

November 30, 2009

Dear Board Member,

This month please let me introduce Professor Hallie Eakin, a member of the School of Sustainability faculty searching for ways to reduce the vulnerability of rural populations and their food supplies to climate change. Her interview follows a brief list of selected sustainability news and activities at ASU below.

Highlights of ASU's sustainability activities

- ASU researchers won two highly competitive U.S. Department of Energy grants totaling more than \$10 million for high-risk, high-reward alternative energy research. The "fuel from sunlight" project will develop photosynthetic cyanobacteria that secrete fatty acids for conversion to common biofuels. The "high-energy batteries" project will develop metal-air batteries for long-range electric vehicles. ASU is the only university to lead two grants among the 37 awarded from 3,600 submissions. [Read more.](#)
- Sander van der Leeuw, director of the School of Human Evolution and Social Change and faculty of the School of Sustainability, is among a group of international scientists who determined that human activities have pushed beyond "planetary boundaries" for three of Earth's critical biophysical systems — climate change, biological diversity, and nitrogen input to the biosphere. Six other planetary boundaries also are in jeopardy. In the journal *Nature*, the scientists propose setting a limit for each planetary boundary that will maintain livable conditions. [Read more.](#)
- The U.S. Agency for International Development awarded ASU a \$300,000 US-Mexico Partnership Initiative grant to help Mexican students learn how to apply sustainability in developing and implementing conservation and community development policies. School of Sustainability professor Hallie Eakin will develop the program in conjunction with faculty from the Universidad Nacional Autónoma de México (UNAM), one of Latin America's largest and most recognized universities.
- Valley Forward, a Phoenix-area public interest organization, named six ASU-based buildings and technologies as Environmental Excellence Award winners for 2009. First and second place winners in their categories included the ASU Campus Solarization project and Engrained Café from the Tempe campus, Taylor Place student housing and the Walter Cronkite School of Journalism and Mass Communication from the downtown campus, the ASU Polytechnic Academic Complex, and ASU SkySong - the ASU Scottsdale Innovation Center. [Read more.](#)
- School of Sustainability student Wayne Porter has been awarded a fellowship for 2009-2010 to work at the National Audubon Society's Appleton-Whittell Research Ranch to develop a plan for reducing carbon emissions in rural southeastern Arizona. Porter also traveled to Thailand as the only American college student to participate in the 2009 Intensive Program on Sustainability, a course of study organized by University of Tokyo faculty and others to increase understanding of sustainability issues in Asia. [Read more.](#)

You can reach me at [rob.melnick@asu.edu](mailto:rob.melnick@asu.edu) or 480-965-5233 with any questions or comments about this briefing. The interview with Dr. Eakin follows on page two.

Best regards,



Rob Melnick  
Executive Dean

cc: Jim Buizer, Teresa Forst

# Q&A With Dr. Hallie Eakin

## *Strengthening rural food systems for climate change*

Dr. Eakin is an assistant professor in the School of Sustainability investigating economic globalization and rural vulnerability to climate change in Latin America. She has previously consulted with the World Bank, the U.S. Agency for International Development, and the U.S. Environmental Protection Agency on projects in agricultural development and adaptation to climate impacts.

### **What triggered your focus on sustainability?**

My interest in sustainability emerged from my undergraduate thesis on the use of seasonal climate forecasts to alleviate drought hardship in Zimbabwe. A few years later, while working in international development, it became clear to me that farmers would need far more than weather forecasts to improve their decision-making, economic status, and food security. The effective use of forecasts depended also on incorporating farmers' knowledge into the forecasting science and addressing the many cultural, economic, and ecological constraints they face. This experience highlighted the importance of systemic approaches to problem solving, and helped me to better understand what the challenge of sustainability was all about.

### **What is your most important sustainability-related research project?**

I am coordinating an international group of scholars – including a climatologist, agroecologist, economist, and several geographers – in a project that evaluates how policy and climatic risk affect maize production in Mexico. Maize has been critical to Mexican culture and rural livelihoods for centuries. By examining the way rural farming decisions are influenced through factors such as environmental change, migration, urbanization, and market liberalization, we can assess how economic policy and climatic risk affects Mexican food security, not only for households but for the entire country.

### **How will your research directly affect policy decisions?**

One effective way to address social and ecological vulnerability is to understand what vulnerable people value and worry about, as well as their motivations, needs, and priorities — and then communicate this perspective to leaders who can affect policies. My current project aims to open a dialogue in Mexico on the drivers of change in Mexico's food system and we hope our findings will contribute to international efforts aimed at reducing threats to critical food systems from climate change.

### **What is the world sustainability challenge that concerns you most?**

I am most concerned with the fundamental problem of global poverty and inequality, and its effect on sustainability. Persistent social injustice undermines the ability of society everywhere to live more sustainably.



*Dr. Eakin interviewing a farmer about flood risk in San Bartolo, Mexico*



*Mexican research collaborators with Dr. Eakin in Chiapas, Mexico*



*Coffee farmers in Chiapas, Mexico participating in a research workshop*