

**sustainability @ asu**  
**2013 sustainability accomplishments**  
**highlights**

**teaching**  
**discovering**  
**solving**





**vision for  
sustainability  
@ asu**

ASU is a leader in the global movement to address the enduring challenges of sustainability: promoting human prosperity and well-being for all, while protecting and enhancing Earth's life support systems. By extending the academic tradition to include all ASU units and working with external partners, we educate, discover solutions and implement practices that will help people drive the transition to a sustainable world.

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**ENERGIZE PHOENIX**  
ENERGY EFFICIENCY ON AN URBAN SCALE

**BIKE VALET**

**ASU**  
Walton Sustainability Solutions Initiatives  
2013

**vision for  
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tempe campus

polytechnic campus

**A university-wide commitment to sustainability encompasses all units at all four campuses. As the hub of Arizona State University's sustainability initiatives, the Julie Ann Wrigley Global Institute of Sustainability is proud to report the sustainability-related accomplishments of the university for calendar year 2013.**

downtown campus

west campus

## sustainability @ asu

ASU's sustainability commitment reaches across all colleges and institutes

Biodesign Institute
W. P. Carey School of Business
Herberger Institute for Design and the Arts
Mary Lou Fulton Teachers College
Ira A. Fulton Schools of Engineering
Graduate College
Health Solutions
Barrett, the Honors College
Walter Cronkite School of Journalism and Mass Communication
Sandra Day O'Connor College of Law
School of Letters and Sciences
College of Liberal Arts and Sciences
New College of Interdisciplinary Arts and Sciences
College of Public Programs
<b>School of Sustainability</b>
College of Technology and Innovation
University College

# sustainability scientists and

Initiated in December 2011 with 215 faculty from across the university, ASU's sustainability scientists and scholars grew to 282 by the end of 2013. Sustainability scientists and scholars are engaged in hundreds of teaching and research projects funded by external awards exceeding \$70 million annually. In Wrigley Hall, the Julie Ann Wrigley Global Institute of Sustainability provides meeting, videoconferencing, and office space for sustainability scientists and scholars. Over 400 such meetings took place in 2013.

ASU engineer Amy Landis, School of Sustainable Engineering and the Built Environment, was awarded a \$6.9M grant from the **U.S. Departments of Agriculture and Energy** to promote the use of biomaterials as sustainable sources of rubber and fuels.

Ecologist and policy expert Kevin Gurney, School of Life Sciences, leads a project to use a crowd-sourcing “game” to help map global CO<sub>2</sub> emissions.

With a grant from the **U.S. Bureau of Reclamation**, conservation biologist Heather Bateman, College of Technology and Innovation, leads a study of the tamarisk leaf beetle as a

biocontrol agent that would naturally control invasive plants without disrupting wildlife.

Kamil Kaloush, School of Sustainable Engineering and the Built Environment, received the Outstanding Research Award from the **Rubber Pavements Association** for his work on the performance and environmental benefits of asphalt rubber.

Chemical engineer Mary Laura Lind, School for Engineering of Matter, Transport, and Energy, received a **National Science Foundation CAREER Award** for research aimed at driving advances in water purification, wastewater recovery, biofuel production, and energy sustainability.

*L to R: ASU sustainability scientists Amy Landis, Kevin Gurney, Heather Bateman, Kamil Kaloush, Anthony Brazel.*





# scholars

The Institute for Humanities Research, lead by Regents' Professor Sally Kitch, received a \$1.2M grant from the **Andrew W. Mellon Foundation** to foster scholarly innovation in the humanities through collaborative research and global partnerships.

Sustainability scientist and Professor Emeritus Anthony J. Brazel received the 2013 Helmet E. Landsberg Award from the **American Meteorological Society** for his work on desert urban sustainability.

School of Sustainability Dean Christopher Boone co-edited *Urbanization and sustainability: Linking urban ecology, environmental justice and global environmental change*, a collection of 11 essays on **human-environment interactions**.

Sustainability scientist Nancy Grimm, School of Life Sciences, contributed to the **2013 National Climate Assessment** by authoring a chapter on urban areas for the *Assessment of Climate Change in the Southwestern U.S.*

Representing the School of Human Evolution and Social Change, sociologist Sharon Harlan's work on **urban vulnerability to climate change** was featured in the journal *International Innovation*.

Sustainability scientist George Basile helped School of Sustainability alumnus Andrew Krause launch a **social networking site** where people identify and adopt ideas that match their personal sustainability goals.

From the School of Geographical Sciences and Urban Planning and School of Sustainability, Kelli Larson's work on **landscaping regulations and homeowner preferences** was featured in *Pacific Standard*, a magazine focused on social and behavioral sciences.

For World Water Day, the **International Food Policy Research Institute** featured the work of Marco Janssen, School of Human Evolution and Social Change, on using simulation games to study water resource sharing among people in rural India and Columbia.

Ecologist Nancy Grimm guest edited a November 2013 special issue of **Frontiers in Ecology and the Environment**, devoted to assessing impacts of climate change on ecosystems and the consequences for people.

David Guston and Erik Fisher, Center for Nanotechnology in Society, lead an international research collaboration to define and advance **responsible innovation concepts** and contribute to the governance of emerging technologies.

