Want to value your local trees? Now you can!

Trees improve urban environments in many ways, to name a few; promoting mental and physical wellbeing, purifying our air, shading our streets, housing wildlife, providing colour and beauty as well as having the ability to absorb large quantities of water to help reduce the risk of flooding.

However trees are under ever increasing pressure from developers in the competition for land. If we don't value trees, they are left at the mercy of developers and cash strapped councils, given a minimal value, and too often removed without replacement.

i-Tree Eco is a flexible software application designed to use data collected in the field to quantify forest structure, environmental effects, and value to communities. The software is free for anyone to download and use!

What can you estimate?

- **Urban forest structure** - Species composition, number of trees, tree density, tree health, etc.;
- **Pollution reduction** - Hourly amount of pollution removed by the urban forest, and associated percent air quality improvement throughout a year. Pollution removal is calculated for O3, SO2, NO2, CO and PM 2.5;
- **Carbon** - Total carbon stored and net carbon annually sequestered;
- **Avoided runoff** - Yearly avoided runoff attributed to trees;
- **Values** - Compensatory value of the forest, as well as the estimated economic value of ecosystem services;
- **Potential pest impacts** - based on host susceptibility, pest/disease range and tree structural value;
- **Forecasting** - Models tree and forest growth over time; considers factors like mortality rates, tree planting inputs, pest and disease impacts and storm effects. Carbon and pollution benefits are also forecasted.

How does it work?

Tree measurements and field data are entered into the Eco application and merged with local hourly weather and air pollution data. These data make it possible for the model to calculate structural and functional information. The minimum information required to run the model is tree species and trunk diameter.
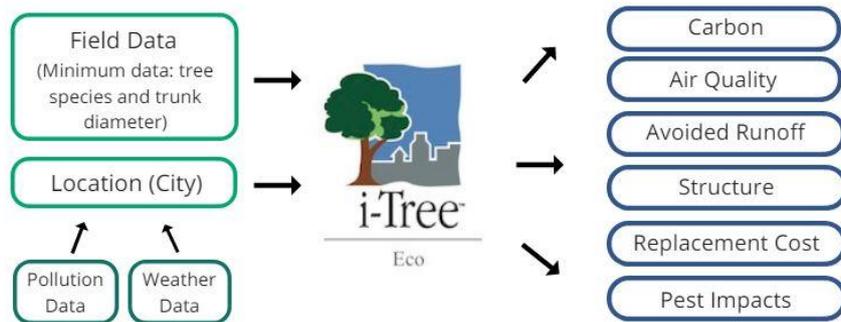
Turning the findings into action

So far there have been over 30 i-Tree studies conducted across the UK, from Edinburgh to Exeter. Projects have had a whole range of impacts from setting baselines to improving understanding of urban forest values.

In London Victoria, the i-Tree Eco study highlighted the dependence of the community on the large, mature London Plane for delivery of benefits and a tree planting strategy was commissioned to seek to improve the age, size and species structure of the tree population. In both Sidmouth and Wrexham, the i-Tree project findings helped to secure an additional full-time Tree Officer post.

In London, the project had strong national and international uptake and recognition in the media and forestry sector. The project received high-level backing when published, including support from Lord Framlingham, the Environment Minister, Forestry Commission Chair and the Mayor of London. The findings have since been used to guide the new London Environment Strategy.

Project Examples

Random-plot sample examples: Torbay, London, Ealing, Oldham.

Complete inventory examples: Victoria BID, Kennington Park, Hyde Park.

How can you find out more?

- Visit the i-Tree website at www.itreetools.org
- Watch the i-Tree video at https://youtu.be/Pn59oY855fI
- Register online and download the free software

Or get in touch:

info@treeconomics.co.uk   info@treesforcities.org