International educators are striving to make education abroad sustainable environmentally, economically, and culturally to help students become better citizens of the world.
STUDY ABROAD probably is the single most important kind of travel that people can be doing," says environmentalist and author Bill McKibben. "You can push the envelope more than we are, and then when people come home, they should come home changed. If people don’t come home changed, then it was a waste of money and a waste of carbon."

Students frequently describe their education abroad experiences as life changing, but McKibben ascribes a much broader meaning to change during a video interview for the Abroad View Foundation: "How do you live on half the energy that an American does and live a life that is at least as dignified as ours? This question alone can be more than the basis for six months of fruitful study abroad," says McKibben.

It turns out there are also multiple meanings of "sustainability" when it comes to international education. For decades, a sustainable education abroad program meant having overseas staff, curriculum, and facilities that functioned relatively seamlessly year after year. Then "environmental sustainability" entered the lexicon with concerns about climate change, global warming, and carbon emissions, and the startling realization that, as McKibben puts it, "That one airplane trip to wherever you are going requires the consumption of more fuel and more carbon than most people in the world will use in a year for all the tasks of their daily life."

Editor’s Note: This article is the first in an occasional series of features about peace and social justice issues in international education.
It didn’t take too long for sustainability to take on an expanded sensibility that actually takes those people into account. “For us to thrive, if not survive, not only do we need to all live within the earth’s caring capacity, we all have to rise above an equity baseline. Sustainability is living well and lightly together,” says Daniel Greenberg, executive director of Living Routes, a study abroad program focused on ecovillages.

The sustainability guidelines at Azusa Pacific University in California acknowledge that until quite recently, “host cultures and ecosystems have been perceived as merely the stage for acting out highly personalized and short-lived experiences abroad, with no particular moral questions or obligations.” Now, however, sustainable education abroad involves awareness of a particular quality of life: “A ‘sustainable’ community is one where social, environmental, and economic factors produce a life system that is socially bearable, economically equitable, and environmentally viable.” In addition, continue the Azusa guidelines, “economically sustainable study abroad calls for us to stay cognizant of who actually gains and loses financially from our presence abroad.”

The sustainability guidelines at Azusa Pacific University in California acknowledge that until quite recently, “host cultures and ecosystems have been perceived as merely the stage for acting out highly personalized and short-lived experiences abroad, with no particular moral questions or obligations.” Now, however, sustainable education abroad involves awareness of a particular quality of life: “A ‘sustainable’ community is one where social, environmental, and economic factors produce a life system that is socially bearable, economically equitable, and environmentally viable.” In addition, continue the Azusa guidelines, “economically sustainable study abroad calls for us to stay cognizant of who actually gains and loses financially from our presence abroad.”

The Universitas Indonesia’s GreenMetric Ranking of World Universities is also based on the principle that measuring sustainability should involve economics, environment, and equity, with equity referring to the need to make society benefit not only the rich but also be fair to everyone.

Many colleges and universities now have offices of sustainability, green pledges, and eco-friendly dormitories. There are 674 signatories to the American College and University Presidents’ Climate Commitment. The Association for the Advancement of Sustainability in Higher Education (AASHE) has created a widely used Sustainability Tracking and Rating System (STARS). Originally, says Greenberg, 90 percent of the people at an AASHE conference would be facilities managers; now at least half the people are faculty promoting the sociocultural aspects of sustainability as well.

“For many years I felt I was a misfit,” recalled Greenberg. “No one was talking about sustainability at study abroad conferences and no one was talking about study abroad at sustainability conferences. There is a growing nexus of these ideas and we are going to have to pave the way.” Along with other members of NAFSA’s sustainability member interest group, Greenberg is pushing to add sustainability criteria about off-campus programs to STARS. His Sustainability Education Blog offers a system to rate study abroad programs in four areas of sustainability:

- **Program design and management:** Is there input from the local community? Are goods and materials sourced locally?
- **Curriculum and student learning:** Are there opportunities for students to help in the local area? Are faculty and staff aware of environmental issues in the community?
- **Staff training and office management:** Does the office promote recycling and minimizing use of resources? IES Abroad gave its annual Green Center Award to its facility in Rome for creating elevated container gardens to grow produce on the Center terrace; donating leftover food, books, and computers to local organizations; and partnering with the Slow Food Rome, an organization to promote local food traditions.
- **Program promotion:** Are programs promoted in resource-light ways—minimizing printed materials and staff travel? Greenberg, for example, appears at study abroad fairs via Skype from a laptop on the Living Routes exhibit table.

