



SHARING THE BOUNTY, STEWARDING THE PLANET: SYSTEMS THINKING FOR EMERGING LEADERS

BY EDIE FARWELL

To grapple with the complexity of current challenges, leaders today need training in a variety of sophisticated tools and methodologies. To that end, Sustainability Institute has recently completed the first class of the Donella Meadows Leadership Fellows Program. The program trains 16 influential mid-career social and environmental leaders in systems thinking, organizational learning, personal mastery, and leadership for sustainability. It honors and boosts the effectiveness of people whose approach to sustainability displays analytic clarity, commitment to systemic change, and attention to spirit, values, and meaning.

Dr. Donella H. Meadows was one of the most influential environmental thinkers of the 20th century. As principal author of *Limits to Growth* (Universe Books, 1972), which sold more than nine million copies in 26 languages, she and her colleagues applied the then relatively new tools of system dynamics to global problems. She went on to write eight other books and a weekly syndicated column.

Donella founded Sustainability Institute in 1996 to apply systems thinking, system dynamics, and organizational learning to environmental and social challenges. Three qualities that she combined brilliantly were dedication to scientific rigor, deeply grounded optimism, and the ability to communicate well. Donella's use of systems tools enabled her to see clearly the root causes of seemingly intractable problems—poverty, war, environmental degradation—and her deep affection for people and the earth gave her a unique power to reach others.

The Donella Meadows Leadership Fellows Program honors and builds on Donella's legacy by empow-

ering a new generation of sustainability leaders to use whole-systems thinking in their work and life. The Fellowship integrates rigorous systems analysis with skills in articulating feelings, values, and vision. To support more women in becoming leaders of sustainability, the selection process ensures that at least two-thirds of the participants are female.

The recently graduated 2003–2004 Fellows work in the nonprofit, government, business, tribal, university, and philanthropic sectors. They hailed from major cities, university towns, and rural communities in 14 states. One Fellow came from Brazil, and several others have significant experience working in international settings with a range of colleagues and stakeholders. Through their ongoing work with their organizations, the Fellows interact with conservation activists, farmers, industry executives, legislators, citizen boards, and government officials. Their work represents diverse sectors, bioregions, and ecosystems.

The Curriculum

The Fellows Program is organized in two-year cycles, encompassing four 4-day workshops at Sustainability Institute's affiliated Cobb Hill cohousing community in Vermont, homework, and personalized coaching to apply the workshop teachings to Fellows' current work. Staff at the Sustainability Institute, and guest speakers Peter Senge (author of *The Fifth Discipline*), Nancy Jack Todd (Ocean Arks International and editor of *Annals of Earth*), John Sterman (Jay W. Forrester Professor of Management and director of the MIT System Dynamics Group), and Sara Schley (SEED Systems and the SoL Sustainability Consortium),

taught the recent Fellows to:

- Build skills in systems thinking, organizational learning, reflective conversation, mental models, and personal mastery
- Apply systems principles to complex environmental and social problems in their work
- Develop their professional and personal capabilities to serve as leaders for sustainability

Specifically, Fellows:

- Learn to draw causal loop maps that reveal system drivers and leverage points for creating change
- Practice stock and flow diagrams and "Action to Outcome" mapping
- Uncover mental models that drive policy and populations of people to accept or reject new initiatives
- Develop and lead strategies for environmental and social sustainability
- Create new collaborations among other Fellows and with Sustainability Institute staff
- Communicate more effectively, facilitate new understanding, and inspire hope
- Increase their personal mastery and articulate a vision for long-term sustainability in several issue areas

A fundamental thrust of both the Fellows program and Sustainability Institute's work is to address the systemic roots of social and environmental problems rather than focus on their many symptoms. When Fellows learn to recognize and, most importantly, direct their strategies toward the drivers of complex systems, they greatly enhance their effectiveness. The tools of systems thinking foster connection and understanding as well as win/win dynamics.

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By committing to apply the teachings of the Fellowship to their current work challenges, Fellows both use the tools of systems thinking and expose others to them. They also form a learning network representing many regions, issue areas, and professional contacts that amplifies the impact of the training for each participant.

