Nairobi Conferees Identify Desertification Indicators

An international group of scientists is preparing to refine and test a new set of indicators designed to find, measure, and monitor the phenomenon of desertification.

The effort will be undertaken as part of the Science Associations' Nairobi Seminar on Desertification, convened by AAAS and five other scientific groups from around the world late in August this year. The group met prior to the United Nations Conference on Desertification in order to develop the set of indicators and to review the U.N.'s Plan of Action to Combat Desertification.

In its final statement, the Science Associations noted that "desertification must be diagnosed and monitored through the whole range of physical, biological, and social processes relevant to the ecosystems and human use systems of dry lands." Social factors are particularly important in the study of desertification, said the scientists, "For if people are largely responsible for desertification, [it] is most efficiently combatted by diagnosing and arresting the social and economic processes that lead to it."

The indicators developed in Nairobi and scheduled for field testing fall into three categories: physical, biological/agricultural, and social. The physical characteristics include degree of salinization and alkalinization of the soil; depth to ground water and quality of water; effective soil depth above root-inhibiting layers; number of dust storms and sand storms; presence of soil crusts; amount of soil organic matter; changes in water flow and sediment load in watercourses; and area covered and turbidity of surface water. The key biological/agricultural indicators of desertification listed by the Nairobi group include canopy cover vegetation; aboveground biomass; distribution and frequency of key species of vegetation and animal populations; populations of domestic animals; herd composition; animal production; and yield (harvest).

In terms of social indicators, the scientists will investigate land use factors such as irrigated agriculture; dryland agriculture; pastoralism; cutting and removal of vegetation for fuel and construction; mining; and tourism and recreational use of lands. Other social indicators will involve settlement patterns, especially in rural populations and in relation to energy sources; human biological parameters, such as population structure and rates, measures of nutritional status, and public health indices; and social process parameters, including conflict, migration, redistribution patterns, marginalization, and cash versus subsistence.

For the field tests, the Nairobi Seminar scientists outlined plans for establishment of a working party, most likely to be composed of Seminar participants representing several disciplines. The investigators will seek out test sites that represent different types of land use systems and that offer potential for testing as many of the indicators—biological, physical, and social—as possible, as well as appropriate technical and administrative facilities, technicians, and scientists. "Ensuring prompt field adaptation [of the indicators] for diagnostic purposes" is the main task of the working party. The scientists also will undertake negotiations and inventory possibilities for long-term continuation of use of the indicators at the test sites. In due course, the indicators will be distributed for use by antidesertification program managers, planners, and members of the scientific community.

In closing their official statement, the Nairobi seminar participants offered the document "as a contribution to the work of the United Nations Conference," with the note of caution that it represented the deliberations of only a part of the scientific community. In addition, said the scientists, there is a need for further scien-

1978 AAAS Annual Meeting 12–17 February, Washington, D.C.

Washington, D.C., home of AAAS national headquarters, will host the Association's 144th national meeting, 12–17 February 1978. The AAAS Meetings Office reports that over 130 symposia, to be held at the Sheraton-Park and Shoreham Hotels, have already been scheduled, and that the traditional public lectures, Science Film Festival, and SCIENCE INTERNATIONAL exhibit are being finalized.

Among the topics already scheduled for discussion during the meeting are: sociobiology; advances in knowledge on use of recombinant DNA techniques; space exploration and the search for extraterrestrial intelligence; recent extremes in weather and long-term climatic patterns; stress; aging; the high school class of 1972; nuclear and alternative energy systems; whistle-blowing and scientific responsibility; desertification; minorities, women, and the handicapped in science; and more than a hundred others.

As a special meeting feature, the SCIENCE INTERNATIONAL exhibit of scientific instruments and publications will be dedicated to the theme "Tools of Science," and will include symposia and workshops in various areas of instrumentation as well as exhibits depicting the history of scientific instruments and prototypes of scientific tools not yet on the market.

As part of its Project on the Handicapped in Science, AAAS will again make its national meeting accessible to people who are in wheelchairs or who have other physical disabilities.

Watch *Science* in the coming months for additional information about the meeting (the preliminary program will appear in the 4 November 1977 issue) and registration forms, or contact the AAAS Meetings Office, 1776 Massachusetts Avenue, NW, Washington, D.C. 20036.

AAAS Travelers. . .

