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INTRODUCTION

We are pleased to present you with *Sustainability at the National Academies*, a monthly update highlighting activities related to sustainable development from throughout the National Academies. Please visit our website for additional information on these and other activities at <http://sustainability.nationalacademies.org>.

The [Roundtable on Science and Technology for Sustainability](#) provides a unique forum for sharing views, information, and analyses related to sustainability. The goal for the Roundtable is to mobilize, encourage, and use scientific knowledge and technology to help achieve sustainability goals and to support the implementation of sustainability practices. Through its activities, the Roundtable identifies new ways in which science and technology can contribute to sustainability. What follows is a brief summary of sustainability-related activities being conducted throughout The National Academies.

You are receiving this update based on your participation in ongoing or past activities of the Roundtable. If you would prefer not to receive future monthly updates or would like to be added to the recipient list, please contact Kathleen McAllister at 202-334-2047 or Sustainability@nas.edu or visit our website.

NEWS

Koshland Science Museum's Online Interactive Sheds New Light on World Trends

The Marian Koshland Science Museum has launched an online, interactive exhibit that reveals fascinating stories about the world by allowing people to view changes in energy use around the world. The display, "Lights at Night," provides a navigable, astronaut's eye view of the Earth at night using satellite data that spans a decade. Comparing the differences in energy use over time can starkly illustrate trends about people's economic, political, and living situations in many different regions of the world.

http://www.koshland-science-museum.org/exhib_lightsatnight/index.jsp

New Issues: The Summer/Fall Issue of The National Academies In Focus

The latest issue of The National Academies In Focus is now online. Articles feature several new reports, including ones that examined what is known about the dangers of deep space radiation as we near future missions to the moon and Mars; how to integrate public transit into local emergency evacuation planning; and what changes must be made to adequately prepare the health care work force for an increasingly older patient population. The issue also highlights other important news, events, and projects around the Academies and includes a listing of recent reports issued by the institution.

<http://infocusmagazine.org>

Transportation and Climate Change Newsletter - September 2008

The U.S. Federal Highway Administration's Office of Planning, Environment, and Realty has released the inaugural issues of its monthly newsletter designed to keep transportation stakeholders up-to-date on various issues related to transportation and climate change.

<http://www.fhwa.dot.gov/hep/climatechange/newsletter/index.htm>

Network for Emerging Leaders in Sustainability, November 5, 2008

The Network for Emerging Leaders in Sustainability (NELS) invites you to attend an upcoming meeting on Wednesday, November 5, at the Marian Koshland Science Museum at 600 E Street NW, from 5:30pm to 7:30pm. NELS is a new organization for early-career professionals (and professionals who are new to the topic of sustainability) who are interested in building bridges with peers in DC-area agencies and organizations. John Carberry, Carberry Envirotech and former director of Environmental Technology for DuPont will deliver a keynote speech at this meeting. To attend this free event, please register at: <http://sustainability.nationalacademies.org/NELS.shtml>.

CALL FOR APPLICATIONS

Christine Mirzayan Science and Technology Policy Graduate Fellowship Program

Applications from graduate and postdoctoral students are now being accepted for the 2009 sessions of the National Academies's Christine Mirzayan Science and Technology Policy Internship Program. The program is designed to engage science, engineering, medical, veterinary, business, and law students in the analysis and creation of public policy and to familiarize them with the interactions of science, technology, and government. The next deadline for receipt of applications is November 1, 2008, for the Winter 2009 program, which runs from January 12, 2009 to April 3, 2009.

<http://www7.nationalacademies.org/policyfellows>

Research Associateship Programs of the National Research Council

The Research Associateship Programs of the National Research Council are accepting applications for Postdoctoral and Senior Research awards in U.S. government laboratories. Submission deadline is November 1, 2008.

<http://www7.nationalacademies.org/rap>

Ford Foundation Diversity Predoctoral, Dissertation and Postdoctoral Fellowships

The 2009 Ford Foundation Diversity Predoctoral, Dissertation and Postdoctoral Fellowships competition is now open. Online submission deadlines are November 14 for Predoctoral and November 28 for Dissertation and Postdoctoral.

