

SUSTAINABILITY and the UNIVERSITY

By G. Wayne Clough, Jean-Lou Chameau, and Carol Carmichael

While universities are often depicted in the popular press as being at odds with prevailing trends in society, the opposite is far closer to the truth. The twin developments of the research university and the land-grant university have, over time, led our institutions to work together closely in support of both societal and national goals. For example, following World War II, universities became involved in research supporting our national defense, a thrust that was facilitated by funding from the Department of Defense.



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Recently, industry has ramped up its support of university research, as private-sector research laboratories have been shuttered and industry has found itself more dependent on universities to sustain the flow of innovative ideas. Although this engagement must be achieved in harmony with higher education's core values, it is necessary if our nation is to continue to compete in a world economy that is driven by innovation.

While many priorities play a part in compelling the leaders of research universities to take initiative, one of the distinguishing values of these institutions is their willingness to take on an issue of importance simply because it is the right thing to do. Sustainability is such an issue. The term *sustainability* has many connotations, but in this context we mean a process that helps create a vibrant economy and a high quality of life, while respecting the need to sustain natural resources and protect the environment. It expresses the principle that future generations should live in a world that the present generation has enjoyed but not diminished.

Universities are unique in their ability to help our nation, and the world, anticipate the future and develop a framework that allows us to respond rapidly with solutions. It has become clear that charting a course for the future that allows for economic growth while protecting our fragile planet and its resources is one of the major challenges facing the human race. Although early discussions of this issue were sidetracked by political forces, the urgency to address it has only become greater as recent political and technological changes have opened the door to active participation by 3 billion people in the world economy. Natural resources are under greater pressure than

ever, and the concentration of populations near coastlines and in mega-cities creates new dynamics that old solutions cannot address.

Interconnectedness is a concept essential to a prosperous and sustainable society. Every day, we experience—personally or through the media—the effects of population growth and its distribution in urban versus rural, or poor versus wealthy, areas. The emergence of energy as a national security issue calls into question the energy and material demands

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of our lifestyles, and the availability of capital resources that are necessary to sustain the engine of economic development. Development in our global society, as described in *Natural Capitalism*, depends on four interconnected types of capital: human (labor and intelligence, culture, and organization), financial (cash, investments, and monetary instruments),

manufactured (infrastructure, machines, tools, and factories) and natural (resources, living systems, and ecosystem services).¹ Education is critical for growing our stock of human, manufactured, and financial capital, and for guiding the stewardship of the natural capital upon which we depend.

Throughout our history, the rising importance of each form of capital has been reflected in the missions of our institutions and the changing content of our curricula. A particularly relevant period to consider is the beginning of the second industrial revolution in the mid-19th century. The demand for “useful” subjects in the curriculum, such as science and modern languages, promoted the idea that a baccalaureate education should address the needs of science-based industries, and prepare the individual for a career in private enterprise. Since that time, prominent university leaders have sought to reconcile the shift in values for higher education, balancing the desire for individual gains from our institutions with broader societal needs. The central questions endure today: Which institutions—public and private, governmental and commercial—provide for the welfare of a nation's citizens? How do colleges and universities prepare the leaders of these institutions? How does the curriculum reflect the knowledge, skills, and values they need to lead these institutions responsibly?

As the president of Harvard in the late 1890s, Charles W. Eliot wrote a series of essays reflecting upon the increasing role of private enterprise in providing for the general welfare of society.² In an 1890 essay titled “The Working of the American Democracy,” reprinted in a 1915 collection of essays, Eliot presented the argument of his day

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The Community College's Role in Sustainable Development

by Mary Spangler



As the higher education community increasingly moves toward applied learning in career, technical, and occupational areas for the critical purpose of creating a highly skilled workforce, the field of education for sustainable development is positioned to provide the focus for such learning, leading toward long-term prosperity for society. Community colleges are the logical place to engage in and advance this evolving conversation.

