Woods Institute for the Environment
Stanford University

WORKING SOLUTIONS

NEWS FROM STANFORD'S INITIATIVE ON THE ENVIRONMENT AND SUSTAINABILITY

SPRING 2006

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Washington, D.C.

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Stanford University

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Stanford University

Environment & Energy Building Construction Begins

Construction has begun on the new Environment and Energy Building, a "coming together" place that will be home to the Woods Institute and other interdisciplinary programs, from Civil and Environmental Engineering and the Interdisciplinary Graduate Program in the Environment and Resources (IPER) to the Bill Lane Center for the Study of the North American West. The building is the first of four that will make up the new Science & Engineering Quadrangle (SEQ II), located just northwest of the Main Quad.

Jeffrey R. Koseff, Woods director and William Alden and Martha Campbell Professor of Civil and Environmental Engineering, and Richard Luthy, Silas H. Palmer Professor and chair of Civil and Environmental Engineering and senior fellow at the Woods Institute, led "Town Hall Meetings" in June to update faculty, students and staff on the building's progress. Continued on page 2

$30 Million Gift Names Institute

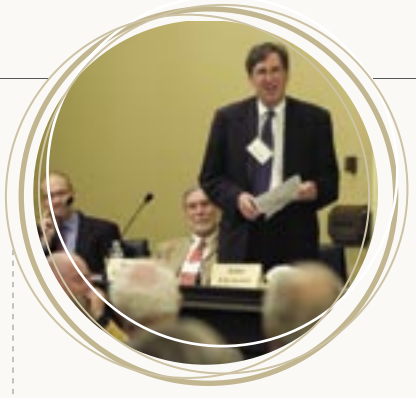
Ward W. Woods, a Stanford University trustee and 1964 graduate of the university, and his wife, Priscilla, have committed $30 million for the Stanford Institute for the Environment.

The institute, established in 2004, has been renamed the Ward W. and Priscilla B. Woods Institute for the Environment at Stanford University in recognition of the gift.

The Woods Institute serves as the cornerstone of the campus-wide Initiative for the Environment and Sustainability. The initiative's central goal is to promote an environmentally sustainable world, where human needs are met while protecting and restoring Earth's natural resources for people today and generations to come.

"Stanford University has long been recognized for its broad strengths in environmental scholarship. The generous Woods gift builds on that foundation and enables us to expand our efforts," said Stanford University President John L. Hennessy.

"Through his leadership and service to the university, Ward has done much to contribute to its excellence. Continued on page 2



Institute Director Buzz Thompson welcomes attendees.

Informing California's Climate Policy Process

How can the academic community best serve California's public and private decision-makers as they seek to meet the state's aggressive greenhouse gas emissions targets?
Continued on page 8

INSTITUTE THANKS EARLY INVESTORS

In addition to the $30 million gift from Ward and Priscilla Woods, Stanford's Initiative on the Environment and Sustainability has benefited from substantial contributions from other early investors, bringing total contributions to more than $40 million:

- Longtime Stanford supporters Melvin B. and Joan F. Lane made a gift that was matched with a challenge grant from the William and Flora Hewlett Foundation. These are being used to endow a senior fellow at the Woods Institute, as well as the Melvin and Joan Lane Professorship for Interdisciplinary Environmental Studies in the School of Humanities and Sciences.
- Franklin and Susan Orr, both Stanford alumni, made a gift for projects yet to be determined. Franklin "Lynn" Orr, the Keleen and Carlton Beal Professor of Petroleum Engineering and director of the Global Climate and Energy Project, is a former dean of the School of Earth Sciences.
- Stanford alumna Alison Wrigley Rusack and her husband, Geoffrey, are also supporting projects yet to be determined.
- Grants from the David and Lucile Packard Foundation support IPER and the Aldo Leopold Leadership Program.
- A gift from Stanford alumni William C. and Jeanne M. Landreth is funding efforts to restore and sustain river systems.
- Some additional gifts were made before the initiative launch. These include one from Stanford alumna Vicki Sant and her husband, Roger, to help fund the Earth Systems Program. This gift was matched by the Campaign for Undergraduate Education.