<http://www7.nationalacademies.org/fordfellowships/index.html>

NEW REPORTS

Global Climate Change and Extreme Weather Events: Understanding the Potential Contributions to the Emergence, Reemergence, and Spread of Infectious Disease: Workshop Summary

Long before the “germ theory” of disease was described, late in the nineteenth century, humans knew that climatic conditions influence the appearance and spread of epidemic diseases. Ancient notions about the effects of weather and climate on disease remain embedded in our collective consciousness – through expressions such as “cold” for rhinovirus infections; “malaria,” derived from the Latin for “bad air”; and the common complaint of feeling “under the weather.” Today, evidence is mounting that earth’s climate is changing at a faster rate than previously appreciated, leading researchers to view the longstanding relationships between climate and disease with new urgency and from a global perspective. On December 4 and 5, 2007, the Forum on Microbial Threats hosted a public workshop in Washington, DC to consider the possible infectious disease impacts of global climate change and extreme weather events on human, animal, and plant health, as well as their expected implications for global and national security.

http://www.nap.edu/catalog.php?record_id=12435

Progress toward Restoring the Everglades: The Second Biennial Review, 2008

The Florida Everglades is one of the worlds treasured ecosystems. However, an extensive water-control infrastructure designed to improve flood control and provide water for crops and cities has drastically changed the landscape of the area and resulted in major ecological declines. The Comprehensive Everglades Restoration Plan was launched in 2000 to reverse the decline of the Everglades and create a water system that serves both natural and human needs. This unprecedented multi-billion dollar project has, however, made only scant progress toward achieving restoration goals and is mired in budgeting, planning, and procedural matters. Clear funding priorities; modifications to the project planning, authorization, and funding process; and strong political leadership are needed to expedite Everglades restoration. This report is the second in a congressionally mandated series of biennial evaluations. It was supported by the U.S. Army Corps of Engineers, the South Florida Water Management District, and the U.S. Department of the Interior.

http://www.nap.edu/catalog.php?record_id=12469

Rebuilding the Research Capacity at HUD

Today, the nation faces an array of housing and urban policy challenges. No federal department other than the Department of Housing and Urban Development (HUD) focuses explicitly on the well-being of urban places or on the spatial relationships among people and economic activities in urban areas. If HUD, Congress, mayors, and other policy makers are to respond effectively to urban issues, they need a much more robust and effective Office of Policy Development and Research (PD&R). With adequate resources, PD&R could lead the nation's ongoing process of learning, debate, and experimentation about critical housing and urban development challenges. This book makes seven major recommendations about PD&R's resources and responsibilities, including more active engagement with policy makers, formalizing various informal practices, strengthening surveys and data sets, and more. Acknowledging that the current level of funding for PD&R is inadequate, the book also makes several additional recommendations to help enable PD&R to reach its full potential.

http://www.nap.edu/catalog.php?record_id=12468

Urban Stormwater Management in the United States

The rapid conversion of land to urban and suburban areas has profoundly altered how water flows during and following storm events, putting higher volumes of water and more pollutants into the nation's rivers, lakes, and estuaries. These changes have degraded water quality and habitat in virtually every urban stream system. The Clean Water Act regulatory framework for addressing sewage and industrial wastes is not well suited to the more difficult problem of stormwater discharges. This report calls for an entirely new permitting structure that would put authority and accountability for stormwater discharges at the municipal level. A number of additional actions, such as conserving natural areas, reducing hard surface cover (e.g., roads and parking lots), and retrofitting urban areas with features that hold and treat stormwater, are recommended.

http://www.nap.edu/catalog.php?record_id=12465

The Role of Transit in Emergency Evacuation

Transportation Research Board (TRB) Special Report 294: The Role of Transit in Emergency Evacuation explores the roles that transit systems can play in accommodating the evacuation, egress, and ingress of people from and to critical locations in times of emergency. The report focuses on major incidents that could necessitate a partial to full evacuation of the central business district or other large portion of an urban area. According to the committee that produced the report, transit agencies could play a significant role in an emergency evacuation, particularly in transporting carless and special needs populations, but few urban areas have planned for a major disaster and evacuation that could involve multiple jurisdictions or multiple states in a region, or have focused on the role of transit and other public transportation providers in such an incident. The report offers recommendations for making transit a full partner in emergency evacuation plans and operations, while cautioning emergency managers, elected officials, and the general public to be realistic in their expectations, particularly in a no-notice incident that occurs during a peak service period.

