



SUSTAINABILITY
AT THE NATIONAL ACADEMIES

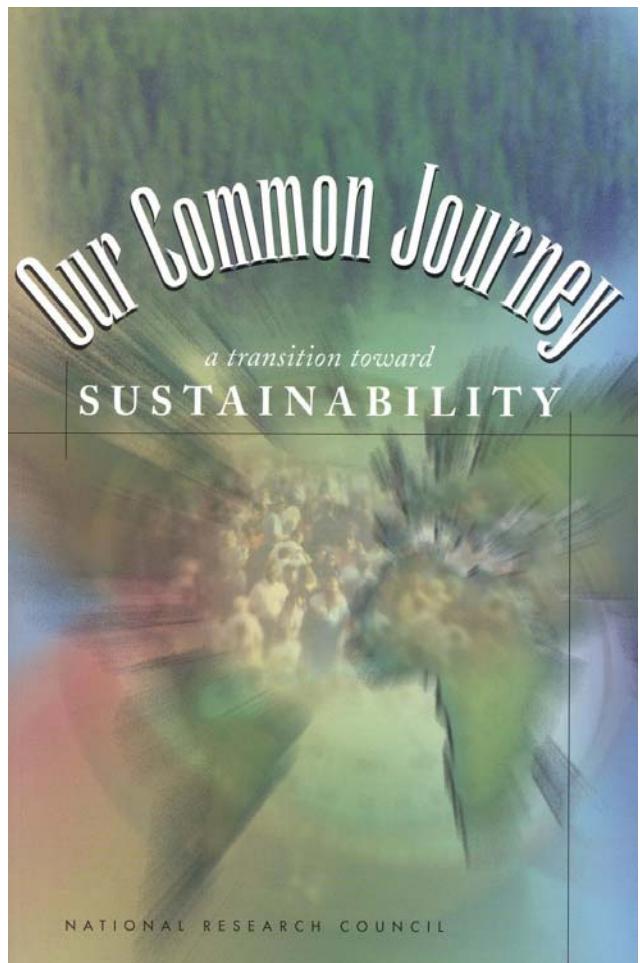
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Roundtable on Science and Technology for Sustainability

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Long-term goals of a transition toward sustainability:

- Meet the needs of a much larger but stabilizing human population,
- Sustain the life support systems of the planet, and
- Substantially reduce hunger and poverty.



Goal for the Roundtable

Mobilize, encourage, and use scientific knowledge and technology to help achieve sustainability goals and to support the implementation of sustainability practices.



Overarching Principles for Roundtable's Work

- Focus on strategic needs and opportunities for **science and technology** to contribute to the transition toward sustainability.
- Focus on issues for which progress requires **cooperation among multiple sectors**, including academia, government (at all levels), business, nongovernmental organizations, and international institutions.
- Focus on activities where scientific knowledge and technology can help to **advance practices that contribute directly to sustainability goals**, in addition to identifying priorities for research and development inspired by sustainability challenges.



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Roundtable Members

- **Pamela Matson (Co-Chair)**, Stanford University
- **Emmy Simmons (Co-Chair)**, U.S. Agency for International Development (retired)
- **Matt Arnold**, Sustainable Finance Ltd.
- **Arden Bement**, National Science Foundation*
- **Michael Bertolucci**, Interface Research Corporation
- **John Carberry**, DuPont
- **Leslie Carothers**, Environmental Law Institute
- **William Clark**, Harvard University
- **John Dernbach**, Widener University
- **Sam Dryden**, Wolfensohn and Company
- **Kathryn Fuller**, Woodrow Wilson International Center for Scholars
- **George Gray**, Environmental Protection Agency*
- **Hank Habicht**, Global Environmental Technology Foundation
- **Jeremy Harris**, Former Mayor of Honolulu
- **Rosalyn Hobson**, Virginia Commonwealth University
- **Jack Kaye**, NASA*
- **Gerald Keusch**, Boston University
- **Kai Lee**, Packard Foundation
- **J. Todd Mitchell**, Houston Advanced Research Center
- **Mark Myers**, US Geological Survey*
- **Raymond Orbach**, Department of Energy*
- **Larry Papay**, SAIC (retired)
- **Merle Pierson**, US Department of Agriculture*
- **Prabhu Pingali**, UN Food and Agriculture Organization
- **Peter Raven**, Missouri Botanical Garden
- **Robert Stephens**, Multi-State Working Group on Environmental Performance
- **Charlene Wall**, BASF

*Denotes *ex-officio* member



Ongoing and Planned Activities

- **Federal Sustainability Research and Development Forum**
- **Partnerships for Sustainability**
- **Sustainable Energy (building on and extending *America's Energy Future* study – i.e., “foundational study”)**



Federal Sustainability Research and Development Forum (October 17&18)

Purpose: To discuss research gaps, needed analytical tools, and opportunities for collaboration among federal research and development programs focused on biofuels and ecosystem services in the context of sustainability science.