Many international educators agree that “international education is uniquely positioned to contribute to the search for and sharing of sustainable solutions within diverse societies.” Berea College in Kentucky...
has even written into its strategic plan that experiences in the developing world are encouraged in order for students to “understand the urgency and complexity of such issues as environmental degradation, overpopulation, and nonsustainable growth—both at home and abroad.”

There are now a multitude of resources to help individual students, education abroad programs, and entire campuses manage travel with greater consciousness of their impact on the earth’s limited resources. There is also a veritable explosion of intriguing and valuable opportunities for students and faculty to learn about, practice, and promote sustainability in all its manifestations while studying abroad.

**Green Passport**

The Green Passport program offers a sustainable travel option that is readily available to every student and study abroad program. The seed for the program was planted when Rodney Vargas, an assistant director in the education abroad office at the University of North Carolina, saw a sign in Costa Rica that said, “Take only photos and leave only footprints.” Concerned about the impact of growing numbers of students studying all over the world, he shared his ideas on a sustainability listserv initiated by Greenberg. “What if we give our students guidelines for respecting and improving the environment wherever they travel and study?”

So GreenPassport.us was born, now boasting about a thousand members, including students who sign a pledge to minimize their impact on the environment, act in culturally respectful ways, and give back to the local community. The Web site and accompanying Facebook page provide resources and networking opportunities for students and professionals. Katie Bell, director of Green Passport and also assistant director of the Center for International Experience at Yale, is eager to expand membership beyond a self-selected minority. She is already pleased with the growing interest among professionals. There are multiple conference sessions now on greening international education, in part because sustainability has become an institutional priority for many universities. “You don’t have to be an expert on environmental issues in every country. Just have a spark of interest or a university mandate. You need that starting point and there are lots of resources available,” says Bell.

Another resource is a blog called “Rising Green,” the brainchild of Tufts University graduate Adrian Dahlin. Dahlin’s goal is to use his new blog and ac-
Creating an Organic Garden With Schoolchildren in Chile

Joshua Kessler, a student at Middlebury College, describes his sustainable education abroad experience, as told to IE.

I HAD SOME PREVIOUS EXPERIENCE with sustainability projects but this was the first time that I would be leading an effort to promote sustainability. But once I talked to the director of the school and a chemistry professor, the project evolved into the idea that we would build an organic garden that could supplement the science curriculum by teaching the students about chemistry, the environment, and sustainability. The environmental and sustainability aspects of the project would be particularly important due to the fact that in Chile, especially in public schools, there is little emphasis placed on environmental education.

The garden was completed in phases. At the beginning of the project, I gave some presentations to the students that taught them about some of the scientific elements that we would encounter in the garden (such as the greenhouse effect and the compost system). Afterward we cleared the area of weeds and trash, dug the compost hole, collected organic material, and placed it into the hole. The students would monitor the compost hole over several weeks making sure that the appropriate nitrogen and carbon levels were being maintained. Then we began the construction of the frame for the greenhouse and planted the seeds in little pots. When the frame and compost pile were both ready, we transferred the plants into a hole inside the greenhouse with the composted material. This area would serve as the primary garden, where students would tend to the plants year round.

This project changed my perspective on sustainability because in the same way that the students were learning about how composting works, and the effects of greenhouse gases, I was learning about these topics at a deeper level than I previously had. I really had to research how these processes happened so that I could explain it to the students clearly and answer any potential questions that they would have. With respect to the garden, I had never grown plants or made compost on that type of scale. When I got to see that we could take organic waste and teach with it, I became really interested in sustainability. And not only did we teach with it, but we also ended up making the school environment a little more aesthetically pleasing. So I’ve come away with a great appreciation for sustainability and sustainability practices. In fact, I’m trying to work with some type of organization that promotes sustainability this summer. Sustainability projects and practices can solve a lot of problems that our society is currently facing. I also think that some sustainable practices will become necessary in our daily lives, so it will be important to educate young people as soon as possible.

companying Green Link resources to help students find environmentally focused education abroad programs, match employers with interns interested in environmentally sensitive companies or NGOs, and ultimately help young people become “globally conscious green-collar citizens.”