<http://onlinepubs.trb.org/Onlinepubs/sr/sr294.pdf>

Public Participation in Environmental Assessment and Decision Making

Federal agencies have taken steps to include the public in a wide range of environmental decisions. Proponents of public participation argue that those who must live with the

outcome of an environmental decision should have some influence on it. Critics maintain that public participation slows decision making and can lower its quality by including people unfamiliar with the science involved. This book concludes that, when done correctly, public participation improves the quality of federal agencies' decisions about the environment. Well-managed public involvement also increases the legitimacy of decisions in the eyes of those affected by them, which makes it more likely that the decisions will be implemented effectively. This book recommends that agencies recognize public participation as valuable to their objectives, not just as a formality required by the law. It details principles and approaches agencies can use to successfully involve the public.

http://www.nap.edu/catalog.php?record_id=12434

Science and Technology for America's Progress: Ensuring the Best Presidential Appointments in the New Administration

This report emphasizes the importance of research in solving many of our national challenges, including economic ones. The report, sent to John McCain and Barack Obama with guidance for whomever is elected president in November, provides suggestions on filling key science appointments after the election. Issued by the independent and nonpartisan National Academy of Sciences, National Academy of Engineering, and Institute of Medicine, the report lists approximately eighty high-level science and technology appointees who will be crucial in advising the new president on issues that range from energy to health care to economic growth. It also urges members of the scientific community to serve in these positions, and suggests ways to make it more attractive for well-qualified people to do so.

http://www.nap.edu/catalog.php?record_id=12481

Geology and Properties of Earth Materials 2008

TRB's Transportation Research Record (TRR): Journal of the Transportation Research Board, No. 2053 includes 9 papers that explore frost and thaw depth predictors for variable load restrictions, climate change impact on low-volume roads, sensor technology for spring load restrictions, fly ash with calcium chloride for stabilization of base and subgrade courses, and time domain reflectometry and micromechanics for determining moisture content of soil layers. This issue of the TRR also examines field and laboratory suction measurements of expansive clays, computerized cone penetration test for soil classification, correlations between PENCEL pressuremeter, cone penetrometer, and dilatometer parameters, and correlation between resilient modulus and plastic deformation for cohesive subgrade soil under repeated loading.

<http://trb.metapress.com/content/g28t19t86788/?p=f328519a158a4432a8fcd02f5ce56e46&pi=0>

A Guide to Traffic Control of Rural Roads in an Agricultural Emergency

TRB's National Cooperative Highway Research Program (NCHRP) Report 525, Vol. 13: A Guide to Traffic Control of Rural Roads in an Agricultural Emergency explores recommended practices and procedures associated with traffic control on local and state roads during agricultural emergencies. The report examines three levels of traffic control based on the type of disease and location of the traffic control point.

http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_525v13.pdf

Airport Sustainability Practices

TRB's Airport Cooperative Research Program (ACRP) Synthesis 10: Airport Sustainability Practices documents a range of airport sustainability practices gathered from a literature review and web-based survey. The report specifically targets airport operators and provides a snapshot of airport sustainability practices across the triple bottom line of environmental, economic, and social issues.

http://onlinepubs.trb.org/onlinepubs/acrp/acrp_syn_010.pdf

Risk of Vessel Accidents and Spills in the Aleutian Islands: Designing a Comprehensive Risk Assessment

TRB Special Report 293, Risk of Vessel Accidents and Spills in the Aleutian Islands: Designing a Comprehensive Risk Assessment provides guidance for a comprehensive risk assessment of vessel accidents and spills in the Aleutian Islands. The report examines data related to the risk of oil, chemical, and other hazardous cargo spills from vessel traffic through the Aleutian Islands and identifies key information needed to conduct a comprehensive risk assessment.