In November 2004, the first formal statement of our sector's role and commitment occurred when the American Association of Community Colleges (AACC) Board of Directors passed the Resolution in Support of the United Nations Decade of Education for Sustainable Development, a period that began in January 2005. In taking this affirmative position, we 32 directors—who represent the almost 1,200 member community colleges—joined AACC with the Association of University Leaders for a Sustainable Future to promote programs supporting sustainable development. In addition, 15 other national higher education organizations and affiliated councils are engaged in collaborative activities to support the U.S. Partnership for the Decade of Education for Sustainable Development (a.k.a. “the Decade”) and to advance the sustainability agenda. These entities include higher education associations for presidents, chief academic officers, faculty, facilities managers, business officers, student life coordinators, purchasing agents, and other stakeholder groups.

Within the community college movement, the efforts of a growing number of institutions are focused on producing a population of learners who are literate about the challenges, aware of their responsibilities, and engaged in a broad range of solutions. AACC's formal endorsement of the Decade is intended to highlight the opportunities and encourage more community colleges to engage in learning activities to maintain and improve our environment.

How can community colleges contribute to our students being literate about sustainability and its challenges? Such literacy spans environmental, social, and economic fields. When a college's mission, vision, or goals explicitly articulate the value of sustainability to an educated citizenry, a basis for meaningful discussions and expectations is established. Many higher education institutions already have taken this foundational step. One goal of Oakland Community College (OCC)—promote a global perspective—speaks directly to the commitment the board of trustees and I, as chancellor, have: “To ensure that students understand global dynamics, we will provide relevant educational

experiences that address the relationships of people, cultures, and nations in an interconnected world” (Goal #5, OCC Strategic Plan, 2002–2007).

Flowing from an institutional commitment is an interdisciplinary approach, in which faculty receive support to convene discipline-based discussions and create responsive curricula. Perhaps the most achievable and fitting locus is the general education curriculum, in which learning connections can be infused as an ongoing theme. At OCC, we have included in our learning outcomes for all students the expectation that they demonstrate commitment to social responsibility and understanding of the global environment. Other approaches include creating courses in sustainability and renewable energy or having students conduct sustainability reviews of the practices observable on campus and in local businesses and community organizations.

Another way to advance the community college's involvement is to implement sustainability goals into facilities planning and construction. When I was president at Los Angeles City College, the Los Angeles Community College District committed to the community, which approved two bond measures totaling \$2 billion, that all new buildings would meet LEED-certified requirements. This Leadership in Energy and Environmental Design designation from the U.S. Green Building Council demonstrates one key way an institution can be a good steward of the environment in building construction projects, while it models that value to its students.

Environmentally and socially responsible purchasing practices provide another alternative for higher education institutions to become actively engaged in sustainability. Working with energy management and performance contracting can increase environmental efficiency, create cost savings, and positively shape the environment by reducing pollution.

Much work has already been done in these areas—although that work has not been broadly disseminated, even within the community college environment. Through endorsement of and participation in the Decade, however, a conscious effort has been made to increase the volume of the conversation. We all have a vested interest in the outcome of a society in which a “flourishing environment,” “vibrant communities,” and a “strong economy” intersect (Rowe, 2002).¹

Note:

¹ Rowe, D. (2002). Environmental literacy and sustainability as core requirements: Success stories and models. In W. L. Filho (Ed.), *Teaching sustainability at universities—Towards curriculum greening*. New York: Peter Lang Scientific Publishers. See www.ncseonline.org/DebraRowe.pdf. ■

Sustainability as a Strategic Initiative

by David Shi



Furman University is committed to sustainable development

and environmental awareness. In fact, the university's strategic plan includes, as one of its four major components, a commitment to promote "sustainability through educational programs, campus operations/construction practices, and public awareness initiatives." Designated funds support departmental initiatives for greening the campus and its buildings, as well as encouraging student and community involvement.

In greening its campus, Furman practices environmental stewardship in its construction, maintenance, and purchasing. Our facilities staff has adopted the following practices:

- Reducing grassy areas to allow native landscape to emerge.
- Reducing dependence on chemicals by using more native plants and pest-resistant hybrid vegetation.
- Using water from the university's lake to irrigate about 45 percent of campus.
- Stockpiling cut materials created by building projects to use as fill in future projects.
- Grinding woody debris for mulch.

Other departments also pursue environmental initiatives. Campus stationery is printed on 100 percent post-consumer paper, and all campus publications are printed on paper that has a minimum of 30 percent post-consumer content.