Environment & Energy Building Construction Begins

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Jeff Koseff

Koseff acknowledged the significant amount of committee work done over the past year. "Faculty, students and staff have been finalizing the building layout and addressing numerous issues, from furniture selection and conference-room design through security, mail delivery and how the building will function," he said. A student-led survey of needs and preferences for the building's café was especially useful, he noted.

Features such as passive ventilation—a "building that breathes"—daylighting and recycled materials all will play an important role in reducing the building's impact on the environment, Koseff added. Next steps include more work on interior design, technology, café features and security. Site tours may begin in the spring of 2007, with completion expected in December 2007. "At the end of the day," Koseff said, "We will have something to be proud of."

$30 Million Gift Names Institute

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Priscilla B. and Ward W. Woods

He has a great appreciation for what it takes to nurture innovation. The Ward W. and Priscilla B. Woods Institute for the Environment at Stanford will serve as an incubator—pioneering multidisciplinary solutions to environmental challenges and educating the next generation of leaders on these issues."

A key aspect of the initiative is that it promotes work at the intersection of traditional disciplines by attracting faculty and students from all seven of Stanford's schools, plus independent labs and institutes. It also harnesses the university's historic strengths in interdisciplinary research, teaching, outreach and technology transfer.

"Solving the world's urgent environmental problems takes bold ideas from leaders and experts in many fields, and involves collaboration of researchers from diverse disciplines," said Ward Woods. "Most of all, it takes a conviction that these problems are largely solvable and a tough-minded commitment to seeking the solutions that gain traction in the real world. Stanford's preeminence as a research university and its history of multidisciplinary cooperation provide the best academic combination for addressing these problems."

The first part of the Woods gift will be used to further three ambitious programs: Environmental Venture Projects (EVP), Strategic Collaborations, and Environmental Management and Leadership. Through EVP, multidisciplinary faculty teams are receiving crucial seed money for environmental research projects that show substantial promise but take new approaches that are difficult to fund in their initial stages through traditional sources.

Strategic Collaborations bring Stanford faculty together with outside organizations—including government agencies, industry leaders, key nonprofit organizations and other universities and research institutions—to address some of the world's major sustainability challenges.

The Woods gift will go toward spurring two such collaborations. The first is the Program on Global Food Security and the Environment, a joint project with the Freeman Spogli Institute for International Studies. The mission of the program is to find fresh solutions to the closely related problems of hunger and destructive farming practices around the globe. The second is a new center for energy efficiency, which will explore innovative, economically sound technologies, policies and systems for reducing energy consumption and for using energy more efficiently.

A planned Environmental Management and Leadership Program will help provide environmental scientists with leadership and management skills. This will build on the success of the institute's Aldo Leopold Leadership Program, which trains scientists to communicate and interact more effectively with policymakers and the media.

2006 Aldo Leopold Fellows Named

Eighteen environmental researchers have been awarded Aldo Leopold Leadership Fellowships for 2006, including one Stanford recipient, Adina Paytan, assistant professor of geological and environmental sciences in the School of Earth Sciences. Fellows receive intensive communication and leadership training to help them deliver scientific information more effectively to policy-makers, the media, business leaders and the public.

Based at the Woods Institute for the Environment, the Aldo Leopold Leadership Program each year awards as many as 20 fellowships to mid-career academic environmental scientists. The 2006 fellows come from a wide range of backgrounds, including atmospheric sciences, tropical forest ecology, oceanography and anthropology. They will join a network of 100 past fellows who are active in outreach to policy makers, journalists and other general audiences.

"Good policy-making depends on sound information conveyed clearly and accurately," said Debbie Drake Dunne, executive director of the program. "It also depends on building relationships with decision-makers, the news media and other organizations. The Leopold Leadership Fellows are given the tools to communicate effectively with a variety of audiences, with the ultimate goal of better informed policy-making."

Fellows are chosen for their outstanding scientific qualifications, demonstrated leadership ability and strong interest in communicating science beyond traditional academic audiences. Each fellow participates in two weeklong training sessions that include practice interviews with journalists and a mock congressional hearing at which they practice giving testimony. The fellowship also offers peer networking and mentoring through the Aldo Leopold Leadership Network of program advisers, trainers and past fellows.

Named for environmental scientist and writer Aldo Leopold, author of *A Sand County Almanac*, the program was founded in 1998 by Jane Lubchenco, the Distinguished Professor of Zoology at Oregon State University, and is funded by the David and Lucile Packard Foundation.