ASU Regents' Professor and sustainability scientist Carlos Castillo-Chavez, Mathematical, Computational and Modeling Sciences Center, was reappointed to the U.S. President's Committee on the **National Medal of Science**.

*L to R: ASU sustainability scientists Sally Kitch, Nancy Grimm, George Basile, Kelli Larson, Carlos Castillo-Chavez.*



# use-inspired research

Mick Dalrymple, Walton Sustainability Solutions Initiatives, produced an **Energy Efficiency Idea Guide**, a plain-language, practical “how-to” resource for policymakers and stakeholders who want to implement energy efficiency.

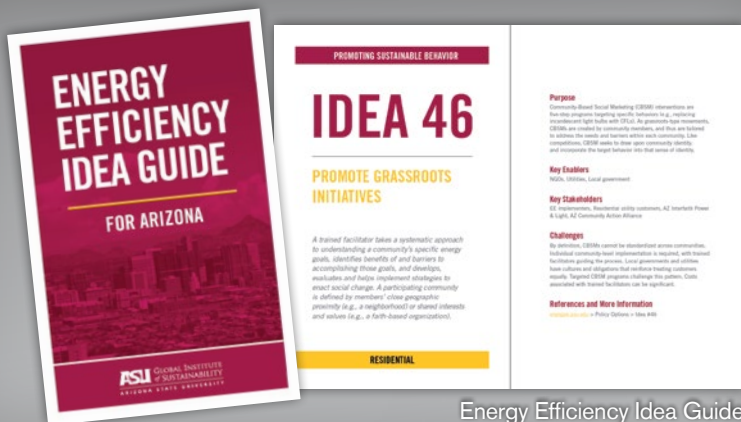
Investors gave \$28.4M to Heliae Development, an ASU LightWorks spinout company, to build a **commercial algae manufacturing** plant for personal care and nutritional supplement markets.

The Sustainability Consortium launched an Electronics Delphi Panel to develop an ideal **consumer electronics takeback** program.

ASU hosted a 10-member delegation of **Vietnamese government and industry officials**, signing a partnership agreement to support sustainable economic growth in the Vinh Phuc Province.

Electrical engineer Dragica Vasileska, School of Electrical, Computer, and Energy Engineering, will lead a \$1.8M **U.S. Department of Energy** SunShot Initiative project to make solar energy technology more reliable and durable.

At ASU's Swette Center for Environmental Biotechnology, scientists explored how two bacterial forms can work together to produce **electricity in response to light**.



Energy Efficiency Idea Guide



Vietnamese government and industry officials

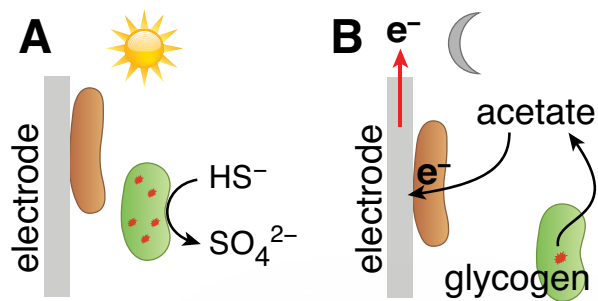


Commercial algae manufacturing



Improving solar cell performance





Electricity in response to light



Renewable energy and conservation



International Maize and Wheat Improvement Center



Mobile record-keeping application

Engineer Stuart Bowden, School of Electrical, Computer, and Energy Engineering, will lead a \$3.5M project aimed at **improving solar cell performance**, part of the U.S. Department of Energy's SunShot Initiative.

At Mexico's **International Maize and Wheat Improvement Center**, mathematician Carlos Castillo-Chavez discussed Mexico's research agenda and how mathematical models can increase implementation of the center's research on sustainable modernization of traditional agriculture.

ASU's Conservation and Renewable Energy Collaboratory partnered with **Salt River Project** to support use-inspired student and faculty research in **renewable energy and conservation**.

A team of ASU professors in the College of Technology and Innovation has developed a **mobile record-keeping application** that reduces errors and improves data processing in animal capture-mark-recapture studies.

*"There's a need to use water to make our community livable, but in an intelligent way that thinks about long-term sustainability. Because there's no new supply out there."*

—Dave White, Director, Decision Center for a Desert City  
June 16, 2013, The New York Times



# sustainability awards and honors

The **U.S. Environmental Protection Agency**, Region 9, honored ASU's Sustainable Cities Network with its Green Government Award.

Arizona State University was named to the **Sustainable 16**, a competition recognizing universities and colleges for sustainability practices and environmental studies.

ASU was recognized among **Sierra Magazine's** 2013 list of 162 Cool Schools.

ASU received one of 50 **Think Green Grants** from Waste Management, Inc. and Keep America Beautiful to develop a sustainability capstone experience that will expand ASU's green waste program.

In a nationwide assessment by the **National Resource Defense Council** and the Green Sports Alliance, Sun Devil Athletics was named one of the top 10 athletic departments for sustainability.

The School of Sustainability was honored with ASU's 2013 Startup Bowl Bootstrapper Award in recognition of the school's high participation in the **entrepreneurship competition**.

ASU made the **Princeton Review's** 2013 Guide to 322 Green Colleges.



