

Update

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Nongovernmental & Governmental Activities

This section of Update is designed to highlight the environment, population, and security activities of foundations, nongovernmental organizations, academic programs, and government offices. Please refer to the web sites listed within these descriptions for updates on current activities and contact information. If your organization is not listed or if you have an organization to recommend, please contact ECSP at ecspwwwic@wwic.si.edu. The editors wish to thank all organizations that responded to requests for information.

Academic Programs

CAROLINA POPULATION CENTER

The Carolina Population Center was established at the University of North Carolina at Chapel Hill (UNC-CH) in 1966 to coordinate university-wide programs in population. Forty-eight scholars are currently holding faculty appointments in fifteen UNC-CH departments. The Carolina Population Center is a multidisciplinary community which carries out population research and trains students. The Center's research projects are The Cebu Longitudinal Health and Nutrition Survey, China Health and Nutrition Survey, The EVALUATION Project, Lead and Pregnancy Study, The MEASURE *Evaluation* Project, Nang Rong Projects, The National Longitudinal Study of Adolescent Health, and Russia Longitudinal Monitoring Survey. For information, contact: Carolina Population Center, 123 W. Franklin St., University Square, The University of North Carolina at Chapel Hill, Chapel Hill, NC 27516-3997. Tel: 919-966-2157; Fax: 919-966-6638; E-Mail: cpcnews@unc.edu; Internet: <http://www.cpc.unc.edu/>.

CENTER FOR ECOLOGICAL MANAGEMENT OF MILITARY LANDS

The Center for Ecological Management of Military Lands (CEMML) is a research and service unit within the Department of Forest Sciences in the College of Natural Resources at Colorado State University. The Center provides professional services and technical support to the Department of Defense (DoD) in conservation, environmental planning, and natural and cultural resources management. CEMML has several program areas including Resource Inventory and Monitoring, Floristics, Data Management and Analysis, Computer Cartography and Spatial Analysis, and Environmental Planning. They also provide a wide range of professional training in support of the DoD conservation and land management missions. In 1996, the Center published *U.S. Army Lands: A National Survey*. For information, contact: Center for Ecological Management of Military Lands, Colorado State University, Fort Collins, CO 80523-1470. Tel: 970-491-2748; Fax: 970-491-2713; E-Mail: cemml@cemml.colostate.edu; Internet: <http://www.cemml.colostate.edu>.

CENTER FOR ENVIRONMENTAL SYSTEMS RESEARCH

The goals of the Center for Environmental Systems Research are: 1) to increase understanding about the functioning of environmental systems and the causes of environmental problems, and 2) to identify "sustainable" pathways into the future, i.e. pathways that allow development of society in harmony with nature. The uniqueness of the Center, created in 1995, lies in its systems approach—the use of methods and instruments of systems thinking, such as systems analysis and computer simulation; and in its interdisciplinary approach, in this case meant to be the coupling of social sciences with natural sciences. To accomplish the Center's goals, research activity is carried out in three research groups and one working group: the Research Group on Ecosystems Modeling; the Research Group on Society-Environment Interactions; the Research Group on Global and Regional

Dynamics; and the Eco-balance Group. The Center strongly emphasizes collaboration with other institutions both inside and outside Germany. As a young Center, many new projects and themes are under development, which will give greater emphasis to the social and economic aspects of environmental systems, and to topics of global environmental change. Cross-cutting themes under development include the World Water Program, Society-Environment Interactions, and Global Environmental Security. The Center will also intensify its link between science and policy by using its research findings to help develop national and international environmental policy. For information, contact: Dr. J. Alcamo, Director, or Dr. K.-H. Simon, Deputy Director, The Center for Environmental Systems Research, University of Kassel, Kurt-Wolters-Strasse 3, 34109 Kassel, Germany. E-Mail: alcamo@usf.uni-kassel.de or simon@usf.uni-kassel.de.

COMMITTEE FOR THE NATIONAL INSTITUTE FOR THE ENVIRONMENT

The Committee for the National Institute for the Environment (CNIE) has a mission to improve the scientific basis for making decisions on environmental issues through the successful operation of a National Institute for the Environment (NIE). The work of the CNIE is funded by private and corporate foundations, universities, members of the CNIE Associates Program, and individuals. The effort to create the NIE began in 1989 with a meeting of 50 scientists, environmentalists, and policy experts, led by Dr. Stephen Hubbell of Princeton University and Dr. Henry Howe of the University of Illinois, Chicago. CNIE is demonstrating the information dissemination function of the NIE by providing free, educational, nonadvocacy resources through a prototype National Library for the Environment, accessible online at no charge. The Library includes information services (daily news, congressional reports and briefing books, laws and treaties, educational resources, jobs & careers, meetings, journals, virtual topic libraries, reference materials, etc.) and addresses topics such as agriculture and grazing, air, biodiversity and ecology, energy, forestry, global climate change, mining, ocean and coastal resources, population, public lands, stratospheric ozone, waste management, water quality, wetlands, and others. CNIE is also exploring the development of online Country Briefing Books. For information, contact: Committee for the National Institute for the Environment, 1725 K St. NW, Ste. 212, Washington, DC 20006-1401. Tel: 202-530-5810; Fax: 202-628-4311; E-Mail: cnie@cnie.org; Internet: <http://www.cnie.org/>.

CORNELL PROGRAM ON ENVIRONMENT AND COMMUNITY

The Cornell Program on Environment and Community (CPEC), housed in the Cornell's Center for the Environment, seeks to foster more effective management of environmental, community, and public policy conflicts. To meet this goal, the program aims to build community, institutional, and individual capacities for collaborative decision-making over a broad range of issues. The approach includes: 1) integrating research and practice in selected field-based collaborative decision-making initiatives, 2) developing networks and working partnerships among stakeholder groups, and 3) creating multiple learning opportunities through seminars, field studies, program cross-visits, applied research, peer exchange, and capacity-building workshops. In the United States, programs have focused on developing a number of regionally- and nationally-based research and networking projects on public issues education, coalition-building, public involvement in National Forest planning, and community-based ecosystems management. In Central America, the program has continued to help build the capacity of local and regional practitioner networks through training workshops, cross-visits, and case study research and documentation. Work in Southeast Asia has emphasized the development of networks of environmental mediation practitioners, with primary focus in Indonesia. Additional program activities include emerging work in the Philippines and southern China. For information, contact: CPEC, 112 Rice Hall, Cornell University, Ithaca, NY 14843. Tel: 607-255-4523; Fax: 607-255-8207; E-Mail: busters@cornell.edu; Internet: <http://www.cfe.cornell.edu/CPEC>.

ENVIRONMENTAL POLICY AND SOCIETY (EPOS)

Environmental Policy and Society (EPOS) is a research network which began its activities in 1991. The focus lies on environmental security in community perspectives and on societal impacts of environmental policy change. The ambition is to begin with a community perspective as a means to seek the more general principles forming a political dimension of environmental change. This approach means, by definition, an interdisciplinary mode of operation; problems addressed are essentially social, but aspects other than those of social science are also present. Accordingly, the importance of EPOS studies lies not in the ecological or environmental competence but in the social scientific contextualization of central, current environmental questions. This overall approach is emphasized in several studies and the aim is to combine the findings of the different projects included in the network. The network involves partners both in Sweden and in eastern Africa and is operated with a small secretariat at Linköping University in Sweden. Anders Hjort af Ornäs is the program director. For information, contact: EPOS, Tema Institute, Linköping University, 581 83 Linköping, Sweden. Tel: 46-13-28-25-10; Fax: 46-13-28-44-15; E-Mail: tiigr@tema.liu.se; Internet: <http://www.tema.liu.se/epos>.

THE GLOBAL ENVIRONMENTAL CHANGE AND HUMAN SECURITY PROJECT (GECHS)

In May 1996, the Scientific Committee of the International Human Dimensions of Global Change Programme (IHDP) formally adopted the Global Environmental Change and Human Security (GECHS) initiative developed by the Canadian Global Change Programme and the Netherlands Human Dimensions Programme as a core project of the IHDP. At present, there are three other

major projects in the IHDP: Land Use and Cover Change (LUCC), which is a joint initiative with the International Geosphere-Biosphere Program (IGBP); Institutional Dimensions of Global Environmental Change (IDGC); and Industrial Transformation (IT). GECHS is coordinated by the Canadian Global Change Programme and the Netherlands HDP Committee, in conjunction with the IHDP. The scientific planning committee is under the directorship of Steve Lonergan (Canada), Mike Brklacich (Canada), Nils Petter Gleditsch (Norway), Sunita Narain (India), Marvin Soroos (USA), Chris Cocklin (Australia), Edgar Gutierrez-Espeleta (Costa Rica), Ans Kolk (Netherlands), and Richard Matthew (USA). The objectives of the project are three-fold: (1) to promote research activities in the area of global environmental change and human security ("human security" recognizes the essential integrative nature of the relationship among individual, community and national vulnerability to environmental change); (2) to encourage the collaboration of scholars internationally; and (3) to facilitate improved communication and cooperation between the policy community/user groups and the research community. For information, contact: Steve Lonergan, GECHS International Project Office, University of Victoria, P.O. Box 1700, Victoria, B.C., Canada V8W 2Y2. Tel: 250-472-4337; Fax: 250-472-4830; E-Mail: info@gechs.org; Internet: <http://www.gechs.org/index.htm>.

HAMPSHIRE COLLEGE, POPULATION AND DEVELOPMENT PROGRAM

The Population and Development Program at Hampshire College combines teaching, research, activism and advocacy in the fields of international women's health, reproductive rights, and population and environment. It monitors changing trends in population policies and critiques conventional neo-Malthusian analyses of population and the environment from a pro-choice, feminist perspective. Current projects include research on the development of environmental conflict models. The Program also serves as the institutional base for the Committee on Women, Population and the Environment (CWPE), a multiracial network of feminist scholars and activists. CWPE has played an active role in challenging anti-immigrant initiatives in the U.S. environmental movement and has recently published an anthology, *Dangerous Intersections: Feminist Perspectives on Population, Environment and Development* with South End Press in Boston. For information, contact: Population and Development Program/SS, Hampshire College, Amherst, MA 01002. Tel: 413-559-5506; Fax: 413-559-5620; E-Mail: cwpe@hampshire.edu.

HARVARD CENTER FOR POPULATION AND DEVELOPMENT STUDIES

The Harvard Center for Population and Development Studies is a university-wide research center, founded in 1964 as part of the Harvard School of Public Health. The Center's primary aim is to advance understanding of world population and development issues—especially those related to health, natural resources and the environment, human security, and socioeconomic development. The Center's work is characterized by a multidisciplinary approach, a commitment to integrate gender and ethical perspectives in its research, and a strong policy orientation. The Center attempts to advance knowledge through collaborative research, publications, seminars and a working paper series. In addition to advancing knowledge, the Center seeks to foster capacity-building and promote international collaboration to improve health and well-being around the world. About 35 full-time residents—including faculty, research fellows and graduate students—pursue work mainly through multidisciplinary working groups. Other participants are drawn from Harvard faculties and Boston-area universities. The Center also regularly invites visiting scholars from around the world. The Center's current research programs focus on gender and population policies, demographic transitions, burden of disease, health equity, human development and human security. The human security program explores concepts of security through research on ethics and international policy, human survival crises during complex humanitarian emergencies, environmental security and new diseases, and population and security. For information, contact: Winifred M. Fitzgerald, Executive Director, Harvard Center for Population and Development Studies, 9 Bow Street, Cambridge, MA 02138. Tel: 617-495-3002; Fax: 617-495-5418; E-Mail: wmfitz@hsph.harvard.edu; Internet: <http://www.hsph.harvard.edu/hcpds>.

THE INSTITUTE FOR FOREIGN POLICY ANALYSIS, INC.

The Institute for Foreign Policy Analysis (IFPA) is a non-profit policy research organization affiliated with the Fletcher School of Law and Diplomacy at Tufts University. Founded in 1976, the Institute has performed a wide range of studies on a variety of foreign policy and security affairs issues, as well as the sources, scope and impact of ethnic conflict in the post-Soviet security environment. The Institute also has a long-standing interest in issues of resource scarcity; the security implications of energy extraction, transit and processing; and the linkages between economic development, environmental degradation and political stability. IFPA is well-known internationally for its ability to organize a wide range of fora that bring together key decision-makers and experts from the international community. These meetings have included senior-level, formal gatherings involving the participation of heads of state and government, leaders of key multinational organizations and senior parliamentarians; expert-level workshops and round tables; and seminar series on Capitol Hill and elsewhere. With offices in Washington, DC and Cambridge, Massachusetts, IFPA has extensive resources upon which to draw in both the worlds of policy and academe. For information, contact: Robert L. Pfaltzgraff, Jr., President, Institute for Foreign Policy Analysis, Inc., 675 Massachusetts Ave., Cambridge, MA 02139. Tel: 617-492-2116; Fax: 617-492-8242; E-Mail: mail@ifpa.org; Internet: http://www.ifpa.org/text_pages/home_.htm.

MIT PROJECT ON ENVIRONMENTAL POLITICS AND POLICY

The Project on Environmental Politics & Policy sees policymaking first and foremost as a political process—the collision of political, economic, social, and philosophical interests—and only secondarily as an exercise in technical problem solving. Addressing environmental problems as though they were fundamentally engineering problem sets most often produces solutions that are politically infeasible, regardless of the technical merits. Accordingly, the Project's goal is to advance an understanding of environmental policymaking as a political process and thereby improve the chances of designing responsive and effective technical policies that can be more readily adopted and implemented. The Project has a broad research agenda. A major line of research examines the ongoing struggle between environmental and economic interests to influence national, state, and local policies. A second line of research investigates the continuing failure of federal agencies to bring ecologically sound management practices to public lands and natural resources held in common. A third line of research explores how local governments and the public absorb and respond to the complex scientific-technical content of local environmental problems and, in turn, how their responses affect technical options for environmental policy. For more information, contact: MIT Project on Environmental Politics and Policy, Massachusetts Institute of Technology, Bldg. E53-402, Cambridge, MA 02139. Tel: 617-253-8078; Fax: 617-258-6164; E-Mail: smmeyer@mit.edu; Internet: <http://web.mit.edu/polisci.mpepp>.

MONITORING NEWLY INDEPENDENT STATES ENVIRONMENTAL DEVELOPMENTS PROJECT (MNISED)

Currently the primary project activity involves collecting information on environmental and health problems associated with nuclear weapons, missiles, and the civilian nuclear industry in the former Soviet Union. This open media collection supports faculty and student research and academic needs at the Monterey Institute. The project is a part of the Center for Russian and Eurasian Studies Library, which facilitates information collection and dissemination for a variety of Institute programs and projects, including the Newly Independent States Nonproliferation Project (NISNP). As an integral unit of the Center for Nonproliferation Studies at the Monterey Institute, NISNP incorporates this information into its Nuclear Profiles Database. The database contains the most comprehensive open-source collection of information on nuclear proliferation in the former Soviet Union. Related environmental topics in the database include radioactive waste storage, submarine dismantlement, and spent fuel reprocessing. In 1995, MNISED discontinued publication of its semiannual journal *NIS Environmental Watch*. Back issues 1-7 are available upon request. For information, contact: Elena K. Sokova, Center for Russian and Eurasian Studies, Monterey Institute of International Studies, 425 Van Buren St., Monterey, CA 93940. Tel: 831-647-3582; Fax: 831-647-6672; E-Mail: esokova@miis.edu; Internet: <http://cns.miis.edu/cres.htm>.

POPULATION INFORMATION PROGRAM

The Population Information Program (PIP) supplies health and family planning professionals and policymakers with authoritative, accurate, and up-to-date information in its journal *Population Reports*, the bibliographic database POPLINE, and the Media/Materials Clearinghouse (M/MC). PIP is supported by the United States Agency for International Development (USAID). One of the Program's recent publications is "Solutions for a Water-Short World," part of the *Population Reports* series. For information, contact: Population Information Program, 111 Market Place, Suite 310, Baltimore, MD 21202. Tel: 410-659-6300; Fax: 410-659-6266; E-Mail: popline@jhuccp.org; Internet: <http://www.jhuccp.org>.

PRINCETON UNIVERSITY, GLOBALIZATION AND FRAGMENTATION PROJECT

There are two broad trends that challenge the contemporary nation-state order: accelerating globalization in financial, currency, and product markets, accompanied by a trend toward the homogenization of consumer cultures and political values on the one hand; and on the other, fragmentation of existing states into ethnic or sectarian sub-units. Directly affecting both trends are the complex processes of international, national, and regional environmental degradation with repercussions that range from the search for international regimes to local revolts among directly-affected populations. While old issues of states and their security will certainly not vanish, basic redefinitions of what constitutes "vital interests" of given states, and thus of their security, are underway. This project sponsored one interdisciplinary graduate seminar each year from 1995 to 1998 at Princeton University. A second phase (1998-2001) of the same project focuses on three reactions to globalization: collective efforts to restore peace following civil wars; federal systems as responses to territorially based conflicts; and nation-state specialization in a global division of labor. For more information, contact: Center of International Studies, Bendheim Hall, Princeton University, Princeton, NJ 08544. Tel: 609-258-4851; Fax: 609-258-3988; Internet: <http://www.wws.princeton.edu/~cis/>.

THE GEORGE WASHINGTON UNIVERSITY, SPACE POLICY INSTITUTE

The Space Policy Institute was established in 1987 as an element of the Center for International Science and Technology Policy of George Washington University's Elliott School of International Affairs. The Institute focuses its activities on examining policy issues related to the space efforts of the United States and cooperative and competitive interactions in space between the United States and other countries. Using a combination of staff analysis, commissioned papers, groups of experts, research interviews, seminars focused on space and security issues, and a major conference to review the project's recommendations, this project focuses on the following primary issues: 1) understanding the key trends in dual-purpose space technologies; 2) regional security

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implications of the proliferation of space technology; 3) implications for U.S. military force planning and operations; and 4) recommendations for effective policy responses. For further information, contact: Ray A. Williamson or John C. Baker, Space Policy Institute, 2013 G St. NW, Stuart 201, The George Washington University, Washington, DC 20052. Tel: 202-994-7292; Fax: 202-994-1639; E-Mail: rayw@gwu.edu or jcbaker6@gwu.edu.

STANFORD UNIVERSITY CENTER FOR ENVIRONMENTAL SCIENCE AND POLICY, INSTITUTE FOR INTERNATIONAL STUDIES

The Institute for International Studies (IIS) at Stanford University has established an integrated teaching and research program in environmental studies to aid in the discovery and dissemination of knowledge related to global issues such as population growth, human health and nutrition, climate change, toxic wastes, and loss of biodiversity. IIS has established five main research areas that combine both science and policy-related studies: (1) global change; (2) ecology, agriculture, biodiversity and regulation; (3) health, population, and resources; (4) technological approaches to biodiversity assessment; and (5) market-based approaches to environmental preservation. These issues are currently the focus of the Environmental Policy Seminar, a weekly series that is conducted by IIS for faculty members and their graduate students throughout the University. The seminars are project-focused, and are tied to ongoing research by faculty and graduate students throughout the University as well as other academic, governmental, or industrial institutions sharing an interest in solving or implementing solutions to the problems presented. For information, contact: Donald Kennedy or Walter A. Falcon, Co-Directors, Center for Environmental Science and Policy, Encina Hall, Room 200, Stanford, CA 94305-6055. Tel: 415-725-9888; Fax: 415-725-2592; E-Mail: hfxn@forsythe.stanford.edu.

UNIVERSITY OF MARYLAND, HARRISON PROGRAM ON THE FUTURE GLOBAL AGENDA

Global environmental change, demographic trends, and the diffusion of technological innovations are rapidly reshaping the international system. Disregarding national borders, these forces are transforming international relations, deepening interdependence, and forging a global system from a world of sovereign states. Creating a more sustainable planet for the next century will require dealing with a wide range of policy issues raised by this rapid acceleration of events. The Harrison Program on the Future Global Agenda engages in futures-oriented teaching and research that will contribute to humanity's ability to anticipate and deal effectively with these important currents of change. The Program makes an effort to understand the nature and interaction of environmental, technological, social, and political systems, and to suggest potential means of breaking out of destructive patterns of behavior. To this end, faculty develop new and innovative educational materials, conduct scholarly research, and organize conferences and workshops that bring together scientists, social theorists, advocates, and policymakers to examine key components of the future global agenda. For more information, contact: Harrison Program on the Future Global Agenda, Department of Government and Politics, Tydings Hall, Suite 3114, University of Maryland College Park, College Park, MD 20742. Tel: 301-405-7490; Fax: 301-314-9690; E-Mail: harrison@bss2.umd.edu; Internet: <http://www.bsos.umd.edu/harrison/>.

UNIVERSITY OF MICHIGAN, POPULATION FELLOWS PROGRAM

The University of Michigan Population Fellows Program was first established in 1984 and is funded through the United States Agency for International Development (USAID). The Program places Fellows with a wide variety of organizations that address family planning and reproductive health issues in developing countries. The Program provides a modest professional stipend to the Fellows and aims to both enhance the Fellows' skills, as well as to build capacity within host organizations for development of effective and sustainable family planning and reproductive health interventions. Since the Program's inception, there have been more than 200 professionals placed in the field and an expansion of the Program's original focus to include several new initiatives, including the Population-Environment Fellows Program (PEFP), the Population, Environmental Change and Security (PECS) Initiative, and the Minority-Serving Institutions Initiative (MSI). The Woodrow Wilson Center's Environmental Change and Security Project is a key element of the PECS Initiative. Fellows work in a wide variety of settings and perform a wide range of roles for their host organizations. All Fellows, however, gain the opportunity to develop a network of professional contacts and the chance to master new skills in the field of international development assistance. They also gain the opportunity to support meaningful projects around the world. Fellows generally come into the Program with a Master's degree in a related field and less than five years of professional experience. They leave the Fellows Program in a position to pursue mid-level career placements in the field of international population/family planning assistance or population-environment. For information, contact: Mita Sengupta Gibson, Manager, Population-Environment Fellows Program, Center for Population Planning, University of Michigan, Room M4531, School of Public Health II, 1420 Washington Heights, Ann Arbor, MI 48109-2029. Tel: 734-936-1627; Fax: 734-647-4947; E-Mail: pop.fellows@umich.edu or popenv@sph.umich.edu; Internet: <http://www.sph.umich.edu/pfps/>.

UNIVERSITY OF TORONTO, PROJECT ON ENVIRONMENTAL SCARCITIES, STATE CAPACITY, AND CIVIL VIOLENCE

The Project on Environmental Scarcities, State Capacity, and Civil Violence at the University of Toronto has investigated the impacts of water, forests and cropland resource scarcities on governmental capabilities in the developing countries of China, India and Indonesia. The project asks, if capacity declines, is there an increased likelihood of widespread civil violence such as riots, ethnic clashes, insurgency and revolution? The project has targeted its findings for the public and policymakers in Canada,

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the United States, China, India and Indonesia. Funding has been provided by The Rockefeller Foundation and The Pew Charitable Trusts. Recent publications to emerge from the project include *Ecoviolence: Links Among Environment, Population, and Security*, edited by Thomas F. Homer-Dixon and Jessica Blitt, and a new 2nd edition of *Environment, Scarcity, and Violence*, by Homer-Dixon (see the Bibliography section for more information on these works). For information on the project, contact: Thomas Homer-Dixon, Principal Investigator, Peace and Conflict Studies Program, University College, 15 King's College Circle, University of Toronto, Toronto, Canada M5S 1A1. Tel: 416-978-8148; Fax: 416-978-8416; E-Mail: pcs.programme@utoronto.ca; Internet: <http://www.library.utoronto.ca/www/pcs/state.htm>.

YALE CENTER FOR ENVIRONMENTAL LAW AND POLICY

The Yale Center for Environmental Law and Policy was established in 1994 by the Yale Law School and the Yale School of Forestry and Environmental Studies (YSFES). The Center draws on resources throughout Yale University to develop and advance environmental policy locally, regionally, nationally, and globally. For information, contact: Yale Center for Environmental Law and Policy, Sage Hall, 205 Prospect Street, New Haven, CT 06511. Tel: 203-432-6065; Fax: 203-432-5596; E-mail: epcenter@minerva.cis.yale.edu; Internet: <http://pantheon.yale.edu/~epcenter>.