For a listing of the names and affiliations of the other 2006 Aldo Leopold Leadership Fellows please see page 6.

Student Projects Focus on Real-World Sustainability

Working with teenagers to promote energy awareness, helping the Stanford community make the link between the food we eat and sustainable agricultural practices, and establishing a solar-powered computer lab in Mwange, Zambia, are three of the five student projects funded this year by the Woods Institute for the Environment.

"We are very excited about these projects," said Woods Institute Director Jeffrey R. Koseff. "They show an incredible breadth of interests and creativity, and an impressive commitment to sustainability—ensuring we are able to meet the resource needs of people today without compromising the ability to do so for future generations."

Engineers for a Sustainable World
STANFORD UNIVERSITY

ESW organized a 2005 project focused on the community of Nanjappanagar, off the coast of Sri Lanka, which was devastated by the 2004 tsunami.

The institute accepts student proposals in March and October. To be considered, the projects must involve Stanford students; focus on at least one of four environmental areas: conservation and sustainable land use, energy and global climate systems, freshwater or oceans and estuaries; have an education and communication component; broad university relevance and involvement; a long-term focus and other funding sources. The institute has committed up to $10,000 per year for student-group projects.

"One of the institute's most important roles on the campus is to support and encourage students' interest in addressing real-world environmental issues in a multidisciplinary way," said Institute Director Barton H. "Buzz" Thompson Jr. "The student-project funding provides a terrific way to do that."

For example, in 2005 the institute helped fund summer internships for the Andaman Islands (India) Project, organized by Stanford's Engineers for a Sustainable World (ESW http://esw.stanford.edu/). The project focused on the community of Nanjappanagar, off the coast of Sri Lanka, which was devastated by the 2004 tsunami. Student interns helped villagers rebuild using environmentally sustainable practices and materials. Continued on page 7

AAAS HONORS ALLP FOUNDER JANE LUBCHENCO

The Wayne and Gladys Valley Professor of Marine Biology and Distinguished Professor of Zoology at Oregon State University and founder of the Aldo Leopold Leadership Program, has been named winner of the 2005 AAAS Public Understanding of Science and Technology Award for her exemplary commitment to, and leadership of, public understanding of science initiatives in public policy and professional arenas. The award was presented at the AAAS annual meeting in February.

Lubchenco's career and extracurricular activities demonstrate her commitment to communicating science and technology to such diverse audiences as civic groups, school children and local, national and international leaders as well as religious leaders and captains of business and industry. She also has used her substantial skills to create and lead at least two different organizations that train other scientists to become active public communicators.

"Dr. Lubchenco has shown us that public communication is both necessary and appropriate for scientific leadership," said Alan I. Leshner, AAAS chief executive officer and executive publisher of the journal Science.

JON A. KROSNICK

[Editor's note: Following are excerpts from a Woods Institute/ABC/TIME Magazine-sponsored study on American attitudes on the environment. For a complete report of survey results, please see http://environment.stanford.edu/news/environreport.pdf.]

'America's Report Card on the Environment'

According to the first annual installment of a new national survey, majorities of Americans are pessimistic about the state of the natural environment and want a lot to be done to improve its health. The "America's Report Card on the Environment" is a new annual survey by the Woods Institute in collaboration with ABC News and Time Magazine.

Jon A. Krosnick, Frederic O. Glover Professor of Humanities and Social Sciences and professor of communication, political science and psychology, and ABC's Gary Langer designed the survey. Among their findings:

Most Americans Are Pessimistic

Fifty-five percent of Americans said they expect the world's natural environment to be in worse shape in 10 years than it is now, and an additional 5 percent said the environment is currently in poor or very poor shape and will not improve. Researchers referred to this group of 60 percent of Americans as "pessimists."

These pessimists closely resemble the entire American public in terms of gender, race, education, and whether they live in an urban, suburban, or rural setting. But current partisan loyalties are related to pessimism: Democrats are more likely to be pessimistic than Republicans. 67 percent of Democrats are pessimists vs. 48 percent of Republicans.

