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The Challenges of Modern Society

The creation of the Committee on the Challenges of Modern Society (CCMS) was proposed at the 20th Anniversary Meeting of the North Atlantic Alliance at Washington in April 1969, in order to give the Alliance a new "social" dimension. The then American President, Mr. Nixon, asked for the creation of "a committee on the challenges of modern society . . . to explore ways in which the experience and resources of the Western nations could most effectively be marshalled toward improving the quality of life of our peoples" and to help 20th Century man to learn "how to remain in harmony with his rapidly-changing world".

NATO established the Committee on the Challenges of Modern Society on November 6, 1969. Its aim was to attack practical problems already under study at the national level and, by combining the expertise and technology available in a number of countries, to arrive fairly rapidly at valid conclusions and to make recommendations for action to benefit all.

Cooperation in NATO towards the improvement of the quality of life in modern society evolved both from the terms of the North Atlantic Treaty and from the experience of the Alliance during its first twenty years. Article 2 of the Treaty provides that member countries will contribute towards the further development of peaceful and friendly international relations by promoting conditions of stability and well-being. This Article also served as the basis for the statement in the report of the Committee of Three, established in 1956, to advise the North Atlantic Council on ways of improving and extending NATO cooperation in non-military fields, that "from the very beginning of NATO . . . it was recognised that while defence cooperation was the first and most urgent requirement, this was not enough". The Three recommended that science and technology should be considered of special importance. The programme of scientific and technical cooperation undertaken by the Science Committee, which was created as a result of that report, provided an important precedent for the work of CCMS, especially in the interchange and practical application of technological and scientific information.

How the CCMS works

In creating the CCMS, the North Atlantic Council decided that the Committee would not itself engage in any research activities, and that its work would be carried out on an entirely decentralised basis, without building up any bureaucracy within the NATO International Staff. No programme funds for CCMS activities were made available through the NATO budget. Accordingly, four concepts characterise the work of the Committee.

Firstly, its work is undertaken by member countries acting as pilot countries for particular projects. Working with other interested member countries (and, over the years, with many countries not members of the North Atlantic Treaty Organisation), each pilot country is responsible for developing, conducting, and disseminating the results of a pilot study. Co-pilot countries and other participants share the work load according to their interest. No member is required to participate in any study; on the contrary, each country is free to choose where best to apply its resources and expertise. Results, on the other hand, are available to all. In this way, nations whose priorities might prevent them from devoting large-scale resources to a particular problem can contribute to specific projects while benefiting from all pilot studies.

Secondly, emphasis is placed on projects which can guide policy formulation and stimulate domestic and international action. While often identifying new areas for research in its "action orientation", the CCMS has sought to make the results of research accessible to policy makers and to make the latter more sensitive to environmental concerns.

Thirdly, the CCMS is an outward-looking and open organisation. On subjects that were also the concern of specialised international organisations in existence before the CCMS was formed, the Committee developed complementary pilot studies. Examples of these areas are health, meteorology, and maritime issues. In areas where the CCMS was in the vanguard of international activity – e.g. energy conservation and alternative energy sources – its studies have helped define frameworks for bilateral and multilateral international cooperation.

Finally, the CCMS has developed a follow-up procedure, indicative of the Allies' concern for the role the CCMS should play in national and international environmental activities. Each pilot country assumes the responsibility of ensuring that its study plays the most appropriate role in stimulating national and/or international action.

These four concepts – the pilot country leadership; stimulation of national and international action; open participation and results; and follow-up – are the essential components of the CCMS. Together, they make it unique among fora for international cooperation.

The Pilot Studies

General

As of early 1981, seventeen CCMS pilot studies had been completed and sixteen were under way. The studies cover a large spectrum of activities dealing with many aspects of environmental protection and the quality of life. Because the production and use of energy impacts significantly on quality of life and standard of living, several studies were devoted to alternative energy sources and conservation or the rational use of energy.