Furman's board of trustees mandates that the university build and renovate in the most cost-effective and energy-efficient manner. In this context, all new and renovated facilities must be LEED-certified. Developed by the U.S. Green Building Council, LEED (Leadership in Energy and Environmental Design) is a voluntary national certification program for constructing high-performance, sustainable buildings. While such a commitment often requires greater initial cost to follow sustainable practices, it provides tangible savings over time. The board of trustees allocated an additional \$350,000 to the construction of 38,000-square-foot Herman N. Hipp Hall in order to meet LEED standards. In July 2003, Hipp Hall became the first LEED-certified building in South Carolina. Hipp Hall is 40 percent more energy efficient than other campus buildings, which represents an annual savings of \$13,000 to \$15,000. The environmental features are expected to pay for themselves in approximately 12 years.

Student involvement also is key to our strategy. Because sustainability is a campus-wide goal, it is

reflected in the curriculum and in campus life. Projects encompass the environmental, economic, and social health components of sustainability. An Eco-Cottage enables eight Furman students to participate in sustainable living on a daily basis. Seventeen donors funded the renovation of the cottage and the addition of energy-saving devices such as solar panels, a water-monitoring system, energy-efficient appliances, and low-flow showers. Using a conventional cottage as a mirror image, the project affords academic departments an opportunity for real-time research into the effectiveness of energy conservation and healthy sustainable living.

The recent spike in gas prices elevated the urgency of another student project: researching alternative fuel sources. Members of Furman's Environmental Action Group (EAG) operate a small facility on campus, where they convert waste vegetable oil from the dining hall into bio-diesel, a clean-burning alternative fuel source. EAG's short-term goal is to meet 50 percent of the diesel fuel needs of the university's physical plant (2,500 gallons/year).

Finally, Furman's Character and Values Statement reflects the university's commitment to the social component of sustainability. It reads, in part: "Furman fosters in its students a sense of social justice and encourages them to exercise their civic responsibility in creating a fair and equitable order. Students are educated to solve human problems rather than to use their knowledge as a means of gaining further advantage over those who are disadvantaged." Our emphasis on engaged learning has generated a variety of opportunities to connect Furman's faculty, staff, and students to major community sustainability projects.

For instance, Furman works closely with Upstate Forever, a Greenville-based nonprofit that combats sprawl and encourages smart growth in a seven-county region in upstate South Carolina. Upstate Forever has cosponsored events in the Urban Politics and Policy Series of the university's Richard Riley Institute of Government, Politics, and Public Leadership.

In part because of Furman's high profile in sustainability issues, I was asked to serve as chair of Greenville's Vision 2025, a community-wide visioning process designed to create a sustainable Greenville by the year 2025. Furman's staff and faculty have adopted the Rails to Trails project, which plans to convert dormant railroad tracks to hiking and biking trails, as their primary Vision 2025 implementation activity.

With consistent support from trustees, administrative leaders, faculty, staff, students, and the larger community, Furman University is weaving sustainability into the very fabric of university life. Citizenship for a sustainable future is alive and well on campus—and the future of such commitments indeed looks bright. ■

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for educational reform that recognized the role of private enterprise in a democratic society:

The service of many corporations has become even more important than the service of several States of the Union. The managers of great companies have trusts reposed in them which are matched only in the highest executive offices of the nation; and they are relatively free from the numerous checks and restrictions under which the highest national officials must always act. The activity of corporations, great and small, penetrates every part of the industrial and social body, and their daily maintenance brings into play more mental and moral force than the maintenance of all the governments on the Continent combined.

This shift in social responsibility between public institutions and private enterprise became, to Eliot, an imperative for change. He reasoned that colleges had a duty to change to ensure social responsibility among industrial leaders. Implicit in Eliot's vision was the belief that individual desires for personal advancement, as well as many of the needs of broader society, would be met through the success of enlightened private enterprise.