EPA Green Government Award



NRDC top-ten athletic department



Waste team gets Sun Devil fans Thinking Green



Bootstrapper Award for entrepreneurship



# 2013 ASU President's Award for Sustainability

Facilities Management Grounds Services, together with ASU Recycling, Aramark, and the Biodesign Institute, were recognized for their **Grounds for Grounds** program, which diverts Tempe campus' used espresso and coffee grounds from the landfill and puts them to use as a natural fertilizer and soil amendment.



A large staff team was honored for developing the **Materials Management recycling program**. Through ASU Stores and University Mail Services, the program promotes and enhances ASU recycling efforts by creating a collection channel for toner cartridges, electronics accessories, pens, rubber bands, and more.

ASU's **Sustainability Science for Sustainable Schools** program was recognized for its efforts to engage internal and external communities towards solving sustainability problems, orient teaching and learning towards sustainable solutions, and provide career-building experience for its graduate fellows.





# building to LEED



The U.S. Green Building Council awarded ASU's newest research center, Interdisciplinary Science and Technology Building IV, with **LEED Gold certification**.





Partnership with Ameresco, Inc. and the Rocky Mountain Institute



Wells Fargo Arena became the first LED-lit athletic facility in the nation

## applying concepts

Arizona State University's Wells Fargo Arena became the **first LED-lit athletic facility in the nation** at an NCAA Football Subdivision institution to be installed and operational.

Alcoa Foundation partnered with national nonprofit **Keep America Beautiful** and the College & University Recycling Coalition to provide 75 recycling bins to ASU in 2013.

ASU adopted an online, **paperless curriculum management** system as part of its ongoing effort to reduce paper consumption and save resources.

Beginning with select vehicles, ASU's facilities **truck fleet is converting to biodiesel**. The move will reduce ASU's greenhouse gas inventory by an estimated 75 metric tons annually.

ASU is replacing its owned fleet of general purpose vehicles with **leased highly efficient vehicles**, through an agreement with Enterprise Fleet Services.

ASU's November 30 football game kicked off Sun Devil Athletics' **Zero Waste campaign**, providing on-site compost and recycling bins and education at all athletic games.

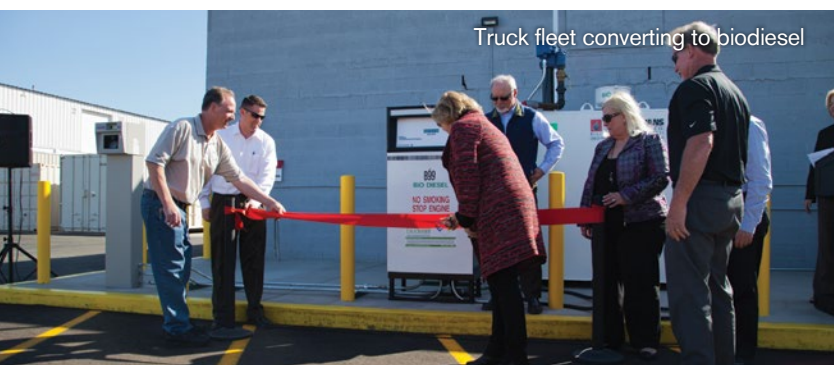
During the summer months, ASU Facilities Development and Management **upgraded more than 615,000 square feet** of campus space for sustainability.

To achieve its goal of climate neutrality by 2025, ASU announced a strategic partnership with **Ameresco, Inc.** and the **Rocky Mountain Institute**.

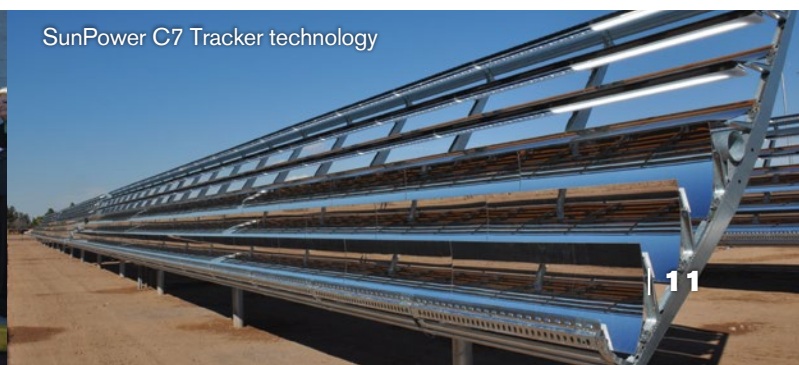
As of December 2013, ASU's **solar generation capacity reached 23.5 MWdc** through a mix of photovoltaic and solar thermal installations.

Crews constructed two **Power Parasols** on the Tempe campus, one outside the Memorial Union, and another on Gammage Parkway. The structures hold **3,096 solar panels** while providing daytime shade and nighttime lighting.

At the **ASU Polytechnic campus**, Salt River Project (SRP) and SunPower Corp. dedicated a **1 MWdc solar photovoltaic power plant** with new technology that achieves one of the lowest levelized costs of solar electricity available today.



Truck fleet converting to biodiesel



SunPower C7 Tracker technology



# Rob and Melani Walton Sustainability Solutions Initiatives

**In 2013, the Walton Sustainability Solutions Initiatives engaged 434 students, 328 faculty, and 13,794 participants in sustainability solutions projects, workshops, and programs.**

Contracts totaling \$494,000 were secured to deliver **Sustainability Solutions Services** to cities, businesses, and non-profits.