The studies completed were devoted to:

- Advanced Health Care
- Advanced Waste Water Treatment

- Air Pollution
- Automotive Propulsion Systems
- Coastal Water Pollution and Ocean Oil Spills
- Disaster Assistance
- Disposal of Hazardous Wastes – Phase I
- Environment and Regional Planning
- Geothermal Energy
- Inland Water Pollution
- Nutrition and Health
- Rational Use of Energy
- Road Safety
- Solar Energy
- Urban Transportation
- Air Pollution Assessment Methodology and Modelling
- Flue-Gas Desulphurisation

The sixteen on-going studies are concerned with:

- Disposal of Hazardous Wastes – Phase II
- Drinking Water
- Hydrological Forecasts Applied in the Management of Water Resources
- Improvements in Emergency Medical Services
- Plastic Waste Recovery
- Remote Sensing for the Control of Marine Pollution
- The Role of Transportation in Urban Revitalisation
- Rural Passenger Transportation
- Seismology and Earthquake Loss Reduction
- Management of Estuarine Systems
- Man's Impact on the Stratosphere
- Conservation/Restoration of Monuments
- Air Pollution Control Strategies and Impact Modelling
- Regulations concerning the Application and Production of Pheromones
- Integrated Pest Management
- Treatment and Disposal of Municipal Sewage Sludge

Most of the studies consist of several components. Thus, the pilot study on geothermal energy consisted of several projects in the areas of computer-based information systems, direct (i. e. non-electrical) uses, multipurpose processing and disposal of geothermal brines, small electric power plants and hot rock concepts.

Completed Studies

1. Advanced Health Care

The aim of this study, piloted by the United States, was to facilitate international cooperation in providing better quality health care to ever-increasing numbers of patients. The objective was not to duplicate the efforts of the World Health Organisation (WHO) which, for the most part, is concerned with improving health care in the developing countries, but rather to supplement those

efforts by coping with medical problems arising in the more developed countries.

Four areas of activity were selected, each led by a co-pilot country: Systematic Assessment of Health Services (Canada); Organised Ambulatory Health Services (Federal Republic of Germany); Emergency Medical Services (Italy); and Automation of Clinical Laboratories (United Kingdom).

The final resolutions and recommendations which resulted from this study were approved by the North Atlantic Council on June 30, 1976. These call for continued cooperation and joint efforts among the countries of the Alliance, and encouragement of greater cooperation among national and international private and governmental groups, so that techniques and expertise developed in advanced health care may be freely available to the entire world community.

Further work in the health area was undertaken subsequently in the study on improvement of emergency medical services (see below).

2. Advanced Waste Water Treatment

The study on Advanced Waste Water Treatment, piloted by the United Kingdom, and co-piloted by Canada, France, the Federal Republic of Germany and the United States, explored a variety of techniques and equipment to purify waste water. The study produced the most comprehensive assessment of technical developments in this field. Considerable intellectual and capital resources were devoted to the study, which included the construction of test plants in several countries. In particular, the United Kingdom constructed the world's most advanced pilot plant, which permitted various means of treating waste water to be compared. The study assisted countries to develop more effective and efficient means for purifying water, and indicated what further priority work needed to be done.

3. Air Pollution

The fouling of the air is a major environmental problem around the globe. Whether the result of emissions of automobile fumes, industrial waste, or heating smoke, ambient air has become unclean. Hundreds, if not thousands, of people die each year because they have to breathe unclean air.

The CCMS undertook to tackle this problem with the use of the most modern technology and methodology available. The original participants in the study were the United States as pilot country and the Federal Republic of 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, air quality criteria and control techniques for various pollutants, and low pollution power systems development aimed at producing cleaner vehicular 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. A

number of countries, including the Federal Republic of Germany, drew upon the CCMS technical reports in drafting legislation for the control of air pollution. The United Nations World Health Organisation (WHO) also made use of the results of the study in its world-wide community air pollution programmes.

The success of the pilot study led to the approval, in 1974, of a pilot study on air pollution assessment methodology and modelling, and it was agreed to continue activity in CCMS on development of cleaner vehicular engines. These two areas of CCMS activity are described in more detail below.

4. Automotive Propulsion Systems

This study, piloted by the United States, initially laid emphasis on the development of less-polluting engines and subsequently on energy conservation. The study consisted of periodic international symposia, which offered an opportunity for technical and management-oriented people from government, industry and the academic world to exchange information and discuss mutual problems. The study identified a number of areas that might be pursued in any future research and development efforts. These include future systems and components, alternative fuels and electric and hybrid engine systems.