Foundations

THE HEINRICH BÖLL FOUNDATION

With headquarters in Berlin, Germany, the Heinrich Böll Foundation is a political foundation for the promotion of democratic ideas, civil society and international understanding. It is associated with the party Alliance 90/The Greens, and its work is oriented towards ecology, democracy, solidarity and non-violence. At present, one of the key themes of the Foundation's international work is "Ecology and Sustainable Development." The foundation's projects, in cooperation with partner organizations, include exchanges, educational programs, and study tours. The Foundation maintains offices in eleven countries outside of Germany. For more information, contact: Sascha Muller-Kraenner, Heinrich Böll Foundation, Washington Office, Chelsea Gardens, 1638 R St. NW, Ste. 120, Washington, DC 20009. Tel: 202-462-7512; Fax: 202-462-5230; E-Mail: washington@boell.de; Internet: <http://www.ased.org/index.htm>.

CANADIAN FOUNDATION FOR THE AMERICAS

Founded in 1990, the Canadian Foundation for the Americas (FOCAL) aims to develop greater understanding of important hemispheric issues and help to build a stronger community of the Americas. As a policy center, FOCAL fosters informed and timely debate and dialogue among decision-makers and opinion leaders in Canada and throughout the Western Hemisphere. FOCAL studies a range of issues in four policy areas: Inter-American Relations, Governance and Human Security, Social Policies, and Economic Integration. In 1999, FOCAL may deal with topics such as drug trafficking and human security in the Americas, the negotiations of the Free Trade Areas of the Americas, improved health strategies, and Canada's relations with the countries in the Americas. Topics examined by FOCAL on an ongoing basis include the environment and sustainable development. FOCAL is an independent, not-for-profit charitable organization that is guided by a Board of Directors. It receives funding from the Department of Foreign Affairs and International Trade, the Canadian International Development Agency and other public and private sector organizations as well as inter-American institutions. For information, contact: Canadian Foundation for the Americas, 1 Nicholas St., Ste. 720, Ottawa, Ontario K1N 7B7. Tel: 613-562-0005; Fax: 613-562-2525; Internet: <http://www.focal.ca>.

COMPTON FOUNDATION, INC.

The Compton Foundation was founded to address community, national and international concerns in the fields of Peace and World Order, Population, and the Environment. Other concerns of the Foundation include Equal Educational Opportunity, Community Welfare and Social Justice, and Culture and the Arts. In a world in which most problems have become increasingly interrelated and universal in dimension, and where survival of human life under conditions worth living is in jeopardy, the Foundation is concerned first and foremost with the prevention of war and the amelioration of world conditions that tend to cause conflict. Primary among these conditions are the increasing pressures and destabilizing effects of excessive population growth, the alarming depletion of the earth's natural resources, the steady deterioration of the world's environment, and the tenuous status of human rights. To address these problems the Compton Foundation focuses most of its grant-making in the areas of Peace and World Order, Population, and the Environment, with special emphasis on projects that explore the interconnections between these three categories. The Foundation believes that prevention is a more effective strategy than remediation, that research and activism should inform each other, and that both perspectives are needed for productive public debate. For more information, contact: Compton Foundation, Inc., 545 Middlefield Road, Suite 178, Menlo Park, CA 94025. Tel: 650-328-0101; Fax: 650-328-0171; E-Mail: comptonfdn@igc.org.

Nongovernmental Activities

FORD FOUNDATION

The Ford Foundation is a resource for innovative people and institutions worldwide. Its goals are to: strengthen democratic values, reduce poverty and injustice, promote international cooperation, and advance human achievement. A fundamental challenge facing every society is to create political, economic, and social systems that promote peace, human welfare, and the sustainability of the environment on which life depends. The Foundation believes that the best way to meet this challenge is to encourage initiatives by those living and working closest to where problems are located; to promote collaboration among the nonprofit, government, and business sectors; and to assure participation by men and women from diverse communities and at all levels of society. It works mainly by making grants or loans that build knowledge and strengthen organizations and networks. Since its financial resources are modest in comparison to societal needs, it focuses on a limited number of problem areas and program strategies within its broad goals. Founded in 1936, the Foundation operated as a local philanthropy in the state of Michigan until 1950, when it expanded to become a national and international foundation. Since its inception it has been an independent, nonprofit, nongovernmental organization. It has provided over \$8 billion in grants and loans. For information, contact: The Ford Foundation, 320 East 43rd St., New York, NY 10017. Tel: 212-573-5000; Fax: 212-351-3677; Internet: <http://www.fordfound.org/website/website.html>.

THE JOHN D. AND CATHERINE T. MACARTHUR FOUNDATION, PROGRAM ON GLOBAL SECURITY AND SUSTAINABILITY

The objective of the Program on Global Security and Sustainability of the MacArthur Foundation is to promote peace within and among countries, healthy ecosystems worldwide, and responsible reproductive choices. The Foundation encourages work that recognizes the interactions among peace, sustainable development, reproductive health, and the protection of human rights. It supports innovative research and training, the development of new institutions for cooperative action, and new strategies for engaging U.S. audiences in efforts to advance global security and sustainability. The Foundation recognizes the importance of three specific global issues: arms reduction and security policy; ecosystems conservation; and population. These are three core areas of the Program. In addition, support is provided in three key aspects of the global context: the state of understanding of the concepts of security and sustainability; the need for new partnerships and institutions to address global problems; and the education of the public about the United States' interests and responsibilities regarding global issues. For information, contact: The John D. and Catherine T. MacArthur Foundation, 140 South Dearborn St., Chicago, IL 60603. Tel: 312-726-5922; E-Mail: 4answers@macfdn.org; Internet: <http://www.macfdn.org>.

THE DAVID AND LUCILE PACKARD FOUNDATION

The David and Lucile Packard Foundation is a private family foundation created in 1964 by David Packard (1912-1996), co-founder of the Hewlett-Packard Company, and Lucile Salter Packard (1914-1987). The Foundation provides grants to nonprofit organizations in the following broad program areas: Science, Children, Population, Conservation, Arts, Community and Special Areas that include Organizational Effectiveness and Philanthropy. The Foundation provides national and international grants, and also has a special focus on the Northern California counties of San Mateo, Santa Clara, Santa Cruz, and Monterey. The Foundation's assets were \$9 billion at the end of 1997 and grant awards were more than \$200 million. The Foundation is directed by an eight-member Board of Trustees which includes the four children of the founders. A staff of 115 employees conducts the day-to-day operations of the Foundation. For information, contact: The David and Lucile Packard Foundation, 300 Second Street, Suite 200, Los Altos, California 94022. Tel: 650-948-7658; Fax: 650-948-5793; Internet: <http://www.packfound.org>.

PLOUGHSHARES FUND

Founded at a time when global nuclear conflict seemed a real and immediate possibility, the Ploughshares Fund was designed to provide financial support to the best efforts we could identify among the many people and organizations working to eliminate the threat of nuclear war. Since that time Ploughshares has responded to new challenges—the burgeoning trade in conventional weapons, the explosion of regional conflict in the aftermath of the Cold War, and the growing danger of nuclear weapons proliferation following the breakup of the Soviet Union. With gifts from just over 5,000 individuals and a few foundations, Ploughshares has made over 1,400 grants totaling more than \$18,000,000 since its inception in 1981. The Ploughshares Fund supports national and grassroots organizations that over the years have forced the closure of nuclear weapons production lines around the country, charging safety and environmental abuses at those facilities. With direct support and technical assistance, Ploughshares enables citizens to monitor and expose DOE's continued efforts to design, test, and produce nuclear weapons at the expense of environmental cleanup. A coalition of these groups is now suing the DOE to halt construction of new stockpile stewardship facilities, claiming that it has failed to comply with the National Environmental Policy Act. Ploughshares also supports the development of an indigenous network of citizens' groups in the former Soviet Union who are facing equal or greater environmental challenges caused by the production of nuclear weapons in their countries. For information, contact: Ploughshares Fund, Fort Mason Center, Bldg. B, Suite 330, San Francisco, CA 94123. Tel: 415-775-2244; Fax: 415-775-4529; E-Mail: ploughshares@igc.org; Internet: <http://www.ploughshares.org/>.

THE ROCKEFELLER BROTHERS FUND, "ONE WORLD: SUSTAINABLE RESOURCE USE" AND "GLOBAL SECURITY PROGRAM"

The goal of the Fund's sustainable resource use program is to "foster environmental stewardship which is ecologically based, economically sound, culturally appropriate and sensitive to questions of intergenerational equity." The Global Security Program comprises grantmaking in the pursuit of "a more just, sustainable, and peaceful world by improving the cooperative management of transnational threats and challenges," working with public and private actors in North America, East Asia, Central and Eastern Europe, and southern Africa. The program focuses on constituency building, transparency and inclusive participation, the challenges of economic integration, and emerging transnational concerns. For information, contact: The Rockefeller Brothers Fund, Inc., 1290 Avenue of the Americas, New York, NY 10104-0233. Tel: 212-373-4200; Fax: 212-315-0996; E-Mail: rbf@mcimail.com; Internet: <http://www.rbf.org/>.

ROCKEFELLER FOUNDATION, GLOBAL ENVIRONMENT DIVISION

The Global Environment Division's goals are to build international leadership capable of initiating and carrying out innovative approaches to sustainable development, and to facilitate the transition to a new energy paradigm based on sustainability, renewable resources, efficient use, economic viability and equity in access. The Global Environment division seeks to catalyze the transition to a new energy paradigm in both developed and developing countries by reducing dependence on fossil fuel, and replacing it with renewable-energy sources and increased energy efficiency. In the United States the Global Environment division supports the Energy Foundation's efforts to promote policies, practices and technologies that help utilities to generate, and end-users to employ, energy at the least financial and environmental cost. The Foundation conceived the Global Energy Initiative, which seeks to demonstrate to high-level, national decision-makers in developing countries the viability of renewable-energy sources by emphasizing their equity and quality-of-life benefits. This Initiative aims to facilitate dialogue among political, business and community leaders to catalyze selective projects designed to demonstrate an improved quality of life for the rural and urban poor, and simultaneously reduce the threats of pollution and global climate change. *High Stakes: The United States, Global Population and Our Common Future* is a book recently published by the Foundation. For information, contact: Rockefeller Foundation, Global Environment Division, 420 Fifth Ave., New York, NY 10018. Tel: 212-852-8365; Internet: <http://www.rockfound.org>.

SOROS OPEN SOCIETY INSTITUTE

The Open Society Institute (OSI) is a private operating and grantmaking foundation that seeks to promote the development and maintenance of open societies around the world by supporting a range of programs in the areas of educational, social, and legal reform, and by encouraging alternative approaches to complex and often controversial issues. Established in 1993 and based in New York City, the Open Society Institute is part of the Soros foundations network, an informal network of organizations created by George Soros that operate in over 30 countries around the world, principally in Central and Eastern Europe and the former Soviet Union but also in Guatemala, Haiti, Mongolia, Southern Africa, and the United States. Together with its Hungary-based affiliate, the Open Society Institute-Budapest, OSI assists these organizations by providing administrative, financial, and technical support, and by establishing "network programs" that address certain issues on a regional or network-wide basis. The programs of the Open Society Institute fall into three categories: network programs; international initiatives; and programs that focus on the United States. For more information contact: Office of Communications at the Open Society Institute-New York, 400 West 59th Street, New York, NY 10019. Tel: 212-548-0668; Internet: <http://www.soros.org>.

SUMMIT FOUNDATION

The Summit Foundation is dedicated to improving the quality of life for residents and guests of Summit County. Summit County, Colorado is a vacation paradise for millions of visitors each year. But to over 18,000 people it is also their home—a special community enriched by the work of the Summit Foundation. Established in 1984 as the Breckenridge Development Foundation by the Breckenridge Ski Area, The Summit Foundation added support from Copper Mountain, Keystone, and Arapahoe Basin Ski Resorts and assumed its current name in 1991. A public foundation which funds other Summit County nonprofit agencies providing programs and services in art & culture, health & human service, education, environment, and sports, The Summit Foundation allocates funds twice per year from submitted applications. In 1994, The Foundation achieved an important milestone, surpassing \$1 million in grants; all monies raised remain in Summit County. The Summit Foundation was not started as an endowed foundation, and therefore raises revenue through unrestricted individual and business donations and several fundraising events. For information, contact: The Summit Foundation, Breckenridge, CO 80424. Tel: 970-453-5970; E-Mail: sumfound@colorado.net; Internet: <http://www.summitfoundation.org/home.html>.

W. ALTON JONES FOUNDATION, SUSTAINABLE WORLD AND SECURE WORLD PROGRAMS

The W. Alton Jones Foundation seeks to build a sustainable world by developing new ways for humanity to interact responsibly with the planet's ecological systems as well as a secure world by eliminating the possibility of nuclear war and providing alternative methods of resolving conflicts and promoting security. The Sustainable World Program supports efforts that will ensure that human activities do not undermine the quality of life of future generations and do not erode the Earth's capacity to support living organisms. The Foundation addresses this challenge with a tight focus on issues whose resolution will determine how habitable

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the planet remains over the next century and beyond: maintaining biological diversity; ensuring that human economic activity is based on sound ecological principles; solving humanity's energy needs in environmentally sustainable ways; and avoiding patterns of contamination that erode the planet's capacity to support life. The Secure World Program seeks to build a secure world free from the nuclear threat. The Foundation addresses this challenge by: promoting common security and strategies related to how nations can structure their relationships without resorting to nuclear weapons; devising and promoting policy options to control and eventually eliminate existing nuclear arsenals and fissile materials; stemming proliferation of nuclear weapons and related materials; addressing threats to global sustainability by preventing the massive release of radioactive material; and assessing and publicizing the full costs of being a nuclear-weapon state. For information, contact: W. Alton Jones Foundation, 232 East High St., Charlottesville, VA 22902-5178. Tel: 804-295-2134; Fax: 804-295-1648; E-Mail: earth@wajones.org; Internet: <http://www.wajones.org/wajones>.

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THE ASPEN INSTITUTE

The Aspen Institute is an international nonprofit educational institution dedicated to enhancing the quality of leadership and policymaking through informed dialogue. The Institute's International Peace and Security Program is composed of a series of high-level international conferences designed to suggest practical strategies to promote peace, greater economic equity, and security in the face of the principal threats and sources of tension characterizing the first decades after the end of the Cold War. Participants are influential leaders with diverse backgrounds and perspectives from all global regions. Topics have included the new dimensions of national security, the role of intervention in managing conflict, conflict prevention, international poverty, and promoting peace in the Balkans. Post-conference publications are useful for policymakers, public education, and academic material. The Institute's program on Energy, the Environment, and the Economy seeks to build consensus in the areas of energy and environmental policies by convening private and public sector leaders in a nonadversarial setting. Recent or current activities include a Series on the Environment in the 21st Century, an annual Energy Policy Forum, a Mexico-U.S. Border Environmental Dialogue, a series on integrating environmental and financial performance, a series on non-proliferation and environmental aspects of nuclear waste policies, and an annual Pacific Rim energy workshop. For information, contact: Nancy Bearg Dyke (International Peace and Security Program) or Anne Carpenter (Program on Energy, the Environment, and the Economy), The Aspen Institute, 1 DuPont Circle, Washington, DC 20036. Tel: 202-736-5800; Fax: 202-467-0790; E-Mail: acarpenter@aspeninst.org; Internet: <http://www.aspeninst.org>.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE, INTERNATIONAL MIGRATION POLICY PROGRAM

The Program is a leading source of expert analysis and policy ideas on migrant and refugee issues. It focuses on bridging the worlds of research and policy, bringing an independent voice to migrant and refugee policy debates, and enhancing public understanding of these and related issues. Its activities extend to Russia and other post-Soviet states, as well as numerous other governments, leading independent institutions, the UN, and other international agencies. For information, contact: Demetrios Papademetriou and Kathleen Newland, International Migration Policy Program, Carnegie Endowment for International Peace, 1779 Massachusetts Ave. NW, Washington, DC 20036. Tel: 202-939-2276; Fax: 202-332-0945; Internet: <http://ceip.org>.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE, MANAGING GLOBAL ISSUES PROJECT

The Project identifies lessons drawn from attempts in the international community to manage a wide range of global issues (including environment, weapons proliferation, organized crime, terrorism, trade, the Internet, and other issues). It examines how innovative mechanisms and techniques used in one arena (such as the NGO-government partnership in drafting and negotiating a land mine accord) can offer positive or negative lessons for the management of other transnational issues (such as negotiating agreements on climate change or global crime). By bringing together experts from a variety of different disciplines and professions, the project aims to strengthen practice and enrich the growing theoretical literature on international organizations and global governance with the insights of actual experience. For more information, contact: P.J. Simmons, Director, Managing Global Issues Project, 1779 Massachusetts Ave. NW, Washington, DC 20036. Tel: 202-939-2259; Fax: 202-483-4462; E-mail: pjsimmons@ceip.org; Internet: <http://www.ceip.org>.

CENTER FOR BIOREGIONAL CONFLICT RESOLUTION

The Center for Bioregional Conflict Resolution was established in 1995 to study the complex relationship among human communities, public regulatory institutions, and the natural environment while addressing a growing number of intense conflicts between human communities and scarce resources. The Center works with parties to address large-scale environmental conflicts that are regional and transboundary in nature to increase awareness, collaboration, and coordination. The four primary goals of the Center are to study and enhance the conservation, preservation, and restoration of key bioregional resources, to foster the development of cooperative processes to sustain human communities and complex ecosystems, to aid in the development of

bioregional public policies, and to act as an information clearinghouse. The Center is currently developing the following research programs: Improving the Understanding of the Relationship between Ecosystem Planning and Management, Human Communities, and Public Institutions; Strengthening the Theory and Practice of Environmental Conflict Resolution; Leadership Training to Improve the Quality of Environmental Decision Making; and Developing Effective Strategies for Integrating Cultural Preservation with Environmental Protection. The Center's co-directors recently published a book, *Bioregionalism* (Routledge Press, 1997) that examines the history and confluence between bioregional science and conflict resolution. For information, contact: Center for Bioregional Conflict Resolution, 340 Soquel Avenue, Suite 104, Santa Cruz, CA 95062. Tel: 408-457-1397; Fax: 408-457-8610; E-mail: concur@concurinc.com; Internet: <http://www.concurinc.com/CONCUR07.html>.

CENTER FOR DEFENSE INFORMATION

The Center for Defense Information (CDI) is a non-profit, non-government organization which believes that strong social, economic, political and military components and a healthy environment contribute equally to the nation's security. CDI opposes excessive expenditures for weapons and policies that increase the danger of war. CDI also produces a weekly television show, *America's Defense Monitor*. One of CDI's recent accomplishments is a documentary, titled "Water, Land, People & Conflict," which addresses complex national security issues related to the environment such as population growth, water scarcity, pollution, and economic stability. For local broadcast times and access to extensive resources on military and security issues, contact CDI's Internet site: <http://www.cdi.org>. For more information, contact: Center for Defense Information, 1799 Massachusetts Ave. NW, Ste. 615, Washington, DC 20036. Tel: 202-332-0600; Fax: 202-462-4559; E-Mail: info@cdi.org.

THE CENTER FOR ECONOMIC CONVERSION

Founded in 1975, the Center for Economic Conversion (CEC) is a non-profit organization dedicated to creating positive alternatives to dependence on excessive military spending. One of the CEC's top priorities is "green conversion," the transfer of military assets (money, talent, technology, facilities and equipment) to activities that enhance the natural environment and foster sustainable economic development. This work includes: studies of green conversion efforts already underway in industry, national laboratories and military bases; a pilot project in green military base conversion; the promotion of public policies that encourage green conversion; and various educational activities that build support for green conversion. For information, contact: Joan Holtzman, Center for Economic Conversion, 222 View St., Mountain View, CA 94041. Tel: 650-968-8798; Fax: 650-968-1126; E-mail: cec@igc.apc.org; Internet: <http://www.conversion.org>.

CENTER FOR INTERNATIONAL STUDIES

The Center for International Studies (CIS) is a private, independent, non-profit, Baku-based research and public organization, which was founded in May 1998. The CIS Center focuses on the most challenging issues of international and regional security, oil pipeline politics, energy, environment, conflict resolution, peace and new geopolitics of great powers within the Caucasus and in the former Soviet Union. The CIS Research Groups work independently on research projects and analyze contemporary geopolitical and international security issues as well as energy and environmental problems from an Azeri perspective in order to give the public a better profile of the ongoing complex processes and the general situation in the region. For information, contact: Dr. Kamaran Abdullayev, Associate Director, CIS, 85 Samed Vurgun Street, Unit 7, Suite 103, Baku, 370022, Azerbaijan. E-mail: ABDULLAK@usa.net.org.

CENTER FOR PUBLIC ENVIRONMENTAL OVERSIGHT

The Center for Public Environmental Oversight (CPEO) is an organization that promotes and facilitates public participation in the oversight of environmental activities, including but not limited to the remediation of U.S. federal facilities, private "Superfund" sites, and Brownfields. It was formed in 1992 as CAREER/PRO (the California Economic Recovery and Environmental Restoration Project) by the San Francisco Urban Institute, in response to the large number of military base closures in the San Francisco Bay Area. CPEO has its roots in community activism, and it provides support for public advocacy, but it is not a political organization. Its work is based upon six principles: Empowerment, Justice, Education, Communications, Partnership, and Credibility. CPEO publishes two newsletters, "Citizens' Report on the Military and the Environment" and "Citizens' Report on Brownfields." For more information, contact: SFSU Center for Public Environmental Oversight, 425 Market St., 2nd Floor, San Francisco, CA 94105. Tel: 415-904-7751; Fax: 415-904-7765; E-mail: cpeo@cpeo.org; Internet: <http://www.cpeo.org>.

THE CENTER FOR SECURITY POLICY

The Center for Security Policy exists as a non-profit, non-partisan organization to stimulate and inform the national and international debates about all aspects of security policy, including their strategic and environmental implications, particularly as they relate to the all-encompassing question of energy. The Center is committed to preserving the credibility of U.S. antiproliferation efforts, and the message to allies and potential adversaries that the U.S. is serious about ensuring the safe and benign global development of nuclear energy. The Center has extensively studied the Chemical Weapons Convention, the Cienfuegos nuclear power project in Cuba, and expressed concern over the Department of Energy's Environmental Management program for

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cleaning up the nuclear legacy of the Cold War. In addition, the Center calls for increased attention to the strategic importance of the vast oil reserves of the Caspian Basin, and to the deterioration of the sensitive ecosystems and waterways of the region (for example Turkey's imperiled Bosphorus Straits). The Center makes a unique contribution to the debate about these and other aspects of security and environmental policies, through its rapid preparation and dissemination of analyses and policy recommendations via computerized fax, published articles and electronic media. For information, contact: The Center for Security Policy, 1250 24th St. NW, Ste. 350, Washington, DC 20037. Tel: 202-466-0515; Fax: 202-466-0518; Internet: <http://www.security-policy.org>.

THE CENTRE FOR THE DEVELOPMENT OF HUMAN RESOURCES

The Centre for the Development of Human Resources at The Centre of Investigation and National Security of Mexico is conducting prospective studies on several issues related to national security, such as environmental security, food security, organized crime, drug trafficking, water availability, energy, poverty, low intensity conflict and other social, economic and political threats to national stability. These studies are designed to provide data information for building early warning systems and monitoring risk indicators. The first stage will conclude by December 1999, and the second one a year later. For information, contact: Jose Luis Calderón, Director, Centre for the Development of Human Resources, or Ricardo Márquez, Head of the Strategic Studies Program, Camino Real de Contreras No. 35, Col. La Concepción, Delegación Magdalena Contreras, Mexico, D.F., D.P. 10840. Tel: 6-24-37-00, ext. 2676 (Jose Luis Calderón) or ext. 2078 (Ricardo Márquez).

