Dr. Schmitt Olabisi is an Assistant Professor in the Department of Community Sustainability and the Environmental Science and Policy Program. She works directly with stakeholders, using participatory model-building techniques to foster adaptive learning about the dynamics of coupled human-natural systems, and to integrate stakeholder knowledge with academic knowledge. The models built by Schmitt Olabisi incorporate feedback and non-linear dynamics, and typically include biophysical, social, and human behavioral components. Her work therefore addresses the complexity, interdisciplinary, and engagement aspects of sustainability research as outlined in recent sustainability science publications.

Global Research Interests
Laura’s global research interests include: systems thinking and modeling in decisions about how humans interact with the environment at multiple spatial and temporal scales; informing decisions that will lead to the long-term sustainability of human and natural systems; and implementing that knowledge in partnership with stakeholders and decision-makers.

Description of Research Proposal:
Ecological resilience theory posits that systems with greater biodiversity, socio-economic diversity, and functional diversity will be more resilient to shocks. In a developing world context, where smallholder agriculture is the primary livelihood for most rural households, agricultural resilience would therefore entail cultivated species diversity, as well as a diversity of socio-economic strategies and market outlets.

We propose to investigate whether greater diversity in agricultural systems leads to enhanced socio-ecological resilience at the household, community, and landscape scales; we will identify feedbacks between these scales. We will focus on smallholder farmer systems in West Africa.

Region/Country of research:
Malawi, Philippines, West Africa