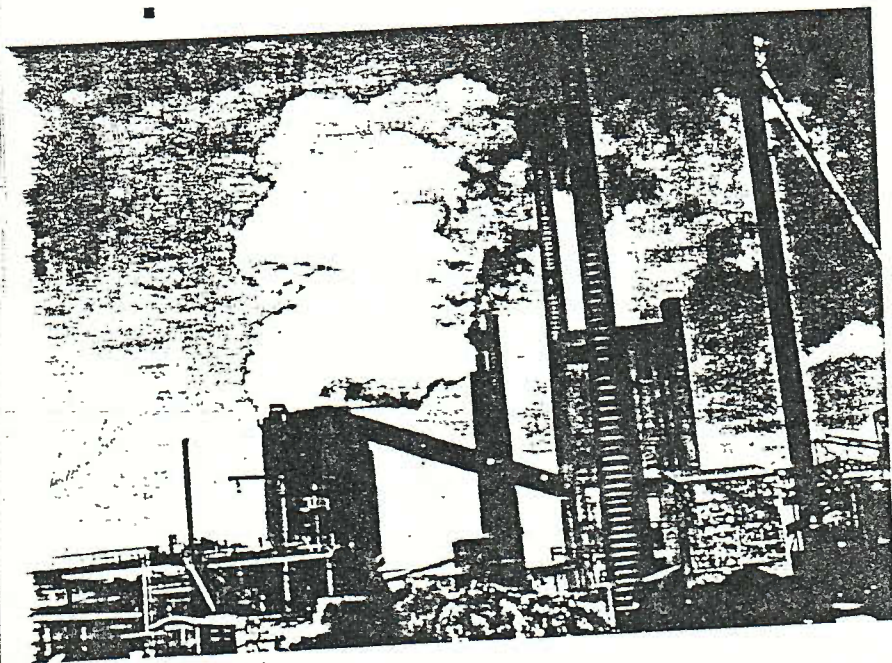
Once the launching of a study has been approved by the Committee, a country is designated pilot leader. This country then assumes responsibility for the conduct and direction of the project, including production of the final report. Pilot countries are sometimes assisted by 'co-pilots', who share the directing responsibility, and can be

An early CCMS project was concerned with air pollution.
(Van Parvs)



joined by as many other nations as are interested in the topic. The first meeting is organizational, enabling the participants to decide on a working plan for future meetings during which experts from participating countries can present their national priorities, problems and applications within the scope of the subject of the pilot study. CCMS Fellows and recipients of Study Visit awards also participate in these meetings, and are able to contribute experience, knowledge and information which is very beneficial to the participating countries. The duration of pilot studies is approximately three years.

An example of a typical pilot study is one of the early CCMS projects on *air pollution*. The aim of the study was to tackle this problem with the use of the most modern technology and methodology available. The original participants were the United States as pilot country and Germany and Turkey as co-pilots. France, Italy, the Netherlands and Norway later joined in the work. Nineteen technical reports were published on such topics as air pollution modelling, assessment of air quality, control techniques for various pollutants and the development of low pollution power systems leading to cleaner vehicle engines. The North Atlantic Council adopted a resolution by which member countries resolved to endeavour to use the systems methodology generated by the CCMS pilot study in establishing national air quality management programmes. The success of the study later led to the approval of a pilot study on air pollution assessment methodology and modelling, and it was agreed to continue activity in CCMS on the development of cleaner vehicle engines.



Turning now to some examples of current or recently completed studies, the objectives of the pilot study on *indoor air quality*, led by Italy and co-chaired by the United States, are policy and research orientated. Indoor air pollution has become a major concern for health-scientists and technical experts throughout the NATO nations since recent studies have shown that exposure to air pollutants can be substantially higher indoors than in the outside air. The recommendations of the pilot study concern international pollution caused by heating, ventilating and air conditioning and changes to building design, control at source by appropriate selection of materials and by identifying biological contaminants and volatile organic compounds.

The project on an *assessment of the risk of accidental pollution from the maritime transport of dangerous products* is piloted by France. The growing use of synthetic chemical products in industry and agriculture has led to a corresponding rise in the international movement of dangerous substances, particularly by sea, resulting in an increased risk of accidents. Recommendations so far agreed by the participants call for a better understanding of the risk of accidental pollution related to the maritime transportation of hazardous waste: the study of the physico-chemical and toxicological properties of the waste substances; experiments, first in the laboratory and then at sea, in order to analyse the behaviour of the substances in water; the gathering of all available information regarding the response to accidental chemical spills. Three principal objectives are planned for the future: the evaluation of pollution response methods at sea, a comparison of existing computer systems, and preparation and investigation of an experimental chemical spill.

A recently completed study on the *promotion of environmental awareness in the armed forces* was conducted under the joint leadership of Germany and the United States. The armed forces, as part of society, share in the responsibility for the protection of the environment. This study therefore sought to develop techniques for promoting environmental awareness in the armed forces, reviewed present practices in the forces of member states, and made proposals for improvement. Under supervision of

the pilot group, a film entitled "Protect the Environment: Environmental Awareness among the Armed Forces" was completed in March last year. This multinational film demonstrates that military training and related activities can be carried out in an environmentally sustainable way with minimum damage to the environment, while training objectives are still achieved and combat-ready forces prepared. Furthermore, to improve awareness and consideration of potential environmental impacts resulting from exercises, a pamphlet on environmental considerations during the planning and conduct of exercises was produced.