A unique curriculum focusing on strategy, leadership, global context, and communication skills was developed for the **Executive Master's for Sustainability Leadership**.

The Executive Master's was launched through a webinar viewed by over **500 mid-career professionals and executives**. Students from three continents enrolled to learn to embed sustainability in their organizations.

The **Sustainability Solutions Festival** was established; partnerships were forged with Green Biz Forum, the Sustainability Consortium, and the Arizona Science Center for its inaugural weeklong event in Spring 2014.

At the **Intel Science and Engineering Fair**, the Festival awarded prizes to sustainability solutions that included a mustard-seed malaria antidote and a water filtration and decontamination system that uses pyrolyzed banana peels.

At the **Future Cities Competition**, two groups of middle school students received special awards for creating digital and physical models of imaginative and forward-thinking sustainable cities.

Through these **special prizes at traditional science and innovation competitions**, the prominence of sustainability solutions was elevated.

82 sustainability majors and minors addressed global sustainability challenges through **problem-solving ventures in eight countries**.

Six practitioner fellows were engaged to transform knowledge into action, including Captain Wayne Porter, author of the National Strategic Narrative, who will play an advisory role on the **Resource Innovation and Solutions Network (RISN)**.

RISN is a collaboration between the Sustainability Solutions Services, the **city of Phoenix**, and a number of other municipal and corporate partners that aims to transform waste and other resources into useful materials and programs for energy creation and manufacturing.



Delegation from Haarlemmermeer, the Netherlands



Intel International Science and Engineering Fair





SRP waste practices audit



Crowd-sourcing and problem-solving exercise

Walton Fellow Susanne Moser, a climate communications expert and former fellow at Harvard's Kennedy School of Government, **trained 45 city leaders** on how to communicate climate science.

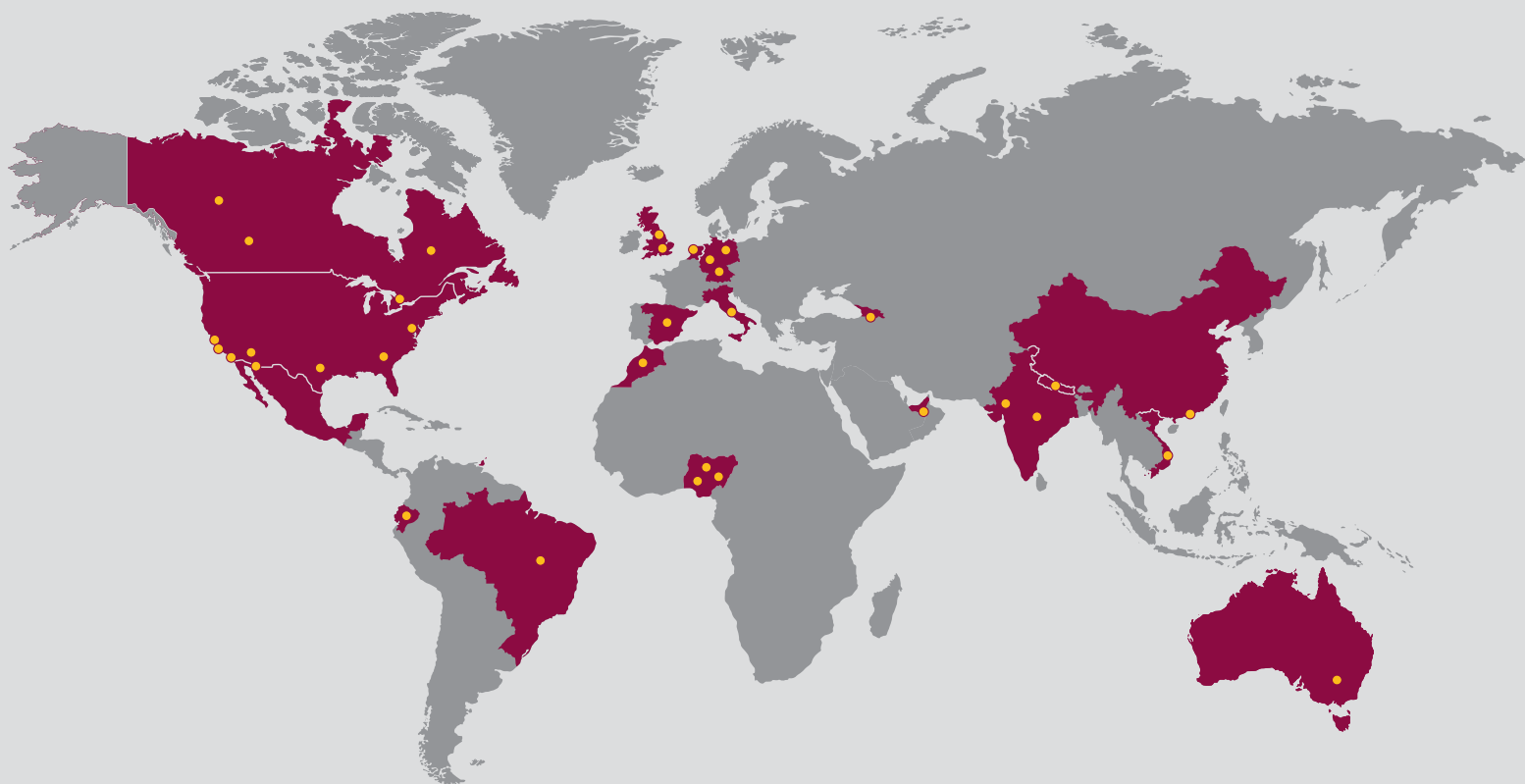
In collaboration with Salt River Project and the city of Phoenix, a **system-wide solution for waste practices** was created that will divert an additional 866 tons of waste over 10 years and mitigate 79 metric tons of CO<sub>2</sub> emissions.