<http://onlinepubs.trb.org/Onlinepubs/sr/sr293.pdf>

Fall Issue of The Bridge on Technologies for Clean Water

We cannot live without water, and our civilization would collapse without it. But water can also destroy us and our way of life, because, since neolithic times, people have tended to settle near water – on deltas, near rivers, and along coastlines. It has been estimated that some 70 percent of the world population today lives in areas at risk from floods, tsunamis, storm surges, and changes in sea level as a result of bradyseisms and the consequences of climate change. Thus we are confronted by the twin imperatives of (1) finding enough water to satisfy our needs and (2) defending ourselves against the threat of disasters caused by water. The papers in this issue of The Bridge describe some recent advances in the search for water, in the distribution and treatment of water and wastewater, and in the modeling of complex water systems. Addressing these problems will require that engineers work closely with social, ecological, legal, and financial experts and with all levels of government.

[http://www.nae.edu/nae/bridgecom.nsf/weblinks/MKEZ-7JMNT7/\\$FILE/Bridge-v38n3.pdf?OpenElement](http://www.nae.edu/nae/bridgecom.nsf/weblinks/MKEZ-7JMNT7/$FILE/Bridge-v38n3.pdf?OpenElement)

NEW PROJECTS

A New Biology for the 21st Century: Ensuring that the United States Leads the Coming Biology Revolution

An ad hoc committee will examine the current state of biological research in the United States and recommend how best to capitalize on recent technological and scientific advances that have allowed biologists to integrate biological research findings, collect and interpret vastly increased amounts of data, and predict the behavior of complex biological systems. The committee will organize a Biology Summit to garner input from a broad spectrum of stakeholders-government and private agencies that fund biological research, the biotech and pharmaceutical industries, universities and medical schools-to consider barriers to progress and to highlight exciting new areas of research that cross traditional disciplinary boundaries.

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48967>

The Impact of Biotechnology on Farm Economics and Sustainability

A National Research Council (NRC) committee will study the farm-level impacts of biotechnology, including the economics of adopting genetically engineered (GE) crops, changes in producer decision-making and agronomic practices, and farm sustainability. The study will review and analyze the published literature on the impact of GE crops on the productivity and economics of farms in the United States; examine evidence for changes in agronomic practices and inputs, such pesticide and herbicide use, soil and water management regimes; and evaluate producer decision-making with regard to the adoption of genetically-engineered crops. In a consensus report, the committee will present the findings of its study and identify future applications of plant and animal biotechnology that are likely to affect agriculture producers decision-making in the future.

<http://www8.nationalacademies.org/cp/ProjectView.aspx?key=BANR-O-06-10-A>

Transportation Research Programs to address Energy and Climate Change

This project will develop research program proposals that would address major questions and technical issues regarding transportation strategies to mitigate energy consumption and GHG emissions, replace or supplement fuel taxes with an alternative user fee system, and adapt to expected climate changes. Given the relatively short time frame available for the project, the research program proposals will be conceptual in nature. Nonetheless, they will have enough detail to provide policy makers with information about the nature of the research programs that are needed, the approximate cost of these programs, and how they could be most effectively organized to deliver implementable results in a timely manner. The project is sponsored by the Transportation Research Board (TRB) and the TRB National Cooperative Highway Research Program.

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48968>

Review of the Food Safety and Inspection Service (FSIS) Risk-Based Approach to Public Health Attribution

An ad hoc committee will evaluate the Food Safety and Inspection Service's (FSIS's) proposed methodology and adequacy of data used for calculating microbial food-borne disease attribution for ranking processing and slaughtering establishments according to public health risk. The ad hoc committee's evaluation will be based on available information, including the approach and data presented in Appendix A - Public Health Attribution and Performance Measure Methods of the technical reports, Public Health Risk-Based Inspection System for Poultry Slaughter (FSIS 2008a) and Public Health Risk-Based Inspection System for Processing and Slaughter (FSIS 2008b) and on supporting information contained in these two reports. In its assessment of the adequacy of data for calculating attribution, the committee will also evaluate and provide recommendations on FSIS's proposed approach for using their *Salmonella* serotype data for assessing attribution. The ad hoc committee will produce a letter report.