5. Coastal Water Pollution and Ocean Oil Spills

The study on Coastal Water Pollution and Ocean Oil Spills, initiated by Belgium in 1970, and co-piloted by Canada, France and Portugal, focused principally on a mathematical model of the North Sea and on ocean oil spills. A colloquium held in Brussels in 1970, at which all NATO maritime countries were represented, considered the problem of ocean oil spills and adopted a number of resolutions dealing with both intentional and accidental spills. In the principal resolution, countries agreed to cease all intentional oil spills, if possible by 1975, and in any case no later than the end of the decade. The North Atlantic Council later adopted this resolution and others recommending more specific operational and technical actions.

6. Disaster Assistance

Two of the major natural disaster problems facing mankind result from earthquakes and floods. While preventive measures are often inadequate to cope with potential disasters, much can be done in planning to mitigate the effects of floods and earthquakes. Moreover, adequate preparations permit speedier rescue and post-disaster rehabilitation.

With these considerations in mind, the CCMS undertook a pilot study on Disaster Assistance, piloted by the United States and co-piloted by Italy and Turkey. The recommendations call upon countries to improve their state of readiness by: (a) pre-disaster preparation; (b) emergency measures to be taken during disasters; and (c) steps to speed post-disaster construction and rehabilitation. A special role was assigned to the NATO communications network which could, during times of disaster, be used to coordinate requests for and

deliveries of relief supplies. Member countries were also requested to give complete support to the disaster relief activities of the United Nations. Follow-up reports have indicated that a number of measures have been taken in member countries to implement the recommendations on Disaster Assistance approved by NATO. The NATO communications network was utilised for the purpose of assisting in the coordination of relief work in connection with the earthquakes which took place in Italy in 1976 and 1980. Responsibility for further action under the Disaster Assistance Study has been assigned to NATO's Civil Emergency Planning Committee.

7. Disposal of Hazardous Wastes – Phase I

This study, piloted by the Federal Republic of Germany, tackled the ever-burgeoning problem of disposing of industrial toxic wastes in the safest and least-damaging manner. This involved the testing of appropriate technologies for the disposal and recycling of these wastes, as well as the establishment of effective planning instruments and organisational systems.

The study consisted of several components. The United States was responsible for a project on the transportation of hazardous substances and another on the development of guidelines for the disposal of hazardous wastes. Belgium led a project on underground disposal and the United Kingdom led one on land-fill disposal. France was responsible for a project on the chromium cycle.

The second phase of the study is under way (see below).

8. Environment and Regional Planning

The study of Environment and Regional Planning was piloted by France and co-piloted by the United Kingdom. The study did not intend to produce a master blueprint for regional planning through a centralised authority which might be applicable in all member countries. Rather, it was contemplated that, by sharing their national experience, the participants in this study might contribute to better understanding of the relationship between land-use planners on the one hand and those concerned with environmental quality on the other. Specific ways of implementing these guidelines were left essentially to the discretion of each member country in accordance with its particular problems and its national approach to their resolution.

9. Geothermal Energy

In the past, geothermal energy development has been handicapped by the lack of knowledge of the technical and economic feasibility of developing this resource. A further handicap has been poor understanding of the economic and environmental advantages and disadvantages of geothermal energy compared with other energy sources. In this framework, the CCMS geothermal study, piloted by the United States and co-piloted by Italy and Turkey, investigated a number of different aspects of geothermal energy, including non-

electric uses, brine reinjection, small power plants, reservoir engineering, dry hot rock and information exchange.

Among other things, the geothermal study established an identifiable community of world geothermal experts. It also produced an international computer file of technical information on geothermal wells and fields; developed studies and reports on direct applications, geothermal fluid injection and small power plants; and established a visiting scientists programme.

10. Inland Water Pollution

Under the leadership of Canada, this pilot study was completed with publication of a final report in late 1974, which reflected the effective sharing of transatlantic experience in dealing with inland water pollution. Canada focused its efforts in this study on comprehensive river basin planning and management. As co-pilot countries, the United States was concerned with approaches to water quality objectives and standards in international water basins; France concentrated on the use of indirect instruments in water management; and Belgium studied the role of models in management decision-making. Thus, four subjects served as the central topics at workshops held in each of the four lead countries. Emerging from these workshops were detailed technical reports which contributed to the drafting of a final pilot study report, approved by the North Atlantic Council in October 1974.