A partnership was developed with a goal to make the Dutch municipality of Haarlemmermeer the **most sustainable city in the Netherlands** through education, community engagement, and research.

Graduate students worked in Asia on innovative sustainability projects for **World Wildlife Fund** and **Fung Global Institute** in Hong Kong.

Thirty-six community, business, and academic leaders joined together in a crowd-sourcing and problem-solving exercise to design resilient solutions for the **Cities of Tomorrow**.

[sustainabilitysolutions.asu.edu](https://sustainabilitysolutions.asu.edu)





# School of Sustainability marked its sixth year

## 2013 undergraduate enrollment (total 381)



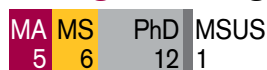
## 2013 graduate enrollment (total 85)



## 2013 undergraduate graduates (total 141)



## 2013 graduate graduates (total 24)



## alumni

In December, the School of Sustainability bestowed the **first Master's in Sustainability Solutions** to Karen Kao, who also served as the graduate student convocation speaker. Kao is now a sustainability program coordinator for GreenerU, a university sustainability solutions provider.

The School of Sustainability's alumni chapter won a cash award in the Sparky's Membership Mania competition, recognizing the chapter with the **largest increase in alumni membership** for the year.

Among undergraduate alumni,\* **86% are employed**, and 12% have gone on to graduate school. Of employed undergraduate alumni, 46% are working in sustainability-related positions.

Among graduate alumni,\* 20% have gone on to another graduate program, while 73% are employed. Of employed graduate alumni, **82% hold sustainability-related jobs**.

Among doctoral alumni, **100% are employed**.

*\* Figures represent only those alumni who have responded to our surveys.*





Capstone course in sustainable manufacturing



Filmmaker Peter Byck

## sustainability education across ASU

With a \$60,000 grant from the Ray C. Anderson Foundation, the Walton Sustainability Solutions Extension Service and the College of Technology and Innovation are developing a new student **capstone course in sustainable manufacturing**.

Documentary filmmaker Peter Byck taught a **new film documentary course** on communicating and storytelling issues and topics of sustainability.

The provost approved the establishment of an **undergraduate certificate in energy and sustainability**, which will be offered through the School of Sustainability.

ASU approved a new **concurrent degree arrangement** between the Master's in Sustainability Solutions and the Master of Legal Studies programs.

Since Fall 2010, enrollment has reached **3,033 students in SOS 100**, Intro to Sustainability.

ASU filled **67,000 seats in 500 classes** related to sustainability in 2010-2011, according to a 2013 report.

Across ASU, Fall 2013 enrollment reached **458 students in the sustainability minor**.

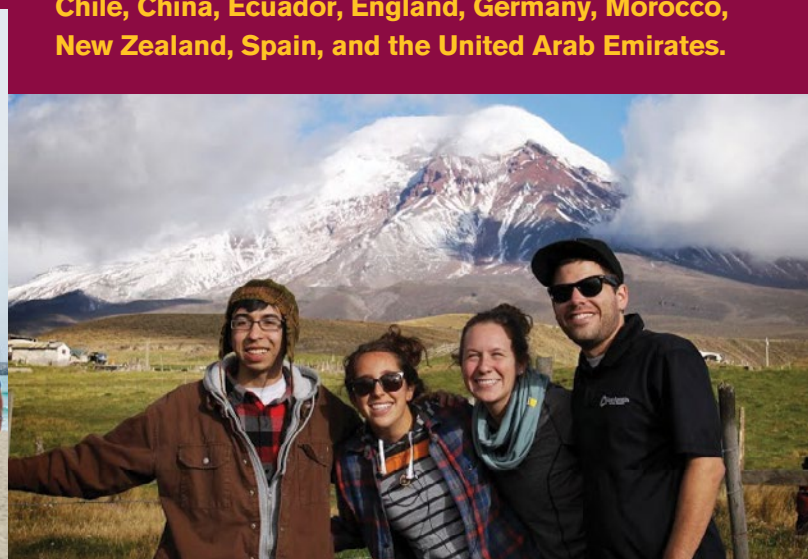
Altogether, nearly **1,400 students were enrolled** in sustainability and related majors in Fall 2013.

## study abroad

In 2013, the Walton Sustainability Solutions Initiatives supported **five international classes focused on particular sustainability** problems for 82 graduate and undergraduate students.



**Students studied sustainability in Australia, Brazil, Chile, China, Ecuador, England, Germany, Morocco, New Zealand, Spain, and the United Arab Emirates.**







# educating age

## **wastewater to fuel**

In the first of a series of quarterly meetings, students and researchers from Arizona's three major public universities showcased their work using wastewater to grow algae for food, feed, and fuel products.

## **experience for the future**

School of Sustainability students launched GreenLight Solutions, a student-run consulting service where ASU students gain résumé-building experience helping organizations to implement sustainability.

