

ENVIRONMENTAL ASPECTS OF THE REUSE OF FORMER MILITARY LANDS

NATO CCMS PILOT STUDY

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On May 20-24, 1996 Prague hosted the NATO's Committee on the Challenges of Modern Society (CCMS) Pilot Study Meeting discussing the Environmental Aspects of Reusing Former Military Lands, chaired by Gary D. Vest, principal assistant, Office of Undersecretary of Defence, Pentagon, attended by 46 invited participants from 18 countries of NATO and Cooperation Partner nations. This pilot study enjoys a very interesting history. It is an example of indispensable cooperation in the field of environmental protection.

In May 1994, the CCMS Pilot Study on the Environmental Aspects of the Reuse of Former Military Lands began its work. The study is co-chaired by the United States and Germany, and a total of 20 NATO and Cooperation Partner nations participate in it¹⁾. One of the particular aims of this pilot study is to identify ways in which the military can contribute - together with civilian authorities - to identifying, managing and remediating pollution at defense sites, through contributions of technology, know-how, and manpower. The study seeks to harness the vast potential of military forces and resources to clean up and protect the environment, making a tangible contribution to environmental security.

This pilot study has identified the following main objectives:

- Facilitate the transition of contaminated military lands to other uses.
- Create and enhance national capacity and capability, particularly within the military, to address effectively environmental aspects of the conversion of these lands.
- Collect, organize and share information based on the experience of all participating nations to develop efficient, cost effective and environmentally acceptable clean-up approaches.
- Describe existing site characterization methodologies, remediation technologies and strategies, and risk-based decision-making processes, and to compare this information across the participating countries.
- Identify a range of international, national, and regional financial resources available (both government and private sector) that may be accessed by countries as they undertake environmental characterization and remediation projects.
- Make appropriate information available on an electronic bulletin board system.

The Pilot Study established five subgroups. Each nation contributes information to all of these subgroups. The study has been shaped by the needs and participation of its members: each nation has brought its own resources to bear and

has helped to shape the issues addressed and the findings obtained.

ACCOMPLISHMENTS TO DATE

Through the work of the five subgroups, the Pilot Study has already accomplished the following:

- Established methods for assessing the environmental characteristics of military lands which affect clean-up approaches (including land selection criteria, the types of contamination, risk assessment approaches, and prioritization methodologies).
- Reviewed case studies on eight types of military sites, based on the activities conducted at the site (troop training areas and explosive firing ranges; troop housing and barracks, training and education centers, and service and administration buildings; air bases; depots and storage facilities; telecommunication facilities; naval facilities; maintenance and repair facilities; and other types of facilities.)
- Identified expedient, low-cost solutions to remediating the most prevalent types of contamination at the eight types of military sites.
- Examined in detail technologies such as: groundwater treatment and hydraulic measures; pneumatic measures, usually combined with other hydraulic measures (such as soil venting and air sparging); biological treatment (including bioventing and bioslurping). Additional technologies that may be examined include: soil washing of lead (Pb); PCB contamination; in situ electrokinetic soil treatment; and organic stabilization.
- Assembled considerable information on costs of various technologies, although more work remains to be done on this matter.
- Demonstrated German computer models (Magma, Memura, Kozal) that can be used in selecting technologies.
- Developed a questionnaire (completed by most participating nations) to assess economic, political, social, legal, and other considerations affecting the level and extent of each nation's environmental program.
- Produced country descriptions, based on this questionnaire, that indicate the countries' level of experience in various aspects of their environmental programs. By teaming together, countries with more experience and expertise can assist countries with less experience.
- Compiled an extensive listing and description of international and national, government and private-sector sources of financing for environmental clean-up and other environmental projects.
- Created the Environmental Clearinghouse (ECHS), which can be accessed through the World Wide Web; it became fully operational in early 1996. ECHS is improving access to pertinent information, enhancing the exchange of

¹⁾ The participating countries were: Austria, Belarus, Belgium, Canada, Czech Republic, Estonia, Germany, Hungary, Latvia, Lithuania, the Netherlands, Norway, Poland, Portugal, Russia, Slovak Republic, Sweden, Ukraine, United Kingdom, and United States.