11. Nutrition and Health

The purpose of this study, piloted by Canada, was to determine what methods governments have used to influence dietary habits and nutrients intake to improve the health of the general population. The study found that a variety of methods (e. g. education, fortification, subsidies) have been used with success as judged by the absence of deficiency diseases as a major public health problem. The study did point out, however, that traditional intervention programmes have not focused on a number of nutrition-related health problems, such as cardiovascular disease, obesity, hypertension, diabetes and dental caries, diseases which are far more typical of an affluent society.

12. Rational Use of Energy

The study on the Rational Use of Energy, piloted by the United States, consisted of four projects, which had as their common objective assisting member countries in achieving increased energy conservation. Because the industrial sector is the largest and fastest growing consumer of energy, the industrial international data base project developed a comprehensive methodology for analysing energy consumption in industry and specific measures for conserving energy. The project on modular integrated utility systems (MIUS) investigated ways of integrating the supply of utility services to communities, and found that substantial amounts of energy could be saved by utilising the MIUS approach. The project on electric utility load management

identified areas where electric utilities might achieve substantial improvement on economic performance and in the reduction of adverse environmental impacts. The test reference year project presented recommendations for weather data collection suitable for energy consumption calculations.

13. Road Safety

Of all the problems confronting modern industrial society, road safety is one of the most urgent. The economic losses which result from road accidents are considerable, but the number of fatalities that result from road and highway accidents each year are truly tragic. The United States undertook to pilot a multifaceted study on road safety under CCMS aegis and a number of countries joined in this work. Six principal projects were included in the study: Experimental Safety Vehicles (United States); Pedestrian Safety (Belgium); Alcohol and Highway Safety (Canada); Identification and Elimination of Road Hazards (France); Motor Vehicle Inspection (Federal Republic of Germany); Accident Investigation (The Netherlands). Perhaps the most active project was that in Experimental Safety Vehicles (ESV), in which all the major automobile-producing countries of the world participated. The result was more urgent development of ESVs and their crash testing on an accelerated basis.

The work of all the road safety project areas contributed to the adoption by the North Atlantic Council, in November 1973, of the CCMS International Road Safety Resolution, by which member countries undertook to use their best efforts to prevent an increase in the numbers of traffic deaths of their road networks over the following five-year period, and thereafter to reduce such numbers progressively. A follow-up procedure provides that the work begun in the CCMS is to continue in other fora, and that a group of senior highway safety administrators would periodically review progress.

14. Solar Energy

The solar energy study, piloted by the United States, and co-piloted by Denmark and France, investigated how this inexhaustible source might be further developed to heat and cool buildings and to provide hot water. As part of this study, agencies of fifteen NATO and non-NATO countries entered into an agreement for the exchange of information. Eight additional countries and the European Communities participated in the study. The study accomplished a number of things: it pushed forward both national and international efforts in this field; and it had a positive influence on the development of solar heating and cooling programmes. The exchange of information on national programmes served as a catalyst for the establishment of new programmes in a number of countries and expansion of existing ones.

15. Urban Transportation

One of the most difficult problems to cope with in the advanced countries, especially, is the problem of transportation in cities. The United States under-

took to lead a pilot study on this problem and four member countries took major roles. The study consisted of five projects, aimed at facilitating faster and more convenient travel for passengers and for more efficient delivery of freight in metropolitan agglomerations.

Belgium took responsibility for a project in Collection Systems Evaluation, aimed at improving the collection of suburban travellers at a central point (i. e. Waterloo) for rapid transit to another point (i. e. Brussels); France led a project on Urban Movement to explore means of delivering freight more rapidly and with minimum impact on traffic volume. The Federal Republic of Germany agreed to lead a survey of all available short distance transport techniques for use in cities and to evaluate these. The United States coordinated a project in Urban Travel Forecasting, which provided data on the need for public transit facilities in cities of the future.

The North Atlantic Council approved the recommendations and resolutions that emerged from the study in June 1976.