## **sustainable farming in India**

Taylor Jenkins, a sustainability major in Barrett, the Honors College, spent the summer living on a Nepali farm, where she collected data on farmer perspectives about how climate change impacts their livelihoods.

## **graywater matchmakers**

In a partnership with Intel and CH2M HILL, ASU students helped develop a database that connects Arizona graywater producers to those who can reuse it for a variety of beneficial purposes.

## **sustaining rural communities**

Students in the ASU chapter of Engineers Without Borders resurfaced a defective dam in Kenya, stopping spillover and helping communities better manage their water resources.

## **algae artistry**

During his time as artist in residence at the Arizona Center for Algae Technology and Innovation, Master of Fine Arts student Phillip Carrier used algae plants as inspiration for an art installation project.







# nts of change

## **culturally sustainable design**

Tejas Dhadphale, a doctoral student in the Herberger Institute for Design and the Arts, created a toolkit to help retailers develop sustainable products that enrich or embody the customer's culture.

## **taking the hazard out of waste**

As a hazardous waste compliance officer with the Arizona Department of Environmental Quality, Bradley Baker conducts facility inspections to ensure environmental and societal safety.

## **hospitals going green**

Sustainability alumnus Rud Moe, now a sustainability specialist for Stericycle, helps hospitals manage their waste streams and assists them with waste-related problems.

## **making cities sustainable**

Avondale Environmental Program Manager Daniel Culotta is working on a municipal plan that includes community engagement, energy, ecosystems, health and well-being, land use, and the economy.

## **green clothes and shoes**

ASU School of Sustainability alum Andrea Baty is a sustainability coordinator for VF Corporation, helping its sportswear division design sustainable products and create consumer education campaigns.

## **gardening with food scraps**

Natalie Fleming is district sales manager of EcoScraps, a startup that collects produce waste from grocery stores, farms, food banks, and other clients, and turns the scraps into garden soil and plant food.



# learning in the real world

Through a unique **partnership with Dell**, School of Sustainability students join Dell's sustainability team, completing ongoing projects, collaborating with other Dell employees, and juggling priorities in an intense, corporate sustainability environment.

Sustainability students studying abroad in Dubai met with the **United Arab Emirates' Minister of Economy** to discuss future development and local issues.



Honors students from an ASU Sustainable Cities course displayed their work, including photographs and videos of the Valley's biophilic designs, in a **national exhibit at the Biophilic Cities Launch** event.

A **National Science Foundation exhibit** featured photographs by sustainability graduate student Edgar Cardenas, whose work explores how art and science together can shape our understanding of the world.

Graduate and undergraduate sustainability students shared their research on urban climate change adaptation at the **American Association for the Advancement of Science** annual meeting in Boston.

An **immersive field trip to Mexico** helped 11 ASU students and 13 students from three Mexican universities better understand water scarcity in the Arizona-Sonora border region.

A team of students from ASU and the University of New Mexico scored high marks in the U.S. Department of Energy's **2013 Solar Decathlon** international competition.



Students in the Walter Cronkite School of Journalism and Mass Communication researched and wrote on sustainability issues for **Zócalo Public Square**, a media outlet that blends live events and humanities journalism.

ASU is partnering with **Leuphana University in Germany** on the Global Classroom, where students at both universities are being taught simultaneously using video conferencing, peer-to-peer mentoring, and in-person international exchange.



# student honors and awards

ASU graduate student Jared Schoepf was named a **College Entrepreneur of the Year** finalist by *Entrepreneur Magazine* for SafeSIPP, a system that purifies, transports, and stores drinking water.

Engineering student Tom Volo won the 2013 **Central Arizona Project (CAP) Award for Water Research** after he developed a computer model for best landscape irrigation practices in semi-arid cities.

Sustainability student Jill Brumand earned a **Fulbright award** to compare U.S. and U.K. energy politics, infrastructure, and vulnerability to disaster.

For his work on land conservation in military zones, sustainability student Lt. Col. Joe Knott (retired) was honored by President Obama as a 2013 **White House Champion of Change**.

As it continued work to establish a national society with chapters at universities across the nation, the **Honor Society for Sustainability** inaugurated 23 new members.



*"I see in class all these students who have a passion and want to make a commitment to sustainability; that's why they're at ASU. To be honest, that's why I came to ASU. I'm the luckiest guy in the world."*

—Lt. Col. Joe Knott (retired)  
Doctoral Student, School of Sustainability



# sharing knowledge through collaboration and education

The Julie Ann Wrigley Global Institute of Sustainability sponsored more than 60 lectures, presentations, and panel discussions in 2013.

## 2013 distinguished Wrigley Lecturers



**Enrique Peñalosa**, president of the Institute for Transportation and Development Policy and former mayor of Bogotá, Colombia



**Sunita Narain**, writer, environmentalist, and director general of the Centre for Science and Environment



**Sir Crispin Tickell**, author, former diplomat, and advisory council member of the Oxford Martin School, University of Oxford



**Naomi Oreskes**, science historian, author, and 2011 Climate Change Communicator of the Year



**Dale Whittington**, author and professor at University of North Carolina-Chapel Hill and the Manchester Business School (UK)

More than 40 members of the **International Finance Corporation**, a unit of the World Bank, gathered in Tempe for a two-day course by ASU's Julie Ann Wrigley Global Institute of Sustainability and School of Sustainability about the implications of climate change.