Since the beginning of the 20th century, we have been compelled to examine periodically the balance between individual gains from a university education and the broader expectations of society from higher learning institutions. University of Wisconsin President Charles Van Hise implemented the Wisconsin Idea in 1904 to reinforce the social fabric of his state through research and extension programs aimed at agricultural and economic development. In the years following World War I, President Nicholas Murray Butler introduced the first course in contemporary civi-

lization at Columbia University, focusing on world cultures and understanding the origins of conflict. As we have entered the 21st century, circumstances have changed dramatically from those of the past century. While universities are still called upon to support the basic framework of our nation—including national defense, economic development, and life-sustaining infrastructure—we also have to find the means to balance the impact of our society on a planet with limited resources. The imperative for change in higher education today is found in the need to develop a broader sense of social responsibility among our students, one that addresses the opportunities and challenges of a rapidly expanding global marketplace in which decisions affecting the welfare of citizens—socially, ecologically, and economically—are made by a variety of governmental and multinational corporate institutions.

Future Shock

In our approach to sustainability, we envision it to extend broadly to include topics as diverse as land use planning, climate control, economic policy, and population science, but given the nature of Georgia Tech, our focus is primarily on technology and its effects. To understand the challenges, it is incumbent upon us to examine the context from a broad point of view. A recent three-year study by the National Academy of Engineering produced a report, *The Engineer of 2020*, that identified key goals for the future: providing education, energy, food, and fresh water; preventing climate change, disease, poverty, and political conflict; and meeting the aspirations for cultural integrity and a high quality of life for diverse communities—increasingly, these communities are in densely populated cities with aging or sometimes nonexistent civil infrastructures.³

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Bringing Sustainability to the Community

by Juan Olivarez



The idea of sustainability is not a new one. The wisdom of this forward-thinking philosophy is immortalized in the constitution of the Iroquois Confederacy:

Look and listen for the welfare of the whole people and have always in view not only the present but also the

coming generations, even those whose faces are yet beneath the surface of the ground—the unborn of the future Nation (Constitution of the Iroquois Nations. See www.constitution.org/cons/iroquois.htm).

It is the spirit of this timeless wisdom that drives the sustainability efforts of Grand Rapids Community College (GRCC). We consider it critical to our mission as a public institution not only to model sustainable practices for the community, but also to infuse sustainable development thinking into our curriculum, thus ensuring that our students become responsible stewards of our environment, our community, and our economy.

In 2002, I established the Green Team (later renamed the Sustainability Advisory Council), comprising GRCC employees and students who are charged with ensuring that the college takes “a leadership position in introducing sustainability principles into its academic, operational, and community work.” Part of this team’s work is to hold the college accountable for advancing sustainability by reporting on GRCC’s progress to its board of trustees each year. And it was in this context that I was afforded the honor of signing, on behalf of GRCC, the Talloires Declaration, a 10-point action plan for incorporating sustainability and environmental literacy into teaching, research, operations, and outreach at colleges and universities.

It can be tempting to rest on one’s laurels, simply holding meetings or signing affirmations without going the extra mile to turn ideas into reality. This is why GRCC is committed to a variety of tangible projects that help manifest sustainability. One such example is the “model classrooms” we’ve installed in several of our buildings. These rooms serve as the template for all other renovations and additions, and incorporate nontoxic, low-VOC (volatile organic compound) paints; ceiling tile made of 80 percent post-consumer recycled content; energy-efficient lighting; and recycled/recyclable tackboards, whiteboards, and furniture. In addition, all rooms have carpet that is nearly 100 percent recyclable.

Several other projects are in the planning phase, including an initiative that will address the problems of water treatment and retention that so many urban areas

face. GRCC also is looking into a “green roof” for our Applied Technology Center, a feature that would place natural foliage atop the building to assist in retaining and filtering water. And we have installed three rain gardens in other areas of our campus.

GRCC also is working to spread the philosophy of sustainability through its curricula. This philosophy is present in a number of programs that address the need and opportunities to support healthy ecosystems, healthy communities, and vibrant economies, such as our new semester-long environmental studies class. Most recently, GRCC has been fortunate to establish a partnership with Kettering University to provide advanced courses to the West Michigan community in fuel cell technology and other areas. Partnerships such as this one have proven to be among the most effective ways for communities to leverage resources to effect change.

