

Center for Urban Resilience and Environmental Sustainability

The University of Illinois is developing the Illinois Center for Urban Resilience and Environmental Sustainability (Illinois CURES), with the intent of becoming a “go-to” place for cities to address their sustainable development challenges.

Mission

Illinois CURES works with cities on developing integrated sustainable solutions to improve community-wide health and prosperity now and in the future.

Purpose

The purpose of Illinois CURES is to harness unique capabilities to develop and deploy the research, applied learning and education, with public engagement, to generate the capabilities that cities will need to be more livable, prosperous, resilient, and sustainable. The Center will focus on strategies and policy tools to build resilience to climate change, promote human welfare and understand and address the inter-dependence of urban water, food, and energy. This will be accomplished by helping communities improve and optimize systems associated with energy; transportation and mobility; water and sanitation; waste and recycling; economic development and modernization; and land use, food supply and natural systems. Challenges addressed include the following:



Global Change

The world is undergoing massive alterations such as climate change and human migration. Preparing for and responding to such threats may include understanding severe weather trends, planning emergency routes and shelters, and developing resilient infrastructure.



Resource Provisioning

Sustainable cities must effectively deliver critical provisions such as nutritious food, safe water, and efficient and clean energy. The Center will provide a forum for cutting across the silos that have traditionally impeded the effectiveness of a nexus approach to provisioning solutions.



Health

Residents of successful sustainable cities are healthy. Health can be improved through medical care, food security and quality, environmental conditions, physical activity, access to nature, and reduced stress.



Equity and Justice

All citizens of urban areas do not have equal access to economic prosperity, a clean environment, provisioned resources, and health services.



Economic Prosperity

Citizens of urban areas want access to a clean environment and healthy resources plus access to the economic prosperity necessary to afford a good standard of living.

For more information on Illinois CURES, please contact Dr. Don Wuebbles at wuebbles@illinois.edu

A Holistic Approach to Urban Sustainability and Resiliency

Key Systems and Approach

The work of Illinois CURES will be problem driven and issue focused in developing solutions that use a diverse set of tools to shape a critical set of interconnected urban systems to help cities meet sustainability challenges. Illinois CURES will harness existing expertise and catalyze new research on several interconnected elements of the urban system that are critical to questions of sustainability.

- Energy Management and Access
- Transportation and Mobility
- Water and Sanitation
- Waste and Recycling
- Housing and Neighborhoods
- Land Use
- Natural Systems
- Health

Tools

Illinois CURES will develop sustainability strategies that deploy combinations of the following tools:

- Technology
- Entrepreneurship
- Policy
- Planning
- Infrastructure
- Public-Private Partnerships



Team

The University of Illinois, through its longstanding tradition of excellence in science, engineering, technology, design, human capital, and human welfare, is uniquely positioned to address many of the most pressing problems faced by cities. Additionally, the University of Illinois has expertise in but is not limited to urban and regional planning, policy analyses, transportation, and social science. Leadership at the University of Illinois (the President of the University, Chancellors of the University, and the Provost at Urbana-Champaign) have encouraged this endeavor.

- Agricultural and Consumer Economics
- Atmospheric Science
- Biology
- Business
- Civil Engineering
- Crop Sciences
- Geology
- Geographic Information Science
- Sustainable Technology Center
- Environmental Sciences
- Environmental Engineering
- Physics
- Sociology
- Urban Planning
- Urban Policy

Partnerships will be established with several other universities as well as national laboratories, NGOs, and private entities that are aligned with the mission of Illinois CURES. Greenleaf Advisors and Greenleaf Communities are advising on the formation of the Center and assisting in outreach to partners as the University of Illinois establishes a robust network for engagement on urban sustainability.