The **American Association for the Advancement of Science** – Southwestern and Rocky Mountain Division (AAAS SWARM) sponsored a water forum, held at ASU, that addressed freshwater challenges created by overuse, inefficiencies, land use, changing climate, and increasing demand.

The Julie Ann Wrigley Global Institute of Sustainability partnered with Carbon Nation™ director Peter Byck to launch a new solutions-focused series, **Carbon Nation Conversations**.

The Julie Ann Wrigley Global Institute of Sustainability partnered with the Institute for Humanities Research, ASU Art Museum, and Herberger Institute for Design and the Arts to sponsor a new series, **Arts and Humanities in Sustainability**, that examines sustainability concepts through a diverse range of ideas, emotions, actions, and contexts.



International Finance Corporation two-day course



Intel's Todd Brady presenting at the water supply and demand forum



Through a special partnership with the **Arizona Science Center**, ASU presented a panel event on the Future of Energy, moderated by Eve Troeh, sustainability reporter with **American Public Media**.

**The Origins Project** at Arizona State University held a panel discussion on the future of the nation and the world in our changing climate. The event featured some of the world's leading experts and policy analysts in the field.

ASU's Decision Center for a Desert City hosted an **urban water demand roundtable** to improve communication and collaboration among those involved in Arizona and national water demand research.

ASU hosted a forum on water supply and demand, co-sponsored by **Intel and CH2M HILL**, with the goal of encouraging innovation in the reuse and recycling of water for municipalities and industry.

Together with the **International Renewable Energy Agency (IRENA)**, the ASU-led Vocational Training and Education for Clean Energy (VOCTEC) program will provide solar technology training to Pacific Island technicians and entrepreneurs.

To show **Honduran youth** how photography scientifically works, sustainability scientist Julie Anand taught a workshop on cyanotype, a method of photography that uses sunlight and natural materials.

Funded by the **Arizona State Forestry Division Urban and Community Challenge** grant program, ASU's Sustainable Cities Network hosted a workshop series on **Cultivating Green Infrastructure**.

Arizona State University collaborated with **Tecnológico de Monterrey** on a summer 2013 faculty exchange workshop on teaching sustainability.

ASU's Central Arizona—Phoenix Long-Term Ecological Research project trained **McDowell Sonoran Conservatory** volunteers to monitor the impacts of recreational use on animal and plant life.

The Walton Sustainability Solutions Festival was a sponsor of the July event, **Act on Climate: a Day of Information, Inspiration and Action**, held in downtown Phoenix. Sustainability scientist Nancy Selover was a featured speaker.

ASU sustainability scientists organized the second Empowerment for Peace through Leadership in Agribusiness and Sustainability (**EmPeace LABS**) workshop, held in India, to explore sustainable agribusiness, leadership and community development, peace, and violence prevention.

Experts gathered at the Amerind Museum in Dragoon, Ariz., for a **New Directions in Sustainability and Society** seminar, the first of a series of events that will inform a suite of books by School of Sustainability Dean Christopher Boone.

Omayya Ahmad, a graduate fellow with ASU's **Sustainability Science for Sustainable Schools** program, integrated sustainability into Greenway Middle School's curriculum and community partnerships.

Arizona State University partnered with An-Najah National University in the West Bank to offer a **Renewable Energy Leadership Training Program**. The inaugural event was held in Nablus, West Bank.

Invited by the **National Science Foundation** and Congressman Frank Wolf (R-Va), ASU's Decision Center for a Desert City participated in the **Change the World: Science and Engineering Careers Fair**, held in Virginia.

Arizona State University and Dublin City University announced the establishment of a comprehensive **transatlantic higher education partnership**, focusing on issues such as sustainable health care delivery and social entrepreneurship.



