

# Outreach and Education at the Kellogg Biological Station Long-term Ecological Research Program



**KBS LTER**  
Kellogg Biological Station  
Long-term Ecological Research



[www.kbs.lter.msu.edu](http://www.kbs.lter.msu.edu)

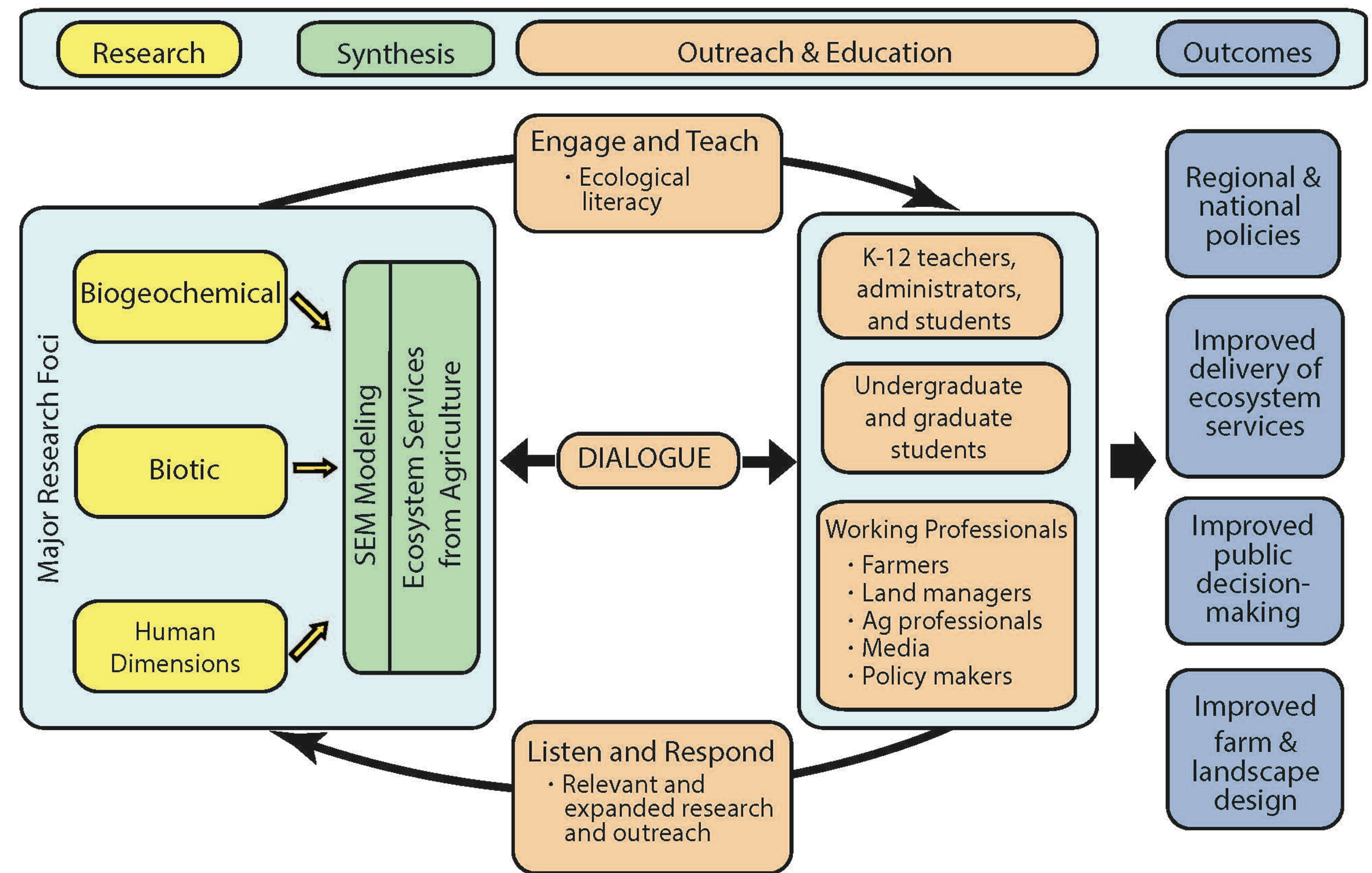
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KBS LTER research is designed to answer the broader question of how agronomic management can better utilize biological resources in cropping systems to control pests, provide nitrogen, and build soil fertility; in short, how to make agriculture more profitable and provide environmental benefits. We are part of a national network of long-term sites funded by the National Science Foundation.