16. Air Pollution Assessment Methodology and Modelling

The purpose of this study, inspired by the air pollution study referred to earlier, and piloted by the Federal Republic of Germany, was to pursue and carry out certain recommendations that emerged from the earlier study. In November 1979, the Council approved the recommendations that emerged from this pilot project, which included the initiation of a new pilot project on Air Pollution Control Strategies and Impact Modelling (see below).

17. Flue-Gas Desulphurisation

The combustion of high-sulphur fossil fuels without deleterious sulphur oxide emissions poses a major technical and economic challenge to the energy and air quality programmes of many nations. Flue-gas desulphurisation technology may be the key to environmentally acceptable utilisation of the relatively abundant high-sulphur coal and oil reserves. In order to meet this challenge, the United States piloted a study to compare flue-gas desulphurisation processes for selective representative application and, later, to describe the advantages and disadvantages of sulphur-oxide control strategies. The results of the study will aid countries greatly in utilising high-sulphur fuels and, at the same time, contribute to the prevention of degradation of ambient air quality.

On-Going Studies

1. Disposal of Hazardous Wastes – Phase II

This study is a continuation of the earlier study referred to above. Under the leadership of the Federal Republic of Germany, countries are cooperating in studying further specific ways of dealing with hazardous wastes. The study is concentrating on thermal treatment; physical, chemical and biological treatment; landfill; and surface treatment wastes.

2. Drinking Water

In this pilot study, directed by the United States, NATO countries are attempting to solve some of the problems associated with providing drinking water that is bacteriologically and chemically safe. This problem is becoming considerably more complex, particularly in the industrialised nations. The study is evaluating the problems and possible hazards in supplying safe drinking water, and will provide the most up-to-date information on the possible technological approaches for dealing with these problems.

3. Hydrological Forecasts Applied in the Management of Water Resources

The purpose of this study, piloted by France, is to prepare an enumeration of procedures currently applied by NATO countries for forecasting the water resources of hydrological systems, with a view to assisting national administrations in introducing more rational methods of water management.

This study is much needed because at present, even in temperate zones, water reserves are largely contingent on fluctuations in the natural supply, particularly seasonal irregularities. Inflated safety margins are often applied in the planning of water management projects and potential resources are left untapped, because such projects generally take into account only such minimum supplies as can be assured.

4. Improvements in Emergency Medical Services

In this study, headed by the United States, countries are collecting information regarding emergency medical services practices and institutions in the NATO countries to compare and evaluate information collected as a basis for improving emergency medical services. The study is divided into five projects: Emergency Medical Services (EMS) Survey (Canada); Organisation and Management of EMS Systems (United States); EMS Training (Italy and Portugal); EMS Transportation and Communication (France); Poison Control (Italy).

5. Plastic Wastes Recovery

Modern society is threatened by shrinking energy resources, limited non-renewable primary materials and the environmental hazards and inconveniences of its industrial, municipal and domestic wastes. A key element in successfully coping with these threats is the development of strategies and technologies which deal with them in an integrated manner. One crucial requirement is to achieve the capability of recovering waste products for re-use in an economically feasible and energy-conserving manner that protects the environment. One area that offers great opportunity for reuse is that of plastic wastes.

This study, piloted by the United States, at present focuses on information exchange encompassing all aspects of the recovery and disposal of plastic wastes.

6. Remote Sensing for the Control of Marine Pollution

In this study, piloted by France, several NATO countries are cooperating in efforts to produce a state-of-the-art survey of various teledetection techniques to detect pollution in the marine environment. Better understanding of the technology available will assist countries to detect and control such pollution.

7. The Role of Transportation in Urban Revitalisation

Because of its potential for influencing the location of jobs, dwellings and patterns of movement related to social, community and recreational life, urban transportation clearly plays an important role in the development of any urban area, but especially inner city areas. This study is attempting to ascertain how countries have utilised transportation policies to enhance urban revitalisation. The basic approach is the use of case histories.

8. Rural Passenger Transportation

In the absence of public transportation, the automobile has become virtually the sole means of transportation in various regions of some countries. This situation has created serious problems, especially in rural areas. The concentration of commercial activities and other services in fewer towns has aggravated the problems. People without cars, including the poor, the elderly, and the young, are subject to this hazard. The purpose of this study, headed by the United States, is to promote expert exchange of pertinent information on the methods employed in different countries and in different institutional settings to provide passenger services in rural areas.