Middlebury College has long been in the forefront of promoting sustainability, at home and overseas. “Most of the world lives much more sustainably than Americans,” notes Stacey Woody Thebodo, assistant director of international programs at Middlebury. “We want our students to go abroad and bring some of that home.” Thebodo was instrumental in starting Green Passport and contributing to the Abroad View Foundation and Project 350, both initiated by Middlebury graduates. The site 350.org—350 parts per million representing the level that should be the limit of CO2 in the atmosphere and the goal is to below 350 parts per million for the optimal safe level of CO2—offers a guide to “building the climate movement while you travel, volunteer, or study abroad,” including everything from documenting climate stories to organizing an educational event to “embedding the number 350 in public consciousness across societies, languages, and ideologies.”

Middlebury also offers $500 Sustainable Study Abroad Grants to be used for research or sustainability projects. In fall 2011 Joshua Kessler helped students at Liceo Pablo Neruda in Santiago, Chile, transform a neglected area behind their school into a garden and greenhouse, spending only $350 of his grant for all the necessary wood, hardware, seeds, pots, topsoil, and “a lemon tree and an orange tree that really started to grow beautifully.” Kessler gave presentations to the Chilean students on the composting process and the greenhouse effect and came home with a new interest in sustainability himself. “I understood that it was something that I should be interested in, but honestly it was never something I practiced. However, now I am much more conscious as to how my actions are affecting the environment.”

Partners for Sustainability

For many international education programs, this is a time of great innovation and experimentation in making students aware of traveling more sustainably and providing options to learn more about sustainable communities. Some of the innovation is reflected in a wide variety of new partnerships.

Northwestern University already had a good rapport with the Chinese consulate in Chicago and sought
ways to support the State Department’s “100,000 Strong Initiative” to boost the number of U.S. students studying in China. Northwestern created a hybrid program along with Wanxiang America Corporation, a highly successful Chinese auto parts company that also builds solar and wind storage equipment. During spring quarter 2012, the first group of approximately 15 Wanxiang Fellows will visit Wanxiang in Elgin, Illinois, and attend classes in Evanston led by field director and adjunct professor Mark Petri. Petri will discuss global energy production options, getting students “to think critically about information they receive so they can go to China in a better situation to assess what they observe and ask tough questions.”

For six weeks in the summer, these Wanxiang Fellows will then complete two full-credit courses at Northwestern’s campus in Beijing and work on research or projects at Wanxiang’s solar manufacturing plant, electric vehicle battery factory or energy storage stations in Hangzhou, China. The fellows will return to Evanston and present their projects to faculty and students. With the exception of housing and tuition in Beijing, Wanxiang is funding the fellows for five years beginning in 2012.

Dévora Grynsspan, director of international program development at Northwestern, sees the Wanxiang Fellows program as a new education abroad opportunity for students who are interested in environmental issues but are often underrepresented in international programs because of the lack of professionally relevant opportunities. Petri believes it is “invaluable for students who want to have a global perspective on social, political, and technical issues to have the experience of going to these places…so they can incorporate it in their careers as journalists, teachers, social scientists, political scientists.” Northwestern President Morton Schapiro calls the program an “economist’s dream, a mutually advantageous trade that involves the not-for-profit and private sectors and is good for Northwestern, the U.S., and China.” Petri is already one step ahead, working to bring U.S. and Chinese students together in a technical collaboration between Wanxiang and Argonne National Laboratory, where he is technology development director.

Iowa State University is also taking advantage of a federal initiative with an Undergraduate International Studies and Foreign Language (UISFL) Title VI/Global Pathways grant to combine sustainability issues and world cultures. In a new collaboration between the College of Agriculture and Life Sciences, students will be able to complete a Global Resource Systems major with a minor in a foreign language. The Global Resource Systems major allows students to specialize in a technical competency (e.g., livestock, aquaculture, energy, human resources) and a world region. The grant specifically will be used to develop courses, internships, experiential learning opportunities overseas, and information exchanges among faculty.