Our efforts extend into the local communities in other ways, as well. In August 2005, we joined with the City of Grand Rapids, the Grand Rapids Public Schools, Aquinas College, and Grand Valley State University to form Community Sustainability Partners. These partners recognize that sustainability includes the challenges of creating social justice and building healthy economies while protecting our ecosystems, and will work to support sustainability principles and practices within each institution, as well as in the community as a whole. Similarly, GRCC has united with the West Michigan Sustainable Business Forum, which recently celebrated the 10th anniversary of its Sustainable Business Conference & Expo, held on GRCC’s campus.

As I write this, another partnership that serves both the college and the community is underway. GRCC, through its ongoing relationship with Grand Rapids-based Steelcase Inc., cosponsors the Green by Design conference, now in its second year. Last September, this two-day event drew more than 350 business and community leaders, product and interior designers, architects, engineers, educators, and students to compare best practices and help make sustainability a practical reality in daily life. As a measure of the event’s high profile, environmental lawyer and activist Robert F. Kennedy Jr. and Tom Chappell, founder of Tom’s of Maine, delivered keynote addresses.

We at GRCC have found strategic alliances and community partnerships to be the most effective means of broadening the public’s use of sustainable practices. For this reason, GRCC is grateful to organizations such as the U.S. Partnership for the Decade of Education for Sustainable Development, the Association for the Advancement of Sustainability in Higher Education, and the Association of University Leaders for a Sustainable Future, all of which facilitate the adoption of sustainable practices by institutions throughout the country. ■

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In his book, *Collapse: How Societies Choose to Fail or Succeed*, Jared Diamond examined five aspects of societies challenged by the loss of natural capital and found that only one—a society’s response to its environmental problems—always proved significant to its success or failure.⁴ The difficulty, according to Diamond, is anticipating, perceiving, and attempting to solve the problem. It’s ironic that while many of us recognize significant challenges to peace, prosperity, and sustainability, we don’t feel the same sense of urgency that has mobilized earlier generations to act. Author Tom Friedman says our “political imagination” is limited, resulting in few great ideas for engaging higher education.⁵ One has to wonder if, like some of the societies examined by Diamond, we are exhibiting the type of “baffling phenomenon” he observed, of groups failing to act in the face of impending collapse.

Today, responsibility for the security, health, and welfare of society is a public-private enterprise. The concept of a prosperous and sustainable society, and the role our institutions play in creating it, are defined by sociopolitical, technological, economic, and ecological contexts that differ significantly from a century ago. The purpose of studies such as *The Engineer of 2020* is to anticipate, perceive, and—we hope—solve some of the challenges to prosperity and sustainability posed by our contemporary context. To some extent, this can be done through groundbreaking research, but it will ultimately be driven by a new generation of engineers, scientists, and business leaders who have been educated to understand the issues and have the tools to bring about the desired outcomes. At Georgia Tech, we graduate upwards of 3,000 talented and

bright engineers a year. If each of them carries with them knowledge of sustainable technology, then over time, change will come as their careers lead them into leadership roles. Therefore, our curricula and research programs seek to encourage a deeper understanding of the complex relationship among science,



technology, and society. We aspire to solve complex, real-world problems through creativity, innovation, and cross-disciplinary fertilization. We anticipate that our graduates will employ high ethical standards, develop a sense of empathy for others through global experiences, and define problems in a

variety of socio-technical contexts. We are envisioning the university as part of an enlightened public-private enterprise that can satisfy individual desires for personal advancement and meet the needs of a global society for generations to come.

Bringing It Home

Many argue that our institutions are structurally conservative, favoring incremental over revolutionary change. That may be true, but in the face of rapid societal change, we have to find a way to adapt or risk becoming irrelevant. From his research in *Collapse*, Diamond found that long-term thinking, planning, and decision making, along with a willingness to examine our values, are the keys to a successful response to the challenges facing our society. Midway through his 40-year tenure at Harvard, Eliot noted that the transformation of his university had already taken nearly two decades—a transformation brought about by a wide variety of forces familiar to any university president today: the pressure of public opinion, the demands of parents, the influence of trustees, and the conditions of philanthropists on their gifts and bequests.⁶ Significantly, Harvard’s transformation was guided by the long-term vision, commitment, and unparalleled tenure of a university president.

