



SUSTAINABILITY
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Roundtable on Science and Technology for Sustainability

Marty Perreault

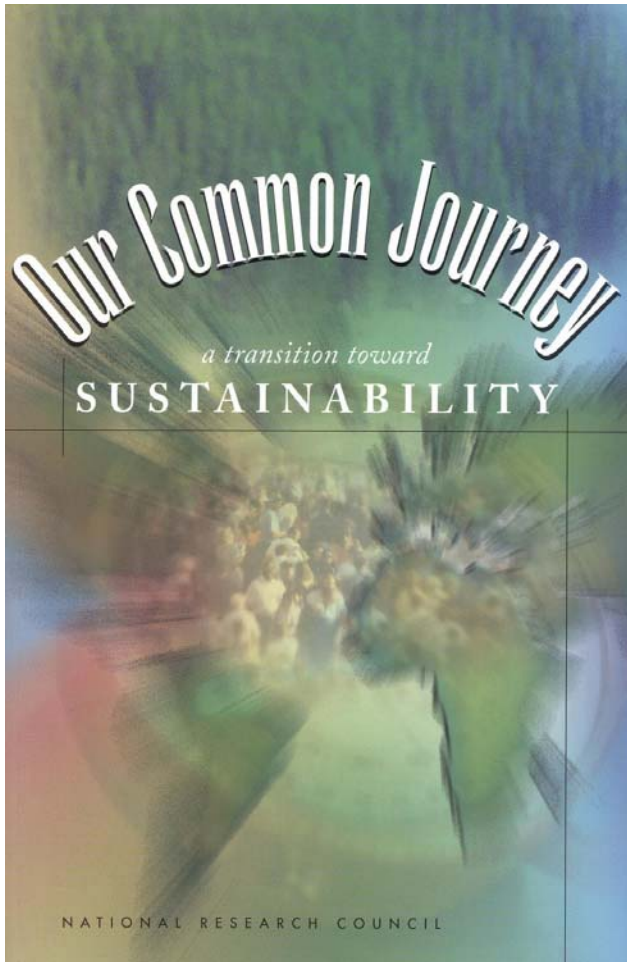
Director, Roundtable on Science and Technology for Sustainability

October 10, 2007



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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.



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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.



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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



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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”)**



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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



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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.



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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



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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



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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



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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



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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



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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



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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 Administration
- **Todd Mitchell**, Houston Advanced Research Corporation
- **Larry Papay**, SAIC (retired)



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