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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. Additional information on these and other activities is also available at <http://www7.nationalacademies.org/sustainabilityroundtable/>

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

CALL FOR NOMINATIONS

The Impact of Biotechnology on Farm Economics and Sustainability

An NRC committee will study the farm-level impacts of biotechnology, including the economics of adopting genetically engineered crops, changes in producer decision-making and agronomic practices, and farm sustainability. The study will: --review and analyze the published literature on productivity gains and economic benefits of GE crops to farmers in the United States; --examine evidence for changes in agronomic practices and inputs, such as pesticide and herbicide use, soil and water management regimes; --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. For more information on this study, contact: Robin Schoen at rschoen@nas.edu.

<http://dels.nas.edu/dels/sot.php?pin=BANR-O-06-10-A>

NEW REPORTS

Environmental Public Health Impacts of Disasters: Hurricane Katrina, Workshop Summary

On October 20, 2005, the Roundtable on Environmental Health Sciences, Research, and Medicine held a workshop entitled, *Environmental Public Health Impacts of Disasters: Hurricane Katrina*. The workshop brought together members of the scientific community to: highlight the status of the recovery effort, consider the ongoing challenges in the midst of a disaster, look at the scientific issues involved, and be able to reassure the public with the best scientific information. The workshop provided an opportunity to explore some of the most pressing research and preparedness needs related to the health risks of Hurricane Katrina and also a chance to discuss the larger issues for scientific collaboration during a disaster of this magnitude.

<http://www.nap.edu/catalog/11840.html>

Green Healthcare Institutions: Health, Environment, and Economics, Workshop Summary

The Institute of Medicine's Roundtable on Environmental Health Sciences, Research, and Medicine held a workshop and released the summary entitled, *Green Healthcare Institutions; Health, Environment, and Economics*. The workshop focused on the environmental and health impacts related to the design, construction, and operation of healthcare facilities, which are part of one of the largest service industries in the United States. The workshop summary captures the discussions and presentations by the speakers and participants; they identified the areas in which additional research is needed, the processes by which change can occur, and the gaps in knowledge.

<http://www.nap.edu/catalog/11878.html>

NEW PROJECTS

Review of Louisiana Coastal Protection and Restoration (LACPR) Program

This NRC committee will review the evaluations being conducted as part of the Louisiana Coastal Protection and Restoration (LACPR) program. These studies are being conducted by the U.S. Army Corps of Engineers in close coordination with the State of Louisiana.

Congress has directed the Corps of Engineers, New Orleans District, in partnership with the State of Louisiana, to compile a 24-month technical comprehensive hurricane risk reduction

analysis and design. The Corps and the State of Louisiana thus are evaluating a wide range of flood control, coastal restoration, and hurricane protection measures in this study. The LACPR study began in early 2006 and an interim report was issued in July 2006. The LACPR team plans to issue a draft report in September 2007 and a final report in December 2007. The committee will review all aspects of these latter two reports, including assessment of the hurricane risk reduction framework, alternatives for flood control, storm protection, coastal restoration, and risk analysis. These two LACPR reports will include several technical appendixes (e.g., cost estimates, engineering studies, draft EIS, design appendixes, and public outreach strategy) that will be part of this review. Given the large number of supporting and supplemental documents that are being produced by the Corps and various other parties, the NRC committee will also review supplemental documents as the committee sees fit and within its time and resource constraints.

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

Review of CCSP Draft Synthesis and Assessment Products: 3.2, Climate Projections Based on Emissions Scenarios for Long-lived Radiatively Active Trace Gases

The NRC is appointing four separate committee to review four CCSP Synthesis and Assessment Products in the spring of 2007. An ad hoc committee will review CCSP Draft SAP 3.2 Climate Projects Based on Emissions Scenarios for Long-lived Radiatively Active Trace Gases. The committee will address the following review criteria (which are based on the NRC's own review criteria): Are the goals, objectives and intended audience of the product clearly described in the document? Does the product address all questions outlined in the prospectus? Are any findings and/or recommendations adequately supported by evidence and analysis? In cases where recommendations might be based on expert value judgments or the collective opinions of the authors, is this acknowledged and supported by sound reasoning? Are the data and analyses handled in a competent manner? Are statistical methods applied appropriately? Are the document's presentation, level of technicality, and organization effective? Are the questions outlined in the prospectus addressed and communicated in a manner that is appropriate and accessible for the intended audience? Is the document scientifically objective and policy neutral? Is it consistent with the scientific literature? Is there a summary that effectively, concisely and accurately describes the key findings and recommendations? Is it consistent with other sections of the document? What other significant improvements, if any, might be made in the document?