IRENA solar technology training



Change the World fair held in Virginia

# School of Sustainability faculty highlights

## 85 articles published in the following scholarly journals

<i>Applied Geography</i>	<i>Integrated Environmental Assessment and Management</i>	<i>Lecture Notes in Computer Science</i>
<i>BioScience</i>	<i>Interactive Learning Environments</i>	<i>Nano Today</i>
<i>Canadian Journal of Fisheries and Aquatic Sciences</i>	<i>International Journal of Life Cycle Assessment</i>	<i>Nanoscale and Microscale Thermophysical Engineering</i>
<i>Cities</i>	<i>Journal of Applied Physics</i>	<i>Nature</i>
<i>Climatic Change</i>	<i>Journal of Archaeological Method and Theory</i>	<i>Oceanography</i>
<i>Ecological Economics</i>	<i>Journal of Chemical Physics</i>	<i>Oecologia</i>
<i>Ecological Modelling</i>	<i>Journal of Environmental Economics and Management</i>	<i>PLoS ONE</i>
<i>Ecology</i>	<i>Journal of Environmental Management</i>	<i>Proceedings of SPIE - The International Society for Optical Engineering</i>
<i>Ecology and Society</i>	<i>Journal of Heat Transfer</i>	<i>Professional Geographer</i>
<i>Economist (United Kingdom)</i>	<i>Journal of Industrial Ecology</i>	<i>Quaternary International</i>
<i>Ecosystems</i>	<i>Journal of Molecular Modeling</i>	<i>Responsible Innovation</i>
<i>Environment Systems and Decisions</i>	<i>Journal of Physical Chemistry C</i>	<i>Review of Policy Research</i>
<i>Environment, Development and Sustainability</i>	<i>Journal of Physical Chemistry Letters</i>	<i>Risk Analysis</i>
<i>Environmental Management</i>	<i>Journal of Rural Studies</i>	<i>Science and Engineering Ethics</i>
<i>Environmental Science and Policy</i>	<i>Journal of Solar Energy Engineering, Transactions of the ASME</i>	<i>Society and Natural Resources</i>
<i>Environmental Science and Technology</i>	<i>Journal of Thermal Science and Engineering Applications</i>	<i>Soil Biology and Biochemistry</i>
<i>Fish and Fisheries</i>	<i>Journal of Transport Geography</i>	<i>Sustainability</i>
<i>Freshwater Sciences</i>	<i>Journal of Vacuum Science and Technology B</i>	<i>Sustainability (Switzerland)</i>
<i>Frontiers in Ecology and the Environment</i>	<i>Journal of Water Resources Planning and Management</i>	<i>Sustainability Science</i>
<i>Geocarto International</i>	<i>Landscape Ecology</i>	<i>Technology in Society</i>
<i>Human Ecology</i>		<i>Wetlands</i>
<i>Hydrobiologia</i>		<i>Wiley Interdisciplinary Reviews: Climate Change</i>

## newly tenured faculty



**Rimjhim Aggarwal**  
Associate Professor  
School of Sustainability

Dr. Aggarwal's research and teaching interests lie at the interface between sustainability science and international development. A central focus of her research has been on examining the links between globalization, resilience of social-ecological systems, and human well-being.



**Josh Abbott**  
Associate Professor  
School of Sustainability

Dr. Abbott's work focuses on the conceptual and econometric modeling of economic-ecological systems, with an emphasis on the incentive effects of alternative institutional structures for resource management.



**Arnim Wiek**  
Associate Professor  
School of Sustainability

Dr. Wiek has conducted sustainability research on urban development, land use conflicts and resource management in several European countries, Canada and Sri Lanka, and has researched sustainable governance of nanotechnology and nuclear power as well.



## visiting scientists and fellows *hosted by the Walton Sustainability Solutions Initiatives*

**Uwe Bergmann**, *Director, Sustainability Management, Henkel, Dusseldorf, Germany*

**Wally Broecker**, *Newberry Professor of Earth and Environmental Sciences, Columbia University, New York*

**Nancy Dahl**, *Director, National Environmental Reporting, Australia Department of Sustainability, Environment, Water, Populations, and Communities, Caberra, Australia*

**Carlo Jaeger**, *Professor, Potsdam University, Germany, and Chair, European Climate Forum*

**Susanne Moser**, *Director and Principal Researcher, Susanne Moser Research & Consulting; Social Science Research Fellow, Woods Institute for the Environment, Stanford University; Research Associate, Institute for Marine Sciences, University of California-Santa Cruz*

**Capt. Wayne Porter**, *USN, Chair for Systemic Strategy and Complexity, Naval Postgraduate School, Monterey, California*

## leadership academy

ASU introduced a university-wide initiative to provide leadership training to nominated faculty, while also increasing ASU's capacity for transdisciplinary research, training, and outreach. The original cohort included 35 members, many of them sustainability scientists and scholars. Over the

course of a year, these faculty members attended workshops related to communication, team building and maintenance, developing strategic visions, creating and securing resources, and building a culture of excellence.

## new leadership



### **Christopher Boone**, *Dean, School of Sustainability*

Dr. Boone, professor at Arizona State University's Schools of Sustainability and Human Evolution and Social Change, was named dean of the School of Sustainability in October. Boone is a noted scholar of urban environments, sustainable urbanism, environmental health, and environmental justice.



### **Gary Dirks**, *Director, Julie Ann Wrigley Global Institute of Sustainability*

Dr. Dirks, director of ASU's LightWorks initiative and former president of BP China and BP Pacific-Asia, was appointed director of the Julie Ann Wrigley Global Institute of Sustainability in March. Dirks leads the three-person Directorate, which oversees the Institute's complex, pan-university mission.



### **Rob Melnick**, *Executive Director and COO, Julie Ann Wrigley Global Institute of Sustainability*

Dr. Melnick, longtime executive dean of the Julie Ann Wrigley Global Institute of Sustainability, was appointed executive director and chief operating officer. Melnick is Presidential Professor of Practice in the School of Sustainability.





Pokhara, Nepal



Baños, Ecuador



Dubai, United Arab Emirates



London, England

## ASU sustainability expands its reach globally

**ASU** JULIE ANN WRIGLEY  
GLOBAL INSTITUTE of SUSTAINABILITY  
ARIZONA STATE UNIVERSITY

Julie Ann Wrigley Global Institute of Sustainability  
Arizona State University  
PO Box 875402  
Tempe, AZ 85287-5402  
480-965-2975 Phone  
480-965-8087 Fax

[sustainability.asu.edu](http://sustainability.asu.edu)  
[schoolofsustainability.asu.edu](http://schoolofsustainability.asu.edu)

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Calculations based on research by Environmental Defense Fund and other members of the Paper Task Force.