CONSORTIUM FOR INTERNATIONAL EARTH SCIENCE INFORMATION NETWORK (CIESIN)

CIESIN was established in 1989 as a non-profit, non-governmental organization to provide information that would help scientists, decision-makers, and the public better understand their changing world. CIESIN specializes in global and regional network development, science data management, decision support, and training, education and technical consultation services. CIESIN is the World Data Center A (WDC-A) for Human Interactions in the Environment. One program CIESIN implemented is the US Global Change Research Information Office (GCRIO). This office provides access to data and information on global change research, adaptation/mitigation strategies and technologies, and global change related educational resources on behalf of the US Global Change Research Program (USGCRP) and its participating Federal Agencies and Organizations. CIESIN is located on Columbia University's Lamont-Doherty Earth Observatory campus in Palisades, New York. For more information contact CIESIN at: PO Box 1000, 61 Route 9W, Palisades, NY 10964. Tel: (914) 365-8920; E-Mail: ciesin.info@ciesin.org

CLIMATE INSTITUTE

The Climate Institute (CI) is an international organization devoted to helping maintain the balance between climate and life on Earth. In all its efforts, including the Climate Alert newsletter, the Institute strives to be a source of objective information and a facilitator of dialogue among scientists, policymakers, business executives, and citizens. Currently, the Institute's main focus is energy efficiency and renewable energy. CI's Green Energy Investment project works to mobilize investors to finance and accelerate the development of renewable and "greenhouse-benign" energy technologies. The Small Island States Greening Initiative assists the island states in adapting to climate change and transforming their energy systems to renewables. Through the United Nations Greening Initiative, the Institute assisted the North American Regional office of UNEP in energy upgrades and is now working toward making UN Headquarters a showcase for green technologies. For information, contact: Christopher Dabi, The Climate Institute, 333 ½ Pennsylvania Ave. SE, Washington, DC 20003. Tel: 202-547-0104; Fax: 202-547-0111; E-Mail: cdabi@climate.org; Internet: <http://www.climate.org>.

THE CLUB OF ROME

Members of the Club of Rome are convinced that the future of humankind is not determined once and for all, and that it is possible to avoid present and foreseeable catastrophes when they are the result of human selfishness or of mistakes made in managing world affairs. In 1972 the Club published *Limits to Growth*, a companion book to their World3 computer model indicating trends for growth on this planet. The model considered the effects on growth of population, agricultural production, consumption of non-renewable natural resources, industrial production, and pollution. *Limits to Growth* was followed in the early 1990s by *Beyond the Limits: Confronting Global Collapse, Envisioning a Sustainable Future*. *Beyond the Limits* encouraged a comprehensive revision of policies and practices that perpetuate growth in material consumption and in population and a drastic increase in the efficiency with which materials and energy are used. The modeling work for these projects spread to the International Institute of Applied Systems Analysis in Vienna, where it inspired many more projects and conferences. Both the books and the computer model, and many successive ones, have become teaching tools and have been instituted in training games. For information, contact: Bertrand Schneider, Secretary General, The Club of Rome, 34 avenue d'Eylau, 75116 Paris, France. Tel: 33-1-47-04-45-25; Fax: 33-1-47-04-45-23; E-Mail: cor.bs@dialup.francenet.fr; Internet: <http://www.clubofrome.org/cor.htm>.

COMMITTEE ON POPULATION

The Committee on Population was established in 1983 to bring the knowledge and methods of the population sciences to bear

on major issues of science and public policy. The Committee's work includes both basic studies of fertility, health and mortality, and migration, and applied studies aimed at improving programs for the public health and welfare in the United States and developing countries. The Committee also fosters communication among researchers in different disciplines and countries and policy-makers in government and international agencies. Recent consensus reports of the Committee include *Demographic & Economic Impacts of Immigration*, *Global Population Projections*, *Cross-National Research on Aging*, *Urbanization in the Developing World*, *Reproductive Health in Developing Countries*, and *Research and Data Priorities for Arresting AIDS in Sub-Saharan Africa*. For information, contact: National Research Council, Committee on Population, 2101 Constitution Ave. NW, HA-172, Washington, DC 20418. Tel: 202-334-3167; Fax: 202-334-3768; E-mail: cpop@nas.edu; Internet: <http://www2.nas.edu/cpop>.

ECOLOGIC – CENTRE FOR INTERNATIONAL AND EUROPEAN ENVIRONMENTAL RESEARCH

Ecologic was established in 1995 as a not-for-profit institution for applied research and policy consulting. Ecologic is part of the network of Institutes for European Environmental Policy with offices in Arnhem, London, Madrid, Paris and Brussels, as well as a wider network of associated researchers. The mission of this network is to analyze and advance environmental policy in Europe. The main themes of Ecologic's work are: strategic dimensions of environmental policy, European environmental policy, multilateral environmental agreements, trade and environment, environment and development, environment and security policy, environmental policy instruments, green finance, regulation, and enforcement, as well as various issues of air pollution control, waste management, and water management and policy. Ecologic works for diverse sponsors and clients including: the German Federal Parliament, the French Ministry of Environment, the German Foundation for International Development, and Directorat-General XII (Research) of the European Commission and the Organization for Economic Cooperation and Development. In addition, research is carried out for or in cooperation with industry, trade unions, and environmental or conservationist NGOs. Some completed and ongoing projects include "Impact of EU Enlargement on European Environmental Policy," "Water Rights," and "International Workshop on Environment and Security." For information, contact: Ecologic, Pfalzburger Strasse 43-44, 10717 Berlin, Germany. Tel: 49-30-2265-1135; Fax: 49-30-2265-1136; E-Mail: office@ecologic.de; Internet: <http://www.envirocom.com/ieep/>.

ECOMAN

ECOMAN, the successor to the Environment and Conflicts Project (ENCOP), is jointly run by the Center for Security Studies and Conflict Research at the Swiss Federal Institute of Technology, Zurich, and the Swiss Peace Foundation, Bern. ECOMAN aims at elaborating theoretical approaches and practical options in view of socio-ecologically and politically sustainable and demographically adapted development. For this purpose it analyzes both everyday people's strategies and competition over scarce resources as well as innovative capacities to cope with the degradation of renewable resources in geographically distinct societal and cultural environments. Since the normative horizon "sustainable development" encompasses almost countless elements, the ECOMAN focuses on three interrelated problem areas. It looks to the the political capacities of actor groups at a local and regional (sub-national and transboundary) level in order to regulate environmental and resource conflicts (water, land, forest). Second, it examines the socio-economic capacities of actors at the levels mentioned above as well as the structural or institutional constraints concerning innovative adaptations. Finally, ECOMAN looks at the relevance of life cycle and gender perspectives in the framework of local strategies of survival, reproductive choice, and sustainable management of renewable resources. For more information contact: the Project management at the Center for Security Policy and Conflict Research, ETH-Zentrum SEI, 8092 Zurich, Switzerland. Tel: 41-1-632-4025; E-Mail: encop@sipo.reok.ethz.ch. Swiss Peace Foundation, Wasserwerksgasse 7, P.O. Box 3011, Bern, Switzerland. Tel: 41-31-311-5582; E-Mail: chfried@dial.eunet.ch. Internet: <http://www.fsk.ethz.ch/encop/>. [Editor's note: See ECSP Report Issue 4 for an article by ENCOP co-director, Gunther Baechler. He is also the author of a new volume on environment and conflict published by Kluwer Press.]

ENVIRONMENTAL AND ENERGY STUDIES INSTITUTE

The Environmental and Energy Study Institute (EESI) is a nonprofit organization dedicated to promoting environmentally sustainable societies. EESI believes meeting this goal requires transitions to social and economic patterns that sustain people, the environment and the natural resources upon which present and future generations depend. EESI produces credible, timely information and innovative public policy initiatives that lead to these transitions. These products are developed and promoted through action-oriented briefings, workshops, analysis, publications, task forces and working groups. For more information contact: Ken Murphy, Director, 122 C Street, NW, Suite 700, Washington, DC 20001. Tel: 202 628-1400; E-Mail: eesi@eesi.org.

EVIDENCE BASED RESEARCH, INC.

Evidence Based Research (EBR) is a for-profit research and analysis firm specializing in applied social science to support decision-makers in government and private industry. EBR has expertise in several program areas, including environmental security, command and control, indicators and warning, and instability analysis. EBR has extensive experience in the analysis of the impact of environmental change on the security and stability of states. EBR has provided research and technical support to the

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Department of Defense and its chairmanship of the NATO CCMS Pilot Study "Environment and Security in an International Context." EBR has also supported the development of regional strategies for the US Southern and European Commands and in the Asia Pacific region. EBR is also engaged in research on how environmental factors may impact political, social, and economic futures. For further information, contact: Evidence Based Research, Inc., 1595 Spring Hill Rd., Ste. 250, Vienna, VA 22182-2228. Tel: 703-893-6800; Fax: 703-821-7742; E-Mail: EBRInc@EBRInc.Com; Internet: <http://www.ebrinc.com>.

FEDERATION OF AMERICAN SCIENTISTS

The Federation of American Scientists (FAS) has several projects which address environment and security linkages. The "FAS Project on Agricultural Research," which replaced the Long Term Global Food Project, aims to ward off complacency in agricultural planning and to promote the responsible use of agricultural research to ensure food availability, social equity and preservation of the environment. The project's newsletter, "Global Issues in Agricultural Research," is available on the FAS web site as well as in print. FAS also sponsors a project to promote the establishment of a global program for monitoring emerging diseases (ProMED), begun in 1992. ProMED Mail is a new electronic information network to link scientists, doctors, journalists, and lay people to share information on emerging diseases and human security. For information, contact: Barbara Rosenberg, ProMED Mail Steering Committee and FAS Coordinator, Federation of American Scientists, 307 Massachusetts Ave. NE, Washington, DC 20002. Tel: 202-546-3300; E-Mail: bhrosen@purvid.purchase.edu; Internet: <http://www.fas.org>.

FRIDTJOF NANSEN INSTITUTE

Established in 1958, the independent Fridtjof Nansen Institute (FNI) conducts applied social science research on international issues of energy, resource management and the environment. Placing a particular emphasis on an interdisciplinary approach, FNI strives to meet academic quality standards while producing user-relevant and topical results. Projects of particular relevance for environmental change and security include the International Northern Sea Route Programme and the Green Globe Yearbook. For information, contact: Willy Østreng, Director, The Fridtjof Nansen Institute, Fridtjof Nansens vei 17, Postboks 324, Lysaker, Norway N-1324. Tel: 47-67-53-89-12; Fax: 47-67-12-50-47; E-mail: iliseter@ulrik.uio.no.

FUTURE HARVEST

Future Harvest seeks to promote the importance of agriculture and international agricultural research by raising awareness of their wider social benefits, including peace, prosperity, environmental renewal, health, and the alleviation of human suffering. Future Harvest commissions studies on the links between agriculture and critical global issues. Study results are widely disseminated through the media and world influentials who serve as ambassadors. Current work explores the connection between food insecurity and the degradation of natural resources and violent conflict, as well as the consequences of this conflict for migration, international intervention, and global peace and stability. It examines the environmental conditions of key agricultural areas [*Editor's note: See the Features section for excerpts from the Future Harvest commissioned report, To Cultivate Peace – Agriculture in a World of Conflict*]. Future Harvest was created out of concern that in the next century, the world will need to feed an additional 90 million people a year without jeopardizing the earth's land, water, and biodiversity. It is an initiative of the Consultative Group on International Agricultural Research (CGIAR), a network of sixteen international agricultural research centers, that recognizes the role of science for food, the environment, and the world's poor. For information, contact: Barbara Alison Rose, Director of Operations, Future Harvest, CGIAR Secretariat, World Bank, 1818 H Street, NW, Washington, DC 20433. Tel: 202-473-4734; Fax: 202-473-8110; Email: futureharvest@cgnet.com.

GLOBAL GREEN USA, LEGACY PROGRAM

The goal of the Legacy Program is to create a legacy of peace by creating a sustainable and secure future. It works toward this goal by facilitating communication and dialogue among stakeholders in the U.S. and abroad to advance the proper, accelerated cleanup of the legacy of military toxic contamination. The Legacy Program also supports the safe and sound demilitarization of both conventional and mass destruction weapons, and thereby full implementation of arms control treaties; and promotes the sustainable re-use of affected facilities. Current efforts include a Washington, DC office focused on public education and policy advocacy to strengthen military-related pollution clean-up, and CHEMTRUST, a four-year project designed to build public participation in Russian and American decision-making for chemical weapons demilitarization. For more information, contact: GG USA Legacy Program, 1025 Vermont Ave. NW, Ste. 300, Washington, DC 20005-6303. Tel: 202-879-3181; Fax: 202-879-3182; E-mail: gleikam@globalgreen.org; Internet: <http://www.globalgreen.org>.

GLOBAL SURVIVAL NETWORK

The Global Survival Network (GSN), formerly the Global Security Network, is a non-profit organization that addresses urgent threats to human and environmental welfare. GSN combines investigations, public media campaigns, direct action programs and global networking to identify, expose, and address flagrant violations of environmental and human rights. Some of their accomplishments include establishing a successful, world-renowned wildlife recovery program in the Russian Far East, reducing the consumption of endangered species through their international multi-media Asian Conservation Awareness Program (ACAP),

and addressing human trafficking and associated human rights abuses. For more information, contact: Global Survival Network, P.O. Box 73214, T Street Station NW, Washington, DC 20009. Tel: 202-387-0028; Fax: 202-387-2590; E-Mail: ingsn@igc.apc.org; Internet: <http://www.globalsurvival.net>.

GLOBAL WATER PARTNERSHIP

The Global Water Partnership (GWP) is an international network comprising a large number of developed and developing country government institutions, agencies of United Nations, development banks, professional associations, research institutions NGOs and private sector organizations. GWP initiatives are based on the Dublin-Rio principles articulated in 1992, and are intended to support national, regional and international cooperation and coordination of activities and to foster investment in water resource activities. These initiatives include supporting integrated water resources management; information-sharing mechanisms; developing innovative solutions to conflicts over water resources; suggesting practical policies based on these solutions; and helping to match needs to available resources. GWP also hosts an independent, on-line interactive venue for knowledge and networking called The Water Forum at <http://www.gwpforum.org>. The Water Forum serves as a tool for information exchange and exploration among individuals, organizations, the private sector, and academia with interest in fresh water management. For more information, please contact: GWP Secretariat, c/o Sida, S-105 25 Stockholm, Sweden. Tel: 46-8-698-5000; Fax: 46-8-698-5627; E-Mail: gwp@sida.se; Internet: <http://www.gwp.sida.se>.

INSTITUTE FOR ALTERNATIVE FUTURES

The Institute for Alternative Futures (IAF) is a nonprofit futures research think-tank founded by Clement Bezold, James Dator, and Alvin Toffler in 1977. The Foresight Seminars were initiated in 1978 and are the Institute's primary public education program. The Seminars provide Congress, federal agencies and the public with health futures research and future-oriented public policy analysis. A Seminar in February 1999 addressed the threat of infectious diseases and drug-resistant pathogens. The IAF also explores environmental topics. For information, contact: Institute for Alternative Futures, 100 N. Pitt St., Ste. 235, Alexandria, VA 22314-3108. Tel: 703-684-5880; Fax: 703-684-0640; E-Mail: futurist@altfutures.com; Internet: <http://www.altfutures.com>.

INSTITUTE FOR SUSTAINABLE COMMUNITIES

The Institute for Sustainable Communities (ISC) is an independent, non-profit organization, founded in 1991 by former governor of Vermont Madeleine Kunin. ISC provides training, technical assistance, and financial support to communities. The mission of ISC is to promote environmental protection and economic and social well-being through integrated strategies at the local level. ISC projects emphasize participating actively in civic life, developing stronger democratic institutions, and engaging diverse interests in decisionmaking. ISC is based in Montpelier, Vermont with offices in Russia, Macedonia, and Bulgaria. For information, please check ISC's Web site at <http://www.iscvt.org> or contact George Hamilton, Executive Director, Institute for Sustainable Communities, 56 College St., Montpelier, VT 05602. Tel: 802-229-2900; Fax: 802-229-2919.

INTERNATIONAL CENTER FOR RESEARCH ON WOMEN

The International Center for Research on Women (ICRW) is a private, nonprofit organization dedicated to promoting social and economic development with women's full participation. ICRW generates quality, empirical information and technical assistance on women's productive and reproductive roles, their status in the family, their leadership in society, and their management of environmental resources. The Center's publications included "New Directions for the Study of Women and Environmental Degradation" and "Women, Land, and Sustainable Development." ICRW advocates with governments and multilateral agencies, convenes experts in formal and informal forums, and engages in an active publications and information program to advance women's rights and opportunities. ICRW was founded in 1976 and focuses principally on women in developing and transition countries. For information, contact: International Center for Research on Women (ICRW), 1717 Massachusetts Ave. NW, Suite 302, Washington, DC 20036. Tel: 202-797-0007; Fax: 202-797-0020; E-Mail: icrw@igc.apc.org; Internet: <http://www.icrw.org>.

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

The International Food Policy Research Institute (IFPRI) was established in 1975 to identify and analyze policies for sustainably meeting the food needs of the poor in developing countries and to disseminate the results of the research to policymakers and others concerned with food and agricultural policy. IFPRI is a member of the Consultative Group on International Agricultural Research (CGIAR), an association of 16 international research centers, and receives support from a number of governments, multilateral organizations, and foundations. IFPRI supports Future Harvest, a public awareness campaign that builds understanding on the importance of agricultural issues and international agricultural research. For more information, contact: International Food Policy Research Institute, 2033 K St. NW, Washington, DC 20006. Tel: 202-862-5600; Fax: 202-467-4439; E-mail: ifpri@cgiar.org; Internet: <http://www.cgiar.org/ifpri/2index.HTM>.

Nongovernmental Activities

INTERNATIONAL HUMAN DIMENSIONS PROGRAMME ON GLOBAL ENVIRONMENTAL CHANGE (IHDP)

IHDP is an international, interdisciplinary, non-governmental social science program dedicated to promoting and coordinating research aimed at describing, analyzing and understanding the human dimensions of global environmental change. In order to accomplish its goals, IHDP: links researchers, policy-makers and stakeholders; promotes synergies among national and regional research committees and programs; identifies new research priorities; provides a focus and new frameworks for interdisciplinary research; and facilitates the dissemination of research results. This strategy is based on a bottom-up approach, which builds upon existing researchers and research results around the world. Particular emphasis is placed on expanding and strengthening the network of national human dimensions committees and programs and on enhancing the IHDP's capacity to support them. For information, contact: IHDP, Walter-Flex-Strasse 3, 53113 Bonn, Germany. Tel: 49-228-739050; Fax: 49-228-789054; E-Mail: ihdp@uni-bonn.de; Internet: <http://ibm.rhrz.uni-bonn.de/IHDP/>.

INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT

The mission of the International Institute for Sustainable Development (IISD) is to champion innovation, enabling societies to live sustainably. The IISD contributes new knowledge and concepts, undertakes policy research and analysis, demonstrates how to measure progress, and identifies and disseminates sustainable development information. Its focus is on such topics and issues as economic instruments and perverse subsidies, trade and investment, climate change and the development of sustainable forms of agriculture and forestry. The theme of environment and security is common across their work. For more information, contact: International Institute for Sustainable Development, 161 Portage Ave. East, 6th Floor, Winnipeg, Manitoba R3B 0Y4, Canada. Tel: 204-958-7700; Fax: 204-958-7710; E-Mail: info@iisd.ca; Internet: [IISDnet-http://iisd.ca](http://iisd.ca); <http://www.iisd.ca/linkages>.

INTERNATIONAL INSTITUTE OF APPLIED SYSTEM ANALYSIS (IIASA)

IIASA is a non-governmental research organization located in Austria. International teams of experts from various disciplines conduct scientific studies on environmental, economic, technological and social issues in the context of human dimensions of global change. Since its inception in 1972, IIASA has been the site of successful international scientific collaboration in addressing areas of concern for all advanced societies, such as energy, water, environment, risk and human settlement. The Institute is sponsored by National Member Organizations in North America, Europe and Asia. For information, contact: International Institute for Applied Systems Analysis, A-2361 Laxenburg, Austria. Tel: 43-2236-807-0; Fax: 43-2236-71313; E-Mail: info@iiasa.ac.at; Internet: <http://www.iiasa.ac.at/>.

INTERNATIONAL PEACE RESEARCH INSTITUTE, OSLO (PRIO)

The International Peace Research Institute, Oslo, was founded in 1959. Researchers at PRIO have published significant theoretical contributions on the concept of security while also investigating the specific linkages between environment, poverty and conflict. Future projects center on connections between the natural environment and conflict and migration. PRIO also makes ongoing contributions as the editorial home to both the *Journal of Peace Research* and *Security Dialogue*. For information, contact: Dan Smith, Director, International Peace Research Insitutute (PRIO), Fuglehauggata 11, 0260 Oslo, Norway. Tel: 47-22-54-77-00; Fax: 47-22-54-77-01; E-Mail: info@prio.no; Internet: <http://www.prio.no/>.

INTERNATIONAL POLICY COUNCIL ON AGRICULTURE, FOOD, AND TRADE

The International Policy Council on Agriculture, Food, and Trade (IPC) is dedicated to developing and advocating policies that support an efficient and open global food and agricultural system that promotes production and distribution of food supplies adequate to meet the needs of the world's population. IPC was founded in 1987 as an independent group of leaders in food and agriculture from twenty developed and developing countries. It conveys its recommendations directly to policymakers, and publishes a variety of papers and studies. For information, contact: International Policy Council on Agriculture, Food, and Trade, 1616 P Street NW, Ste. 100, Washington, DC 20036. Tel: 202-328-5117; Fax: 202-328-5133; E-Mail: lacy@rff.org; Internet: <http://www.agritrade.org>.

IUCN-THE WORLD CONSERVATION UNION

IUCN is an international conservation organization with a membership of over 900 bodies, including states, government agencies and non-government organizations across some 140 countries, as well as scientific and technical networks. The mission of IUCN is to influence, encourage and assist societies to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. It has been an important actor in promoting effective global governance through contributions to multilateral agreements such as CITES and the Biodiversity Convention, in environmental mediation (e.g. OkaVango Delta, Victoria Falls) and at the regional and national levels (e.g. national conservation strategies and transboundary ecosystem management). IUCN, with the World Bank, has established the World Commission on Dams whose mandate is to review and make recommendations on the future of large dams, including environmental and social dimensions. IUCN has also conducted an important study for the Organization for Economic Cooperation and Development (OECD) on environment and

security. In October of 1998, IUCN celebrated its 50th Anniversary in Fontainebleau, France, at which environment and security was a major theme. More recently, IUCN is in the planning stage of launching an initiative on Environment and Security intended to build on practical lessons learned and issues drawn from its field presence. IUCN's chief scientist is conducting research on the relationship between war and biodiversity with a book expected to be completed in 1999. The Second World Conservation Congress will take place in Jordan in 2000. For information, contact: Scott A. Hajost, Executive Director, IUCN-US, 1630 Connecticut Ave. NW, 3rd Floor, Washington, DC 20009. Tel: 202-387-4826; Fax: 202-387-4823; E-Mail: postmaster@iucn.org; Internet: <http://www.iucn.org/>.

THE NATURAL RESOURCES DEFENSE COUNCIL

The Natural Resources Defense Council (NRDC) is a U.S. non-profit environmental protection organization with over 400,000 members and a staff of attorneys, scientists, and specialists addressing the full range of pressing environmental problems. The NRDC has had a long and active program related to environment and security. NRDC has engaged in extensive advocacy with the U.S. government and international institutions on climate change and other global common problems and on environmental challenges in developing countries. Since the 1992 Earth Summit, NRDC has worked on the creation and approach of new mechanisms to hold governments accountable to commitments they have made to move toward "sustainable development." NRDC has a new initiative in China on energy efficiency and renewables. NRDC continues to undertake research, analysis and advocacy related to nuclear weapons production and dismantlement, nuclear materials and proliferation, and nuclear energy. For information, contact: S. Jacob Scherr, Senior Attorney, NRDC, 1200 New York Ave. NW, Washington, DC 20005. Tel: 202-289-6868; Fax: 202-289-1060; Internet: <http://www.nrdc.org>.