Applying the Learnings

The 2003–2004 Fellows stated that their ability to broaden their perspective in addressing larger-scale environmental and social problems, analyze the root causes of these problems, look for leverage points to make change, and implement solutions have all increased through the program. Angela Park, from the Environmental Leadership Program, says, “The Fellowship has given me very specific tools for thinking strategically about some truly vexing, complicated projects.” Fellows apply these tools to engage multiple stakeholders in complex environmental and social issues in the U.S. and international settings. For example:

- *Julia Novy-Hildesley, director of the Lemelson Foundation*, has applied a range of tools she learned and practiced through the Fellows Program. She has used an adapted visioning exercise to help her executive board envision the desired results from a program they are initiating. In addition, Julia developed a stock and flow and casual loop map to articulate her foundation’s plan for increasing the rate of invention and innovation toward social ends in the developing world. The stock and flow map outlines the development of ideas to inventions to products actually in use, while the feedback loops show the ways that the foundation’s three strategies—mentoring, recognition, and dissemination—trigger reinforcing cycles that could lead to improved results over time.
- *Christina Page of the Rocky Mountain Institute* has applied systems thinking tools toward overcoming the barriers that prevent corporations from working together to purchase and use environmentally benign material on a massive

scale. The effort pulls together Fortune 500 corporations to radically increase the demand for alternatives to hexavalent chrome, conventional leather, and other products. Christina, a facilitator and catalyst to the effort, has been using causal mapping tools to diagram the various hurdles that the project faces, for example, the building of a critical mass of participants, the potential for too many participants, and competitive pressures. She reports, “It was a luxury to talk about the project in terms of systems and mindsets rather than just budgets and immediate deadlines.”

- *Tim Brown, director of the Delta Institute*, works to prevent biological pollution in the Great Lakes. Such a seemingly intractable problem involves several major groups—ports, vessel owners, shippers, and the public. By incorporating systems thinking into his work of developing an Environmental Management System (EMS), Tim made it clear to his team (five people from five different organizations) that they would have to engage all stakeholders in crafting a solution that served all of their needs. Tim used a systems map he created with the help of his Sustainability Institute coach and other Fellows to provide strategic orientation to his team. His use of systems thinking on this issue was particularly significant because he is a team member, not a project leader.
- *Amália Souza, Global Greengrants, Brazil*, is using both systems and inquiry tools in the development of a new Brazilian foundation to support grassroots environmental non-governmental organizations (NGOs). She says about the Fellows Program, “Learning to ‘think’ in systems terms is a challenge unlike most so far. And it is an amazing exercise to force my mind to see the whole picture. These tools are proving quite efficient in my work, since I can see things now that would have escaped my perception completely before. I have still a long ways to go in mastering these tools, but I can see why I should persevere. This Fellowship, in many ways, is revealing a new and much more interesting world to me.”

- *Ellen Wolfe of Tabors Caramanis & Associates*, focuses on electric utility restructuring activities. She works with electrical system operators, policy makers, regulators, and market participants to effect change in market structures. Ellen’s work over the past few years has been in the context of the California energy crises; she seeks further thinking on how to put in place effective and efficient market structures in an environment of short-run political and business cycles. She comments, “The Fellowship has shown me the value of good communication; how great it felt to hear and be heard, to give and receive good coaching, and how little relative impact it has to ‘convince’ someone of something rather than let them arrive at insights themselves. It has encouraged new ways of being for me in my work. Also, in doing so, it has given me a higher level of confidence in stepping up and taking on a leadership role in areas for which I do not necessarily have a demonstrated area of competency.”

Donella Meadows once said, “We humans are smart enough to have created complex systems and amazing productivity; surely we are also smart enough to make sure that everyone shares our bounty, and surely we are smart enough to sustainably steward the natural world upon which we all depend.” The 2003–2004 Fellows are working with multiple stakeholders in a cross-section of issue areas to do just this, giving us inspiration and hope as we build on Donella’s legacy to shift the tide to global sustainability. ■

Edie Farwell is program director for the Donella Meadows Leadership Fellows Program of the Sustainability Institute. Previously, she was director of the Association for Progressive Communications.

For more details of the curriculum, see www.sustainer.org/fellows/reports.html.

Applications for the 2005–2006 class of Fellows are now being accepted. For further description of the program and the application process, please see www.sustainer.org/fellows/application.html. The deadline for submission is December 15, 2004.

For information on making a tax-deductible donation to the program, go to www.sustainer.org/SInfo/donate.html.