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48986>

US-China Cooperation on Electricity from Renewables

The U.S. National Academies, in collaboration with the Chinese Academies of Science and Engineering (CAS and CAE), will conduct a joint study to assist their countries in developing strategies to meet renewable energy goals, to highlight prospects for technology transfer between countries, and to identify areas ripe for future cooperation. This study is intended to aid the national governments, their relevant agencies/ministries, and private

industries in assigning priorities for substantial and meaningful cooperation in developing and utilizing electricity from renewable energy. The study will pursue three separate but related goals: comparatively assessing resource potential in China and the U.S. for large-scale electricity generation; exploring near-term market opportunities in China which may not exist in the United States, as well as Chinese-developed technologies which may be appropriate in the United States; and recommending priorities for enhanced collaboration, with a focus on cost reduction, improved efficiency and grid connectivity, and storage.

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48987>

UPCOMING MEETINGS

October

Evaluation of the Safety and Environmental Metrics for Potential Application at Chemical Agent Disposal Facilities, October 28-30, 2008

<http://www8.nationalacademies.org/cp/meetingview.aspx?MeetingID=2931>

Health, Environmental, and Other External Costs and Benefits of Energy Production and Consumption, October 29-31, 2008

<http://www8.nationalacademies.org/cp/meetingview.aspx?MeetingId=2995>

Best Practices for Shellfish Mariculture and the Effects of Commercial Activities in Drake's Estero, Pt. Reyes National Seashore, California, October 30, 2008, Pt. Reyes, CA

<http://www8.nationalacademies.org/cp/meetingview.aspx?MeetingId=2999>

November

Best Practices for Shellfish Mariculture and the Effects of Commercial Activities in Drake' Estero, Pt. Reyes National Seashore, California, November 1-3, 2008

<http://www8.nationalacademies.org/cp/meetingview.aspx?MeetingId=2974>

Transportation Research Programs to address Energy and Climate Change, November 3, 2008

<http://www8.nationalacademies.org/cp/meetingview.aspx?MeetingId=3000>

A New Biology for the 21st Century: Ensuring that the United States Leads the Coming Biology Revolution, November 4-5, 2008

<http://www8.nationalacademies.org/cp/meetingview.aspx?MeetingId=2985>

Network for Emerging Leaders in Sustainability, November 5, 2008

<http://sustainability.nationalacademies.org/NELS.shtml>

Review of the Food Safety and Inspection Service (FSIS) Risk-Based Approach to Public Health Attribution, November 6-7, 2008

<http://www8.nationalacademies.org/cp/meetingview.aspx?MeetingId=2997>

Review of the Methodology Proposed by the Food Safety and Inspection Service (FSIS) for Risk-based Regulation of In-Commerce Activities, November 6-7, 2008

<http://www8.nationalacademies.org/cp/meetingview.aspx?MeetingId=2996>

Twentieth Annual Kavli Frontiers of Science Symposium, November 6-8, 2008, Irvine, California

http://www.nasonline.org/site/PageServer?pagename=FRONTIERS_usfos_2008program

America's Energy Future: Technology Opportunities, Risks, and Tradeoffs, November 11, 2008

<http://www8.nationalacademies.org/cp/meetingview.aspx?MeetingId=2926>

Gulf Coast Hurricane Preparedness, Response, Recovery and Rebuilding, November 11-14, 2008, Mobile, Alabama

<http://trb.org/conferences/2008/Hurricane/Program.pdf>

US-China Cooperation on Electricity from Renewables, November 12, 2008

<http://www8.nationalacademies.org/cp/meetingview.aspx?MeetingID=3004&MeetingNo=1>

Review of EPA's Toxicological Assessment of Tetrachloroethylene, November 13-14, 2008

<http://www8.nationalacademies.org/cp/meetingview.aspx?MeetingID=2994&MeetingNo=1>

21st Century Systems Agriculture: An Update of the 1989 NRC Report "Alternative Agriculture," November 13-15, 2008

<http://www8.nationalacademies.org/cp/meetingview.aspx?MeetingID=3026&MeetingNo=10>

Assessment of Technologies for Improving Light-Duty Vehicle Fuel Economy, November 17-18, 2008, Irvine, California

<http://www8.nationalacademies.org/cp/meetingview.aspx?MeetingID=2948>

2008 Japan-American Frontiers of Engineering Symposium, November 17-19, 2008, Kobe, Japan

<http://www.nae.edu/nae/naefoe.nsf/weblinks/GBAN-79BLF3?OpenDocument>

December

Climate Research Committee, December 2-3, 2008

<http://dels.nas.edu/basc/crc.shtml>

A New Biology for the 21st Century: Ensuring that the United States Leads the Coming Biology Revolution, December 3-4, 2008