THE NAUTILUS INSTITUTE FOR SECURITY AND SUSTAINABLE DEVELOPMENT

The Nautilus Institute is a policy-oriented research and consulting organization. Nautilus promotes international cooperation for security and ecologically sustainable development. Programs embrace both global and regional issues, with a focus on the Asia-Pacific region. Nautilus has produced a number of policy-oriented studies on these topics which are available on the Internet and in hard copy. Current projects include a U.S.-Japan Policy Study Group focused on transboundary environmental and security issues arising from rapid energy development in Northeast Asia. This group is identifying specific areas for cooperation and collaboration between the United States and Japan to mitigate the negative impacts of the growth in energy use. The Energy Futures project focuses on the economic, environmental and security implications of future energy resource scenarios for Northeast Asia including coal, nuclear power, natural gas, and increased efficiency and renewable sources. The Institute is taking a close analytical look at the concept of "energy security" in Japan, exploring the decision-making options to increase energy security without presupposed conclusions as to the implications for the use of nuclear technology. The Institute also leads dialogues on environmental security issues in the Korean Peninsula and conducts research on trade and environmental issues in the APEC region. The Northeast Asia Peace and Security Network (NAPSNet) and the Asia-Pacific Environmental Network (APRENet) are two information services the Institute offers to subscribers free of charge via E-mail. For information, contact: The Nautilus Institute, 1831 2nd St., Berkeley, CA 94710. Tel: 510-204-9296; Fax: 510-204-9298; E-mail: info@nautilus.org; Internet: <http://www.nautilus.org>.

OVERSEAS DEVELOPMENT INSTITUTE

The Overseas Development Institute (ODI) is one of Britain's leading independent think-tanks on international development and humanitarian issues. Its mission is to inspire and inform policy and practice, which lead to the reduction of poverty, the alleviation of suffering and the achievement of sustainable livelihoods in developing countries. ODI does this by linking together high-quality applied research, practical policy advice, and policy-focused dissemination and debate. It works with partners in the public and private sectors, in both developing and developed countries. ODI's work centers on four research and policy programs: the Humanitarian Policy Group, the International Economic Development Group, the Forest Policy and Environment Group, and the Rural Policy and Environment Group. ODI publishes two journals, the *Development Policy Review* and *Disasters*, and manages three international networks linking researchers, policy-makers and practitioners: the Agricultural Research and Extension Network, the Rural Development Forestry Network, and the Relief and Rehabilitation Network. ODI also manages the ODI Fellowship Scheme, which places up to twenty young economists a year on attachment to the governments of developing countries. As a registered charity, ODI is dependent on outside funds and is supported by grants and donations from public and private sources. For information, contact: Overseas Development Institute, Portland House, Stag Place, London SW1E 5DP, United Kingdom. Tel: 44-(0)171-393-1600; Fax: 44-(0)171-393-1699; E-Mail: odi@odi.org.uk; Internet: <http://www.oneworld.org/odi/>.

THE PACIFIC INSTITUTE

The Pacific Institute for Studies in Development, Environment, and Security, directed by Peter H. Gleick, is an independent, non-profit research center created in 1987 to conduct research and policy analysis in the areas of environmental degradation, sustainable development and international security, with an emphasis on the nexus of these issues. The Institute has three broad

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goals: 1) to conduct policy-relevant research on the nexus of international security, environmental change and degradation and economic development; 2) to collaborate on complementary research efforts with other organizations and individuals; and 3) to actively work on developing solutions with policymakers, activists and members of the general public. The Institute has been a leader in research on how resource issues may fuel instability and conflict, focusing on freshwater resources, climate change and resource management. Recent projects include: an assessment of the impact of climate change on freshwater ecosystems; analysis of the role of conservation and economic incentives to solve California's water problems, and a critique of efforts to restore the Salton Sea as a viable ecosystem. For information, contact: The Pacific Institute for Studies in Development, Environment, and Security, 654 13th St., Oakland, CA 94612. Tel: 510-251-1600; Fax: 510-251-2203; E-Mail: wburns@pacinst.org; Internet: <http://www.pacinst.org>.

PEW CENTER ON GLOBAL CLIMATE CHANGE

Joining forces under a new organization, the Pew Center On Global Climate Change, diverse sectors of society are now coming together to steer our nation and the world toward reasonable, responsible and equitable solutions to our global climate change problems. The Center brings a new cooperative approach and critical scientific, economic and technological expertise to the global debate on climate change. Established in 1998 by the Pew Charitable Trusts, the Center is directed by Eileen Claussen, former U.S. Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs. Major companies and other organizations are working together through the Center to educate the public on the risks, challenges and solutions to climate change. These efforts at cooperation and education are spearheaded by the Center's Business Environmental Leadership Council. The Pew Center is committed to the development of a wide range of reports and policy analyses that will add new facts and perspectives to the climate change debate in key areas such as economic and environmental impacts, and equity issues. For information, contact: Pew Center on Global Climate Change, 2111 Wilson Blvd., Ste. 350, Arlington, VA 22201. Tel: 703-516-4146, Fax: 703-243-2874 Internet: <http://www.pewclimate.org>.

POPULATION ACTION INTERNATIONAL

Population Action International (PAI) promotes the early stabilization of world population through policies that enable all women and couples to decide for themselves, safely and in good health, whether and when to have children. PAI's Population and Environment Program supports this work through research and publications on the relationship of population dynamics to the sustainability of natural resources critical to human well-being. The program also considers interactions between population dynamics and economic change, public health and security. Most recently, the program has begun an initiative related to community-based population and environment activities, defined as provision of services linking natural resources management and reproductive health at the request of communities. In 1998 PAI published *Plan and Conserve: A Source Book on Linking Population and Environmental Services in Communities*. In 1999, a new publication, *Forging the Link: Emerging Accounts of Population and Environment Activities in Communities*, will be released. The Population and Environment Program will also release in 1999 two new studies of population linkages with critical natural resources, one dealing with forests, the second with biodiversity. Other departments within PAI explore issues related to population policy and funding, provision of reproductive health services, the education of girls, and legislative initiatives related to international population issues. For information, contact: Robert Engelman, Director, Population and Environment Program, Population Action International, 1120 19th St. NW, Ste. 550, Washington, DC 20036. Tel: 202-659-1833; Fax: 202-293-1795; E-mail: re@popact.org; Internet: <http://www.populationaction.org>.

POPULATION AND HABITAT CAMPAIGN

National Audubon Society has launched a major new initiative to build a public mandate for population and family planning and to connect the issues of population growth with habitat. Through this program, Audubon will draw upon its chapters and other community leadership to educate and mobilize citizens from around the country to confront population and environment problems and to communicate with policymakers. The National Audubon Society has embarked on a broad-based effort to strengthen U.S. leadership on population, utilizing its expertise in grassroots activism. The Population & Habitat Program focuses on 1) restoration of international population funding and 2) connecting population issues to state and local habitat issues. To these ends, the Population Program has already put three State Coordinators in place in Colorado, Pennsylvania and New York, with plans for additional Coordinators in California, Florida, Ohio and Texas. These Coordinators will design a three-year plan identifying local population issues and their impacts on birds, wildlife and habitat. They will be conducting training for activists, and providing chapters and the public with ways to become involved in the Program. The Program produced a publication in 1998 called *Population & Habitat in the New Millennium*, by Ken Strom, that helps activists make the connections between population growth, consumption and environmental issues and includes provocative discussions and possible solutions. For more information, contact: Lise Rousseau, Communications Director, Population & Habitat Program, National Audubon Society, 3109 28th St., Boulder, CO 80301. Tel: 303-442-2600; Fax: 303-442-2199; E-Mail: L.Rousseau@Audubon.org; Internet: <http://www.earthnet.net/~popnet>.

POPULATION COUNCIL

The Population Council, a nonprofit, nongovernmental research organization established in 1952, seeks to improve the well-being and reproductive health of current and future generations around the world and to help achieve a humane, equitable, and sustainable balance between people and resources. The Council analyzes population issues and trends; conducts research in the social and reproductive sciences; develops new contraceptives; works with public and private agencies to improve the quality and outreach of family planning and reproductive health services; helps governments design and implement effective population policies; communicates the results of research in the population field to diverse audiences; and helps strengthen professional resources in developing countries through collaborative research and programs, technical exchange, awards, and fellowships. Research and programs are carried out by three divisions—the Center for Biomedical Research, the Policy Research Division, and the International Programs Division—and by two Distinguished Colleagues. Council headquarters and the Center for Biomedical Research are located in New York City and the Council also has four regional and 15 country offices overseas. About 360 women and men from more than 60 countries work for the Council; more than a third hold advanced degrees. Roughly 40 percent are based in developing countries. Council staff collaborate with developing-country colleagues to conduct research and programs in some 50 countries in South and East Asia, West Asia and North Africa, sub-Saharan Africa, and Latin America and the Caribbean. The organization's funds come from governments, foundations and other nongovernmental organizations, internal sources, multilateral organizations, corporations, and individuals. The Council's current annual budget is \$49 million. For information, contact: Population Council, 1 Dag Hammarskjöld Plaza, New York, NY 10017. Tel: 212-339-0525; Fax: 212-755-6052; E-Mail: pubinfo@popcouncil.org; Internet: www.popcouncil.org.

THE POPULATION INSTITUTE

The Population Institute is a private, non-profit organization working for a more equitable balance between the world's population, environment and resources. The Institute was founded in 1969. Since 1980, it has dedicated its efforts exclusively to creating awareness of international population issues among policymakers, the media, and the public. In pursuing its goals, the Institute works in three specific programmatic areas: the development of the largest grassroots network in the international population field; providing the media with timely and accurate information on global population issues; and the tracking of public policy and legislation affecting population. The Institute's Future Leaders Program recruits college students and recent graduates as staff assistants in its community leaders, information and education, and public policy divisions. An International Fellowship in Population Studies was launched in 1989 to provide six-month internships in a developing country's population and family planning program to qualified applicants. The Institute annually presents Global Media Awards for Excellence in Population Reporting to journalists in 15 media categories, and the Global Statesman Award to world leaders. It is also the official sponsor of World Population Awareness Week (WPAW), a week of awareness-raising activities co-sponsored by organizations worldwide. The Institute publishes the bimonthly newspaper, *POPLINE*, the most widely circulated newspaper devoted exclusively to population issues; the *Towards the 21st Century* series, exploring the interrelationships between population and other major issues; educational materials and books. Regional representatives of the Population Institute are located in Bogota, Columbia; Colombo, Sri Lanka; and Brussels, Belgium. For information, contact Werner Fornos, President, or Bettye Ward, Chair, The Population Institute, 107 Second St. NE, Washington, DC 20002. Tel: 202-544-3300; Fax: 202-544-0068; E-Mail: web@populationinstitute.org; Internet: www.populationinstitute.org.

POPULATION MATTERS

In 1996, RAND launched Population Matters, a program for research communication that is using different means, methods, and formats for reaching audiences that influence the making of population policy, in the United States and abroad. With support from a consortium of donors led by the William and Flora Hewlett Foundation and including the Rockefeller Foundation and the United Nations Population Fund, the program is addressing the concern that empirical population research is missing opportunities to inform policymaking and public awareness. RAND's involvement is also intended to fill the need for an objective "information broker" who does not espouse a political or ideological point of view on population issues. The program has two principal goals: 1) to raise awareness of and highlight the importance of population policy issues, and 2) to provide a more scientific basis for public debate over population policy questions. To date, the project has examined 12 topics: the record of family planning programs in developing countries; congressional views of population and family planning issues; Russia's demographic crisis; immigration in California; the national security implications of demographic factors; interrelations between population and the environment; factors that influence abortion rates; economic consequences of demographic change; the health and demographic effects of economic crises; the consequences of population growth in California; American public opinion on population issues; and the value of U.S. support for international demographic research. For more information about the project, contact: Dr. Julie DaVanzo, RAND, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138. Tel: 310-393-0411 ext. 7516; Fax: 310-260-8035; E-Mail: Julie_DaVanzo@rand.org; Internet: <http://www.rand.org/popmatters>.

THE POPULATION REFERENCE BUREAU

The Population Reference Bureau (PRB) provides information to policymakers, educators, the media, opinion leaders, and the

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public around the world about U.S. and international population trends. PRB examines the links between population, environment, and security. PRB has recently conducted three specific projects that deal with these linkages. The first is a cross-national project on population, environment and consumption in collaboration with research institutes in Mali, Mexico, and Thailand. This project examines the impact of household-level transportation on urban air pollution in the U.S. and in the partner nations. By improving methods of measurement, better understanding people's attitudes, and enhancing policymakers' understanding, this project will expand the framework for studying population, consumption, and the environment. The second project, called *The Water and Population Dynamics Initiative*, promotes the sustainable use and equitable management of water resources and aquatic ecosystems. In addition, it strengthens population policies and programs, adhering to the ICPD Program of Action. Through this project, the goal of informing water and population policies and practices—and the effectiveness of combined management strategies—will be applied directly in Guatemala, India, Jordan, Morocco, Pakistan, and Zambia over three years. Finally, PRB's *U.S. in the World* project helps Americans relate population-environment interactions in the U.S. to those in developing nations. The project profiles the demographic, social, economic, and environmental conditions of a U.S. state alongside a comparable developing nation. In turn, Americans learn about the connections between population, the environment, and resource use both locally and globally. In addition, members of partner organizations are able to articulate how their welfare is linked to the well-being of people in developing regions. For information, contact: Roger-Mark De Souza, Population-Environment Coordinator, 1875 Connecticut Ave. NW, Ste. 520, Washington, DC 20009-5728. Tel: 202-939-5430; Fax: 202-328-3937; E-Mail: rdesouza@prb.org.

RESOURCES FOR THE FUTURE

Resources for the Future (RFF) is an independent, nonprofit research organization that aims to help people make better decisions about the environment. RFF is committed to elevating public debate about natural resources and the environment by providing accurate, objective information to policymakers, legislators, public opinion leaders, and environmentalists. RFF has three research divisions: the Center for Risk Management, the Energy and Natural Resources Division, and the Quality of the Environment Division. Currently, RFF has several programs which address environment and security linkages including an ongoing project on Environmental Protection in China and the International Institutional Development and Environmental Assistance Program (IIDEA). IIDEA is aimed at helping countries and institutions become more effective environmental actors by focusing on implementation and management of environmental law and policy. IIDEA's mission is to reduce environmental risk and enhance environmental security by working to bridge the gap between formal commitment and actual practice. For information, contact: Resources for the Future, 1616 P St. NW, Washington, DC 20036. Tel: 202-328-5000; Fax: 202-939-3460; E-Mail: bell@rff.org; Internet: <http://www.rff.org>.

ROCKY MOUNTAIN INSTITUTE

The Rocky Mountain Institute is an independent, nonprofit research and educational foundation which works to foster the efficient and sustainable use of resources as a path to global security. Its research focuses on the interlinked areas of energy, transportation, real-estate development, water and agriculture, community economic development, corporate practices, and security. The Institute endeavors to develop a balanced concept of national and global security that will ensure a better quality of life for future generations. For information, contact: Rocky Mountain Institute, 1739 Snowmass Creek Rd., Snowmass, CO 81654-9199. Tel: 970-927-3851; Fax: 970-927-3420; E-Mail: outreach@rmi.org; Internet: <http://www.rmi.org>.

THE ROYAL INSTITUTE OF INTERNATIONAL AFFAIRS ENERGY AND ENVIRONMENTAL PROGRAMME

The Energy and Environmental Programme (EEP) is one of seven research programs based at The Royal Institute of International Affairs. The EEP aims to conduct authoritative research and to stimulate debate on the political, strategic, and economic aspects of domestic and international energy and environmental policy issues. Meetings, study groups, workshops and conferences bring together program sponsors, industry, government, nongovernmental groups and academics. A wide range of policy-relevant EEP publications go through an extensive process of peer review both at RIIA and externally. For information, contact: Energy and Environmental Programme, Royal Institute of International Affairs, Chatham House, 10 St. James's Square, London SW1Y 4LE, England. Tel: 44-(0)171-957-5711; Fax: 44-(0)171-957-5710; E-Mail: eep-admin@riia.org; Internet: <http://www.riia.org/eep.html>.

SOCIAL SCIENCE RESEARCH COUNCIL, PROGRAM ON INTERNATIONAL PEACE AND SECURITY

The Program on International Peace and Security, with funding from the MacArthur Foundation, provides fellowships to help reshape security studies in academia and in such professions as law and journalism to include both a much broader range of substantive research topics and a more diverse set of researchers. The program is based on the view that security concerns—violent conflict and military force—apply to a much wider range of actors and situations than those that appear in the state-centric mode of traditional security thinking. Every year, the Social Science Research Council has awarded approximately 13 two-year dissertation and postdoctoral fellowships for training and research. For information, contact: Social Science Research Council, 810 Seventh Ave., New York, NY 10019. Tel: 212-377-2700; Fax: 212-377-2727; Internet: <http://www.wrc.org/>.

STOCKHOLM ENVIRONMENT INSTITUTE

The Stockholm Environment Institute (SEI), established in 1989, is an independent, international research institute specializing in sustainable development and environment issues. It works at local, national, regional and global policy levels. The SEI research program aims to clarify the requirements, strategies and policies for a transition to sustainability. These goals are linked to the principles advocated in Agenda 21 and the Conventions such as Climate Change, Ozone Layer Protection and Biological Diversity. SEI examines the policy connections and implications of scientific and technical analysis. This includes management strategies for environment and development issues of regional and global importance. The results of SEI research are made available to a wide range of audiences through publications, electronic communication, software packages, conferences, training workshops, specialist courses and roundtable policy dialogues. The Institute has its headquarters in Stockholm with a network structure of permanent and associated staff worldwide and centers in Boston (USA), York (UK), and Tallinn (Estonia). The collaborative network consists of scientists, research institutes, project advisors and field staff located in over 20 countries. For more information, contact: Nicholas Sonntag, Executive Director, Stockholm Environment Institute, Lilla Nygatan 1, Box 2142, S-103 14 Stockholm, Sweden. Tel: 46-8-412-1400; Fax: 46-8-723-0348; E-Mail: postmaster@sei.se; Internet: <http://www.sei.se>.

WORLD RESOURCES INSTITUTE

Established in 1982, the mission of the World Resources Institute (WRI) is to move human society to live in ways that protect Earth's environment and its capacity to provide for the needs and aspirations of current and future generations. Because people are inspired by ideas, empowered by knowledge, and moved to change by greater understanding, WRI provides—and helps other institutions provide—objective information and practical proposals for policy and institutional change that will foster environmentally sound, socially equitable development. To further its mission, WRI conducts policy research, publicizes policy options, encourages adoption of innovative approaches and provides strong technical support to governments, corporations, international institutions, and environmental NGOs. WRI's current areas of work include economics, forests, biodiversity, climate change, energy, sustainable agriculture, resource and environmental information, trade, technology, national strategies for environmental and resource management, business liaison, and human health. For information, contact: World Resources Institute, 10 G Street, NE, Suite 800, Washington, DC 20002. Tel: 202-729-7600; Fax: 202-729-7610; E-Mail: lauralee@wri.org; Internet: <http://www.wri.org/wri/>.

WORLDWATCH INSTITUTE

WorldWatch is dedicated to fostering the evolution of an environmentally sustainable society through inter-disciplinary non-partisan research on emerging global environmental concerns, including population and security issues. The Institute recently published WorldWatch paper 143, *Beyond Malthus: Sixteen Dimensions of the Population Problem*, by Lester Brown, Gary Gardner, and Brian Halweil, which addresses the effects of population growth on global and regional stability. WorldWatch researcher Michael Renner published in late 1997 Paper 137 on the destructive effects of small arms proliferation entitled *Small Arms, Big Impact: The Next Challenge of Disarmament*; Mr. Renner's 1996 publication *Fighting for Survival: Environmental Decline, Social Conflict, and the New Age of Insecurity* deals with international security and environment/sustainable development. Lester Brown's 1995 book, *Who Will Feed China? Wake-up Call for a Small Planet*, examines the challenges associated with sustainability meeting the needs of a rapidly expanding population. The Institute's annual publications, *State of the World* and *Vital Signs*, provide a comprehensive review and analysis of the state of the environment and trends that are shaping its future. The Institute's bimonthly magazine, *World Watch*, complements these reports with updates and in-depth articles on a host of environmental issues. Other WorldWatch publications discuss redefining security in the context of global environmental and social issues, the impact of population growth on the earth's resources, and other major environmental issues; and WorldWatch will continue these analyses into the future. For information, contact: WorldWatch Institute, 1776 Massachusetts Ave. NW, Washington, DC 20036. Tel: 202-452-1999; Fax 202-296-7365; E-Mail: worldwatch@worldwatch.org; Internet: <http://www.worldwatch.org>.

Governmental and Intergovernmental Activities

ARMY ENVIRONMENTAL POLICY INSTITUTE

The U.S. Army Environmental Policy Institute (AEPI) was established by the Under Secretary of the Army based on recommendations made at the Senior Army Environmental Leadership Conferences in 1988 and 1989. The AEPI mission is to assist the Army Secretariat in developing proactive policies and strategies to address both current and future Army environmental challenges. Study topics include developing an environmental training strategy for DoD's approach to Native Americans/Alaskan Indian environmental issues; environmental justice; pollution prevention policy in weapon systems acquisition; privatization and competitive outsourcing; revision of the Army's National Environmental Policy Act (NEPA) implementation regulation; environmental legislation monitoring and impact analysis; and environmental issues that are likely challenges or opportunities for the Army After Next. AEPI's small, multi-disciplined permanent staff is augmented by experts from the private sector,

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academia, and other Army, DoD and governmental agencies. The Institute has published more than a dozen policy papers on pertinent environmental issues. Recent titles include *Defining Environmental Security: Implications for the U.S. Army* (12/98) and *Interagency Cooperation on Environmental Security* (10/98), which may be ordered from AEPI. For information, contact: Director, AEPI, 430 Tenth St. NW, Ste. S-206, Atlanta, GA 30318-5768. Tel: 404-892-3099; Fax: 404-892-9381; E-Mail: webmaster@aepi.army.mil; Internet: <http://www.aepi.army.mil/>.

CENTERS FOR DISEASE CONTROL AND PREVENTION

In 1994, CDC launched the first phase of a nationwide effort to revitalize national capacity to protect the public from infectious diseases. *Preventing Emerging Infectious Diseases* is the 1998 successor to the 1994 plan, with objectives and activities organized under the same four goals: 1) Surveillance and Response. The objectives call for strengthening infectious disease surveillance and response in the United States and internationally, as well as improving methods for gathering and evaluating surveillance data. They also emphasize that surveillance data are critical not only for detecting outbreaks, but also for improving public health practice and medical treatment. 2) Applied Research. The objectives include improving tools for identifying and understanding emerging infectious diseases; determining risk factors for infectious diseases, as well as infectious risk factors for chronic diseases; and conducting research to develop and evaluate prevention and control strategies. 3) Infrastructure and Training. The objectives and activities focus on enhancing epidemiologic and laboratory capacity in the United States and internationally. In the United States, this requires improving CDC's ability to communicate electronically with its partners and strengthening CDC's capacity to serve as a reference center for diagnosis of infectious diseases and drug-resistance testing. The objectives and activities also address the need to enhance the nation's capacity to respond to outbreaks, including those caused by bioterrorism, and to provide training opportunities to ensure that today's workers and future generations are able to respond to emerging threats. 4) Prevention and Control. CDC will work with many partners to implement, support, and evaluate disease prevention in the United States and internationally. As part of this effort, CDC will conduct demonstration programs and will develop, evaluate, and promote strategies that help health care providers and other individuals change behaviors that facilitate disease transmission. Achievement of the objectives described in this plan will improve our ability to understand, detect, control and prevent infectious diseases. The outcome will be a stronger, more flexible U.S. public health infrastructure that is well-prepared to respond to well-known disease problems and to address the unexpected, whether it is an influenza pandemic, a disease caused by an unknown organism, or a bioterrorist attack. For more information, contact: Centers for Disease Control and Prevention, 1600 Clifton Rd., MS D-25, Atlanta, GA 30333. Tel: 404-639-3286; Fax: 404-639-7394; Internet: <http://www.cdc.gov/>.