9. Seismology and Earthquake Loss Reduction

With advances made in the area of seismology, especially in the last several years, much can be done to obtain an even better understanding of earthquakes and possibly to minimise the effects of their occurrence. This study, piloted by Italy, is concentrating on three areas: seismic risk; earthquake prediction; and earthquake loss reduction. In the seismic risk area, the objectives of the study are to facilitate the estimation of seismic risk posed by the impoundment of a large reservoir or the injection of fluids into the ground, and to provide and improve a basis for characterising the ground motion of large earthquakes. In earthquake prediction, the objective is to improve understanding of the processes of possible precursors leading to a large earthquake through the design and establishment of a field experiment. With respect to earthquake loss reduction, the objective is to provide a basis for adoption of policies and measures by governments to reduce losses from earthquakes.

10. The Management of Estuarine Systems

The estuarine areas of the world, subject to many stresses and conflicting demands, are facing progressive deterioration in environmental quality

because of human impact on the estuary itself, as well as the consequence of such actions on the drainage basin. These estuarine systems are very significant to man because of their multiple functions and uses as nursery areas for the life of the oceans, important wildlife habitats, major areas of food production for man, important navigation routes and significant industrial sites.

This study, piloted by the United States, will provide a collaborative assessment of estuarine management strategies.

11. Man's Impact on the Stratosphere

In the last decade, people have become increasingly concerned about pollution of the stratosphere and the possibility that it might result in serious global environmental harm. It appears that the potential for some human activities to result in major stratospheric changes cannot be denied; nevertheless, there is wide disagreement about the certainty with which we can at present predict such effects quantitatively. It follows that there is a need for more knowledge and a better understanding of the complex science involved, with the aim of developing better data with which to work. This study, piloted by Canada, and restricted to the atmospheric physical and chemical aspects of the issue, is aimed at developing a better understanding of the potential effects of human activities on the stratosphere.

12. The Conservation and Restoration of Monuments

Historic and artistic monuments represent the single most visible aspect of our history and culture. These monuments, mostly of stone construction, are universally threatened by the effects of pollution, urbanisation, public access, as well as weathering cycles and other natural phenomena. Though there is national and international activity in the preservation of individual monuments, there is an obvious need for increased cooperation among all those concerned with the development and implementation of national preservation plans. This pilot study, headed by Greece, will provide the participating nations with information to enhance their abilities to minimise adverse environmental effects on monuments, to develop optional programmes for conservation/restoration, and to serve as a model for international cooperation in the preservation of cultural property.

13. Air Pollution Control Strategies and Impact Modelling

Following the earlier considerations given to air quality protection and to pollution assessment methodology, further attention was given to these continuing problems through a new pilot project which was agreed by the CCMS at its meeting in October 1979. This new project, led by the Federal Republic of Germany is directed towards control strategies and impact modelling, and is being conducted through three panels concerned with reduction of heavy

metal emissions from stationary sources; air quality predictions; and environmental impact. Based on their results, scientific background information on the source-to-impact cycle of selected groups of air pollutants will be prepared.

14. Regulations Concerning Application and Production of Pheromones

The research community has given increased attention over the past few years to the control of both insect and mammalian pests through the use of chemical drugs. Sufficient knowledge has been obtained for trial applications to be made. Following a workshop on research problems concerned with pheromones sponsored by the NATO Science Committee, the Netherlands proposed to lead a CCMS pilot study aimed at comprehensive examination of the regulations in force in many countries which may not be adequately oriented towards the special requirements of controlling the use of behaviour-modifying chemicals (pheromones). The results of this pilot study may be of particular value for the future control of pests by the use of pheromones, and hence avoid other damage to the environment such as is sometimes the case with pesticides.

15. Integrated Pest Management

The use of chemical pesticides has led to increased food production in most countries of the world. Their efficiency, however, has been reduced in recent years due to the development of resistance in target pest populations. In addition, concern for the impacts of pesticide use on environmental quality and human health has stimulated the study of alternative means to manage agricultural, forest and urban pests. Alternative pest control techniques have been used with varying degrees of success, and these provide the prospect of substantially reducing the amount of chemical pesticide required in the control programme. The use of a combination of integration of a number of different techniques and methods (including the use of chemicals, biological and cultural methods and systematic pest monitoring) to reduce pest populations to acceptable levels is known as integrated pest management (IPM). A pilot project, headed by the United States, is focused on this broad concept of pest control.