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

UPCOMING MEETINGS

July

Water Resources and the Highway Environment: Impacts and Solutions, July 16-18, 2007, Sanibel Island, Florida

http://waterlearning.org/TRB/TRB_07.htm

Review of CCSP SAP 3.2: Climate projections based on emissions scenarios for long-lived radiatively active trace gases, July 18-19, 2007

<http://www8.nationalacademies.org/cp/meetingview.aspx?meetingid=2232>

Evaluating the Efficiency of Research and Development Programs at the Environmental Protection Agency, July 19-20, 2007

<http://www8.nationalacademies.org/cp/meetingview.aspx?meetingid=2072>

Developing Mesoscale Meteorological Observational Capabilities to Meet Multiple National Needs, July 23-25, 2007, Louisville, CO

<http://www8.nationalacademies.org/cp/meetingview.aspx?meetingid=2208>

Relationships Among Development Patterns, Vehicle Miles Traveled, and Energy Consumption, July 23-24, 2007

<http://www8.nationalacademies.org/cp/meetingview.aspx?meetingid=2207>

Review of Louisiana Coastal Protection and Restoration (LACPR) Program, July 25-27, 2007, New Orleans, LA

<http://www8.nationalacademies.org/cp/meetingview.aspx?meetingid=2196>

August

Voluntary Carbon Offsets: Hype or Hope? August 1, 2007

<http://www8.nationalacademies.org/publicmeeting/meetingview.aspx?meetingid=221>

Advancing Desalination Technology, August 8-9, 2007

<http://www8.nationalacademies.org/cp/meetingview.aspx?meetingid=2155>

Reducing Stormwater Discharge Contributions to Water Pollution, August 21-23, 2007, Seattle, Washington

<http://www8.nationalacademies.org/cp/meetingview.aspx?MeetingID=2099&MeetingNo=3>

Best Practices: Coordination of Transit, Regional Transportation Planning and Land Use Conference, August 26-28, 2007, Denver, CO

<http://guest.cvent.com/EVENTS/Info/Summary.aspx?e=d2acf3d7-1d06-4e6f-8c18-955cc3c0cd97>

Independent Scientific Review of Everglades Restoration Progress, August 30-31, 2007, Miami, FL

<http://www8.nationalacademies.org/cp/meetingview.aspx?meetingid=2031>

September

Evaluating the Efficiency of Research and Development Programs at the Environmental Protection Agency, September 7, 2007

<http://www8.nationalacademies.org/cp/meetingview.aspx?meetingid=2073>

PROJECTS IN DEVELOPMENT

Partnerships for Sustainability

The Roundtable on Science and Technology for Sustainability plans to commission a series of review papers and use a symposium to develop a better understanding of key factors of success (and failure) for partnerships established to promote sustainability. A steering group will be appointed to develop a common framework for the reviews and organize the symposium, planned for fall, 2007. For more information on the Roundtable on Science and Technology for Sustainability, visit:

http://www7.nationalacademies.org/sustainabilityroundtable/Sustainability_Roundtable_Homepage.html

Federal Sustainability Research and Development Forum

The Roundtable on Science and Technology for Sustainability is planning a workshop (“forum”), scheduled to take place in October, 2007. Forum participants will discuss research gaps, needed analytical tools, and opportunities for collaboration among federal

research and development programs focused on selected high priority challenges to sustainability in the areas of biofuels and ecosystem services. For more information on the Roundtable on Science and Technology for Sustainability, visit:

http://www7.nationalacademies.org/sustainabilityroundtable/Sustainability_Roundtable_Homepage.html

Pathways to Urban Sustainability Initiative

The National Academies are planning a multi-year, multi-country initiative to address one of the central challenges and opportunities of the 21st century—the use of science and technology to help transform rapidly urbanizing regions of the developing world into “sustainable cities.” Over the past year, the Academies launched this ambitious program through on-the-ground planning activities in China, South Africa, Tanzania and Mexico. We are currently raising funds for the next phase of the initiative, which will include an international symposium to examine the major trends, challenges, and potential paths forward to urban sustainability in developing world cities, and a set of on-the-ground projects in China to be carried out in partnership with the Chinese Academies of Science and Engineering and other leading Chinese science and technology institutions. For more information on past urban sustainability activities, visit:

http://www7.nationalacademies.org/sustainabilityroundtable/Urban_Sustainability_Homepage.html