DIRECTOR OF CENTRAL INTELLIGENCE/DCI ENVIRONMENTAL CENTER

The DCI Environmental Center was established in 1997 as a focal point for the intelligence community on environmental matters. The DCI Environmental Center provides comprehensive information from a number of organizations to policymakers on environmental issues that impact U.S. national security interests. Housed in the Directorate of Intelligence, the Center produces, integrates, and coordinates assessments of the political, economic, and scientific aspects of environmental issues as they pertain to US interests. The DEC also provides data to the environmental community. The Center has three main components: the Environmental Issues Branch, a Civil Applications Branch, and a long-term assessment element. The Environmental Issues Branch was established at the Central Intelligence Agency in the late 1980s in response to policymakers' questions concerning global environmental issues, including treaty negotiations and compliance, environmental crime, and foreign environmental policy and performance. Civil Applications was formed in the early 1990s with a group of scientists, now known as MEDEA, to investigate the degree to which intelligence information and assets could enhance our understanding of the Earth's environment. The long-term assessment element focuses on the impact of environmental change on national, regional, and international political, economic, and social dynamics. Specific DEC programs include: assessing transboundary environmental crime; supporting environmental treaty negotiations and assessing foreign environmental policies; assessing the role played by the environment in country and regional instability and conflict; supporting the international environmental efforts of other US government agencies; and providing environmental data to civil agencies.

ENVIRONMENTAL PROTECTION AGENCY

Environmental security is a process whereby solutions to environmental problems contribute to national security objectives. It encompasses the idea that cooperation among nations and regions to solve environmental problems can help advance the goals of political stability, economic development and peace. In addition, by addressing the environmental components of potential security "hot spots," we can prevent or significantly defuse threats to international security before they become a threat to political or economic stability or peace. The U.S. Environmental Protection Agency (EPA) is committed to protecting the U.S. environment from transboundary and global threats. To this end, EPA has embraced the concept of environmental security and it contributes to security through a broad range of activities: 1) anticipating future national security concerns of an environmental nature and determining how to prevent or mitigate them; 2) addressing regional environmental threats and promoting regional environmental security; 3) abating global environmental problems such as climate change, loss of biodiversity, and destruction of the ozone layer; 4) managing hazardous conditions resulting from the legacy of the Cold War; and 5) enforcing international

environmental treaties and combating environmental crimes. To meet its environmental security responsibilities, EPA works in partnership with other agencies that have more traditional national security responsibilities. In 1996, EPA signed a Memorandum of Understanding with the Departments of Defense and Energy to work together on environment and security issues. Here are some of the activities that EPA is engaged in: 1) the Murmansk Initiative: eliminating radioactive waste dumping in the Arctic Ocean; 2) building environmental security and economic stability in the Baltic Sea region through a Great Lakes/Baltic Sea Partnership; 3) NATO's Committee on Challenges of Modern Society working with Alliance and Partner countries on joint studies on the protection of estuarine systems, remedial technologies for water and soil, and cleaner production and processes; 4) The Middle East: environmental diplomacy at work through a series of working groups to address water supply and demand, water conservation, desertification and oil spill contingency planning. In the future, EPA is considering joint work with other U.S. government agencies in China, Panama and the Caspian Sea region. For information, contact: Environmental Protection Agency, 401 M St. NW, Washington, DC 20460-0003. Tel: 202-260-2090; E-Mail: grieder.wendy@epamail.epa.gov.

UNITED NATIONS DEVELOPMENT PROGRAMME

Through a unique network of 134 country offices, the United Nations Development Programme (UNDP) helps people in 174 countries and territories to help themselves, focusing on poverty elimination, environmental regeneration, job creation and the advancement of women. In support of these goals, UNDP is frequently asked to assist in promoting sound governance and market development and to support rebuilding societies in the aftermath of war and humanitarian emergencies. UNDP's overarching mission is to help countries build national capacity to achieve sustainable human development, giving top priority to eliminating poverty and building equity. Headquartered in New York, UNDP is governed by a 36-member Executive Board, representing both developing and developed countries. The 1994 UNDP Human Development Report outlined a detailed definition of human security and proposed measures to address insecurities. For information, contact: UNDP, One United Nations Plaza, New York, NY, 10017. Tel: 212-906-5315; Fax: 212-906-5364; E-Mail: hq@undp.org; Internet: <http://www.undp.org>.

UNITED NATIONS ENVIRONMENT PROGRAMME

The mission of the United Nations Environment Programme (UNEP) is to provide leadership and encourage partnerships in caring for the environment by inspiring, informing and enabling nations and people to improve their quality of life without compromising that of future generations. UNEP was established as the environmental conscience of the United Nations system, and has been creating a basis for comprehensive consideration and coordinated action within the UN on the problems of the human environment. Recognizing that environment and development must be mutually supportive, UNEP advocated a concept of environmentally sound development, which later led to the adoption of "Sustainable Development" concept in the Brundtland Commission Report and the United Nations Perspective Document for the Year 2000 and Beyond. This concept was embodied as an action program called Agenda 21, which was adopted at the 1992 United Nations Conference on Environment and Development (UNCED). Dr. Klaus Töpfer is the current director of UNEP. For more information contact: Mr Tore J. Brevik, Chief, Information and Public Affairs, UNEP, P.O. Box 30552, Nairobi, Kenya. Tel: 254-2-62-1234/3292; Fax: 254-2-62-3927/3692; E-Mail: ipainfo@unep.org; Internet: <http://www.unep.org>.

UNITED NATIONS FOOD AND AGRICULTURE ORGANIZATION

The Food and Agriculture Organization was founded in October 1945 with a mandate to raise levels of nutrition and standards of living, to improve agricultural productivity, and to better the condition of rural populations. Since its inception, FAO has worked to alleviate poverty and hunger by promoting agricultural development, improved nutrition and the pursuit of food security—the access of all people at all times to the food they need for an active and healthy life. FAO offers direct development assistance, collects, analyses and disseminates information, provides policy and planning advice to governments and acts as an international forum for debate on food and agriculture issues. FAO is active in land and water development, plant and animal production, forestry, fisheries, economic and social policy, investment, nutrition, food standards and commodities and trade. It also plays a major role in dealing with food and agricultural emergencies. A specific priority of FAO is encouraging sustainable agriculture and rural development, a long-term strategy for the conservation and management of natural resources. It aims to meet the needs of both present and future generations through programs that do not degrade the environment and are technically appropriate, economically viable and socially acceptable. The current Director-General is Dr. Jacques Diouf. For more information please contact: FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy. Tel: 39-065705; Fax: 39-0657053152; Internet: <http://www.fao.org>.

UNITED NATIONS POPULATION FUND

UNFPA is the lead UN body in the field of population. UNFPA extends assistance to developing countries, countries with economies in transition, and other countries at their request to help them address reproductive health and population issues, and raises awareness of these issues in all countries, as it has since its inception. UNFPA's three main areas of work are: to help ensure universal access to reproductive health, including family planning and sexual health, to all couples and individuals on or before

the year 2015; to support population and development strategies that enable capacity-building in population programming; and to promote awareness of population and development issues and advocate for the mobilization of the resources and political will necessary to accomplish its areas of work. The current Executive Director of UNFPA is Dr. Nafis Sadik. For information, contact: United Nations Population Fund, 220 East 42nd Street, New York, NY 10017. Tel: 212-297-5020; Fax: 212-557-6416; E-Mail: ryanw@unfpa.org; Internet: <http://www.unfpa.org>.

WORLD HEALTH ORGANIZATION

The mission of the WHO is the attainment by all peoples of the highest possible level of health. Health, as defined in the WHO constitution, is a state of complete physical, mental, social well-being and not merely the absence of disease or infirmity. In support of its main objective, the Organization has wide range of functions, including the following: to act as the directing and coordinating authority on international health; to promote technical cooperation; to assist governments, upon request, in strengthening health services; and to promote and coordinate biomedical and health services research. Dr. Gro Harlem Brundtland is the Director-General of the WHO. Dr. Brundtland has been a key figure in the integration of environment, population, health, and security issues. For information, contact: WHO, Avenue Appia 20, 1211 Geneva 27, Switzerland. Tel: 41-22-791-2111; Fax: 41-22-791-0746; E-Mail: info@who.int; Internet: <http://www.who.int>.

GLOBAL ENVIRONMENT FACILITY

The Global Environment Facility (GEF) was established as a joint international effort to help solve global environmental problems. The GEF Trust Fund was established by a World Bank resolution on 14 March 1991, while the Facility was formally established in October 1991 as a joint program between the United Nations Development Programme, UNEP and the World Bank. The GEF provides new and additional grant and concessional funding to meet the incremental costs of measures to achieve global environmental benefits in four focal areas, namely: the protection of biological diversity; the reduction of greenhouse gases; the protection of international waters; and, the protection of the ozone layer. The incremental costs of activities concerning land degradation, primarily desertification and deforestation, as they relate to the four focal areas, are also eligible for funding. Currently, more than 150 countries are participating in the Facility. For more information, contact: The GEF Secretariat, 1818 H Street, NW, Washington, DC 20433. Tel: 202-473-0508; Fax: 202-522-3240 or 522-3245; Internet: <http://www.gefweb.org>.

OFFICE OF SCIENCE AND TECHNOLOGY POLICY/NATIONAL SECURITY AND INTERNATIONAL AFFAIRS

The White House Office of Science & Technology Policy (OSTP) advises the President on science and technology priorities that support national needs, leading interagency coordination of the Federal Government's science and technology enterprise and fostering partnerships with state and local governments, industry, academe, non-governmental organizations, and the governments of other nations. OSTP also acts as the Secretariat for the National Science Technology Council (NSTC) created by President Clinton in November 1993 to strengthen interagency policy coordination. One of the principal priorities of OSTP is strengthening the contribution of science and technology to national security and global stability. Working with the NSTC, OSTP works to promote the role of science and technology in sustainable development including areas such as protecting the environment, predicting global changes, reducing the impact of natural disasters, promoting human health, bolstering the fight against infectious diseases, fostering the information infrastructure, and assuring food safety. As effective progress in these areas requires an international response, OSTP is engaged in priority bilateral and multilateral activities that address these goals. These include ongoing dialogues with Russia, China, Japan, South Africa and the Ukraine, and in the APEC, the OECD, the Summit of the Americas and the G-7. For information, contact: Office of Science and Technology Policy, 1600 Pennsylvania Avenue, NW, Washington, DC. Tel: 202-395-7347; E-Mail: Information@ostp.eop.gov; Internet: http://www.whitehouse.gov/WH/EOP/html/OSTP_Home.html.

PACIFIC NORTHWEST NATIONAL LABORATORY, THE CENTER FOR ENVIRONMENTAL SECURITY

The Center for Environmental Security (CES) provides a venue to debate and evaluate environmental issues that impact national security for the purpose of addressing underlying motivations for weapons acquisition and developing regional tension-reduction and confidence-building measures. The Center has established a web site to enhance the level of debate and evaluation, and to share information in an interactive medium. The Center provides an open forum for government officials and others who are interested in environmental security to act on their interests through the sharing of ideas, experiences and needs regarding nonproliferation, national security policy and related tools, and compliance with arms control and environmental treaties. The CES seeks to involve a wide range of technical contributors, beginning with the academic community and including non-governmental organizations. Examples include: publishing in key academic journals, inviting members of the academic community to speak at Center-sponsored forums, actively participating in conferences sponsored by academic institutions and research organizations, and networking throughout the research community. The Center adds an environmental dimension to regional security questions. It therefore builds on traditional concerns about regional security, such as political, socio-economic or military disparities combined with a lack of trust between border or resource-sharing countries. Findings from the analysis will inform policy options for effective development of tension-reduction and confidence-building measures. The policy studies and

recommendations from the web site will be the culmination of the Center's activities—the result of the Center's success at integrating interagency needs, contributions of the academic community, and capabilities of the national laboratory system. Interim steps along the policy development path will require the Center and those affiliated with it to prioritize areas of focus, accurately frame questions for exploration within a regional security context, conduct the analytical activities to recommend policy options and utilize interagency decisionmaking processes to select a policy response. For information, contact: Brian R. Shaw, Manager, Center for Environmental Security, National Security Division, Pacific Northwest National Laboratory, 901 D Street, SW, Suite 900, Washington, DC 20024-2115. Tel: 202-646-7782; Fax: 202-646-7838.

UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION DIVISION, INTERNATIONAL CONSERVATION DIVISION/OFFICE FOR SUSTAINABLE DEVELOPMENT

The NCRS addresses the food security and land security aspects of environment and security issues through its International Conservation Division (ICD). The ICD of NRCS is dedicated to assisting in the management and conservation of global resources by collaborating with foreign country institutions in several fields: managing and conserving natural resources; improving capacity for sustainable agriculture; and enhancing capabilities for addressing problems of food security, income generation and the environment. ICD assists foreign nations in these fields through several means: technical assistance; scientific and technical exchange; international meetings and workshops; and the development of project proposals and reviews of ongoing programs. For information, contact: Hari Eswaran, Director, or Gail Roane, International Training Specialist, International Conservation Division, USDA/NRCS, P.O. Box 2890, Washington, DC 20250. Tel: 202-720-2218; E-Mail: Hari.Eswaran@usda.gov or Gail_Roane@usda.gov.

UNITED STATES DEPARTMENT OF COMMERCE/NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, OFFICE OF GLOBAL PROGRAMS

In November 1995, the National Oceanic and Atmospheric Administration (NOAA) collaborated with NSF, NASA, and DOE to organize the International Forum on Forecasting El Niño: Launching an International Research Institute. Chaired by NOAA Administrator James Baker, and hosted by the President's Science Advisor, John Gibbons, the Forum launched a multinational effort to support scientific research and climate forecasting activities of direct relevance to societies around the world sensitive to climate variability. The Forum was attended by 40 countries and more than 20 international and regional organizations, as well as members of the international physical and social science communities. The Forum provided a broad consensus for creation of an International Research Institute (IRI) and network for climate prediction that would embody and “end to end” capability for producing experimental climate forecasts based on predicting ENSO phenomena, and generating information that could be incorporated by decisionmakers worldwide to mitigate climate-related impacts in sectors such as agriculture, water management, disaster relief, human health and energy. The first real world test of this initiative occurred during the 1997-98 El Niño event, the cost of which was estimated to be 22,000 lives lost and \$34 billion in damages worldwide. Because of ongoing efforts, IRI and NOAA were well-positioned to rapidly organize climate research and application activities with international and regional partners in Latin America, the Caribbean, Southern Africa, Southeast Asia, and the United States. Climate Outlook Fora, for example, brought together scientists with potential users of climate information to create consensus forecasts that would help countries to prepare for or to mitigate the severe weather-related impacts associated with El Niño. For information, contact: Jim Buizer, Research Applications Division, Office of Global Programs (NOAA/OGP), 1100 Wayne Ave., Ste. 1225, Silver Spring, MD 20910. Tel: 301-427-2089 ext. 115; Fax: 301-427-2082; Internet: <http://www.ogp.noaa.gov>.

UNITED STATES DEPARTMENT OF ENERGY

The Department of Energy (DoE) engages in a variety of activities related to environmental security. Over one-third of DoE's budget is spent addressing the legacy of environmental concerns in the manufacture of nuclear weapons. DoE also engages in activities to help reduce U.S. dependence on imports of oil. DoE runs a number of programs devoted to technology development and to the sustainable use of resources:

Office of Fossil Energy

The broad range of Fossil Energy (FE) technical approaches to oil and gas exploration, development and utilization, and coal processing and coal-powered electricity generation provide a base for evaluating and determining the most appropriate technology for international applications. FE provides insights into environmental sensitivities that are necessary for multinational problem resolution. Additionally, FE's environmental security initiative provides the opportunity to enhance cooperative efforts with the Environmental Protection Agency and the Department of Defense. Current FE projects include: coalbed methane production and brine disposal in the Upper Silesia region of Poland; Krakow Clean Fossil Fuels and Energy Efficiency Program; and Electrownia Skawina (Krakow, Poland).

Office of Energy Efficiency and Renewable Energy

The Office of Energy Efficiency and Renewable Energy (EE) conducts research to develop more cost-effective and innovative energy efficiency and renewable energy technologies. These technologies form part of the vital link between national and

international development and the environment by assisting in the development process while reducing U.S. dependence on imported fuels and lowering consumption of potentially polluting energy resources. EE's focus areas include utilities, building, transportation, and electric power generation sectors and cross-cutting efforts with foreign partners. EE has also established channels to promote the transfer of technologies to emerging nations which involve cooperation between the government, private sector, financial community, international organizations, and other interested parties. Organizations for the deployment of such technology include the Committee on Energy Efficiency Commerce and Trade (COEECT), an interagency program which facilitates the worldwide use of U.S. alternative energy and efficiency technologies and services by bringing together potential foreign customers and decision-makers, funding sources and U.S. industry representatives. Programs are designed to assist industry to export goods and services in order to promote sustainable growth, the conservation of environmental resources,

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT / CENTER FOR POPULATION, HEALTH AND NUTRITION

The technical structure of USAID is divided into four Regional Bureaus and the Bureau for Global Programs, Field Support, and Research. The Regional Bureaus provide technical and programmatic expertise to the missions in each of the four regions (Asia, Africa, Latin America/Caribbean, and Europe/NIS). The Global Bureau is divided into five centers, each corresponding to one of the Agency's five focus areas. As its name suggests, the Global Bureau focuses its efforts on global leadership, technical support to the field, and research and evaluation. The Center for Population, Health and Nutrition (PHNC) performs these functions in Washington, D.C. for the PHN sector. Integral to performing these functions is the pivotal relationship of the PHNC to its partners and stakeholders within USAID, such as missions and regional bureaus, and outside of the Agency, such as the NGO community, host governments, and multilateral organizations.

The Center for Population, Health and Nutrition's (PHN) goals are to stabilize world population growth and to protect human health. In order to achieve these goals, the Agency has adopted a strategy based on four strategic objectives: reducing unintended pregnancies, reducing maternal mortality, reducing infant and child mortality, and reducing STD transmission with a focus on HIV/AIDS. These are a refinement of the historical strategic direction of the Population, Health and Nutrition sector. Looking to the future, the PHN strategy also incorporates principles from the Cairo Program of Action and reflects Agency mandates in the areas of women's empowerment. The PHN program focus, therefore, is on improving the quality, availability, and use of key family planning, reproductive health, and other health interventions in the PHN sector, with sustainability and program integration as essential crosscutting themes. For over thirty years USAID has supported PHN activities through a variety of programs in many countries. From 1985 to 1996, USAID provided approximately \$9.670 billion in PHN assistance to developing countries, making it the largest international donor in this sector in the world. In FY1996, obligations in the sector totaled approximately \$916 million.

The PHN Center is composed of three offices with complementary objectives and activities: the Office of Population, the Office of Health and Nutrition, and the Office of Field and Program Support. These offices work together to support the field and accomplish the goals and objectives of USAID in this sector. Each office, its divisions, and activities are described below.

Office of Population (POP)

Commodities and Logistics Management Division (CLM): Provides a centralized system for contraceptive procurement, maintains a database on commodity assistance, and supports a program for contraceptive logistics management.

Communications, Management, and Training Division (CMT): Increases the awareness, acceptability, and use of family planning methods and expands and strengthens the managerial and technical skills of family planning and health personnel.

Family Planning Services Division (FPSD): Increases availability and quality of family planning and related services through strengthening government programs, local private voluntary organizations, for-profit organizations, and commercial channels.

Policy & Evaluation Division (P&E): Improves demographic research and data collection, assists in creating a supportive policy environment for population, family planning, and other reproductive health programs, supports strategic planning, and guides efforts to evaluate program impact.

Research Division (R): Supports biomedical research to increase understanding of contraceptive methods and to develop new fertility regulation technologies. Also, through operations research, the Research division seeks to improve the delivery of family planning and reproductive health services.

Office of Health and Nutrition (HN)

Child Survival Division (CS): Provides technical guidance and assists in strategy development and program implementation in child survival, including interventions aimed at child morbidity and infant and child nutrition.

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and to expand capacity for economic growth. EE is part of the energy and environmental security activities in a number of international projects.

Office of Nuclear Energy

The Office of Nuclear Energy (NE) provides technical leadership to address critical domestic and international nuclear issues and advances U.S. competitiveness and security. In cooperation with international partners, NE supports the environmental security initiative through the improvement of nuclear activities. For example, NE supports enhancing the safety of Soviet-designed

Nutrition and Maternal Health Division (NMH): Provides technical guidance and assists in strategy development and program implementation in nutrition and women's health, especially maternal health.

Health Policy and Sector Reform Division (HPSR): Assists in the design, implementation, research, and evaluation of health and nutrition policy reform, management and financing issues, including health care financing, quality assurance, pharmaceuticals, private sector, and data activities.

Environmental Health Division (EH): Assists in the design, implementation, research, and evaluation of environmental health activities and issues, including water and sanitation, hazardous wastes, vector-borne tropical diseases, food hygiene, solid waste, air pollution, and occupational health.

HIV/AIDS Division (HIV-AIDS): Provides technical guidance and assists in strategy development, program design, and implementation of HIV/AIDS control activities worldwide.

Office of Field and Program Support (OFPS)

The Office of Field and Program Support (OFPS) was created as a demand driven, service-oriented unit within the PHN Center to ensure that state-of-the-art technical direction is translated into field strategies and programs which achieve impact both globally and at the country level. OFPS has two major functions:

Field Support: Includes Joint Programming and Planning, coordination between the Global Bureau, Regional Bureaus, other donors and the field, and significant technical input into strategic planning and performance monitoring.

Program Support: Includes programming/budgeting for the Center, personnel management, and other tasks related to the global management of PHN resources.

The PHNC and the Missions have developed and implemented the Joint Programming and Planning Country Strategy (JPPC). JPPC is a framework that identifies priority countries for the PHN sector and establishes mechanisms to maximize access to resources for the highest priority countries. The joint programming and planning process brings together staff from all areas at USAID to plan the effective allocation of resources in order to achieve the objectives of country programs. Within the JPPC strategy, Joint Programming Countries are those with the highest potential for worldwide, as well as local or regional, impact across sectors in the PHN arena. A significant level of USAID resources, both in terms of technical staffing and field support, will be committed to achieving results in these countries. Joint Planning Countries are other sustainable development countries that are lower priority in terms of global impact but have PHN sector activities in the form of bilateral programs. Although relatively fewer resources are committed to them than to Joint Programming countries, Joint Planning Countries still receive support from USAID. These countries may also access PHN technical resources. Certain countries are termed special circumstance countries because of significant investments made to date, policy considerations, or crisis conditions. USAID is committed to developing and maintaining strong responsive relationships with these countries and to support their initiatives in the PHN sector. One of the important lessons learned over the thirty years of USAID's efforts in the PHN sector is that maintaining a close connection between field implementation and technical innovations is critical to achieving a lasting impact.

USAID's PHN technical staff offers "one-stop shopping" to USAID's field missions. In this capacity, the PHNC has developed projects that provide access to state-of-the-art technical assistance through a network of Cooperative Agreements (CAs) and contractors. The PHNC also works with missions to translate global initiatives to country-specific situations and provides a ready mechanism by which missions can benefit from the experience and knowledge that USAID has gained worldwide. Working closely with Missions, USAID is developing new approaches for the changing needs of the PHN sector. USAID maximizes the global impact of its programs through support for effective strategic planning at the country level and the allocation of resources across country programs.

This information was excerpted directly from the USAID/PHN web site at http://www.info.usaid.gov/pop_health. For more information, contact Joanne Grossi, Office of Population, USAID, Ronald Reagan Bldg. G-PHN-POP Rm 3.06 -041U, Washington, DC 20523. Tel: 202-712-0867; Fax: 202-216-3404; E-mail: jgrossi@usaid.gov; Internet: http://www.info.usaid.gov/pop_health. Please refer to the article by Craig Lasher in ECSP Report Issue 4 1998 for an additional perspective on USAID/PHN efforts.

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nuclear energy plants and helping host countries upgrade their nuclear safety cultures and supporting infrastructures.

Office of Nonproliferation and National Security

Within the DoE, the Office of Nonproliferation and National Security has sponsored research and workshops that focus on regional environmental security, instability, and the proliferation of weapons of mass destruction. The Office's focus is on regions where nuclear proliferation is an existing concern and its analysis has two goals: (1) determine how environmental issues may intensify or generate regional instabilities; (2) assess the potential for enhancing regional stability through the use of confidence-building measures which focus on environmental problems. The focus on environmental issues also provides an opportunity for scientists and officials to familiarize themselves with the technology and process of cooperative monitoring and verification for environmental issues before applying them to arms control issues which may be more sensitive.