## Who do we reach with our science?

We place a high priority on education and outreach and address each by engaging a community of students and stakeholders with our science. Through dialogue with stakeholders we are responsive to emerging opportunities where LTER data can inform solutions to environmental problems and where we can increase awareness of basic ecological science and its broader impacts on environment and society. In turn, this dialogue enables us to assess the success of outreach efforts and to learn about the science needs, questions, and priorities of these groups.



## Working with the media



In order to reach a wide audience, we collaborate with MSU, LTER, and NSF Communications Offices on press releases and stories related to our science. Through partnerships with MSU's Knight School of Environmental Journalism and the Society of Environmental Journalists, we have offered workshops bringing scientists and journalists together to learn about their different work cultures, to discuss story ideas, and to brainstorm ways to enhance science communication and literacy.

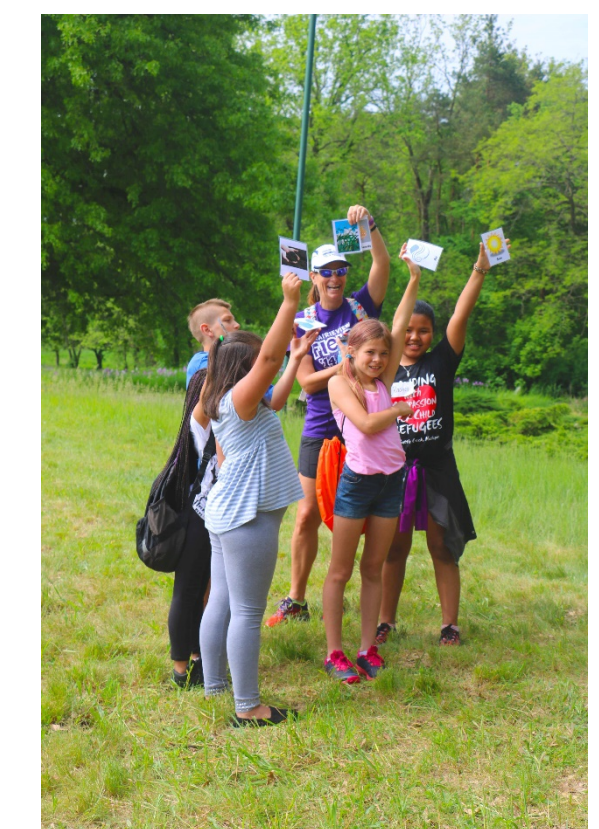


## Looking for solutions with ag professionals

Engaging with agricultural and natural resource professionals is important to move towards more sustainable cropping systems across the US Midwest. We work with Extension educators and specialists, private sector crop consultants, agency personnel, international agricultural groups, local organizations, and others to share research on nitrogen use and sustainability, climate change and carbon, local watershed and land preservation, and the ecology of agriculture in general via factsheets, newsletters and articles in farm journals, research tours, and workshops and discussions.