Tremendous Remedial Effort is Desired

A striking 86 percent want a great deal or a lot to be done to help the environment during the next year, by President Bush, the U.S. Congress, American businesses, and/or the American public. This figure was 94 percent among Democrats and 76 percent among Republicans. The proportion of people wanting a great deal or a lot of effort did not vary according to gender, age, race, education, or residence in an urban, suburban, or rural place.

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Venture Projects Promote Multidisciplinary Research

" We are excited to see so many faculty engaged in the process who have traditionally focused on disciplinary research…"

– ROSAMOND L. NAYLOR
co-chair of the Woods Institute's Research Committee

More than a dozen Stanford engineers, physicians and health-policy experts and School of Humanities and Sciences faculty, including a Nobel laureate in economics, have been awarded two-year Environmental Venture Program (EVP) grants by the Woods Institute for the Environment. Five proposals received a total of $670,024 in funding.

The EVP program provides seed funding for promising, potentially transformative research involving interdisciplinary teams of Stanford faculty. Projects to date have addressed a wide variety of topics, from California water markets and carbon dioxide sequestration in forests to land conservation value in Hawaii and Costa Rica and arsenic exposure in drinking water in Asia.

This year, "most of the projects target real-world problem-solving in areas where human health and well-being as well as environmental quality are on the line," said Rob Dunbar, co-chair of the Woods Institute's Research Committee, Woods senior fellow and professor of geological and environmental sciences. Interest in EVP funding has grown since the program began in 2004. Since then, "we have received more than 100 letters of intent involving more than 100 faculty interested in participating," Dunbar added. "This program is important and exciting to faculty all over campus."

Rosamond L. Naylor, Research Committee co-chair and senior fellow at the Woods Institute and at the Center for Environmental Science and Policy (CESP) in the Freeman Spogli Institute for International Studies, agreed. "This year's EVP will fund faculty research from many fields, ranging from ethics to engineering and genetics. We are excited to see so many faculty engaged in the process who have traditionally focused on disciplinary research, and we are also excited to be funding a group of young faculty who have innovative ideas for interdisciplinary research."

The program is designed to provide valuable seed funding to interdisciplinary projects that might not otherwise be funded, noted Jeffrey R. Koseff, Woods Institute director. "We are looking to 'grow' potentially transformative research from infancy to larger projects involving organizations outside Stanford," he said.

As an example of "growing" research projects, Woods Institute Director Barton H. "Buzz" Thompson Jr., pointed to Stanford biologist Gretchen Daily's work around making conservation economically attractive. Daily, also a senior fellow at the Woods

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Research Briefs

Palmyra Research Station Launched

Excerpted from Stanford News Service
For full story: http://news-service.stanford.edu/news/2005/december7/palmyra-120705.html

A new research station has opened its doors on Palmyra Atoll, a ring of tiny islands in the tropical Pacific about 1,000 miles south of Hawaii. Stanford climatologists and marine and terrestrial scientists count among an international consortium led by the Nature Conservancy that will use the station to study climate change, disappearing coral reefs and invasive species.

"There's a relatively low level of human disturbance on the outside of the reef and on the fish," said geological and environmental sciences professor Rob Dunbar, the Victoria P. and Roger W. Sant Director of the Earth Systems Program, who studies climate change by drilling cores from ice sheets and coral reefs. "We think Palmyra Atoll is an analog for how things were before humans exerted pressure."

Linking Land, Livestock Costs

The turkey and ham many of us eat don't just appear magically on the table. Most are the end product of an increasingly global, industrialized system that is resulting in costly environmental degradation. Better understanding of the true costs of this resource-intensive system will be critical to reducing its negative effects on the environment, says an interdisciplinary team of researchers led by Stanford's Rosamond Lee Naylor, Walter Falcon and Harold Mooney.

"Losing the Links Between Livestock and Land" appeared in the Policy Forum in the Dec. 9 issue of *Science*. It represents a synthesis of research by professors at Stanford University, the University of Virginia, the University of California at Davis, the universities of Manitoba and British Columbia in Canada, and the United Nations LEAD (Livestock Development and Environment) program within the Food and Agricultural Organization of UN.

Naylor and her research team are seeking better ways to track all costs of livestock production, especially the hidden ones related to ecosystem degradation and destruction. "What is needed is a re-coupling of crop and livestock systems," Naylor said. "If not physically, then through pricing and other policy mechanisms that reflect social costs of resource use and ecological abuse."

