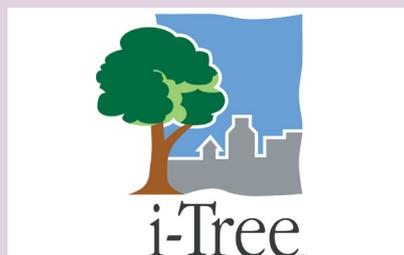


i-Tree Eco



Quick Facts

Inputs

User-collected field data, air pollution data, weather data, GIS shapefile of study area (optional)

Outputs

Charts, tables and reports

Scale

Site-based, local, regional and multi-scale

Context

Urban forests

Cost

Open access

Software required

Windows XP Service Pack 2 (Windows 7), Microsoft Excel, ArcGIS Desktop with Spatial Analyst Extension (optional)

Developer

US Dept. Agriculture Forest Service, with Davey Tree Expert Company, the Arbor Day Foundation, Society of Municipal Arborists, the International Society of Arboriculture, and Casey Trees.

Description

i-Tree Eco is a software application designed for urban forest assessment. It uses field data from complete inventories or randomly located plots, along with hourly air pollution and meteorological data. It quantifies the structure and environmental effects of urban forests (or trees) and calculates their value to communities.

Ecosystem services included

Seven ecosystem services across regulating and cultural categories.

Habitats

Woodland and urban.

How does it work?

i-Tree Eco is one of a suite of i-Tree products which were developed in the US. i-Tree Eco allows users to collect data on the urban forest and estimate the ecosystem services that it provides. This includes information on urban forest structure, pollution removal, energy effects, rainfall interception, carbon sequestration and storage, and resource value.

Tree data is collected and entered into the software; these data are then merged with local air pollution and meteorological information. A series of algorithms calculate structural and functional information about the value of each tree (if 100% of trees are sampled i.e. a 'full inventory'), or an estimate for the total tree population (if a 'sample inventory' is conducted using plots randomly located throughout the study area).

Case studies in the UK

i-Tree Eco studies have been done for London, Glasgow, Wrexham, Bridgend, the Tawe Catchment and Torbay.

Where can I get it?

www.itreetools.org

Development of the Tool Assessor database and information sheets was funded by JNCC.