One such information exchange workshop already has faculty from the College of Engineering talking about ways to have students help gather data on overseas development projects. “Many NGOs complete a project, say water development, and find it’s not working two to three years later. There is a high failure rate. We want to try to design projects that are more sustainable,” says...
Iowa State professor Mark Rectanus, who says the grant will also fund new modules on sustainability and biodiversity in existing courses on “Russia Today,” “Germany Today,” etc., as well as new courses on environmental issues in the Middle East or the historical roots of green concerns. The collaboration has already moved beyond the doors of Iowa State: faculty are holding workshops for elementary and middle school teachers to talk about sustainability and biodiversity. Iowa State students are creating a Spanish-language Web site for high school students on transportation issues.

The Global Pathways emphasis on biodiversity and sustainability is also being incorporated into existing Iowa State study abroad programs, including a six-week summer program in Valencia, Spain, which hosted more than 100 students in 2011. Biology students may choose to spend the entire time working in a Spanish lab with a University of Valencia faculty member or working on a different field experience each week. Student experiences have included sea turtles and dolphins to the business side of running a botanical garden, an aquarium, or a biopark, and what sustainability means to Spaniards today. “We are starting to see students applying for graduate degrees in marine biology,” says Chad Gasta, who directs the Valencia program. “In Iowa, they never would have done that without the exposure offered by this program.”

**An International Aisle in Every Grocery Store**

Lori Unruh Snyder in Purdue University’s Department of Agronomy also discovered that education abroad opportunities with a sustainability focus provide an avenue for agricultural students to have critically important international experiences. Snyder says the U.S. Agency for International Development has an urgent need for agricultural professionals with international experience, yet agricultural students consistently comprise one of the smallest percentages of students in education abroad programs.
Snyder received funding from the U.S. Department of Agriculture to create service-learning projects promoting sustainability. She built relationships at EARTH University in Costa Rica and still plans all the details of each program she leads to Costa Rica, right down to hotels, buses, homestays, and timetables.

Every year Snyder takes a group of students to farm in Costa Rica, where they learn that “to be sustainable you have to be creative with the resources you have. In the U.S. you might grow bananas and toss the bad ones. In Costa Rica, every part of a plant would be used for some aspect of animal care. Rotten plantains can be given to pigs. Pig water is a natural fertilizer... We also showed Costa Rican families how to make planters for urban gardening out of jeans and now they have tomatoes growing out of the pockets.”

One group of students went to a pineapple plantation whose owner wanted to develop agritourism. Students helped to write a guidebook with explanations of rainforests and sustainability as well as photos of local plants. There were ten students in the group, majoring in plant science, agronomy, agricultural economics, and construction management. What did the students bring back? “A sense of fulfillment because they interacted so closely with the communities,” said Snyder. Twenty-seven of 33 students in one course expressed an interest in working in international agriculture. “We have it so amazingly good in America,” wrote one student. “Maybe I won’t be able to do change much internationally, but I would like to give it a shot.”

**Pura Vida**

Costa Rica is a popular destination for programs with a sustainability focus because environmental consciousness is embedded in the country’s culture—*pura vida*, pure life, is the national motto. The University of Georgia Costa Rica earned the country’s Certification for Sustainable Tourism at its 155-acre campus in San Luis de Monteverde, where it operates the Ecolodge San Luis as a resort for eco-tourists and an academic center for 60 faculty representing 28 academic disciplines. “It’s a little bit of living a more sustainable lifestyle in practice,” says Quint Newcomer, director of UGA Costa Rica. “I hope it rubs off for students and tourists. It’s about people who are conscious of their actions toward other people and the environment.”

Student travel itself is carbon neutral. “We’ve planted 10,000 trees in the last three years and have another 25,000 seedlings ready to be planted in the coming year,” says Newcomer. The seedlings are purchased with funds from a voluntary $20 student fee ($20 is the international rate for a ton of carbon).

UGA Costa Rica endorses the multinational Earth Charter Initiative and its Ethics-based Assessment Tool, called an “Open-Source Tool for Evaluating the Sustainability of Organizations, Projects, Initiatives, and Individuals.” The tool measures levels of action on such criteria as “Adopt patterns of production, consumption, and reproduction that safeguard Earth’s regenerative capacities, human rights, and community well being and ensure that economic activities and institutions at all levels promote human development in an equitable and sustainable manner.”

