School of Environment and Natural Resources

SUMMARY
Communities across the globe face numerous challenges to becoming more sustainable, including poverty, lack of social services, absence of infrastructure, and pollution that disproportionately affect people of lower socio-economic status. School of Environment and Natural Resources (SENR) scientists conduct research to understand the causes and consequences of these problems and develop teaching and outreach programs to foster innovative solutions for enhancing social well-being and resilience.

SITUATION
Despite having many pockets of vibrant economic development, this growth has not been shared equally, and Ohio consistently ranks among the bottom states in many measures of social and economic well-being. Columbus ranks 59th in well-being among 382 U.S. metropolitan areas and ranks in the bottom five for environmental health. More broadly, billions of people in the developing world lack access to basic services and are vulnerable to global climate change. A fundamental challenge for sustainable development is how to reconcile the tension between economic growth, inequality, and environmental degradation. Addressing this challenge requires an understanding of both the tradeoffs and potential complementarities between economic, social, and environmental sustainability. Collaborative and participatory approaches that build on community assets and directly address differences in social, economic and political power are required to promote forms of development that benefit all citizens.

RESPONSE
SENR faculty and students bring scientific research and outreach expertise to understand the distribution of poverty and prosperity across communities and to help develop policies to reduce poverty and promote well-being. Our work focuses on the interactions between social and environmental health and how these affect residents’ health. We draw attention to how changes in consumption patterns can improve well-being and limit environmental impacts. SENR’s sustainable community development efforts include: a service-learning course on the intersection of food, energy, water and health systems in rural Tanzania; a capstone course where students partner with local communities to identify sustainable solutions and inform sustainability planning; an internship...
program with the Mayor’s Office of Environmental Stewardship; and workshops that connect scholars, planners, community and business leaders, and students to identify solutions that promote sustainability, resilience, and well-being.

**IMPACT**

Supported by competitive external grants, our programs have provided hands-on training for Ohio State students, and resulted in new city-campus partnerships and local and international projects to enhance community sustainability and resilience. Through coursework, assistantships and internship support for both graduate and undergraduate honors students, students have come face-to-face with the challenges and opportunities of community development. Sixteen students are currently helping design a community-based water treatment project in Tanzania, 14 capstone groups have generated sustainability projects that have been adopted, or are being implemented in local communities and on Ohio State’s campus, and 23 students collected data on community assets to guide decision-making and planning in communities and community-based organizations. Student interns helped create a survey for public feedback that was critical for Columbus’ Green Memo III sustainability plan. The aforementioned workshop was vital for connecting scholars and practitioners with disparate backgrounds and for generating new perspectives on sustainability, resilience, and well-being. These conversations have been important to understand obstacles to resilience and the relationship between race and homelessness. Our work has been disseminated through journal publications, reports, presentations, and has demonstrated the important role local governments play in promoting economic development, sustainability, and well-being.

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