<http://www8.nationalacademies.org/cp/meetingview.aspx?MeetingId=2986>

Workshop on Uncertainty Management in Remote Sensing of Climate Data, December 4, 2008

<http://dels.nas.edu/basc/Uncertainty%20Workshop.shtml>

International Conference on Integrated Transport for Sustainable Urban Development, December 15-17, 2008, Beijing, China

http://www.trb.org/news/blurb_detail.asp?id=9167

US-China Cooperation on Electricity from Renewables, December 15-19, 2008, Beijing and Guangzhou, China

<http://www8.nationalacademies.org/cp/meetingview.aspx?MeetingId=3005>

PROJECTS IN DEVELOPMENT

Certification of Sustainable Products and Services

Shifting consumption toward a more sustainable path is a crucial element of a sustainability transition, given the large role that consumption plays in economic activity. Certification of goods and services is one approach that has emerged over the last 15 years, and although there has been anecdotal evidence of success, particularly in niche markets, the overall impact has been small. Moreover, definitions of 'sustainable' vary across sectors and markets, and scientific information has been at best inconsistently applied. Consumption is an understudied area but one of fundamental significance to sustainability. In order to take the first step in learning from this emerging field of practice, the National Academies'

Science and Technology for Sustainability Program (which includes the Sustainability Roundtable (“Roundtable”)) plans to organize a workshop aimed at understanding the situation of those making key decisions to purchase and produce certified goods and services, and to clarify the scope and limitations of the scientific knowledge that might contribute to the economic success of certified products.

Energy Task Force Portfolio

The Energy Task Force, a subset of the Roundtable, is exploring three possible energy projects / workshops intended to complement other activities at the Academies including the study, *America’s Energy Future: Technology Opportunities, Risks and Tradeoffs*. The first activity discussed would explore the transportation issues associated with biofuels and sustainability. Another possible activity includes a pilot, regional workshop examining the environmental, economic and social impacts of biofuel production and use in multiple US regions (e.g. Minnesota, Iowa and Wisconsin) with active programs supporting biofuels. The third proposed activity relates to sustainable urban energy use and would focus on a set of US cities which appear to be leading the way in planning for sustainable urban energy use. The workshop would provide a forum for analyzing the lessons learned and exploring how state and federal policies might be leveraged to accelerate progress towards sustainability.

ONGOING ACTIVITIES

Sustainability---The Issue

The Roundtable on Science and Technology for Sustainability

<http://sustainability.nationalacademies.org/index.shtml>

Partnerships for Sustainability

<http://sustainability.nationalacademies.org/Partnerships.shtml>

People and Their Communities

Achieving Sustainable Global Capacity for Surveillance and Response to Emerging Diseases of Zoonotic Origin

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48913>

Public Health Decision-Making under Uncertainty

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48847>

Ranking FDA Product Categories Based on Health Consequences

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48955>

The Committee on the Human Dimensions of Global Change

<http://www7.nationalacademies.org/hdgc/>

The U.S. Commitment to Global Health

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48901>

Toward Sustainable Critical Infrastructure Systems -- Framing the Challenges: A Workshop

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48850>

Life Support Systems: Atmosphere, Water, and Food

Climate Change Study and Summit

http://dels.nas.edu/basc/climate-change/cc_study_menu.shtml

Contaminated Drinking Water at Camp Lejeune

<http://www8.nationalacademies.org/cp/ProjectView.aspx?key=BEST-K-06-08-A>

Developing Mesoscale Meteorological Observational Capabilities to Meet Multiple National Needs

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48732>

Ecological Impacts of Climate Change

<http://www8.nationalacademies.org/cp/ProjectView.aspx?key=BLSX-K-07-03-A>

FEMA Flood Maps: Accuracy Assessment and Cost-Effective Improvements

<http://www8.nationalacademies.org/cp/ProjectView.aspx?key=BESR-U-06-06-A>

Review of Water and Environmental Research Systems (WATERS) Network

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48784>

Strategic Advice on the U.S. Climate Change Science Program

<http://www8.nationalacademies.org/cp/projectview.aspx?key=209>

Strategies and Methods for Climate-Related Decision Support

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48846>

The Mississippi River and the Clean Water Act: Scientific, Modeling, and Technical Aspects of Nutrient Pollutant Load Allocation and Implementation