Few university presidents will have the luxury of an extended tenure to realize a vision for one institution; nonetheless, they do have at their disposal many tools to envision, plan, and invest in long-term transformation of their institutions. Plans can be set in motion that span from one administration to another. Nearly 13 years ago at Georgia Tech, we embarked on a 20-year strategy to ensure that every student,

faculty, and staff member understands his or her role in creating a more prosperous and sustainable society. We adopted the philosophy that sustainability is everyone's responsibility, and that each discipline, interdiscipline, and profession has a particular contribution to make.

Our three-part strategy involves engaging faculty members across the campus, developing credibility and trust through our own campus practices, and transforming undergraduate degree programs to incorporate sustainability in ways that are directly relevant to the disciplines. Our strategic and campus master plans communicate our commitment and guide the investment of our time and resources. Individual buildings are designed to be sustainable, but we also plan for groups of buildings to serve as small ecosystems. The ground plane itself is used as an element to build a sustainable approach to campus development. In the near future,

we will recreate a stream ecosystem that had been paved over in the past, termed the "Eco-Commons," that will not only provide an element of beauty, but also will capture water for reuse. Beyond these steps, we've invested in interdisciplinary research neighborhoods, endowed chairs and professorships, and seed funds for new research initiatives. We've also dedicated funds to recruiting to the study of science and engineering women and minorities who are invested with a view to sustainability. Our investment in faculty and the campus has created an environment in which a thousand flowers have bloomed in the form of research programs, new courses on sustainable technology and development, and sustainability-relevant content woven into existing courses. We are credible to our partners in the community, industry, and government. These are the conditions, envisioned by our sustainability task force nearly 10 years

ago, necessary for serious integration of sustainability into our baccalaureate degree programs. As we approach year 13 in our 20-year strategy, we feel confident that we are shaping a significant and dynamic role for our faculty and students as part of an enlightened public-private enterprise. ■

Notes:

1. Hawken, P., Lovins, A., & Lovins, L. H. (1999). *Natural capitalism: Creating the next industrial revolution*. Boston: Little, Brown and Co.
2. Eliot, C. W. (1890). The working of the American democracy. In N. Foerster, F. A. Manchester & K. Young (Eds.) (1915), *Essays for college men* (2nd ed.) (pp. 307-340). New York: Henry Holt and Company.
3. National Academy of Engineering. (2004). *The engineer of 2020: Visions of engineering in the new century*. Washington, DC: National Academies Press.
4. Diamond, J. (2005). *Collapse: How societies choose to fail or succeed*. New York: Viking.
5. Friedman, T. L. (2005). *The world is flat: A brief history of the twenty-first century*. New York: Farrar, Straus and Giroux.
6. Eliot, C. W. (1884). *What is a liberal education? Reprinted in D. N. Portman (Ed.), Early reform in American higher education* (pp. 23-46). Chicago: Nelson-Hall Company.

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A Beacon on the Hill

by Daniel Fogel



A new wind turbine, situated prominently on the eastern edge of campus and along Burlington's Main Street, is the latest addition to the University of Vermont's skyline. For some people, the turbine, atop a 96-foot tower, will provide a first impression of our campus. It is a

simple, powerful statement for a university that has set its sights on becoming one of the nation's premier environmental universities. And it is a symbol with substance. The turbine has a role in our teaching, our research, and how we do business. It reflects the integrative philosophy that guides all we do at the University of Vermont (UVM) to foster environmental responsibility and sustainable development.

The term *environmental university* emerged on our campus several years ago as both description and aspiration, an articulation of our strength and potential. To be a national leader in the study and teaching of social, economic, and ecological sustainability issues, we have realized that we need to break down walls between departments, schools, and colleges. We must develop interdisciplinary and multidisciplinary approaches, integrate ecological and social dimensions, and build a new science of sustainability.

This approach is part of the daily work at UVM's Gund Institute for Ecological Economics, led by Robert Costanza. The Gund scientists bring diverse approaches to issues of sustainability and have established partnerships with other faculty on our campus and beyond. The institute's work is far-reaching, with projects such as a field workshop in the Philippines to explore the ecological and economic implications of shrimp aquaculture in a hotspot of biological diversity. Projects closer to home include Redesigning the American Neighborhood, an effort that is looking through the lens of a suburban neighborhood in South Burlington to find solutions to the threats that sprawl brings to watersheds nationwide.

