

# Climate Change Adaptation: Urban Heat Island Projects

America's cities are warming at an extraordinary rate. Unique landscapes and built environments create neighborhoods known as "heat islands" that are significantly hotter than surrounding areas. While heat islands are already prevalent in many urban areas, climate change will make these hot areas even hotter. Rising heat endangers public health in addition to increasing energy use and pollution levels in cities. The elderly, young, and poor are especially vulnerable.

Many local governments have developed emergency plans for health departments and other agencies to respond to heat waves. But often they have not yet considered how they might adapt their physical environments (buildings, roads, parking lots, etc.) to keep residents cooler in the first place. Fortunately, many policy tools already exist that can alter that physical environment (building and zoning codes, for example).

The Georgetown Climate Center works with state and local governments to develop "heat-smart" communities that are well prepared to cope with rising temperatures — to help them identify the adaptation choices available to them and navigate through the legal obstacles they may face in trying to implement different options.

## Recent Projects

- Urban Heat Island Toolkit — This forthcoming toolkit, which will be released in spring 2011, analyzes four basic tools — green roofs, cool roofs, cool pavements, and urban forestry — that state and local governments can use to reduce the temperatures of urban "heat islands." The toolkit identifies the tools, discusses ways that different cities have created programs to promote each, and provides a decision-making framework to help local officials weigh the trade-offs for their specific geographic, environmental, and other priorities.
- Policy analysis — The Center analyzes policy tools from three perspectives: 1) options for local governments to implement particular tools on the ground (e.g., amending building, zoning, or other local codes), 2) ways that state and federal laws might obstruct or support implementation of local policies (e.g., federal regulations for public housing), and 3) existing federal programs that could provide financial resources to help state and local governments adapt (e.g., weatherization assistance programs or transportation funding).