Office of Environmental Management

The Office of Environmental Management (EM) interacts with foreign governments, international corporations, and international regulatory and consensus standards bodies. Principle topic areas include: characterization, handling, transport, and storage of nuclear and chemical wastes; addressing the decontamination and decommissioning of nuclear facilities; developing systems with foreign partners to ensure proper control and monitoring and return of foreign spent fuel provided under the 1950s "Atoms for Peace Program." EM's international agreements allow the United States to obtain unique technical capabilities and engage in exchanges of scientific and technical data and expertise unavailable from U.S. experience like comparative designs of waste storage systems.

Office of Energy Research

The Office of Energy Research focuses on the production of knowledge needed for technology to fulfill the DoE's energy, environment, and competitiveness missions. Research supports the environmental security initiative by providing information on: regional and global environmental change and the consequences of that change; advanced and alternative technology to prevent and/or mitigate environmental pollution (including bioremediation methodologies); advanced health information on toxic pollutants; advanced tools to diagnose and treat human disease; and risk management methodologies. The Office of Health and Environmental Research is responsible for managing the DoE's seven National Environmental Research Parks which operate under the premise that appropriate research can aid in resolving environmental problems locally and internationally.

Climate Change

Through the Office of Policy and International Affairs, the DoE participates in U.S. international delegations that implement Administration policy and negotiate international agreements. DoE provides analysis of policy options for limiting emissions, works with stakeholders, and articulates Administration policy in a wide variety of fora. The DoE co-manages with the EPA the U.S. Country Studies Program (USCS) and the U.S. Initiative on Joint Implementation (USIJI). USCS assists over sixty developing and transition economy countries in conducting studies on emission inventories, technology options, climate impacts, and migration options. USIJI is a pilot program to develop projects which reduce emissions of greenhouse gases in other countries.

UNITED STATES GEOLOGICAL SURVEY, EROS DATA CENTER

The U.S. Geological Survey (USGS) has begun distributing film negatives, positives, and paper prints from declassified satellite photographs collected by the U.S. intelligence community during the 1960s and early 1970s. The sale of photographs to the public began with the initial transfer of 2,650 of the total 18,000 rolls of film from the Central Intelligence Agency. The entire collection of these declassified photos incrementally reached USGS National Satellite Land Remote Sensing Data Archive at the Earth Resources Observation Systems (EROS) Data Center in Sioux Falls, South Dakota, in 1996. The online catalog has been updated daily as new rolls are added to the archive. A World Wide Web-accessible graphical catalog and image browse capability for the photo collection is accessible for searching, at no charge, on the Internet through the U.S. Geological Survey's Global Land Information System (GLIS). It is highly recommended that users view the browse images before purchasing the photographs since over 40% are obscured by clouds. For information, contact: U.S. Geological Survey, EROS Data Center, Customer Service, Sioux Falls, SD 57198. Tel: 605-594-6151; Fax: 605-594-6789; E-Mail: custserv@edcserver1.cr.usgs.gov; Internet: <http://edcwww.cr.usgs.gov/hyper/guide/disp>.

Academic and Professional Meetings

31 MARCH-5 APRIL 1997: THE ASPEN INSTITUTE

"THE CONVERGENCE OF U.S. NATIONAL SECURITY AND THE GLOBAL ENVIRONMENT"

This conference's four sessions were designed to provide Members of Congress a chance to gain a deeper understanding of environmental issues at the international level and of their growing relevance both to U.S. national security and to U.S. competitiveness in the global marketplace. The four sessions were "Forests and Biological Diversity," "The Legacy of Nuclear Waste," "Energy and Climate," and "Environmental Regulations and U.S. Economic Competitiveness." For more information, contact: The Aspen Institute, 1333 New Hampshire Ave. NW, Ste. 1070, Washington, DC 20036.

12-13 NOVEMBER 1997: U.S. ARMY WAR COLLEGE, CARLISLE, PA

"COOPERATION ON ENVIRONMENTAL SECURITY"

The following article by Kent Hughes Butts is an excerpt from Game Report: International Environmental Security: The Regional Dimension, Arthur L. Bradshaw Jr., ed.

In the *1997 National Security Strategy for a New Century* the President states that, "Environmental threats do not heed national borders and can pose long-term dangers to our security and well-being. Natural resource scarcities often trigger and exacerbate conflict... We must work closely with other countries to respond aggressively to these and other environmental threats." Working closely with other nations to solve environmental problems is only possible if there is a wide recognition of the importance of the environment to security and regional stability and there is cooperation in the United States between the various agencies that have an international affairs role. The purpose of the International Environmental Security Executive Seminar and Game held at the Center for Strategic Leadership of the U.S. Army War College was to sow the seeds of cooperation among our international allies and further encourage the nascent cooperation by the agencies of the United States' government. We believe that cooperation on environmental security issues will help promote regional stability, cooperation and communication, and contribute to the ongoing process of conflict resolution.

In the last two years the heads of the United States Department of Defense, Central Intelligence Agency, and Department of State have all singled out the environment as a critical element in promoting the interests of the United States. Perhaps Secretary of State Warren Christopher made the point most succinctly during his address at Stanford University, stating that the environment has a "profound impact on our national interests." Because environmental forces cross borders and oceans, they can provide a direct threat to the prosperity, jobs, and health of the American population; thus, "achieving political and economical stability and U.S. international strategic goals frequently turns on addressing critical natural resource issues."

While the Secretary of State spoke about integrating environmental issues into the objectives of State Department diplomacy, other elements of the U.S. government have also developed environmental security programs, weaving them into efforts to accomplish their agency objectives. The Secretary of Defense made environmental security a pillar of his Preventive Defense concept. The Director of Central Intelligence established a Center for Environmental Intelligence, which has as one of its many unclassified missions, cooperation with the scientific community to provide data for scholarly research aimed at addressing environmental problems. The Environmental Protection Agency (EPA) has drafted a detailed Environmental Security Strategy to guide its international efforts, and the Department of Energy (DOE) has witnessed the establishment of environmental security centers in many of its research laboratories. DOE has also cooperated with the Environmental Protection Agency and the Department of Defense to address the difficult and often contentious issue of low-level radioactive nuclear waste in the Arctic.

The *U.S. Strategic Plan for International Affairs* and the *National Security Strategy* have built on such interagency cooperation and these individual agency policy directions. The Strategic Plan is the document for international affairs that is to serve as a guide in clarifying long-term U.S. foreign policy goals and coordinating the roles and missions of the agencies tasked to accomplish them. The environment figures prominently in the Strategic Plan as an element that must be addressed if the United States is to protect its citizens, and preclude the instability and conflict that result from competition for scarce natural resources. The *National Security Strategy* document of the United States clearly recognizes the importance of the environment in maintaining global security. It suggests that the United States should pursue a *shaping strategy* that allows it to engage proactively in addressing threats to global security such as transnational issues like the environment. The shaping strategy seeks to strengthen alliances, reduce tensions, and promote regional stability. The environment serves as a valuable tool for promoting the cooperation and communication necessary to reduce tensions and build trust among regional states. Inherent to the documents and most agencies' approach to the issue, is the recognition that environmental issues become security issues when they can affect the national security interests.

The environment can provide a foundation for regional solutions and preserve security interests when socioeconomic, ethnic, religious, and historical tensions plague a region, it is often difficult to find common ground on which to build the trust and the communication necessary to avoid misunderstandings. The Madrid peace process established five areas for multilateral cooperation in an attempt to reduce the long-term tensions of the Middle East. Of the five issues, two, water and environment, were environmental in nature and a third, refugees, had strong environmental components. In the intervening time it has been proven that even when the bilateral negotiations have suffered as a result of rising tensions between countries, cooperation on the multilateral issues such as water have continued on, sustaining new-found regional interaction and maintaining avenues for communication. Environmental issues are often perceived as non-threatening and essential to regional governments, and can be used to maintain ties during times when other forms of linkages would be deemed inappropriate. The water management agreements between Pakistan and India have survived several wars, and during the recent straits crisis involving Taiwan, China, and the United States, environmental efforts between the three continued on, while other areas of cooperation were threatened.

In the future, environmental issues will gain even greater importance in regional affairs. Technology continues to provide new and creative ways to use increasingly scarce resources, and the food demands of the exponentially increasing world population will make access to clean water and arable land vital objectives. Population growth will heighten competition for the world's fisheries, essential as a source of protein; and the availability of electrical power and the requirement for ever-increasing economic growth will challenge regions to address air quality standards and minimize cross-border pollution caused by carbon fuels and industrial waste. Environmental issues often have technical components that require access to data or information not available regionally. Moreover, the transnational dimensions of most environmental issues make it difficult for any country to address them effectively without the cooperation of other regional states. Therefore, to deal with environmental issues and maintain regional economic, and political stability in the coming years, increased cooperation between regional states and between agencies of the state governments will be increasingly important.

Perhaps surprisingly one of the most valuable resources in addressing environmental issues has proven to be the military. This trend will continue. Capabilities developed for traditional military missions lend themselves well to the resolution of environmental problems. Frequently the military is the best resourced of all government agencies. It generally has access to substantial transportation assets and a construction engineer unit capable of building primary water treatment facilities and addressing many environmental problems. Moreover, the military brings an understanding of the physical geography of the state, and a presence in virtually all regions of a country and importantly, the distant border areas where many governments find it difficult to maintain legitimacy and address problems critical to the local population. In the highly industrialized United States, the military has played an important role in addressing environmental problems that seemed beyond the scope of local governments. In the Chesapeake Bay, for example, the Department of Defense provided the essential Cray computers to run water flow studies of the Chesapeake Bay estuaries and help the multi-state, multi-municipality effort to improve this important regional economic resource. In the Philippines, the military has served as an important extension to the Department of Energy and Natural Resources in protecting its natural resources. When illegal fishing with dynamite and arsenic became a widespread problem among the thousands of Philippine Islands, the military helped establish artificial reefs and patrolled areas where illegal poaching occurred. In addition, the military has stationed large units in distant regions to help protect forests and wildlife from poaching and to help in the reestablishment of tropical rainforests. This interagency cooperation has enabled the Philippines to aggressively protect natural resources of great importance to its economic stability.

As the interagency community seeks to address its international affairs mission, it is increasing efforts to cooperate on the issues of environmental security. One particularly important opportunity for such cooperation exists with the new Department of State environmental hub concept. As one of the elements of the Environmental Diplomacy initiative, environmental hubs are being established in all regions worldwide to better integrate environmental issues into U.S. foreign policy. The environmental issues of importance to each hub will vary with geography and region yet, each environmental hub will have a plan of action that addresses how it will promote cooperation between the State Department and other U.S. government agencies such as Department of Defense, EPA, the U.S. Department of Agriculture, the National Oceanic and Atmospheric Administration, the United States Agency for International Development (USAID), and the Department of Energy. The hubs will also seek to coordinate with the international community, bringing international donor organizations, NGOs [nongovernmental organizations], and regional governments into a process of cooperation in resolving important environmental issues. The framework of the environmental hubs offers a new and promising opportunity for achieving the most efficiency from the limited resources of all U.S. government agencies. However, the effectiveness of the environmental hubs in promoting regional stability will turn on gaining a full and complete understanding of the importance of regional perspectives on the environment and security.

In an effort to bring together the U.S. interagency community around the notion of the new environmental hub framework, the Center for Strategic Leadership, with the help of its co-sponsors the Department of State, the Environmental Protection Agency, and the Department of Defense, designed this Environmental Security Game and invited members of the international community, diplomats, NGOs, and the International Fellows from the U.S. Army War College to participate. In the course of conducting this game, a substantial number of recommendations were made to U.S. policymakers concerning the most useful and regionally acceptable policies to address environmental security issues, recommendations of significant value in developing U.S. diplomatic, shaping and engagement strategies.

Regional Policy Recommendations and Insights

United States interests turn on regional stability. Environmental issues are now recognized as a major variable in regional instability and conflict. Existing tensions resulting from ethnic, religious, and other regional differences such as economic gaps between rich and poor areas, economic growth, and boundary disagreements may be multiplied by environmental disputes. Alternatively, environmental issues may help to bring about mutual confidence building by encouraging better communication and cooperation between governments that would otherwise be unfriendly competitors. They offer a viable new option for U.S. preventive diplomacy and CINC [Commander-in-Chief] engagement strategies to “shape the international environment.”

The Game focused on ways the U.S. could optimize environmental issues to promote regional security. The participants were asked to address policy issues associated with regional environmental security issues. A Read Ahead Book stressed the need for U.S. CINCs to consider environmental security issues as a part of their engagement strategies. It also explained the emerging U.S. Department of State Environmental Hub Concept as a means to deal with environmental issues, and to integrate regional and bilateral environmental issues into diplomacy in order to achieve three purposes:

- help stabilize a region where pollution or the scarcity of resources contributes to political tensions;
- enable the nations of one region to work cooperatively to develop initiatives to attack regional environmental problems;
- strengthen our relationship with allies by working together on internal environmental problems.

Four international teams were organized to represent four major regional areas of the world: The Asia-Pacific, Americas, Middle East and Africa; and Europe and Russia. Each team worked to identify and analyze issues from a *regional* perspective in order to provide U.S. agencies and military CINCs with a regional understanding on how the U.S. could use Environmental Security to promote regional stability. Specifically, each team was asked to determine:

- environmental issues leading to tensions or conflict,
- environmental issues that offer opportunities for cooperation and confidence building measures,
- appropriate U.S. policy options to deal with these issues, and potential barriers to U.S. policy success.

Each team developed and independently briefed their unique regional findings to a panel of senior U.S. interagency policymakers and international diplomats at a series of plenary sessions.

Summary and Conclusions

Several insights were reinforced and validated during the game. First, it was affirmed that environmental issues could be used to promote regional confidence building measures and create opportunities for better communication and closer cooperation between states that might otherwise be or become antagonists. Environmental Security portends a viable new option for United States preventive diplomacy and regional CINC engagement strategies to “shape the international environment.”

Public education will play an important role in most of the opportunities for environmental cooperation, and will be critical to forge the trust and communication necessary to achieve the desired results and an enduring success.

There are many players and interested parties likely to be involved in most environmental issues. The United States should not overlook the impact and contribution that regional, non-governmental, and private organizations can make in cooperation with our own interagency capabilities and other donor nations. It may be that the United States' position as a world super power puts it in a unique leadership position to lead, foster, or support ongoing programs, and to better coordinate the overall effort of each organization and country to maximize efficiencies and success.

There was consensus that the Department of State Environmental Hub Concept has substantial potential to facilitate United States environmental policy initiatives to achieve better cooperation, increase efficiencies, prevent duplication, and reduce

14-16 OCTOBER 1998
CENTER FOR ENVIRONMENTAL SYSTEMS RESEARCH,
UNIVERSITY OF KASSEL

“WORKSHOP ON QUANTIFYING GLOBAL ENVIRONMENTAL SECURITY”

Participants from both the United States and the European Union gathered at the Cloister Haydau in Germany for the first workshop sponsored by the University of Kassel's Center for Environmental Systems Research directed by Joseph Alcamo. Sessions included presentations on the results of the NATO Committee on the Challenges of the Modern Society study conducted jointly by the United States and Germany, Quantifying Global Water Scarcity, Computing Future Threats to Food Security, Coupling Global Environmental Change with Human Security (the GLASS model), and Key Concepts of Global Environmental Security. The conference ended with a discussion of some key questions and tasks that would facilitate quantifying research as well as discussion of priorities for further developing and testing the GLASS model. For more information, contact: Center for Environmental Systems Research, University of Kassel, Kurt-Wolters-Str. 3, D-34109 Kassel, Germany. Tel: 49-561-804-3898; Fax: 49-561-804-2231; Internet: <http://www.usf.uni-kassel.de>.

manipulation throughout the regions of the world. Given current funding constraints, however, the potential for HUB success would be substantially enhanced by a program designed around interagency and CINC cooperation.

Finally, the international military officers involved uniformly saw benefits of the new Environmental Security concept for their own national defense organizations and regional security regimes, as well as serving as an engagement mechanism for the U.S. military CINCs. In particular, they expressed a recognition that Environmental Security could serve as a vehicle of cooperation for bridging long extent enmities.

20 JANUARY 1998: ROYAL DUTCH ACADEMY OF SCIENCES (KNAW)

"ENVIRONMENTAL CHANGE AND INTERNATIONAL SECURITY"

This Amsterdam workshop was organized by the Centre for Environmental Security and funded by the Dutch Human Dimensions of Global Change Program. A 101-page booklet detailing the proceedings of the workshop may be obtained from either Dr. Ans Vollerling, KNAW, Trippenhuis, P.O. Box 19121, NL-1000 GC Amsterdam, or from the Centre for Environmental Security, c/o Prof. H. Tromp, Rijksuniversiteit Groningen, P.O. Box 84, NL-9700 AS Groningen. Tel: 31 50 3635674; E-Mail: H.W.Tromp@rechten.rug.nl.

10-11 FEBRUARY 1998: THE BELLONA FOUNDATION

"CHALLENGES IN ENSURING SAFE HANDLING OF NUCLEAR WASTE IN NORTHWEST RUSSIA"

This project brought Norwegian and Russian government and industry officials together in Brussels to address issues of radioactive waste on the Kola peninsula. A working group, with the planned inclusion of European and U.S. parliamentarians, was created to address issues of technology, funding, taxation, liability, and a time frame for the clean-up. **See meeting summary on page 140** for the follow-up meeting. For more information, contact: Thomas Jandl, Bellona USA, P.O. Box 11835, Washington, DC 20008. Tel: 202-363-6810; Fax: 202-363-9873; E-Mail: bellona@bellona.no; Internet: <http://www.bellona.org/>.

16 MAY 1998: UNIVERSITY OF KEELE, STAFFORDSHIRE, UK

"IS CONFLICT THE RULE: RETHINKING THE POTENTIAL FOR COOPERATION OVER TRANSBOUNDARY WATERS"

For more information, contact: Mr. Ibrahim Erdogan, Department of International Relations, University of Keele, Staffordshire, ST5 5BG, United Kingdom. Tel: 44-1782-583611; Fax: 44-1782-584218; E-Mail: ird50@cc.keele.ac.uk.

1 JULY 1998: POPULATION ACTION INTERNATIONAL AND CONSERVATION INTERNATIONAL

"PLANTING SEEDS AND MEETING NEEDS: WORKING ON NATURAL RESOURCE MANAGEMENT AND REPRODUCTIVE HEALTH IN COMMUNITIES"

Population Action International and Conservation International presented the fourth in the series of roundtable meetings on community-based population and environment initiatives. The meeting was held on July 1, 1998, at Conservation International in Washington, DC. As interest in smaller families and delayed childbearing increases even in remote rural areas in developing countries, many organizations are now linking services related both to natural resource conservation and family planning at the community level. This roundtable meeting was organized to discuss how work is proceeding in this area. The meeting featured Dr. Teresa de Vargas, executive director of CEMOPLAF, Ecuador who spoke about an evaluation conducted of CEMOPLAF-World Neighbors' linked activities; Robert Engelman, author of *Plan and Conserve, A Source Book on Linking Population and Environmental Services in Communities* and director of PAI's Population and Environment Program; and Jim Nations, vice president of Conservation International for Mexico and Central America. A panel of presenters discussed the latest news from field projects from organizations such as CARE, Centre for Development and Population Activities, World Wildlife Fund, Future Generations, the Summit Foundation and the University of Michigan Population-Environment Fellows Program. This was followed by an open discussion period to exchange lessons learned, discuss overcoming obstacles, and learn about successes in linking natural resource management and reproductive health in communities.

22-24 SEPTEMBER 1998: ORGANIZATION FOR SECURITY AND COOPERATION IN EUROPE

"REGIONAL ENVIRONMENTAL PROBLEMS AND COOPERATIVE APPROACHES TO SOLVING THEM"

The Secretary General of the Organization for Security and Cooperation in Europe (OSCE) stressed the importance of this seminar held in Tashkent, Uzbekistan. It should serve as a stimulus to participating States in Central Asia to define their objectives early and prepare for the 1999 Economic Forum, deriving maximum benefit from that meeting. This seminar was a direct response to the priorities articulated by regional heads of State and Government: the identification of water allocation in Central Asia as a source of potential conflict and destabilization, and the need to develop co-operative strategies for solving this and other environmental problems. The seminar presented a valuable opportunity for OSCE States outside Central Asia to learn more about this important region, and for citizens and their governments within the region to learn more about the OSCE.

Keynote speakers stressed the critical state of the regional environment in terms of risk to human health and the economy.

Speakers called for greater efforts to increase awareness and to involve the public and NGOs in responding to these problems. Special attention was given to 1) nuclear waste management and other environmental problems associated with mining; 2) internal migration as result of economic/environmental degradation; 3) depletion of the forests and arable land with a corresponding impact on climate change and biodiversity; and 4) management of water and energy resources.

In the course of the seminar, governmental and non-governmental representatives of Central Asian States expressed an acute awareness of the security dimensions of these problems and of broader regional issues. They also expressed a desire that the OSCE play a more active role in the region. Participants stressed their eagerness to see Central Asian interests pursued more actively and on a more cooperative basis with OSCE.

Working Group sessions revealed a desire to achieve cooperative regional approaches to solving these grave problems. States in the region encounter problems articulating and implementing such solutions. One theme however was clear: multinational problems require multinational solutions. Participants agreed that this Seminar was a useful first step. Follow-up should consist of 1) supportive actions by the Chairman-in-Office and the new OSCE centers within the region, 2) a more cooperative and consultative approach among external actors, and 3) a more active, consistent and integrated engagement by regional actors. For more information, contact: The Secretariat, Office of the Coordinator of OSCE Economic and Environmental Activities, OSCE, Kärntner Ring 5-7, A-1010 Vienna, Austria. Tel: 43-1-514-36-151; Fax: 43-1-514-36-96; E-Mail: pm-occea@osce.org.

5-6 NOVEMBER 1998: ORGANIZATION FOR SECURITY AND COOPERATION IN EUROPE

“REGIONAL ENVIRONMENTAL PROBLEMS AND COOPERATIVE APPROACHES TO SOLVING THEM: THE CASE OF THE BLACK SEA REGION”

The Minister of Environment of the Republic of Turkey welcomed participants to Istanbul and described some of the key environmental problems in the Black Sea region. The Co-ordinator of OSCE Economic and Environmental Activities explained the OSCE's comprehensive concept of security and gave several examples of environmental security problems in and around the Black Sea (e.g. nuclear safety issues, shipping and transport issues, and uneven compliance with international conventions). He called on states in the region to engage in fuller dialogue with citizens groups. States should also adopt a more cooperative approach toward each other as they seek solutions to problems which are important in and of themselves, but which are also important because they contribute to increased tension within the region. Keynote speakers explained ongoing environmental clean-up activities supported by the Black Sea Economic Cooperation, the United Nations Development Programme, the United Nations Economic Commission for Europe, and other parts of the United Nations system, the European Commission, and other actors. Many participants welcomed the OSCE's approach in bringing together diplomats, governmental specialists in each of these fields, the private sector, and NGOs. Further, they expressed the hope that future activities of this type would help generate effective solutions to environmental security problems based on the synergy among the many categories of participants. Not only could activities of this sort help generate solutions to environmental security problems, but—as more than one participant pointed out—they could also reinforce democratic practices by making broad-based public participation a standard part of governmental behavior. For more information, contact: The Secretariat, Office of the Coordinator of OSCE Economic and Environmental Activities, OSCE, Kärntner Ring 5-7, A-1010 Vienna, Austria. Tel: 43-1-514-36-151; Fax: 43-1-514-36-96; E-Mail: pm-occea@osce.org.

16-18 NOVEMBER 1998: GLOBAL ENVIRONMENTAL CHANGE AND HUMAN SECURITY PROJECT (GECHS) AND THE AUSTRALIAN HUMAN DIMENSIONS PROGRAMME (Aus-HDP)

“WATER AND HUMAN SECURITY IN SOUTHEAST ASIA AND OCEANIA”

GECHS and Aus-HDP hosted a workshop in Canberra, Australia, funded by the Asia-Pacific Network on Global Change (APN) and START, the Global Change System for Analysis, Research and Training. Thirty-eight scholars from fifteen countries attended the workshop, and fifteen papers were presented that focused on the following four themes: water and urbanization; water, food security, and agricultural sustainability; water and indigenous people; and institutional cooperation and conflict over water. Keynote presentations were given on Environment and Human Security (Richard Matthew, USA), Water and Environmental Change in Southeast Asia and Oceania (Lorraine Elliot, Australia), and Water and Development in Southeast Asia (Avijit Gupta, U.K.).

