Iowa State University
College of Agriculture and Life Sciences

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Contacts:
Lois Wright Morton, Sociology, (515) 294-2843, lwmorton@iastate.edu
Gene Takle, Agronomy, (515) 294-9871, gstakle@iastate.edu
Lynn Laws, Sociology, (515) 294-7380, lynnlaws@iastate.edu
Ed Adcock, Agriculture and Life Sciences Communications Service, (515) 294-2314, edadcock@iastate.edu

Iowa State University Faculty Contribute to National Climate Assessment

AMES, Iowa — The Third National Climate Assessment (NCA3), which communicates climate change science and impacts in the United States, will be released this week with contributions from Iowa State University faculty.

Lois Wright Morton, professor of rural sociology, is co-author of the chapter on rural communities and Gene Takle, professor of geological and atmospheric sciences, is a convening lead co-author of the chapter on agriculture.

“We have clear regional examples that climate change over the last few decades has become an impediment to conventional agriculture in the U.S.,” said Takle. “In the Midwest the 40-year trend of increase in extreme rainfall events is delaying or preventing planting of corn and soybeans. Regional trends like this are likely to continue and are consistent with global trends of wet regions becoming wetter and more humid, while dry regions are becoming drier and hotter.”

The Third National Climate Assessment Report (NCA3), scheduled to be released this week, will be available at www.globalchange.gov. A federal advisory committee drafted the report on behalf of the government, by engaging more than 240 researchers and scientists working at national laboratories, research centers and universities around the nation.

The NCA shares information that hits close to home for Midwestern communities, including the effects of changing weather patterns on crops and drawing on recent extreme weather events still fresh in the minds of Midwestern farmers.

“As a single 100- or 500-year event, the floods of 2011 might be considered a once-in-a-century or five-century event, except many of these rural communities have experienced one-hundred-year floods in both 2007 and 2008, suggesting patterns of frequency and unpredictability,” Wright Morton said. “The vulnerabilities and risks associated with these uncertainties present new challenges that people of rural agricultural places must recognize and plan for in order to adapt, survive and thrive.”

“Rural populations are vulnerable because they depend on natural resources for their livelihoods and because they have fewer social and economic resources to employ in recovering from weather related disasters,” added Wright Morton.

Wright Morton also is project director for the Climate and Corn-based Cropping Systems Coordinated Agricultural Project (CSCAP), also known as the Sustainable Corn Project. The USDA-funded project connects multidisciplinary researchers and scientists from 10 land-grant universities and the Agricultural Research Service and farmers in the upper Midwest, in an effort to make corn-based cropping systems more resilient and sustainable.

Wright Morton, along with many other scientists and researchers with the CSCAP team, will present her CSCAP findings this summer at a national conference the team is planning for farmers. The Resilient Agriculture Conference will be held Aug. 5-7 in Ames co-hosted by CSCAP and 25x25, an alliance of farmers and farm businesses advocating for renewable energy.

At the conference, scientists, farmers, and ag industry partners will discuss how to make Midwestern agriculture both environmentally healthy and productive in the face of weather uncertainty and weather impacts on water and soil resources. To register for the conference or find more information about the conference and CSCAP, visit the CSCAP website, www.sustainablecorn.org.

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