



SUSTAINABLE AND HEALTHY COMMUNITIES RESEARCH

Background

Community sustainability is often defined by the desire to meet today's needs without compromising the quality of life for future generations. As communities face increasingly complex problems, making progress toward sustainability requires the right mix of policies and investments that protect our environment, are socially just, improve public health, support economic vitality, make the most efficient use of public dollars, and enhance the quality of life for community residents.

Providing science that can help communities make better decisions is at the heart of EPA's Sustainable and Healthy Communities (SHC) Research Program. SHC provides useful science and tools for decision makers at all levels to help communities advance sustainability as well as achieve regulatory compliance. SHC is collaborating with partners to conduct research that will result in science-based knowledge to guide decisions that will better sustain a healthy society and environment in America's communities. The research is intended for decision-makers at the federal, regional, state, and community levels. SHC's outputs will help inform decision-makers as they make choices that meet regulatory mandates and will sustain positive human health outcomes and well-being, environmental quality, and economic resilience. SHC is using systems approaches to address current issues and anticipate future problems within the sustainability paradigm.

SHC tools and approaches can help decision makers understand potential benefits and consequences of their decisions. For example, it is important for communities to recognize how their actions may affect the vital functions of ecosystems such as pollution removal, stormwater control, heat mitigation, or habitat for pollinators. In addition, they should consider the relationship between the built and natural environments and potential impacts on the health and well being of their residents and the economic well being of their community.

SHC research is developing indicators and indices, maps of land cover and demographics, health data, and information on relationships between nature and well-being. This type of information along with user-friendly decision support tools can be used by decision makers to set goals and measure progress toward improved environmental quality and well-being.

SHC is pioneering a Total Resource Impact and Outcomes (TRIO) approach. TRIO is an integrated way to holistically evaluate how decisions will impact community sustainability. TRIO is a suite of models, new indicators, and tools such as Health Impact Assessments, Economic Impact Assessments, and Environmental Impact Assessments.

Through the use of these integrated data, tools and approaches, EPA is helping community stakeholders make decisions that better protect human health and well-being while preserving ecosystems and the vital services that they provide.

Example SHC Products:

- The [Eco-Health Relationship Browser](http://www.epa.gov/research/healthscience/browser/introduction.html) illustrates scientific evidence for linkages between human health and ecosystem services—benefits supplied by Nature. This interactive tool provides information about several of our nation's major ecosystems, the services they provide, and how those services, or their degradation and loss, may affect people.
<http://www.epa.gov/research/healthscience/browser/introduction.html>
- The EnviroAtlas, a web-based mapping system, will display and allow interactive analysis of spatial data on environmental conditions, human health statistics, and socio-economic factors for communities across the country. More detailed data for urban areas can be used to identify local issues and evaluate potential solutions. <http://enviroatlas.epa.gov/enviroatlas>
- C-FERST, the Community-Focused Exposure and Risk Screening Tool) is being developed as a community mapping, information access, and assessment tool designed to help assess risk and assist in decision making with communities. <http://www.epa.gov/heads/c-ferst/>
- T-FERST, the Tribal-Focused Environmental Risk Screening Tool, is a web-based geospatial decision support tool being designed to serve as a research framework to provide tribes with easy access to the best available human health and ecological science. <http://www.epa.gov/heads/research/tferst.html>
- A report, “Framework for Sustainability Indicators at EPA” supports the use of sustainability indicators for evaluating the sustainability of programs, projects, and activities related to air, water, energy, products, communities, human health risks, and national security. DOSII (Directory of Sustainability Indicators and Indices) lists and describes existing measures.
<http://epa.gov/sustainability/docs/framework-for-sustainability-indicators-at-epa.pdf>
- EPA’s Report on the Environment (ROE) is a comprehensive source of scientific indicators that describe the trends in the nation’s environmental and human health condition. The indicators help to answer important questions about the current status and historical trends in US air, water, land, human health and exposure, ecological systems, and sustainability at the national and regional levels. The ROE indicators provide timely information to help EPA and others make decisions about environmental policy, education, and monitoring priorities. <http://www.epa.gov/ncea/roe/index.htm>

Web links:

SHC Research Updates: <http://www.epa.gov/research/newsflash/index.htm>

SHC program information:

<http://www.epa.gov/research/ecoscience/>

<http://www.epa.gov/research/healthscience/>

<http://www.epa.gov/research/landscience/>

<http://www.epa.gov/sustainability>

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