Water is a prime example of how resource scarcity or degraded quality may pose a considerable threat to national and human security. The problem is becoming acute in Southeast Asia, with the demand for water increasing rapidly as the result of population increase, rapid urbanization and economic growth, and expansion of agricultural land.

As attempts are made in the region to increase the supply of water to satisfy this demand, considerable environmental and social impacts have occurred. Because the magnitude and frequency of extreme events – such as droughts – will likely continue, there will be greater vulnerability for populations and activities dependent on water resources.

Some of the most interesting discussions at the workshop centered on the issue of water and indigenous peoples in the region. In Australia, for example, the indigenous population suffers poorer health than the population at large. Part of this is the result of poor water quality, or limited access, and it particularly affects the 27% of aboriginal peoples living in rural regions. Even more vulnerable are indigenous peoples living on small islands in the Pacific, where water supply is often variable, and water-related health problems are widespread.

Similar problems occur in large and/or rapidly growing cities in the region. The mega-cities of Bangkok, Jakarta and Manila exhibit water infrastructure that is not able to cope with the rapid growth of the urban population. They also suffer from extremely high water pollution loads in their waterways due to industrialization, lack of proper wastewater disposal facilities, indiscriminate solid waste disposal and uncontrolled influx of rural population. Bangkok has an added problem in that uncontrolled withdrawal from the aquifer (mainly by industry) has resulted in land subsidence (the city is literally sinking).

All agreed that the problems are not just technical ones; often it is easy to state "the problem," but difficult to find political, social, and economic solutions. Since Southeast Asia and Oceania are not "water scarce" regions per se, the two key issues become water quality and supply/distribution. However, there is still an issue of seasonality with respect to water availability in many regions. It is important to view water in human security terms, so it is not just an issue of "supply and demand" (i.e. legal frameworks; development of legislation, treaty negotiations). To achieve this, we need to develop an understanding of water as a resource like land, and consider structured relationships (between water and land, water and humans). We need to change the relationship between researcher/researched and adopt an action learning approach to research. The integration of models that interface with political "realities" is also required, and implies that our models and analysis must be as participatory as possible.

There are tremendous implications/interconnections within systems (forests, fisheries, etc). As such, we need to recognize these interconnections, and ensure that different cultures' own water management/preservation strategies are taken into account. It is apparent that we still lack knowledge in terms of different uses of water (including symbolic uses), the type and validity of data, and the value we place on other perspectives.

16-17 NOVEMBER 1998: 2ND ANNUAL INTERNATIONAL ENVIRONMENTAL SECURITY EXECUTIVE SEMINAR

"THE CASPIAN SEA AND INTERNATIONAL ENVIRONMENTAL SECURITY"
Report of the Center for Strategic Leadership, U.S. Army War College

By Kent Hughes Butts and Arthur L. Bradshaw, Jr.

The Caspian Sea and International Environmental Security Game was the second annual international environmental security exercise conducted by the Center for Strategic Leadership (CSL) of the U. S. Army War College. Held on 16-17 November 1998, this year's exercise focused on the energy resources, geopolitics, and environmental security of the Caspian Basin. The co-sponsors of the exercise were the Deputy Assistant Secretary of State for Economics and Business Affairs, U.S. Department of State, Mr. Peter Bass, and the Principal Assistant Deputy Under Secretary of Defense (Environmental Security), Mr. Gary Vest. The purpose of the Caspian exercise was to examine the petroleum pipeline options in the context of U.S. National Security interests and the increased importance of environmental issues to global energy production and transport. The game objective was to promote better communication and understanding of the region's many issues and challenges between participants, their organizations, and countries.

Participants included U.S. national security policymakers; senior international oil company executives; academics; ambassadors or other high-level representatives from the Turkmenistan, Kazakhstan, Georgia, and Turkey Missions to the United States; representatives from the U.S. Departments of State, Defense, Energy, and the Environmental Protection Agency; the U.S. Central and European Military Commands; the Joint and Army Staffs; and 40 U.S. Army War College International Officers. The game was preceded by a plenary session with initial remarks by Mr. Bass and Mr. Vest, paper presentations by Robert Ebel, Center for Strategic Studies; Brian Shaw, DOE; Major General Charles Wax, European Command; and John Daly, Georgetown University; and regional overviews by the ambassadors of the regional states.

Workgroup sessions then broke into eight teams representing the governments and oil interests of Azerbaijan, Kazakhstan, Turkey, Russia, Iran, the United States, and the eastern and western Caspian oil producers. The game scenario drew out the diverse experience of the players and included two controversial issues: environmental constraints on the Caspian and the issue of pipelines through Iran. In order to broaden their understanding of political issues, players served on country teams other than their own. Negotiations, individual interaction between participants, role-playing, and group decision making were critical to the successful outcome of the game. This afforded participants the opportunity to explore the relationships between critical variables in a challenging and realistic environment. Participants presented the views of their teams in a final plenary session and open discussion.

The Caspian Basin is an area of potentially large oil reserves set within a regional framework of political instability. Although reserve figures cannot be proved without further drilling and exploration, analysts agree that Caspian oil will provide a significant non-Persian Gulf source of oil. Respected estimates of the economically recoverable oil reserves are between 15-35 billion barrels. This reserve could translate into regional production figures of approximately 3.5 millions barrels a day by 2010. Although significant, it is only equal to roughly half of Saudi Arabia's oil production. Nevertheless, the Caspian does provide an alternative to the politically complex and militarily threatening Persian Gulf's oil reserves, which contain 65.3 percent of the world's conventional oil reserves and will be expected to provide approximately 90 percent

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A proceedings volume based on the paper presentations and summary discussions will be published in the fall of 1999. Follow-up workshops are planned for Thailand (Water Conflicts and Cooperation: The Salween Basin; September 1999) and Bonn (Water and Urbanization; November, 1999). For additional information on the Australia workshop or the upcoming workshops, contact Dr. Steve Lonergan, Chair, GECHS Scientific Planning Committee, University of Victoria, P.O. Box 3050, Victoria, BC V8W 3P5. Tel: 250-721-7339; Fax: 250-595-0403; E-Mail: lonergan@uvic.ca; Internet: www.gechs.org.

23-24 NOVEMBER 1998: NORWEGIAN ROYAL MINISTRY OF FOREIGN AFFAIRS

“ENVIRONMENTAL CONFLICT AND PREVENTIVE ACTION”

Fifty-five diplomats, practitioners, and scholars gathered at the Lysebu conference center for this event, organized by the Norwegian Institute of International Affairs (NUPI) in cooperation with the Centre for Environmental Studies and Resource Management

of Asia's petroleum supply by the end of the next decade. Russian and Chinese interests in the region highlight its geopolitical importance. The success of policies aimed at promoting regional stability and sustainable economic development will turn on policymakers' understanding of the interaction of the critical variables such as energy, the environment, culture, economics, and politics.

Environmental concerns affect the recovery of petroleum globally, but the consideration given to them varies greatly. In the case of the Caspian Basin, largely Western oil companies are conducting exploration and production in consonance with the environmental laws of the host countries. Environmental concerns have surfaced widely in the context of Caspian oil production and transport. The rising level of the Caspian Sea has complicated boundary and oil reserve ownership determination, production, and transport. Falling fish catches have drawn public attention to the petroleum industry and complicated economic and energy policy formation.

In the transport of petroleum, environmental issues are at the center of pipeline routing decisions. Both Iran and Russia have repeatedly raised environmental issues in their efforts to influence the choice of pipeline routes. Turkey, in particular, has registered great concern about the increased flows of oil through the Bosphorus Strait that will be generated by full scale Caspian Basin production. Further, it has said that it will limit oil flows through this strategic waterway for environmental and safety reasons.

Rules governing the commercial shipment of goods through the Bosphorus were codified in the 1936 Treaty of Montreaux. At that time, only 17 ships per day passed through the Bosphorus, the largest of which were 13 ton grain carriers. By 1998, shipping levels had reached 110 vessels per day with 200,000 ton tankers carrying petroleum and natural gas. A series of oil tanker accidents have occurred within the waterway that have devastated the Bosphorus ecosystem and led Turkey to warn that unlimited increases in oil traffic would not be tolerated. The Treaty of Montreaux does not preclude Turkey from mandating safety parameters. Mandatory double hulling of oil tankers, limited tanker size, and full tanker compliance with strict operational standards have been suggested as legal means by which Turkey may control Bosphorus oil transport. This potential environmental constraint of energy transport has factored heavily in the consideration of multiple overland pipeline routes.

In designing the game, the Center for Strategic Leadership wished to fully explore this environmental-energy nexus and its implications for the economic and geopolitical variables of the Caspian and began the game with an oil tanker disaster in the Bosphorus. The game provided key insights into the role of environmental change in national security and energy transport, and was conducted during a period of falling oil prices, a depressed Asian economy, and high unemployment in Europe. Participants emphasized the importance of the economy in their findings, particularly in a weak demand market. Market forces were seen as an honest broker and the driver of pipeline decisions. With world oil demand low, pipeline developers will try to resist political pressures to construct multibillion dollar pipelines, preferring to delay construction until the projected return on investment and proved oil reserves rise. Thus, in the short term, Caspian oil would likely be shipped via upgraded existing pipelines to the Black Sea ports of Supsa and Novorossiysk. However, political pressures for a diverse array of secure pipeline options that minimize Russia's control of oil transport will continue to be a major priority of the producing states.

The environment, though not deterministic, will play a significant role in pipeline negotiations; environmental costs factor heavily in market based decisions. Concerns over increased oil transit of the Bosphorus will be met in the short term by pushing more Caspian oil into the markets of the Black Sea littoral states and Eastern Europe. In the longer term, the expected increases in Caspian Basin reserves and oil production, and the recovery of the Asian economies, will increase the importance of environmental issues, particularly regarding the Bosphorus. Finally, environmental security issues were seen as a valuable mechanism for engagement, having the potential to promote cooperation and improved communications between states in a region of longstanding ethnic, political and religious differences, irredentism, and territorial disputes.

For more information, contact Kent Hughes Butts or Arthur L. Bradshaw, Jr., Center for Strategic Leadership, U.S. Army War College, Carlisle Barracks, PA 17013-5050. Tel: 717-245-3728; Fax: 717-245-4309; E-Mail: buttsk@csl.carlisle.army.mil or bradshaw@cs.l.carlisle.army.mil.

(CESAR) and the International Peace Research Institute, Oslo (PRIO). The topic was the linkage between environmental change and conflict.

The clear majority view based on currently available evidence is that environmental factors are neither sufficient nor necessary causes of political conflicts, but they can be an underlying variable and are often used as a pretext for violent behavior. Environmental crises may be signs of a more general political and socio-economic failure. Overall, the problems in conflict causation are integrated with each other, and policy instruments must be capable of an equal degree of integration. Conference participants identified policy conclusions for both Norway and the international community that could promote stability. For more information, contact: Espen Barth Eide, Norwegian Institute of International Affairs, Gronlandsleiret 25, Postboks 8159 Dep., 0033 Oslo, Norway. Tel: 47-2205-6551; Fax: 47-2217-7015; E-Mail: EspenB.Eide@nupi.no.

21-23 JANUARY 1999: NATO ADVANCED RESEARCH WORKSHOP (ARW)

"RESPONDING TO ENVIRONMENTAL CONFLICTS: IMPLICATIONS FOR THEORY AND PRACTICE"

The NATO Advanced Research Workshop was held in Budapest, Hungary and co-directed by Alexander Carius (Ecologic, Berlin, Germany) and Arpad Vincze (Zrinyi Miklos University of National Defence, Budapest, Hungary). The ARW provided a working forum for promoting international collaboration among scientists, politicians, and academics from Europe, the United States, and Central and Eastern Europe.

The workshop began with a discussion of conceptual, methodological and theoretical aspects of the relationship between environment and security, followed by critical assessment of the literature to date. To gain a more regional perspective of environment and security challenges, various case studies were presented covering: the Hungarian military and its role in environmental protection; regional security in Russia and the Baltic states; nuclear power plant and radioactive waste facility impacts on security; planning for natural disasters to side-step security challenges; and water conflicts on the Danube River, the Black Sea and the Aral Sea.

The workshop also focused on possible policy approaches in the areas of environmental and development policy, foreign and security policy, and economic cooperation that target environmentally-induced conflicts. Nongovernmental options to tackle the complex dynamics of this type of conflict were also explored. Participants debated the use and further development of existing policy and legislative instruments and strategies in the respective policy areas to address and prevent environmental degradation, resource scarcity and political, social and economic capacities.

The workshop concluded with a discussion of the role of risk assessment in conflict resolution and available methods and databases for modeling environmental conflict.

The conference proceedings will be published by Kluwer Academic Publishers. For more information about the ARW, contact: Eileen Petzold-Bradley, Ecologic-Centre for International and European Environmental Research, 165 Friedrichstrasse, D-10117 Berlin, Germany. Tel: 49-30-2265-1135; Fax: 49-30-2265-1136; E-Mail: petzold-bradley@ecologic.de.

16-20 FEBRUARY 1999: INTERNATIONAL STUDIES ASSOCIATION

"ONE FIELD, MANY PERSPECTIVES: BUILDING THE FOUNDATIONS FOR DIALOGUE"

This annual scholarly convention, held this year in Washington, DC, included multiple panels on environment, population, and security issues. Panels featured quantitative and qualitative paper presentations on the links between environment, population, conflict, and security. For more information, contact: Thomas J. Volgy, International Studies Association, 324 Social Sciences, University of Arizona, Tucson, AZ 85721. Tel: 520-621-7715; Fax: 520-621-5780; E-Mail: isa@u.arizona.edu; Internet: <http://www.isanet.org>.

17 FEBRUARY 1999: NATIONAL SECURITY STUDY GROUP

"ENVIRONMENTAL SECURITY WORKSHOP"

The National Security Study Group (NSSG) hosted a workshop to examine the relationship developing between the environment and national security from 1999-2025. The focus was on particular environmental issues such as natural resource disputes and ways in which environmental issues overlap with national security concerns. For information, contact: William Lippert, National Security Study Group, 1931 Jefferson Davis Hwy., Crystal Mall 3, Ste. 532, Arlington, VA 22202-3805. Tel: 703-602-4175; E-Mail: lippertw@nssg.ncr.gov.

22-23 FEBRUARY 1999: ORGANIZATION FOR SECURITY AND COOPERATION IN EUROPE

**"REGIONAL ENVIRONMENTAL PROBLEMS AND COOPERATIVE APPROACHES TO SOLVING THEM:
THE CASE OF THE MEDITERRANEAN"**

On 22-23 February 1999, the OSCE held, jointly with the Government of Malta, the third sub-regional seminar in a series of four designed to help participating States prepare for the May 1999 Economic Forum in Prague. Representatives of four Mediterranean Partner for Co-operation countries and 20 OSCE participating States, as well as many international organizations and NGOs from throughout the Mediterranean region, took part in the seminar.

Participants emphasized the consistency of national goals in the environmental field and called for more active dialogue

within governments and among governments to facilitate cooperation. They also noted the need to increase dialogue within national governments, observing that those responsible for foreign policy and security-related decisions should pay closer attention to environmental questions. Furthermore, there was agreement that governments need to promote informational exchanges and dissemination with regard to existing international conventions. Participants also agreed on the need for broader public environmental education. The working groups stressed that fuller implementation of existing conventions, including mechanisms for dispute resolution, should be a primary focus.

Environmental aspects of security need to become a regular part of the OSCE agenda and should be adequately addressed in the OSCE's ongoing work on a Document-Charter on European Security. In that connection, participants also stressed the need to identify comparative advantages among organizations and to ensure coordination and synergy, especially among the organizations active in the Mediterranean area.

It was widely recognized that political problems, as well as economic difficulties, in the region often hinder cooperation in the Mediterranean. Particular concern was expressed over the environmental, ecological and biological damage caused by conflicts in the region. However, it was noted that multilateral environmental cooperation is permitting a more holistic approach to the resolution of these problems. For information, contact: The Secretariat, Office of the Coordinator of OSCE Economic and Environmental Activities, OSCE, Kärntner Ring 5-7, A-1010 Vienna, Austria. Tel: 43-1-514-36-151; Fax: 43-1-514-36-96; E-Mail: pm-occea@osce.org.

24-26 JUNE 1999: INTERNATIONAL HUMAN DIMENSIONS OF GLOBAL CHANGE PROGRAM (IHDP)

"1999 OPEN MEETING OF THE HUMAN DIMENSIONS OF GLOBAL ENVIRONMENTAL CHANGE RESEARCH COMMUNITY"

An increasing number of researchers are interested in the human causes and impacts of global environmental change, as well as recognizing that local and regional scales are critical for their studies. Following two successful international meetings held in 1995 and 1997, the 1999 Open Meeting aimed to promote exchanges of information on current research and teaching and to encourage networking and community-building in this emerging field. The meeting, hosted by the Institute for Global Environmental Strategies (IGES, Japan), was held in Shonan Village, an international conference center in a scenic setting southwest of Tokyo. Plenary talks and commentaries on the following topics took place: conflict and the environment; lifestyles, attitudes and behavior; decision-making processes in response to global environmental change; land use and land cover change; valuation of ecosystem services; and demographic change and the environment. For information, contact: 99 Open Meeting Secretariat, IGES, Shonan Village Center, 1560-39, Kami-Yamaguchi, Hayama, Kanagawa 240-0198, Japan. Fax: 81-468-55-3709; E-Mail: hdgec@iges.or.jp.

12-13 AUGUST 1999: MAX PLANCK INSTITUTE FOR DEMOGRAPHIC RESEARCH

"POPULATION AND THE ENVIRONMENT: MODELING AND SIMULATING THIS COMPLEX INTERACTION"

This workshop seeks to bring together people from the disciplines of demography, economics, and ecology to discuss theoretical models and empirical investigations which may be used to gain insight into the relationship between population change and environmental change. For more information, contact: Dr. Alexia Prskawetz, Max Planck Institute for Demographic Research, Doberaner Strasse 114, 18057 Rostock, Germany. Tel: 49-381-2081-0; Fax: 49-381-2081-202; E-Mail: webmaster@demogr.mpg.de; Internet: <http://www.demogr.mpg.de/>.

18-19 SEPTEMBER 1999: NORMAN PATERSON SCHOOL OF INTERNATIONAL AFFAIRS, CARLETON UNIVERSITY

"HUMAN SECURITY: POLICY IMPLICATIONS FOR THE 21ST CENTURY"

This conference is being organized by a committee of students from the Norman Patterson School of International Affairs. Papers dealing with aspects of human security in a policy-relevant manner will be presented in a panel format. The following topics are of particular interest: Personal Security, Health Security, Drug Trade, Economic Security, Environmental Security, Migration, Ethnic Conflict, Food Security, and Terrorism. For more information, contact: Human Security Conference Committee, Norman Paterson School of International Affairs, Level 2A Paterson Hall, Carleton University, 1125 Colonel By Drive, Ottawa, ON K1S 5B6, Canada. E-Mail: human_security@carleton.ca; Internet: <http://www.carleton.ca/humsec>.

14-18 MARCH 2000: INTERNATIONAL STUDIES ASSOCIATION

"REFLECTION, INTEGRATION, CUMULATION: INTERNATIONAL STUDIES PAST AND FUTURE"

This annual scholarly convention, to be held in Los Angeles, CA, will include multiple panels and paper presentations on environment, population, and security issues. Panels will feature quantitative and qualitative paper presentations on the links between environment, population, conflict, and security. Whereas the 1999 ISA conference called for a "dialogue" *across* perspectives, the theme for ISA 2000 is self-critical, state-of-the-art "reflection" *within* epistemologies, perspectives, and subfields. For more information, contact: Frank Harvey, 2000 ISA Program Chair, Department of Political Science, Centre for Foreign Policy Studies, Dalhousie University, Halifax, NS B3H4H6, Canada. Fax: 902-494-3825; E-Mail: isaprog@is.dal.ca; Internet: <http://csf.colorado.edu/isa/la/>.

Internet Sites and Resources

Following is a list of Internet sites and forums which may facilitate research and policy efforts. The Environmental Change and Security Project encourages readers to inform us of other relevant sites for inclusion in the next issue by email at ecspwwic@wwic.si.edu or by telephone at (202) 691-4130. This list may also be downloaded from our website at <http://ecsp.si.edu>.

Government Institutions

ARMY ENVIRONMENTAL POLICY INSTITUTE

<http://www.aepi.army.mil/>

This site contains in-depth information on the Army's environmental policies and practices. It summarizes recent environmental legislation, lists actions that Congress has taken or scheduled on environmental legislation, and provides additional information on legislative issues. The site also includes a copy of the 1994 Environmental Trends Update, as well as links to government policies and regulations relating to the environment.

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

<http://www.calepa.ca.gov/>

This California EPA home page provides numerous listings of its policies, programs and initiatives. In particular, the page features information on decommissioning and cleaning up military bases.

GODDARD DISTRIBUTED ACTIVE ARCHIVE CENTER (DAAC)

<http://www.xtreme.gsfc.nasa.gov/>

DAAC's site provides data on global change and research related to environmental issues such as the global biosphere.

PACIFIC NORTHWEST NATIONAL LABORATORY, CENTER FOR ENVIRONMENTAL SECURITY

<http://www.pnl.gov:2080/science.html>

This site outlines the Pacific Northwest National Laboratory science and technology program. It places specific focus on its current research and development programs relating to environmental restoration and change, energy, and national security.

SMITHSONIAN ENVIRONMENTAL RESEARCH CENTER (SERC)

<http://www.serc.si.edu>

This website highlights SERC's latest research on topics such as global change, population and community ecology, and integrating ecosystem and community ecology. SERC also lists its publications and current research interests of SERC scientists. These interests cover the relationships among atmospheric, terrestrial, and aquatic environments.

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT / CENTER FOR POPULATION, HEALTH, AND NUTRITION (PHN)

http://www.info.usaid.gov/pop_health

This site provides an overview of PHN programs on Population/Family Planning, Child Survival, and HIV/AIDS, and also includes a strategy paper on Stabilizing World Population Assistance, general demographic data, and data about specific health practices.

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT: POPULATION AND ENVIRONMENT E-MAIL FORUM

POPENV-L@info.usaid.gov

The forum's primary objective is to facilitate the distribution of publications, reviews, conference announcements, and calls-for-papers that are germane to this field.

UNITED STATES BUREAU OF THE CENSUS / INTERNATIONAL PROGRAMS

<http://www.census.gov/ftp/pub/ipc/www/idbacc.html>

The U.S. Census Bureau (BuCen) has an International Programs Center and has done much work in the area of Population & Security, which can be accessed through its International Database (IDB).

UNITED STATES CENTRAL INTELLIGENCE AGENCY (CIA)

<http://www.odci.gov/cia>

The CIA's homepage provides links to Agency publications, press releases, official statements, and other intelligence community Web sites.

UNITED STATES DEPARTMENT OF AGRICULTURE / FOREIGN AGRICULTURAL SERVICE (FAS)

<http://www.fas.usda.gov>

This site contains documents, press releases and general information on the FAS, an agency of the U.S. Department of Agriculture that represents the diverse interests of U.S. farmers and the food and agricultural sector abroad.

UNITED STATES DEPARTMENT OF DEFENSE / DEFENSELINK

<http://www.dtic.dla.mil/defenseink/>

DefenseLINK, an information service for DoD, provides links to all branches of the armed forces.

UNITED STATES DEPARTMENT OF DEFENSE / ENVIRONMENTAL RESTORATION

<http://www.dtic.dla.mil/envirodod/>

The DoD Environmental Restoration Electronic Bulletin Board provides information for small and minority businesses interested in the DoD's environmental cleanup mission.

UNITED STATES DEPARTMENT OF DEFENSE / ENVIRONMENTAL SECURITY

<http://www.acq.osd.mil/ens/>

The Office of the Deputy Under Secretary of Defense for Environmental Security page includes a mission statement and links to government officials, projects, and divisions within DoD (ES).

UNITED STATES DEPARTMENT OF DEFENSE / NAVY ENVIRONMENTAL PROGRAM

<http://enviro.navy.mil>

This page for the Department of the Navy Environmental Program includes a search capability, specific program reviews and links to related sites.

UNITED STATES DEPARTMENT OF ENERGY (DOE)

<http://www.home.doe.gov/>

This DOE page contains links to departmental programs, personnel, and informational services.