Palmyra Atoll

Venture Projects Promote Multidisciplinary Research

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Institute, and an interdisciplinary team of Stanford researchers received an EVP grant in 2004 to study conservation in Hawaii and Costa Rica.

Today, Thompson noted, the work "has grown into a much larger strategic collaboration, also funded by the Woods Institute, that involves The Nature Conservancy and the World Wildlife Fund collaborating on research in China, Africa and the U.S." The team seeks to link conservation and human well-being; use innovative conservation finance mechanisms and supporting institutions; and engage leaders from diverse backgrounds, including science, finance, policy and government.

Proposals funded this year, and their faculty team members:

- **Pattern and process of coral-reef adaptation:** Remote sensing, environmental genetics, and a laboratory model system for testing climate-change effects on coral. Stephen R. Palumbi, biological sciences and Hopkins Marine Station; Kevin Arrigo, geophysics; John Pringle, genetics, School of Medicine.
- **Quantitative natural resource ethics:** Kenneth Arrow, Nobel laureate, economics; Debra Satz, philosophy.
- **Water, health and environment:** Childhood survival in Mozambique. Jennifer Davis, Woods Institute and civil and environmental engineering (CEE), and Alexandria Boehm, CEE; Gary Schoolnik, M.D., infectious diseases, School of Medicine.
- **From Bangalore to the Bay Area:** Comparative urban growth patterns across the Pacific Rim. Karen Seto, geological and environmental sciences; Margaret O'Mara, history, and Bill Lane Center for the Study of the American West.
- **Indoor air pollution and health in developing countries:** An intervention study in Bangladesh. Lynn Hildemann, CEE; Grant Miller, M.D., medicine and Paul Wise, M.D., pediatrics, School of Medicine.

"Most of the projects target real-world problem-solving in areas where human health and well-being as well as environmental quality are on the line."

– ROB DUNBAR
co-chair of the Woods Institute's Research Committee

"Matson is an inspiring, passionate speaker who motivates alumni to learn more about environmental issues and Stanford's role in addressing them"

–Stanford Alumni Association

People News & Notes

Woods Institute Director Jeffrey R. Koseff has been appointed as the second holder of the William Alden and Martha Campbell Professorship in the School of Engineering. The professorship was established in 1997 with a gift from William and Martha Campbell. Koseff is a professor of Civil and Environmental Engineering, and, by courtesy, Chemical Engineering. He received his undergraduate degree from the University of Witwatersrand and his graduate degrees from Stanford and joined the Stanford faculty in 1984.

The Stanford Alumni Association has presented Pamela Matson with the 2005 Richard W. Lyman Award for exceptional volunteer service to the university. Matson is the Chester Naramore Dean of the School of Earth Sciences, the Richard and Rhoda Goldman Professor in Environmental Studies and a senior fellow with the Woods Institute and the Center for Environmental Science and Policy at the Freeman Spogli Institute for International Studies. The award recognizes her participation in a wide range of alumni events, including leading 10 international travel-study programs. "Whatever the venue, Matson is an inspiring, passionate speaker who motivates alumni to learn more about environmental issues and Stanford's role in addressing them," according to a Nov. 8 statement by the Alumni Association.

Koseff, Gretchen Daily and Peter Vitousek were among faculty named to the fifth and final group of Bass University Fellows in Undergraduate Education. The fellowship recognizes exceptional commitment to teaching and mentoring undergraduate students. Koseff was named The Michael Forman University Fellow in Undergraduate Education; Daily, professor of biological sciences and a senior fellow at the Woods Institute, was named the Stanford Parents University Fellow in Undergraduate Education; and Vitousek, Clifford G. Morrison Professor of Population and Resource Studies (Department of Biological Sciences) and a Woods Institute senior fellow, was named the Yeung Family University Fellow in Undergraduate Education.

Jennifer (Jenna) Davis is the Woods Institute's first interdisciplinary faculty appointment made jointly with a department. She is an assistant professor in Civil and Environmental Engineering and a fellow at the Woods Institute. Her research interests focus on the nexus of environment and development, with particular emphasis on the water and sanitation sector in developing countries. She has conducted fieldwork in more than a dozen countries, including most recently the Philippines, Mozambique and Bolivia.