AAAS has been requested to send representatives to the following international scientific meetings: Indian Science Congress Association, 65th Annual Session, on the theme "Science Education and Rural Development," Ahmedabad, 3–7 January 1978; and Sri Lanka Association for the Advancement of Science, 33rd Annual Session, on the theme "Science and the Citizen," Colombo, 6–10 December 1977. AAAS members who expect to be in either area and are interested in representing AAAS at these meetings and/or who know of colleagues who might be able to participate are requested to contact AAAS, Office of International Science, 1776 Massachusetts Avenue, NW, Washington, D.C. 20036.

tific work to evaluate and control desertification and for close cooperation between scientists and planning and management personnel.

More information about the Science Associations' Nairobi Seminar on Desertification is available from the AAAS Office of International Science, 1776 Massachusets Avenue, NW, Washington, D.C. 20036.

Women in Scientific Research Topic of AAAS Conference

A conference on women in scientific research is scheduled for 17–20 October 1977 in Washington, D.C., as part of a AAAS study of the topic supported by the National Science Foundation (NSF). The meeting will feature several plenary sessions at which major figures in academe, government, and industry will speak with the 60 women scientists chosen for the conference, all of whom have received doctorates in science since June 1971. There also will be intensive working sessions on topics such as research opportunities in different sectors, minority women in science, and the differences in experiences of women in the social sciences as compared to the natural sciences. Among the products expected from the study will be a summary of the conference and of data gathered preparatory to it, a set of policy and program recommendations for NSF, and a book-length manuscript on the participation of women in scientific research.

The project is designed to achieve several ends. NSF has asked for suggestions of ways to ensure that its programs give men and women equal access to research and educational opportunities in science. The project will provide data and analysis of interest to scholars dealing with questions of role modeling, varying rates of productivity between women and men scientists, and similar controversies. It will suggest further topics for research and may suggest strategies for overcoming remaining barriers to equal opportunity. Universities and congressional committees have expressed interest in using the findings of the study to formulate programs and to guide legislation.

$185,000 in Grants for Project on Handicapped

New projects and new people are in the works for the AAAS Project on the Handicapped in Science (a part of the Office of Opportunities in Science), thanks to the recent receipt of grants totaling $185,000.

The funds, from the National Science Foundation, the W. T. Grant Foundation, the Bureau of Education for the Handicapped, and the Xerox and Exxon Corporations, have enabled the Project to expand its staff and undertake some new efforts involving education and career opportunities for the handicapped.

Cheryl A. Davis, a planner and specialist in design of housing and other environments for handicapped persons, joined the Project in August as a program associate. Davis, who uses a wheelchair, has worked for the Massachusetts Department of Community Affairs Handicapped Housing Program and has served as an expert consultant to the U.S. Department of Housing and Urban Development, the City of Chicago, the Tufts–New England Medical Center, and various other organizations across the country. In 1977, she completed a year as a Loeb Fellow in Advanced Environmental Studies at Harvard University. She has spoken nationally and published widely on such topics as facilitating employment of the handicapped, the role of housing in rehabilitation, and the 1973 Rehabilitation Act.

Davis will be assisting in the development of a variety of new AAAS projects, including an inventory of teachers and school administrators who have successfully taught science to handicapped students; a newsletter, *Access to Science*, which will form a communications network among college and university administrators and science departments, guidance counselors, and handicapped students, giving technical assistance to widen opportunities in science education; a study of the coping strategies of handicapped scientists who have successfully obtained an education and a job in science; an exploratory study of the barriers limiting the participation of college-level handicapped students in science courses; a lecture tour covering approximately 20 states by Robert Menchel, a physicist who is deaf (see AAAS News, *Science*, 5 August 1977, page 548); and a directory of handicapped scientists throughout the country.

JEAN KAPLAN
Office of Opportunities in Science

Affiliate News

Several years ago it was called to the attention of the American Chemical Society (ACS) that many people who are teaching chemistry in secondary schools in the United States have themselves had very little formal training in chemistry. In order to help alleviate this problem, ACS is preparing a set of "Guidelines and Recommendations for the Preparation and Continuing Education of Secondary School Teachers of Chemistry."

The guidelines will be distributed in the fall of 1977. Single copies of the document will be available free of charge (as long as the supply lasts) from M. Passer, director, Education Office, American Chemical Society, 1155 Sixteenth Street, NW, Washington, D.C. 20036.

Marine Science Session Highlights Annual Interciencia Meeting

A 4-day symposium on marine sciences in the Americas and admission of a new member nation were highlights of the 3rd annual meeting of the Interciencia Association (IA) in San Jose, Costa Rica, 3–7 July.

Canada became the eighth nation represented in the Interciencia Association with the entry of SCITEC (Association of the Scientific, Engineering, and Technological Community of Canada). Affiliation of SCITEC was approved at a meeting of its council during the so-

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