UNITED STATES DEPARTMENT OF STATE

BUREAU OF OCEANS AND INTERNATIONAL ENVIRONMENTAL AND SCIENTIFIC AFFAIRS

<http://www.state.gov/global/oes>

This site is the main source for information about the State Department's foreign policy development and implementation in global environment, science, and technology issues. It also features the State Department's April 1997 "Environmental Diplomacy" report.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA)

<http://www.epa.gov>

This website details EPA's research programs and activities, and contains EPA's National Publications Catalog as well as full-text publications. The site also describes environmental laws and regulations.

UNITED STATES GEOLOGICAL SURVEY (USGS)

<http://info.er.usgs.gov>

The USGS site provides information on the global environmental system and sustainability.

UNITED STATES GLOBAL CHANGE RESEARCH PROGRAM (USGCRP)

<http://www.usgcrp.gov>

USGCRP's site provides access to research and data on global climate change, information on USGCRP seminar series and publications, and a detailed description of the U.S. National Assessment of the Potential Consequences of Climate Variability and Change.

Internet Sites and Resources

UNITED STATES GOVERNMENT PRINTING OFFICE

http://www.access.gpo.gov/su_docs/

This site provides access to the Federal Register, the Congressional Record and additional government documents.

UNITED STATES INFORMATION AGENCY

<http://www.usia.gov/topics/enviro/>

This page includes over 30 documents about environmental issues.

WHITE HOUSE OFFICE OF SCIENCE AND TECHNOLOGY POLICY

http://www.whitehouse.gov/White_House/EOP/OSTP/html/OSTP.html

To achieve global stability, OSTP seeks to apply the tools of science and technology to the prevention of stresses that lead to conflict, such as unchecked population growth, food scarcity, environmental degradation, natural disasters, and infectious diseases.

International and Regional Organizations

EUROPEAN ENVIRONMENTAL AGENCY (EEA)

<http://www.eea.dk>

The EEA site provides information to policymakers and the public about Europe's environment.

GLOBAL ENVIRONMENTAL FACILITY (GEF)

<http://www.worldbank.org/html/gef/geftext.htm>

The GEF home page provides multi-lingual links to its publications and bulletins.

NORTH ATLANTIC TREATY ORGANIZATION / SCIENCE PROGRAMME (NATO)

<http://www.nato.int/science/scope/es.htm>

The NATO Science Programme website contains information on its projects related to environment and security issues, including the reclamation of contaminated military sites, regional environmental problems, and natural and man-made disasters.

NORTH ATLANTIC TREATY ORGANIZATION / CCMS ENVIRONMENTAL CLEARINGHOUSE SYSTEM

<http://www.nato.int/ccms/chs0.html>

The NATO CCMS Environmental Clearinghouse System (ECHS) website serves as a link to environmental data, reports, and studies. The site serves as a tool for the multiple Committee on the Challenges of the Modern Society (CCMS) pilot studies and participating nations to require, organize, retrieve, and disseminate environmental information of common interest.

UNITED NATIONS (UN)

<http://www.un.org>

This website contains a searchable database, online publications, UN documents, webcasts, and news.

UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP)

<http://www.undp.org>

This site includes information on UNDP's sustainable human development activities and publications.

UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP)

<http://www.unep.ch>

The home page for UNEP provides links to publications, convention reports, and access to the UNEP database.

UNITED NATIONS INTERNATIONAL CONFERENCE ON POPULATION AND DEVELOPMENT (ICPD)

<http://www.iisd.ca/linkages/cairo.html>

This 1994 conference brought together world leaders, representatives of nongovernmental organizations, and United Nations agencies to agree on a program of action. This website lists the historical background, recommendations and publications of the conference.

WORLD BANK

<http://www.worldbank.org>

This site contains information on the World Bank's various projects, including its projects on environment, human development, infrastructure, and urban development. The site also includes an on-line catalog of World Bank publications.

Institutes and Non-Governmental Organizations

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

<http://www.fsk.ethz.ch/isn/subjects/aaas.htm>

This home page highlights the Project on Environment, Population and Security, headed by Professor Thomas Homer-Dixon. It provides instructions for joining the Project's Document Distribution System and Discussion Forum. The multi-year project seeks to provide analysts, scholars, and policymakers with policy-relevant scholarly analyses of linkages among renewable resource scarcity, population growth, migration, and violent conflict.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (AAAS) / POPULATION AND SUSTAINABLE DEVELOPMENT PROGRAM (PDS)

<http://www.aaas.org/internationalpsd/psd.htm>

This site provides information on population, sustainable development, AAAS programs, links to related websites, and highlights relationships among scientific research, human development, and interactions with the environment.

ASPEN INSTITUTE

<http://www.aspeninst.org>

The Aspen Institute website includes information on its policy and seminar programs as well as a listing of publications related to the environment.

THE BELLONA FOUNDATION

<http://www.grida.no/ngo/bellona>

This web page features this Norwegian environmental group's factsheets and the latest news on the state of the environment in Eastern Europe and Russia.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE, MANAGING GLOBAL ISSUES PROJECT

<http://www.ceip.org>

This website includes a library of over 8,500 volumes and more than 200 periodicals. The site also includes general information about the Carnegie Endowment and detailed information on its Managing Global Issues Project, which examines several environmental issues including biodiversity, transboundary air pollution, trade in endangered species, and hazardous waste transport.

CENTER FOR BIOREGIONAL CONFLICT RESOLUTION

<http://www.concurinc.com/CONCUR07.html>

The Center's site includes information on its various projects and programs, including: Strengthening the Theory and Practice of Environmental Conflict Resolution; Leadership Training to Improve Environmental Decision Making; and Developing Effective Strategies for Integrating Cultural Preservation with Environmental Protection. The site also includes publications and information about professional training programs.

THE CENTER FOR ECONOMIC CONVERSION (CEC)

<http://www.conversion.org>

The CEC page details this non-profit corporation's attempts to build a sustainable peace-oriented economy. The page includes descriptions of local, state, and national efforts.

CENTER FOR INTERNATIONAL ENVIRONMENTAL LAW (CIEL)

<http://igc.apc.org/ciel>

The CIEL site offers a variety of resources about environmental issues including trade, biodiversity, international financial institutions, global commons law, and publications.

CENTER FOR SECURITY STUDIES AND CONFLICT RESEARCH OF THE SWISS FEDERAL INSTITUTE OF TECHNOLOGY AND SWISS PEACE FOUNDATION

<http://www.fsk.ethz.ch/encop/>

This home page provides an overview of the Environment and Conflicts Project (ENCOP) and includes a complete listing of the Project's papers and links to other sources on the Internet.

Internet Sites and Resources

COMMITTEE FOR THE NATIONAL INSTITUTE FOR THE ENVIRONMENT (CNIE)

<http://www.cnie.org/>

The CNIE website maintains a library of Congressional Research Service Reports on Natural Resources and Environmental Quality, a Population and Environment database, a directory of Environmental Education Programs and Resources, a biodiversity database, and notices of environmental science conferences and meetings.

CONSORTIUM FOR INTERNATIONAL EARTH SCIENCE INFORMATION NETWORK (CIESIN)

<http://www.ciesin.org>

CIESIN has recently announced the beta test of www.mail@ciesin.org, a service that provides an e-mail-only gateway to environmental treaty information on the World Wide Web. The service uses the Agora software developed by Arthur Secret of CERN and the W3 Consortium.

DEMOGRAPHIC, ENVIRONMENTAL, AND SECURITY ISSUES PROJECT (DISEP)

<http://www.igc.apc.org/desip>

Ron Bleier maintains a database of on-going conflicts, with special attention to environmental and population aspects of those conflicts.

ENVIRONMENTAL DEFENSE FUND (EDF)

<http://www.edf.org/>

This site includes a library of EDF's publications and discussion forums on issues such as the environment and health, global warming, and endangered species. EDF's site also features a bi-monthly newsletter.

EVIDENCE BASED RESEARCH (EBR)

<http://www.ebrinc.com>

The EBR web page features selected projects and publications. The site also includes detailed information about EBR's current for profit work on environment and security.

FEDERATION OF AMERICAN SCIENTISTS (FAS)

<http://www.fas.org>

The FAS website features current programs relating to emerging diseases, biological weapons, and nuclear nonproliferation.

THE GLOBAL ENVIRONMENTAL CHANGE AND HUMAN SECURITY PROJECT (GECHS)

<http://office.geog.uvic.ca/gechs/main.html>

The Global Environmental Change and Human Security project (GECHS) is the result of extensive discussions, research, and policy initiatives over the past few years in the broad area of "environmental security." The site provides detailed information on the GECHS project to all interested persons, and provides access to research reports, briefing documents and other publications arising from GECHS activities.

GLOBAL NETWORK OF ENVIRONMENTAL TECHNOLOGY (GNET)

<http://www.gnet.org>

The GNET site provides access to the latest U.S. government initiatives on the environment.

GLOBAL WATER PARTNERSHIP (GWP)

<http://www.gwp.sida.se/>

This site details the work and objectives of the GWP. The site contains news reports, a library of GWP's publications, and a calendar of events.

GREEN CROSS INTERNATIONAL

<http://www.gci.ch>

This web site profiles Green Cross International's work, including its programs on the Earth Charter Initiative, Environmental Legacy of Wars, Water and Desertification, Energy and Resource Efficiency, Environmental Education, and Information Dissemination. This site also includes information on programs and events and a library of discussion papers and books.

FOREIGN POLICY IN FOCUS

<http://www.foreignpolicy-infocus.org>

Foreign Policy In Focus is a series of policy briefs designed to provide the latest research and analysis on timely foreign policy subjects. It is a joint project of the Interhemispheric Resource Center (IRC) and the Institute for Policy Studies (IPS).

FAMILY HEALTH INTERNATIONAL

<http://www.fhi.org/en/fp/fpothor/caicons/index.html>

Family Health International has a web page covering the International Conference on Population and Development. This page is a comprehensive guide to literature by NGOs on the success/failure of the Cairo agreements produced by the Population Reference Bureau and the Population Council for the Task Force on Communicating Research Findings, U.S. NGOs in Support of the Cairo Consensus.

FUTURE HARVEST

<http://www.futureharvest.org>

This site offers information on global issues, a news section, profiles of world-renowned supporters of Future Harvest and its issues, lists of basic source materials and links, and updates via a sign-up electronic mailing list.

INSTITUTE FOR GLOBAL COMMUNICATIONS (IGC)

<http://www.igc.org/>

EcoNet, one of a number of IGC networks, serves individuals and organizations working toward peace and environmental protection. This EcoNet organizations page provides an extensive list of environmental organizations conducting work relevant to environmental change and security issues.

INSTITUTE FOR POLICY STUDIES (IPS)

<http://www.ips-dc.org/>

IPS has served as an independent center for progressive research and education for more than three decades.

INTERHEMISPHERIC RESOURCE CENTER (IRC)

<http://www.zianet.com/irc1/>

IRC, founded in 1979, produces books, policy reports, and periodicals on U.S. foreign policy, global affairs, and U.S.-Mexican borderlands issues.

INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT (IISD)

<http://iisd1.iisd.ca/>

This Canadian institute seeks to integrate sustainable development into Canadian and international policy decision-making. Its page provides links to the Institute's many projects including the Earth Negotiations Bulletin. It also links to a list of selected book and article resources for environment and security at the extension <http://iisd1.iisd.ca/ic/info/ss9502.htm>.

INTERNATIONAL PEACE RESEARCH INSTITUTE, OSLO

<http://www.prio.no>

PRIO is an independent, international institution. The PRIO home page contains a list of their publications. PRIO publishes a book series and two international journals in cooperation with SAGE Publications in London, as well as a report series and a newsletter. The page also includes the PRIO Library, which provides a core stock of relevant material for peace research, democracy, security policy, disarmament, and environmental issues.

INTERNATIONAL RELATIONS AND SECURITY NETWORK (ISN)

<http://www.isn.ethz.ch>

The ISN maintains a page listing links to sites on the Web dealing with environmental conflicts and environmental security. The direct link is <http://www.isn.ethz.ch/linkslib/isn.cfm?GC=205&from=subjects>.

THE NAUTILUS INSTITUTE

<http://www.nautilus.org>

The home page for Nautilus provides extensive information on its Asia Pacific Regional Environmental Network (APRENet) and its project on Energy, Security and Environment in Northeast Asia. The site has links to its other projects and related Internet resources.

PACIFIC INSTITUTE FOR STUDIES IN DEVELOPMENT, ENVIRONMENT, AND SECURITY

<http://www.pacinst.org/pacinst>

The Pacific Institute provides research and policy analysis in the areas of environment, sustainable development, and international security.

PATHFINDER INTERNATIONAL

<http://www.pathfind.org>

This site describes Pathfinder's on-the-ground research projects and includes a description of all active programs. It is designed to address population, environment, and security issues.

PLANET ARK WORLD ENVIRONMENTAL NEWS

<http://www.planetark.org/news>

In association with Reuters news agency, this organization runs a daily environmental news service.

POPULATION ACTION INTERNATIONAL

<http://www.populationaction.org>

This site details population program research at PAI. This research ranges from reproductive health, to funding, to the status of women. The site also maintains a legislative update about the politics of population assistance. In addition to a catalog of PAI publications, the site also contains general facts and figures on population.

POPULATIONAL COUNCIL

<http://www.popcouncil.org/>

This site offers information on current projects and programs, including research on Gender, Family, and Development; Safe Motherhood; and Reproductive Health Products. The site also includes brief synopses of the Population Council's journals, books, and issue papers.

POPULATION REFERENCE BUREAU (PRB)

<http://www.prb.org/prb>

Population Reference Bureau, founded in 1929, provides timely, objective information on U.S. and international population trends. This web site describes their numerous publications.

RESOURCES FOR THE FUTURE (RFF)

<http://www.rff.org>

RFF's website features brief research papers on multiple topics including climate change, energy security, military base cleanup, and trends in disease.

ROCKY MOUNTAIN INSTITUTE (RMI)

<http://www.rmi.org>

The RMI site features information on its latest research including topics such as energy, green development, climate change, water, and security. The site also includes RMI's newsletter and publications.

ROYAL INSTITUTE OF TECHNOLOGY—STOCKHOLM, SWEDEN

<http://www.lib.kth.se/~lg/envsite.htm>

This home page, Environmental Sites on the Internet, provides a large environmental subject index with links to other home pages and gopher menus.

SIERRA CLUB


<http://www.sierraclub.org/policy/521.html>

This Sierra Club page highlights its adopted policy position on Environmental Security. The policy statement begins, "Investments in environmental security should begin to replace new military expenditures...."

SOCIOECONOMIC DATA AND APPLICATIONS CENTER (SEDAC)

<http://sedac.ciesin.org>

This site contains information on SEDAC's various reports, including the projects on Integrated Population, Land Use and Emissions Data, Environmental Treaties and Resource Indicators, and the Stratospheric Ozone and Human Health. The site also includes interactive applications to search for socioeconomic and environmental data.



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<http://www.cdi.org/adm/EnviroShow/index.htm>

STOCKHOLM INTERNATIONAL PEACE RESEARCH INSTITUTE (SIPRI)

<http://www.sipri.se/>

SIPRI's page provides listings of staff, projects, conferences, and publications. The Institute's research commonly considers environmental factors in discussions of security and disarmament.

WORLD RESOURCES INSTITUTE (WRI)

<http://www.wri.org>

This website offers publications and detailed information on biodiversity and its relationship to human health, the environment, and conflict. This page also offers a list of links to other WRI sites and news releases.

Foundations

ROCKEFELLER BROTHERS FUND (RBF)

<http://www.rbf.org>

This site features RBF's initiatives on Sustainable Resource Use, World Security, and Global Interdependence. The site includes publications on global stewardship, redefining security and climate change.

ROCKEFELLER FOUNDATION

<http://www.rockfound.org>

The Rockefeller Foundation is a grant-making and research institution, which is organized around nine core areas: African Initiatives, Agricultural Sciences, Arts and Humanities, Health Sciences, Equal Opportunity/School Reform, Global Environment, and Population Sciences.

W. ALTON JONES FOUNDATION

<http://www.wajones.org/wajones>

This private foundation funds projects related to environment and security. Its web page provides information on the foundation's goals, grants, staff, and currently-funded projects.

Academic Programs

CAMBRIDGE UNIVERSITY

<http://www.gsp.cam.ac.uk/>

The Global Security Programme page provides information on publications, staff, and activities of this academic institute. Programme research attempts to bring together traditional environment, development and international relations studies to better understand the post-Cold War period.

CARLETON UNIVERSITY, OTTAWA, ENVIRONMENTAL SECURITY STUDIES

<http://www.carleton.ca/polisci/env.html>

This page provides specific documents related to environmental security. In addition, the page provides academic, environmental organizations, government, and NGO links pertaining to environmental security.

COLORADO STATE UNIVERSITY / CENTER FOR ECOLOGICAL MANAGEMENT OF MILITARY LANDS (CEMML)

<http://www.cemml.colostate.edu>

This site provides information on CEMML, a research and service unit within the Department of Forest Sciences in the College of Natural Resources at Colorado State University. The site features information on current research and publications, workshops, and training.

CORNELL PROGRAM ON ENVIRONMENTAL MANAGEMENT

<http://www.cfe.cornell.edu/CPECM/cpecmhome.html>

This Cornell University page provides an overview of its program designed to foster cooperation among private and public institutions as a means to resolve environmental conflicts. The page includes announcements of future conferences.

Internet Sites and Resources

JOHNS HOPKINS UNIVERSITY / CENTER FOR COMMUNICATION PROGRAMS

<http://www.jhucp.org>

This site offers information on the Center's work towards population control, disease containment, and other issues that can create conflict due to environmental stress. This website also offers searchable databases, links to related sites, publications, and research.

LAVAL UNIVERSITY/INTERNET FORUM ON FOOD SECURITY

<http://fao50.fsaa.ulaval.ca/>

This Forum has been set up to discuss poverty, demography, health and nutrition, food availability, food habits, education, international trade and geopolitics, macroeconomic policies, the management of natural resources and the environment, and the management of markets. The site is available in English, French, and Spanish.

UNIVERSITY OF CALIFORNIA INSTITUTE OF GLOBAL CONFLICT AND COOPERATION (IGCC)

<http://www-igcc.ucsd.edu/IGCC/igccmenu.html>

The IGCC page includes information on the institute, IGCC fellowships, grants and ongoing research, and campus programs. The page also provides the full text of all IGCC publications.

UNIVERSITY OF IOWA / CENTER FOR GLOBAL AND REGIONAL ENVIRONMENTAL RESEARCH (CGRER)

<http://cgrer.uiowa.edu/index.html>

This website highlights CGRER's interdisciplinary research efforts that focus on aspects of global environmental change, including the regional effects on natural ecosystems, environments, and resources, and on human health, culture and social systems.

UNIVERSITY OF MARYLAND / HARRISON PROGRAM ON THE FUTURE GLOBAL AGENDA

<http://www.bsos.umd.edu/harrison>

This site includes working papers on environmental security, conflict, disease, and population. It also includes a description of the Program's active research agenda on environmental security and microsecurity.

UNIVERSITY OF MICHIGAN / POPULATION STUDIES CENTER

<http://www.psc.lsa.umich.edu>

This is a site for one of the major population research centers in the country. This site features the Center's research programs which focus on the following demographic issues: fertility and family planning; health and sexual behavior; marriage, family, children, and links between generations; inequality; social mobility and race and ethnicity; migration and residential segregation; and aging and disability.

UNIVERSITY OF TORONTO / PEACE AND CONFLICT STUDIES

<http://www.library.utoronto.ca/www/pcs/pcs.htm>

This home page for the University of Toronto's Peace and Conflict Studies Program contains links to its Project on Environment, Population and Security; Project on Environmental Scarcities, State Capacity and Civil Violence; and Environmental Security Library & Database.

YALE CENTER FOR ENVIRONMENTAL LAW AND POLICY

<http://pantheon.yale.edu/~epcenter>

This site features the Center's strong focus on trade and environment, forestry, and the politics of conservation.

Bibliographic Guide to the Literature

*The Guide includes a wide range of publications, organized by theme, which relate to environment, population, and security. This listing is an **update** to the ECSP bibliography printed in the ECSP Report Issue 4 1998. You can find the complete listing on-line at <http://ecsp.si.edu>.*

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The Environmental Change and Security Project will continue to publish updates to this bibliography; we welcome suggestions regarding citations to include. Entries are formatted according to Kate L. Turabian's Manual for Writers of Term Papers, Theses, and Dissertations.

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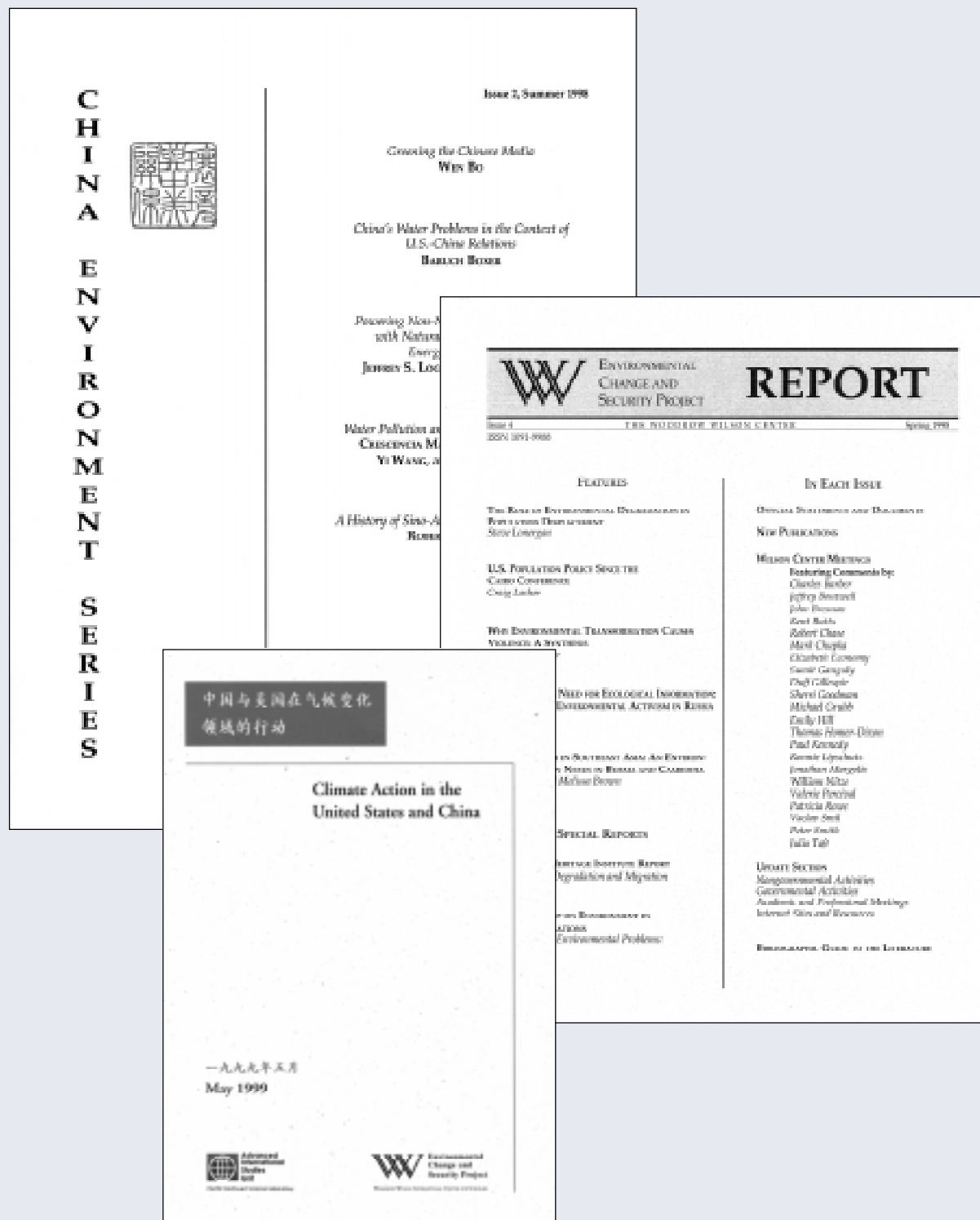
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