Davis holds a master's degree in public health and a PhD in environmental management and policy, both from the University of North Carolina at Chapel Hill. She teaches courses on water and sanitation planning, infrastructure privatization, the theory and practice of sustainable development, and research methods.

2006 Aldo Leopold Leadership Fellows

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Dunne (left) with 2005 fellows in D.C.

- **Andrew Dessler,** associate professor of atmospheric sciences, Texas A&M University
- **J. Emmett Duffy,** professor of marine science, Department of Biological Sciences, Virginia Institute of Marine Science, College of William and Mary
- **Selina Heppell,** assistant professor, Department of Fisheries and Wildlife, Oregon State University
- **Karen Hodges,** assistant professor and Bert Brink Canada Research Council Chair in Conservation Biology, University of British Columbia-Okanagan
- **David Hooper,** associate professor, Department of Biology, Western Washington University
- **Stephen Jackson,** professor, Department of Botany, University of Wyoming
- **Romuald Lipcius,** professor of marine science, Department of Fisheries Science, Virginia Institute of Marine Science, College of William and Mary
- **Margaret Lowman,** professor of biology and environmental studies and chair of environmental studies, New College of Florida
- **Margaret Anne McManus,** assistant professor, Department of Oceanography, University of Hawaii-Manoa
- **Julia Parrish,** associate professor, School of Aquatic and Fishery Sciences and Biology Department, University of Washington
- **Kathleen Ann Pickering,** associate professor, Department of Anthropology, Colorado State University
- **Christopher Reddy,** associate scientist, Department of Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution
- **Denise Reed,** professor, Department of Earth and Environmental Science, University of New Orleans
- **Arturo Sanchez-Azofeifa,** associate professor, Earth and Atmospheric Sciences, University of Alberta
- **James Schaefer,** associate professor, Biology Department, Trent University
- **Joshua Schimel,** professor and chair, Environmental Studies Program, Department of Ecology, Evolution and Marine Biology, University of California-Santa Barbara

Student Projects Focus on Real-World Sustainability

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ESW worked closely with a non-profit New Delhi organization, Sustainable Environment and Ecological Development Society (SEEDS). Students from Aeronautical and Astronautical Engineering, Biological Sciences, Civil and Environmental Engineering, Earth Systems/Energy Engineering, Human Biology/Product Design, Mechanical Engineering and Public Policy participated in the project. A final project report notes, "ESW-Stanford considers this project a success. We feel we were able to effectively leverage our skill and resources to provide concrete help to the affected community... ."

2006 student projects:

- "Anthropology of Global Productions" conference. This project included two environment-related panels, "Environment and Development" and "Indigenous Land Rights and International NGOs." The conference was held April 7-8 and involved participants from Stanford, Yale and University of California-Santa Cruz.
- Facilitating Opportunities for Refugee Growth and Empowerment (FORGE). FORGE plans to establish a solar-powered computer center in Mwange (Zambia) to serve the refugee community of more than 24,000 people.
- Farm Exchange: Connecting Students and Farmers. "From Farm to Farm" is the theme of this project, which will support sustainable-agriculture speakers on campus and educational trips for students to local organic farms.
- "Governing the Environment," a social-science seminar through the School of Humanities and Sciencies, featuring new research in environmental studies.
- TUTOR24. TUTOR24 seeks to strengthen the permanent link between Stanford and the Environmental Protection Agency by empowering East Palo Alto teenagers to implement sustainable practices. The project will encourage teens to design an environment-friendly golf cart using renewable energy.

'America's Report Card on the Environment'

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Businesses are Blamed Most

Nearly all Americans agree that environmental damage is at least partly attributable to the actions of American businesses. 91 percent said that businesses harmed the environment a little or more during the past year, a view expressed equivalently often by Republicans and Democrats (90 percent vs. 93 percent).