Steering Group:

- **Pam Matson**, (Chair) Stanford University
- **James Mahoney**, National Oceanic and Atmospheric Administration (retired)
- **Ann Bartuska**, US Forest Service
- **William Clark**, John F. Kennedy School of Government, Harvard University
- **Gregory Crosby**, US Department of Agriculture
- **Linda Gundersen**, US Geological Survey
- **Alan Hecht**, Environmental Protection Agency
- **Kai Lee**, Packard Foundation
- **Steve Murawski**, National Oceanic and Atmospheric Administration



Federal Sustainability Research and Development Forum (October 17&18)

- First Forum is focusing on Ecosystem Services and Biofuels.
- Challenges and Opportunities will be explored, State of the Art Examples will be shared, and Gaps and Opportunities will be discussed in a Roundtable format.
- A summary of forum discussions will be published.



Partnerships for Sustainability

Purpose: **To develop a better understanding of key factors of success (and failure) for public-private partnerships established to promote sustainability.**

Steering Group:

- **Emmy Simmons**, (Chair) U.S. Agency for International Development (retired)
- **William Clark**, John F. Kennedy School of Government, Harvard University
- **Sam Dryden**, Wolfensohn and Company
- **Kathryn Fuller**, Woodrow Wilson International Center for Scholars
- **Hank Habicht**, Global Environment and Technology Foundation
- **Gerald Keusch**, School of Public Health, Boston University
- **Robert Stephens**, Multi-State Working Group on Environmental Performance



Partnerships

- Now a standard way of “doing business” for sustainability
- Link actors from different spheres: social, economic, environmental, political
- Novel organizational relationships
- Driven by common need
- Differing degrees of effectiveness



Partnerships for Sustainability: Approach

- *How can Lessons Learned Inform Future Events* side event was held at the Commission on Sustainable Development Annual Meeting on April 30, 2007. (CDs of presentations are available).
- A symposium will be organized in the spring of 2008 to develop a better understanding of key factors of success (and failure) for partnerships established to promote sustainability.
- Review papers will be commissioned to analyze and compare selected public-private partnerships formed to achieve key sustainability goals.
- A summary of the symposium and CSD event will be published together with the review papers.



Partnerships for Sustainability: Case Studies

- An in-depth look at specific partnerships
 - ...within a comparative analytical framework
 - ...to derive lessons that are likely to be relevant to upcoming issues in which sustainability is key
- Common framework for case studies
 - Context
 - Incentive structures
 - Implementation practices
 - Organizational strategies



Partnerships for Sustainability: Case Studies

Cases Selected will have Different Intended Sustainability Outcomes

- Production of “missing” good or service
- Conservation of particular region or resource
- Innovation (Research-Delivery-Capacity Building)
- Dissemination of knowledge
- Building communities of practice



Partnerships for Sustainability: Funding

- Received \$40,000 in funding from the UN Foundation
- Ongoing general Roundtable support from the National Academies' George and Cynthia Mitchell Endowment for Sustainability Science
- Additional \$110,000 funding being sought from federal agencies, foundations, and corporations



Task Force on Sustainable Energy

Purpose: To advise the Academy on possible activities related to energy and sustainability that would complement the National Academies' America's Energy Future "foundational study" and serve as a channel of information exchange with their communities about the energy initiative.

Two potential areas of emphasis:

- Sustainable Urban Energy Use
- Sustainable Energy Indicators



Task Force on Sustainable Energy

Task Force Members:

- **John Carberry (chair)**, Dupont
- **Matt Arnold**, Sustainable Finance, Ltd.
- **Pat Atkins**, Alcoa
- **Mike Bertolucci**, Interface Research Corporation (retired)
- **John C. Dernbach**, Widener University
- **Sam Dryden**, Wolfensohn and Company
- **George Gray**, Environmental Protection Agency
- **Jeremy Harris**, former Mayor of Honolulu
- **Rosalyn Hobson**, Virginia Commonwealth University
- **Jim Mahoney**, National Oceanic and Atmospheric and Administration
- **Todd Mitchell**, Houston Advanced Research Corporation
- **Larry Papay**, SAIC (retired)



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- Contact me at mperreault@nas.edu or (202) 334-2143.