Newcomer teaches one course at the UGA campus in Athens, Georgia, in which students search for ways the charter is being implemented at home. One student wrote about a competition among dormitories to reduce energy and water use; another found campus gardens being used to provide food for low-income grandparents caring for their grandchildren.

UGA Costa Rica has also created a toolkit on how to add service learning to education abroad programs—“a course-based, credit-bearing educational experience in which students participate in an organized service activity that meets identified community needs.” For example, students in a language and literacy education service-learning course in Costa Rica helped plan and implement science lessons in English for local school children during their school break in July.

**Small Schools, Big Impact**

It is not only large institutions having an impact on sustainability in international education.

The Renewable Energy for International Development program at Madison Area Technical College in Wisconsin sends students to rural Costa Rica to install solar panels, build solar ovens, and construct...
other small-scale technologies. Madison partners with Solar Energy International, a nonprofit organization that develops hands-on projects in Costa Rica but does not offer academic credit, and Rancho Mastatal Environmental Learning and Sustainable Living Center, an ecovillage providing lodging and meals for a nine-day stay. The trip is preceded by an eight-week online course.

Now Madison College is administering a Capacity Building in Study Abroad grant from the U.S. Department of State to help other community and technical colleges offer similar study abroad programs. The first cohort of schools invited to the training had sustainable energy programs on campus but no study abroad. The second cohort included schools with more robust study abroad programs, but fewer options in renewable energy.

Participating faculty attend Madison’s program in Costa Rica and then develop their own short-term, faculty-led programs in engineering, renewable energy, sustainable development, or a related field. Madison provides mentoring and best-practice workshops on curriculum development, health and safety issues, and liability mitigation. Participating institutions market their new programs to all the partner institutions.

Maine Maritime Academy is launching a spring break program in Nicaragua while Heartland Community College in Illinois is partnering with Spanish language classes on a solar energy installation project in Belize. Geoff Bradshaw, director of international education at Madison, hopes to have a network of 24 colleges working together on sustainable development programs.

“One of the sea changes in the last five to ten years is the globalization of employment in every sector of community college employment,” says Bradshaw. “Ten years ago, we thought we were training for local companies and global education was a nice add-on. Now virtually every academic and technical vocational training program agrees that global competency is critical.”

Alfred State College, part of the State University of New York system, sends architecture and business students to Sorrento, Italy, each spring. Architecture professor Jeff Johnson learned that the city had commissioned a study to develop a new piazza near the ferry boat port. So he had the Alfred students investigate the potential for an economically and architecturally sustainable rehabilitation and expansion of the port.

Associate professor Diane Tuzzolino asked her business students “to think about the port through the eyes of business sustainability—social responsibility, environmental accountability, and economic vitality.” The students rejected the idea of expanding the port to accommodate more cruise ships in favor of a proposal to bring in more pleasure boats, whose owners would be more likely to patronize local businesses. The students presented their ideas to Sorrento Mayor Giuseppe Cuomo, who is still evaluating all the options.

“We have increased students’ awareness about how they can influence what happens in the future,” said Tuzzolino. “In business we often think of the bottom line, but we have to think about the social and environmental aspects and create spaces for all people.” Architecture student Raymond Sova designed a spiraling three-tiered solar-powered lighthouse and park using traditional Italian columns, stone work, and fountains. He considered the project “absolutely a valuable use of my time overseas,” even the challenge of finding a “compromise between the modern sustainable practices of today with the historic cultures of Italy’s extensive past.”

In fact, the experience changed Sova’s view on sustainability. “This project changed my perspective on my personal commitment to sustainability because it gave me a whole new outlook on sustainable practices in an entirely different culture,” he says. “It showed me
that sustainability goes way beyond alternative energy sources and generation; it is about creating and designing communities that can become self-reliant, and can sustain itself indefinitely.”

Revitalizing Sorrento’s Marina Piccola not only changed Sova’s personal perspective of sustainability, but he also now believes that all college students could benefit from learning about it. “Sustainability is incredibly important for college students to learn as a concept because it is something that all professions can relate to, and there is an incredibly high demand in today’s modern economy for sustainable practices in all fields,” he says. “Since I have been an architecture student for all of my undergraduate career, I have become very accustomed to how the concept of sustainability relates to architecture; studying abroad showed me that sustainability can relate to not only the field of architecture, but to all fields and professions.”