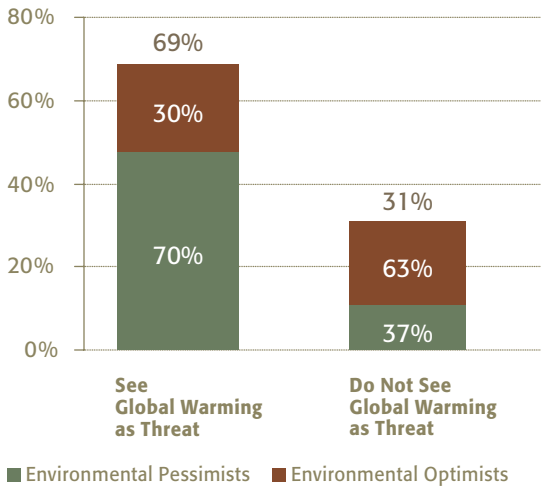
A large majority (79 percent) also said that President Bush's policies harmed the environment a little or more during the past year, but there was a substantial partisan split on this question. Democrats were substantially more likely than Republicans to attribute blame to President Bush (89 percent vs. 66 percent). Nonetheless, even a majority of Republicans acknowledged some environmental damage attributable to the President.

Pessimism Linked to Views on Global Warming

Pessimism about the health of the natural environment is strongly related to beliefs about global warming. Among the 69 percent of Americans who are at least somewhat sure that global warming has been happening and believe that it will have at least somewhat serious effects if unchecked, 70 percent are pessimists about the environment in general.

Among the 31 percent of Americans who are skeptical about the existence or damaging effects of global warming, only 37 percent are environmental pessimists.

Environmental Pessimism and Views on Global Warming



▸ ***Sacramento Bee*** **reporter Chris Bowman (right) makes a point during the workshop.**

Informing California's Climate Policy Process

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The first step is to get the decision-makers and university researchers around a table, a goal achieved with the first California Climate Change Policy Workshop, held May 18-20 in Sacramento. The event attracted more than 70 representatives of the California Assembly, state agencies, utilities, private industry and non-governmental organizations. Stanford's Woods Institute for the Environment led the effort, in collaboration with researchers from the University of California, Berkeley, and Davis.

"We want to know what the major issues are that we, the universities, can help with, and how best to engage with decision-makers," said Barton H. "Buzz" Thompson Jr., Woods Institute director and Robert E. Paradise Professor in Natural Resources Law, as he welcomed attendees.

The Woods Institute's California Climate Change Project is a collaborative, interdisciplinary effort that seeks to improve environmental quality by closing the gap between the findings of research and the translation of those findings into public and private policies and individual behavior. The specific focus of the project is reducing greenhouse gas emissions in the state of California to address the problem of global climate change.

The project, guided by an active advisory board whose members have extensive knowledge and expertise in climate challenges, aims to:

- Identify, in collaboration with key decision-makers, realistic and achievable strategies that will promote a transition to a low-carbon energy future in California and will enable adaptation to potential impacts of climate change; and,
- Help to catalyze the adoption and implementation of these strategies.

Going into the workshop, "our goals were to stimulate new thinking and discussion about California climate change; foster new contacts and connections; and to explore new areas for future work and collaboration," said Linda J. Schuck, project director and consulting associate professor at the Woods Institute. "Since the meeting, we've heard back from many of the attendees who described it with phrases such as 'very useful,' and 'helped me focus on policy questions we have not addressed.' Others have followed up with concrete ideas for cooperation and collaboration among universities, government and business."

Woods Institute for the Environment
Stanford University

Encina Modular C, 429 Arguello Way
Stanford, CA 94305-6030

Phone: 650.725.5778
Fax: 650.725.3402
URL: environment.stanford.edu

The Initiative on the Environment and Sustainability
Stanford University

The mission of the Initiative on the Environment and Sustainability is to create a sustainable world in which human needs are met at the same time that Earth's life systems are protected and restored for people today and generations yet to come. At the core of the initiative, the new Ward W. and Priscilla B. Woods Institute for the Environment at Stanford is a unifying force and interdisciplinary hub for research, teaching, and problem-solving that draws on the experience, expertise, and passion of faculty and students from all seven schools. The initiative leverages Stanford's historic strengths in disciplinary and interdisciplinary research, teaching, outreach, and technology transfer and carries out its mission in three ways:

- Seeking solutions to major challenges through innovative research
- Educating and training environmental leaders
- Moving ideas into action by collaborating directly with decision-makers

Working Solutions is published three times a year by the Woods Institute for the Environment.

Editor
Katharine C. Neal
Communications Manager
650.724.0480/kneal@stanford.edu

Contributors
Stanford News Service

Photography
Florence Low
Robert J. Shallenberger
Sam Kittner