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48944>

The Significance of International Transport of Air Pollutants

<http://www8.nationalacademies.org/cp/ProjectView.aspx?key=BASC-U-07-01-A>

Water Resources Activities at the U.S. Geological Survey

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48695>

Economy and Industry

Competitiveness and Workforce Needs of U.S. Industry

<http://www8.nationalacademies.org/cp/projectview.aspx?key=41210>

National Academies Materials Forum on Corrosion Education for the 21st Century

http://www7.nationalacademies.org/nmab/current_activities.html

Strategic Directions for the Geographical Sciences in the Next Decade

<http://www8.nationalacademies.org/cp/ProjectView.aspx?key=BESR-U-06-02-A>

21st Century Systems Agriculture

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48873>

Natural Systems

Best Practices for Shellfish Mariculture and the Effects of Commercial Activities in Drake's Estero, Pt. Reyes National Seashore, California

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48954>

Missouri River Recovery and Associated Sediment Management Issues

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48946>

Review of Louisiana Coastal Protection and Restoration (LACPR) Program

<http://www8.nationalacademies.org/cp/CommitteeView.aspx?key=WSTB-U-06-04-A>

Review of the Tsunami Warning and Forecast System and Overview of the Nation's Tsunami Preparedness

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48928>

The Importance of Deep-Time Geologic Records for Understanding Climate Change Impacts

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48865>

Institutions and Indicators

State of the USA Health Indicators

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48938>

Evaluation of the Safety and Environmental Metrics for Potential Application at Chemical Agent Disposal Facilities

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48949>

Sustainability Research and Development

Assessment of the Department of Energy's Methane Hydrate Research and Development Program: Evaluating Methane Hydrates as a Future Energy Resource

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48952>

Challenges and Opportunities in Earth Surface Processes

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48867>

Design Issues for the NOAA Sector Applications Research Program

<http://webapp.nationalacademies.org/cp/projectview.aspx?key=48688>

Grainger Challenge Prize for Sustainability

<http://www.nae.edu/nae/grainger.nsf?OpenDatabase>

Grand Challenges for Engineering

<http://www.engineeringchallenges.org>

Review of the Federal Strategy to Address Environmental, Health, and Safety Research Needs for Engineered Nanoscale Materials

<http://www8.nationalacademies.org/cp/ProjectView.aspx?key=BEST-K-07-02-A>

The Earth System Context for Hominin Evolution

<http://www8.nationalacademies.org/cp/ProjectView.aspx?key=BESR-U-06-01-A>

Sustainable Energy

America's Energy Future: Technology Opportunities, Risks, and Tradeoffs

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48817>

Assessment of Technologies for Improving Light-Duty Vehicle Fuel Economy

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48843>

Cleanup Technology Roadmap for DOE's Office of Environmental Management

<http://www8.nationalacademies.org/cp/ProjectView.aspx?key=NRSB-O-06-03-A>

Energy Efficiency Standards: Alternative Approaches to Measurement

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48884>

Health, Environmental, and Other External Costs and Benefits of Energy

Production and Consumption

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48951>

Potential Energy Savings and Greenhouse Gas Reductions from Transportation

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48864>

Relationships among Development Patterns, Vehicle Miles Traveled, and Energy Consumption

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48808>

Review of the DOE-BES Catalysis Research Activities and their Impact

<http://www8.nationalacademies.org/cp/ProjectView.aspx?key=BCST-L-07-02-A>

Review of the 21st Century Truck Partnership

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48722>

Transitions to Sustainable Energy
<http://www.interacademycouncil.net/?id=9481>

Other Activities

Christine Mirzayan Science and Technology Policy Fellowship Program
<http://national-academies.org/policyfellows>

PNAS Sustainability Science, Special Features

PNAS offers a series of special feature issues that highlight emerging fields in the physical, social, and biological sciences and are edited by leaders in the field. Special Features include a cluster of Perspectives and peer-reviewed research articles. As a service to readers, Special Features are freely available online from the date of publication.

<http://www.pnas.org/misc/sustainability.shtml>

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