Ecovillages
Ecovillages are increasingly popular as destinations for education abroad programs, both in partnership with individual institutions like Madison College and Rancho Mastatal, but also through programs like Daniel Greenberg’s Living Routes. Steve Whitman began taking students from Plymouth State College in Massachusetts to ecovillages in Sweden in 2004, and he has helped develop short programs for Living Routes. Williams has supervised students planting crops in Findhorn, Scotland; constructing a sandbag dome building in India, and studying permaculture in Australia. The courses provide three credits and run 10 to 21 days.

Ecovillages are intentional communities that are on the cutting edge of appropriate technology to make our lives more sustainable, explains Whitman. “When students have to walk the walk, even for a short time, when they have to carry a budget of water for a shower—they have a totally different reverence for water.” When students return to the Plymouth State, they can choose to live in Eco-House, where they implement projects to make the house more sustainable. Whitman visits all overseas sites ahead of time to make personal connections, develop curriculum, and select the most affordable options. For many Plymouth State students, these trips are their first venture outside the United States. He’s now working on a new project in Haiti with a focus on water conservation and reforestation; he expects to involve students in the program’s development.

To Daniel Greenberg, ecovillages are living laboratories for a sustainable future. Students at Living Routes ecovillages may study leadership for social change at an artist community in Mexico, biodiversity and spirituality in Peru, permaculture in Brazil, or photovoltaics in Israel.
“We need to further collaborate with academia to create ‘communiversities; where students can spend years in ecovillages to gain the background and skills needed to enter the workplace in habitat restoration, sustainable agriculture, group facilitation, holistic health, ecological design, green building, and more,” says Greenberg, adding that college students are “mature enough to ask the big questions yet also open to radical alternatives such as those modeled within ecovillages.” Living Routes won GoAbroad’s 2011 Innovation in Sustainability Award for infusing sustainability in all its programs.

Other NGOs also offer overseas adventures to practice and learn about sustainability. Global Brigades, like Engineers Without Borders, organizes itself through chapters at 325 universities worldwide. In-country teams work with local communities to develop projects for brigades of volunteers who come for seven to ten days at a time. University of Virginia students built eco-stoves as part of a public health project in Honduras. A brigade of architectural students designed schools and health centers in Honduras. “This is not an alternative spring break,” says Global Brigades Program Officer Shital Chauhan. “This is a social movement.”

Indeed, the notion of being part of something not only life-changing but perhaps even Earth-saving pervades the sustainability movement in international education. “I originally thought our big problem was that we made war against other members of our species,” said James Skelly, coordinator for peace and justice programming at BCA Study Abroad, “then I realized that we were making war against every other species and the planet itself. It becomes for me an absolutely central issue. It is the issue.”

Skelly engages students studying abroad in BCA programs in The Global Conversation to help them discover and understand what globalization means and how it affects the planet. Ninety students studying in about 20 countries have joined online Learning Circles to work on a common problem in its local and global aspects. There are online lectures and on-the-ground collaborative projects. “It’s like a social networking site with issues that change all the time,” says Skelly. “Through this casual learning,” says the Global Conversations Facebook page, “students may seek to know more upon returning to their home campuses and may also become active participants in efforts to change a course of events, such as global climate change.”

There is a broad spectrum of opportunities for students and institutions to be deeply intentional about the how and why of international education. Rodney Vargas wanted to have control over something that could benefit everyone so he initiated Green Passport. Daniel Greenberg believes this could be a “most exciting time in human history with the study abroad community positioned to really educate the next generation of leaders about how we create a sustainable planet.” Sustainable education abroad is about much more than carbon footprints and the right lightbulbs, important as they are. It is about developing a global civil society with a rich sense of global citizenship, and as James Skelly concludes, “international education is crucial to its development.”

Karen Leggett is a freelance writer in Washington, D.C. Her last article for IE was “Their Baggage Goes, Too” about mental health and education abroad, which appeared in the health and insurance supplement accompanying the November/December 2011 issue.

Endnote

1 From a 2008 report of the NAFSA Task Force on Environmental Sustainability in Education Abroad.