ONGOING ACTIVITIES

Sustainability---The Issue

The Roundtable on Science and Technology for Sustainability

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

People and Their Communities

Public Participation in Environmental Assessment and Decision Making

<http://www8.nationalacademies.org/cp/projectview.aspx?key=34>

The Committee on the Human Dimensions of Global Change

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

Life Support Systems: Atmosphere, Water, and Food

Advancing Desalination Technology

<http://www8.nationalacademies.org/cp/CommitteeView.aspx?key=48674>

Climate Change and U.S. Transportation

<http://www8.nationalacademies.org/cp/projectview.aspx?key=186>

Committee on Hydrology, Ecology, and Fishes of the Klamath River Basin

<http://www8.nationalacademies.org/cp/projectview.aspx?key=216>

Emerging Technologies in Agriculture to Benefit Farmers in Africa and South Asia

<http://dels.nas.edu/banr/index.shtml>

Estimating Mortality Risk Reduction Benefits from Decreasing Tropospheric Ozone Exposure

<http://www8.nationalacademies.org/cp/CommitteeView.aspx?key=BEST-K-06-10-A>

FEMA Flood Maps: Accuracy Assessment and Cost-Effective Improvements

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

Reducing Stormwater Discharge Contributions to Water Pollution

<http://www8.nationalacademies.org/cp/committeeview.aspx?key=48711>
Review of Water and Environmental Research Systems (WATERS) Network
<http://www8.nationalacademies.org/cp/projectview.aspx?key=48784>
Sustainable Underground Storage of Recoverable Water
<http://www8.nationalacademies.org/cp/projectview.aspx?key=WSTB-U-04-02-A>
Strategic Advice on the U.S. Climate Change Science Program
<http://www8.nationalacademies.org/cp/projectview.aspx?key=209>
Water Implications of Biofuels Production in the United States
<http://dels.nas.edu/dels/sot.php?pin=WSTB-U-06-05-A>
Water Resources Activities at the U.S. Geological Survey
<http://www8.nationalacademies.org/cp/projectview.aspx?key=48695>

Economy and Industry

Critical Mineral Impacts on the U.S. Economy
<http://www8.nationalacademies.org/cp/projectview.aspx?key=48725>
Development and Implementation of a Cleanup Technology Roadmap for DOE's Office of Environmental Management
<http://www8.nationalacademies.org/cp/ProjectView.aspx?key=NRSB-O-06-03-A>
National Academies Materials Forum on Corrosion Education for the 21st Century
http://www7.nationalacademies.org/nmab/current_activities.html

Natural Systems

Hydrologic Impacts of Forest Management
<http://www8.nationalacademies.org/cp/projectview.aspx?key=1935>
Independent Scientific Review of Everglades Restoration Progress
<http://www8.nationalacademies.org/cp/projectview.aspx?key=WSTB-U-03-04-A>
International Capacity Building for the Protection and Sustainable Use of Oceans and Coasts
http://dels.nas.edu/osb/capacity_building/capacity_building.shtml
The National Plant Genome Initiative: Achievements and Future
<http://www8.nationalacademies.org/cp/ProjectView.aspx?key=BLSX-K-07-01-A>

Institutions and Indicators

Key National Indicators Initiative (KNII)
Currently, this project is not available on the web. As soon as a web link becomes available, it will be included in this update.

Sustainability Research and Development

Design Issues for the NOAA Sector Applications Research Program
<http://webapp.nationalacademies.org/cp/projectview.aspx?key=48688>
Evaluating the Efficiency of Research and Development Programs at the Environmental Protection Agency
<http://www8.nationalacademies.org/cp/CommitteeView.aspx?key=CSEP-Q-07-01-A>
Evaluation of the Research Plan of the Department of Housing and Urban Development
<http://www8.nationalacademies.org/cp/projectview.aspx?key=48755>
Grand Challenges for Engineering

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

Grainger Challenge Prize for Sustainability

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

Review of DOE's Office of Nuclear Energy, Science & Technology Research & Development Program

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48668>

Sustainable Energy

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

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

Review of the 21st Century Truck Partnership

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

Review of the FreedomCAR and Fuel Research and Development Program, Phase 2

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48724>

Development and Implementation of a Cleanup Technology Roadmap for DOE's Office of Environmental Management

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

Energy Futures and Air Pollution in Urban China and the United States

<http://www8.nationalacademies.org/cp/projectview.aspx?key=131>

Transitions to Sustainable Energy

<http://www.interacademy council.net/?id=9481>

Assessment of Resource Needs for Development of Fuel Cell and Hydrogen Technology

<http://www8.nationalacademies.org/cp/projectview.aspx?key=48717>

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