



**HUMAN DIMENSIONS OF THE URBAN FOREST & URBAN GREENING**  
**Fact Sheet Number 21**

CREATING CHANGE WITH SCIENCE

# Research Outreach Content: Delivering Messages for Policy Change

## SHARING KNOWLEDGE & FACTS

Recent research has significantly expanded our knowledge about the benefits and functions of urban forests. The evidence has been translated into an abundance of technology transfer products.

Some research outreach products are designed to inform local decision makers about the need to support urban forestry and green infrastructure in their communities.

Yet we know little about how technology transfer products are used by local elected officials, influential citizens, or staff of municipal government (such as planners or public works directors). Social science can help us to deliver messages more effectively.



## AN ARRAY OF TECHNOLOGY TRANSFER

A recent USDA Forest Service report calls out a wide range of research outreach approaches and products, including science reports, brochures, videos, and webinars. How is science presented within these media?

Our research evaluated a range of technology transfer products. We asked urban forestry professionals from across the United States to recommend the products that they would share with local decision makers to increase support for an urban forestry program.

Ninety-five products were provided by the study participants. A hard copy of each product was accessed or downloaded.

Content analysis is a method used to analyze across texts to discover patterns and themes.

This process reduces a collection of words and documents to their essential messages. We discovered eight categories of message content.

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# can science make a difference in local government policy?

## CATEGORIES OF TECHNOLOGY TRANSFER CONTENT

### 1. Science to Professional Practice

These products directly translate science results to best practices for practitioners, and are usually issued from science labs. Text includes technical language and jargon. It was surprising that survey respondents judged these to be valuable for communicating about urban forest policy.

### 2. Tree Risk Identification and Action

Urban trees face risks of damage, loss, or reduced health from storms, climate events, insects, and disease. These products provide specific information about risk diagnosis, health planning and management, and damage response. Government agencies often provide these products.

### 3. Homeowner and Citizen Best Practices Guide

These visually appealing publications rephrase professional best practices so that citizens can better manage trees on their property and in their neighborhoods. Guidelines are simplified but target individual behaviors that can have big impacts across a city, such as pruning and care of young trees.

### 4. Tree and Forest Benefits for Communities

One class of documents recounted the evidence-based environmental, social, and economic benefits of urban forests. Intended to build public awareness, language and imagery are polished and concise, with little use of jargon. Authors are government agencies and non-profit organizations.

### 5. Metropolitan or Regional Forest Analysis

Remotes sensing data and geospatial analysis software make possible an assessment of forest condition(s) in a defined geographic area. The forest analysis usually includes estimates of the extent and value of ecosystem services, to demonstrate return-on-investment for local government.

### 6. Local Initiatives and Program Requests

While based on science, these products often conclude with a clear, directed set of desired outcomes, which may include program development, regulatory code, or policy visions. Local advocates (such as NGOs) often take an open source approach, and rebrand science findings for delivery to local officials.

*Science facts are collected, interpreted, and "branded" by community organizations to make the "ask" for urban forestry*

### 7. Tools to Expand Community Capacity

Few local governments are able to be the sole provider of urban forestry services, so programs must involve many people to achieve city-wide stewardship. These products use science to reach key community audiences, so that a small number of advocates might expand public citizen action.

### 8. "Crossover" Content:

Crossover products include a blend of two to several of the approaches outlined above.

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