This pilot study group also proposed that the newly established pilot study on *Applicability of environmental expectations and requirements on NATO activities* should serve as the major forum for member nations to address environmental issues of mutual concern and to exchange relevant information.



Military personnel are urged to protect the environment during exercises.

The pilot study on *Remedial action technologies for contaminated land and groundwater* is being led by the United States, with Germany as co-pilot. Groundwater and soil contamination by hazardous waste is a pervasive problem in industrial countries. As scarce resources, water and land must be returned to productive use. Current clean-up methods are, however, hampered by

limited technology options and high costs. This study seeks to investigate current technologies, exchange data on field demonstrations, and identify methods for transferring technology developments between participating countries.

“ In April 1990, the North Atlantic Council agreed that CCMS should expand its programme and invite experts from Central and Eastern Europe and the USSR to participate in CCMS workshops, conferences and seminars.”

Non-NATO country participation

A number of experts from non-NATO countries and international organizations have been invited to participate in CCMS pilot study meetings. For example, representatives from the USSR, Finland, and the Pan American Health Organization took part in the meeting of the pilot study on *Disaster preparedness plans responding to chemical accidents (health and medical aspects)* held in April 1991 in Atlanta and Louisville, USA. Furthermore, Japan, Singapore and the USSR have been invited to participate in the meeting of the pilot study on *Aircraft noise in a modern society* to be held in Monterey, California, USA in August 1991. Recently, experts from Poland, Hungary and Czechoslovakia were invited to the meeting on *Impact on man and environment of the agricultural use of pesticides*.

The participation of representatives from both NATO and non-NATO countries broadens the exchange of information and expertise on various environmental and social problems and acts as a stimulus for multilateral technological and scientific cooperation.

Fellowships Programme

CCMS, although it has a very modest budget, awards grants under its Fellowships Programme to individuals

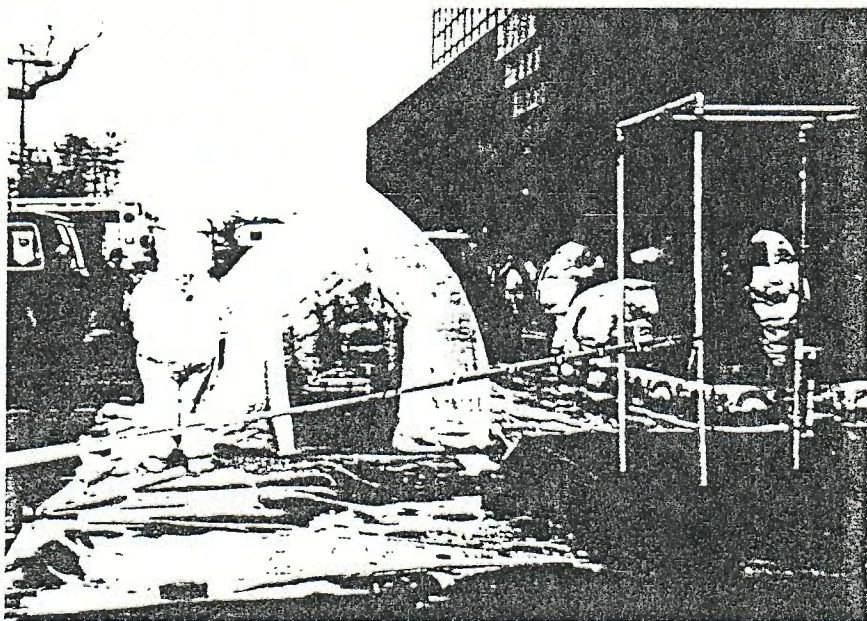
wishing to carry out work related to the Committee's current pilot projects. Study Visit grants are also awarded which serve to fund travel to CCMS pilot study meetings by experts who have difficulty in obtaining funds from other sources. Last year, 21 Fellowships and 16 Study Visit grants were awarded.

In addition, the 19th international technical meeting on *Air pollution modelling and its application*, and a meeting on *Assessment of the risk of accidental pollution from shipping of dangerous products* were sponsored by CCMS in 1990, and the Committee will sponsor an international conference next September on the *Military role in implementing the Montreal Protocol on substances that deplete the Ozone layer*. Although there have been many international conferences on CFCs and halon alternatives, so far none has focused on one of the most technologically sophisticated, CFC intensive, and strategically important use sectors: the military. The purpose of the conference is to bring together military CFC users, industry, and government regulators to explore ways of promoting the international development and implementation of alternatives to military uses of ozone depleting chemicals.

Publications

Reports on the progress of pilot studies are submitted to the Committee by pilot nations at regular intervals. On completion of a study, a summary final report is forwarded to the Council and, after approval, the complete final report of each pilot study is published.

A pilot study meeting on disaster preparedness plans for dealing with chemical accidents was followed by a decontamination demonstration.