16. Treatment and Disposal of Municipal Sewage Sludge

A pilot project, led by the United States, is aimed at demonstrating the technical and commercial feasibility of methods which combine the disposal of solid waste with that of sewage sludge; evaluating the environmental, energy and economic benefits of such methods, and illustrating how such integrated systems can be applied in CCMS countries. The purposes of the proposed study are to examine from an environmental, technical, energy and economic point of view, those technologies which provide for the disposal of municipal sewage sludge and/or municipal solid waste, and which promote conservation of total energy consumption or of fossil fuel consumption.

Environmental Round Table

Since the first Plenary Meeting of the Committee on the Challenges of Modern Society in December 1969, the organisation has served as a forum for the informal exchange of information and opinions on environmental issues. At the 1971 Autumn Plenary Meeting, this "review of national policies" officially became known as the Environmental Round Table. At a time when little relevant research and development had been carried out and national policies had not been resolved, nations found an occasion to compare problems, frustrations, and successes at the CCMS Round Table.

As the CCMS reached its fifth anniversary, however, it became clear that the Round Table, to a great extent, had fulfilled its function in this area. The United Kingdom made a farsighted proposal in 1974 that, beginning with the 1975 Spring Plenary, each Spring Environmental Round Table be devoted to a specific topic. The resulting exchanges of information have been timely and valuable and have led to useful publications.

There have been six so far:

- 1975 – The Effect of the Energy Crisis on Environmental Programmes;
- 1976 – The Assessment of Pollution Hazards and the Determination of Environmental Standards;
- 1977 – The Role of Environmental Considerations in the Decision-making Process;
- 1978 – Problems of Inner City Areas;
- 1979 – Environmental Issues of Food Systems;
- 1980 – Assessment of Technological Systems.

The success of these high-level Round Tables led naturally to the first meeting of Environmental Ministers under CCMS auspices. This took place in Brussels in November 1980, when Ministers from Alliance countries reviewed a range of problems, including, in particular, energy and the environment, chemicals and the environment, and environmental planning.

Other Activities

1. Conference on Cities

In May 1971, the CCMS participated in the sponsorship of an International Conference on Cities, held in Indianapolis, Indiana, United States. The theme of the Conference was "Innovation in the Cities". Its three objectives were: to provide a forum for an open, wide-ranging discussion of urban issues; to generate an exchange of new ideas from experts on specific urban problems; and to develop recommendations for possible international cooperation in the CCMS or other appropriate organisations.

Specific CCMS pilot studies grew out of the Conference in the areas of Advanced Health Care, Advanced Waste Water Treatment, and Urban Transportation.

2. Mis-use of Drugs

The CCMS considered the problems of the misuse of drugs at its plenary sessions during the period 1970–72. No formal pilot study on the subject was initiated by the CCMS, but it was agreed to reinforce international cooperation in this field and to intensify efforts under the aegis of the United Nations Commission on Dangerous Drugs.

3. CCMS Fellowship Programme

The CCMS also sponsors a small Fellowship Programme, which makes modest grants to a number of scholars each year, to encourage studies in public policy as related to the natural or social environment, and to assist younger researchers to complete their studies or improve their training for future policy-related work. The 1980 programme focused on awards for topics concerned with the use of pesticides in agriculture, and their effect on the ecological balance, and with the effects (positive or negative) of environmental regulations on technological innovation.

4. Publications

CCMS publications offer comprehensive and up-to-date information of a technical nature resulting from the pilot studies. They are of considerable value to both technical people and government decision-makers. As of 1981, more than 100 publications have been made available under CCMS auspices.

5. North Atlantic Assembly

One extremely important point of contact for the CCMS is the North Atlantic Assembly. This group of parliamentarians, representing all fifteen NATO nations, has, through its Scientific and Technical Committee, given strong support to the activities of the CCMS, and has especially encouraged effective national implementation and follow-up of CCMS pilot study recommendations and resolutions.