Throughout the university, our faculty strive to actively address issues of sustainability on both global and local fronts. Dan Baker, a faculty member in our College of Agriculture and Life Sciences' Department of Community Development and Applied Economics, has worked with Honduran sugar cane farmers to teach them new processing methods based upon traditional New England maple sugaring techniques. In Franklin County, along the edge of Vermont's border with Canada, Baker has helped shepherd an innovative initiative to better

deal with derelict mobile homes. By recycling a good deal of the material in the homes, Baker and colleagues have begun an effort that creates additional income for local residents, provides an academic experience for students that engages them in community problem solving, and preserves Vermont's beautiful landscape, one of the most precious assets of a state dependent on a tourist economy.

This spirit of collaborative work for positive change is shared by our student body. More than a decade ago, the more careful management of solid waste stream and recycling efforts came to the fore on our campus, thanks in large part to an emerging student organization, the Vermont Student Environmental Program. Last spring, our University Dining Services hosted Vermont farmers and food producers for a day to explore ways to bring more locally produced foods to campus dining tables. The event came about in part because of Students for Peace and Global Justice and the 600 signatures they gathered from fellow students. The university places a high value on experiential education and encourages students to integrate such experiences into their academic program. The present push for local foods follows a long tradition of students designing food-related independent academic projects for credit.

At UVM, we are guided by the belief that our operations should model all that we advocate. It is why we are seeking LEED certification on projects during an ambitious period of new campus construction. It is why our board of trustees has supported a new green building policy. It is why we are committed to taking a hard look at ourselves through Tracking UVM, an environmental report card that takes a comprehensive, decade-long look at our institution's environmental impact and sets positive courses for the future.

This sense of accountability is key to helping us reach our goal of becoming The Environmental University. We were pleased by the results of Cornell University's recent *Peer Campus Sustainability Survey Final Report*, which identified the University of Vermont, together with Colorado, Michigan, Duke, and Harvard, as "strong leaders in the field, with very effective campus sustainability programs." We are proud of this distinction, linked with like-minded institutions that realize when it comes to fostering sustainable development in our society, a university must have its own house in order to serve as that shining beacon, or perhaps wind turbine, on the hill. ■

(See the next page for more resources on sustainability.)

DANIEL FOGEL is president of the University of Vermont.

Education for Sustainability:

Resources for Presidents

More than 15 mainstream national higher education associations are now engaged in programming or national initiatives in education for sustainable development. Some of them are listed below:

Excellent online learning communities and weekly e-bulletins for your facilities and purchasing staff, administrators, faculty, and students:

- **Association for the Advancement of Sustainability in Higher Education** (www.aashe.org). Click on E-mail Lists.
- **Society for College and University Planning** (www.scup.org). Click on Knowledge, then Knowledge Communities, and scroll down to the Environmental Sustainability group.

Presidents' commitments to a declaration of sustainability:

- **Association of University Leaders for a Sustainable Future** (www.ulsf.org). Click on Talloires Declaration.

Resources and models for your institution, including higher education sustainability mission statements, assessments, publications, policies, projects, syllabi, and initiatives:

- www.aashe.org. Click on Resource Center.
- www.ulsf.org. Click on Resources.
- **Second Nature** (www.secondnature.org). Click on Education for Sustainability.
- **National Wildlife Association** (www.nwf.org/campusecology). Click on Projects (for student fellows projects).

U.S. nonpartisan response to the U.N. Decade of Education for Sustainable Development:

- **U.S. Partnership for the Decade of Education for Sustainable Development** (www.uspartnership.org). Multi-sector teams include higher education, business, faith, government, and K-12; join as a partner for no charge.

Climate change reduction resources for campuses:

- **Higher Education Climate Action Program** (www.hecap.org), co-sponsored by six national higher education associations representing facilities directors, business officers, student life staff, planners, and educational buyers.
- **Campus Climate Challenge** (www.energyaction.net). Students helping campuses reducing greenhouse gas emissions.

For further information, contact Debra Rowe (Higher Education Co-chair of the U.S. Partnership, Senior Fellow at ULSF, and Co-coordinator of the Higher Education Association Sustainability Consortium) at dgrowe@oaklandcc.edu. ■