Challenges of Modern Society

Examples of pilot studies

Completed studies

Current studies

POLLUTION CONTROL

- | | |
|---|--|
| <ul style="list-style-type: none">- Air Pollution- Coastal Water Pollution & Ocean Oil Spills- Contaminated Land- Dioxin Problems- Inland Water Pollution | <ul style="list-style-type: none">- Environmental Impact Assessment- Pollution Prevention Strategies for Sustainable Development- Reduction of Air Pollution from Marine Engines |
|---|--|

NATURAL RESOURCES

- | | |
|---|---|
| <ul style="list-style-type: none">- Solar Energy- Drinking Water- Geothermal Energy | <ul style="list-style-type: none">- Integrated Systems for Agrometeorological Support |
|---|---|

HEALTH AND TECHNOLOGICAL RISKS

- | | |
|---|---|
| <ul style="list-style-type: none">- Advanced Health Care- Disaster Assistance- Improvement in Emergency Medical Services- Nutrition and Health | <ul style="list-style-type: none">- Dose-Response Analysis and Biologically-Based Risk Assessment for Initiator and Promoter Carcinogens- Disaster Preparedness Plans Responding to Chemical Accidents (Health & Medical Aspects)- Indoor Air Quality |
|---|---|

DEFENCE-RELATED ISSUES

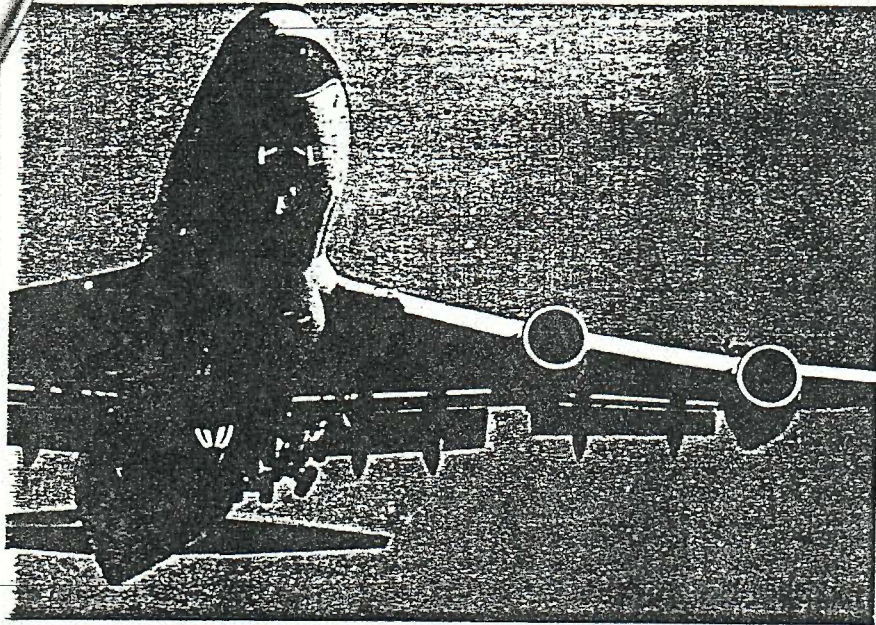
- | | |
|---|--|
| <ul style="list-style-type: none">- Aircraft Noise in a Modern Society- Promotion of Environmental Awareness in the Armed Forces | <ul style="list-style-type: none">- Use of Simulators as a Means of Reducing Environmental Damage- Applicability of National Environmental Expectations and Requirements on NATO Activities |
|---|--|

QUALITY OF LIFE & PLANNING

- | | |
|--|--|
| <ul style="list-style-type: none">- Road Safety- Rural Passenger Transportation- Training and Education in Environmental Problems- Urban Transportation | <ul style="list-style-type: none">- Desertification in Developed Areas- Effects of Large Construction Projects on the Environment |
|--|--|

FOLLOW-UP TO COMPLETED STUDIES

- 1 Air Pollution - International Technical Meetings on Air Pollution and its Application
- 2 Flue-gas Desulfurization
- 3 Aircraft Noise in a Modern Society
- 4 Advanced Waste Water Treatment



Japan, Singapore and the USSR have been invited to participate in a pilot study meeting on aircraft noise.
(Sénépart)

CCMS publications, which offer comprehensive and up-to-date information of a technical nature as well as conclusions and recommendations resulting from the studies, are of considerable value to both technical experts and govern-

ment decision-makers. As of today, more than 200 publications have been made available under CCMS auspices.

The way ahead

During the plenary meeting of CCMS last February, a Working Group was established, with the participation of France, Italy, Norway, the United Kingdom and the United States, to collect information on international activities in this field and the national environmental priorities of member countries, in order to identify areas in which future pilot studies could be usefully conducted. As a result of this survey, duplication would be avoided and the effectiveness and visibility of the programme enhanced.

Undoubtedly, one of the most important advantages of CCMS is the link between the North American countries and Europe. It is certainly a unique forum for the discussion of environmental problems relating to military activities, an aspect of CCMS which has been successfully illustrated by the defence-related pilot studies.