## Reaching our youth: K-12 programing

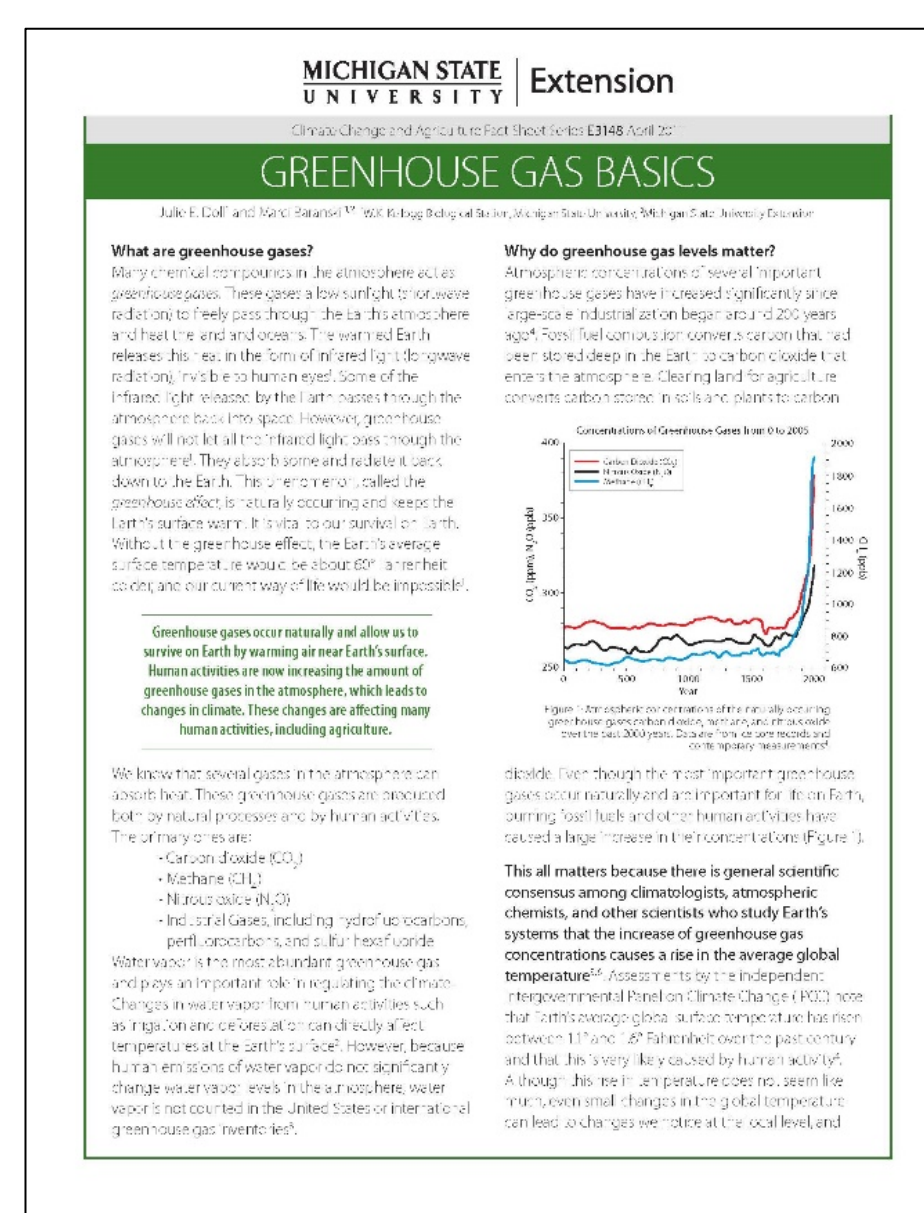


For over 20 years we have hosted a long-term partnership among area science teachers, LTER scientists, and College of Education faculty to enhance the content and delivery of the Michigan K-12 science curriculum. The program promotes improved science teaching by providing teachers in-depth exposure to current topics in ecology together with training in inquiry-based science methods. As part of this program, we offer professional development for K-12 teachers through workshops. We have also created a hands-on, student activity trail based on LTER research for grades two through five. Trained volunteers lead classes of students on the trail, where they learn topics ranging from insect sampling techniques to microbes in the soil to the difference between climate and weather.

## Sharing with the community



The LTER Program places a high value on sharing our research with the community through social media, blog posts, informational fact sheets, and a self-guided interpretive trail through our research plots. We also host informational and educational booths at local events to share our science to the community and give the public an opportunity to ask questions and meet our staff and scientists.



## Opportunities for undergrads and grads

We place great importance on training the next generation of scientists. Each summer we offer two Research Experience for Undergraduates positions. These fellowships offer undergraduate students who might not have research opportunities otherwise the opportunity to conduct an independent project related to KBS LTER science, under the mentorship of an LTER scientist. For graduate students there are both summer and full-year fellowships available. The LTER Graduate Student Group fosters interaction among students and serves as a platform for grads to engage in LTER activities and networking opportunities.

