About i-Tree Eco UK

What is i-Tree Eco?

i-Tree is a suite of open source, peer-reviewed and continuously improved software tools developed by the USDA Forest Service and collaborators to help urban foresters and planners assess and manage urban tree populations and the benefits they can provide.

i-Tree Eco is one of the tools in the i-Tree suite. It is designed to use complete or sample plot inventory(ies) from a study area along with other local environmental data to:
- **Characterise the structure** of the tree population
- **Quantify some of the environmental functions** it performs in relation to air quality improvement, carbon dioxide reduction, and stormwater control
- **Assess the value** of the annual benefits derived from these functions as well as the estimated worth of each tree as it exists in the landscape.

i-Tree Eco is adaptable to multiple scales from a single tree to area-wide assessments.

Who uses i-Tree Eco in the UK?

Following its widespread adoption in the US and other countries, Treeconomics and Forest Research worked with the US i-Tree team to trial and proof i-Tree Eco in Torbay[i] in 2011. Treeconomics and Forest Research have since signed a MoU with the US i-Tree Team to develop and support i-Tree Eco for the UK.

As a result, a wide range of stakeholders has now successfully used i-Tree Eco, including:
- Local authorities, such as Edinburgh, Glasgow, Swansea, Wrexham
- Business Improvements Districts (BIDs), such as the London Victoria
- Large land asset-owning agencies, such as Highways England
- Community groups, such as the Sidmouth Arboretum
- Design team working on new developments, such landscape architect JL Gibbons working on Taylor Wimpey's Chobham Manor development in East London

What do users get out of it?

1. **A comprehensive understanding of the tree population** within the study area. The i-Tree data collection protocol ensures that findings are representative of the whole tree population regardless of ownership. The data collected provides a thorough understanding of structure of the urban forest such as canopy cover, species importance rankings, available planting space, species composition and age distribution.
2. **A basis for evidence-led, strategic planning and management of the urban forest and associated benefits** – including best practices such as:
   - **Strategic management of risks** – i-Tree Eco provides information on management concerns such as tree health, diversity, infrastructure conflicts and potential impact of pests such as gypsy moth, emerald ash borer, and *Chalara fraxinea* – enabling a thorough understanding of vulnerability. This can be balanced with the understanding of benefits and value i-Tree Eco also provides, thus facilitating robust decision-making.
   - **Strategic approach to planting** - The canopy cover and age distribution information i- Tree Eco provides enables the development of achievable canopy cover targets to be reflected in policy and practice – ensuring investments are directed to areas that experience the greatest needs.

- **Robust financial planning** – The value assessment i-Tree Eco provides enables adherence to asset management good practice for financial planning – allocating resource for investment based on needs and in commensurate amount to the asset value.
- **Benchmarking and monitoring** – The figures i-Tree provide are standardised, thus making it easy to carry year-on-year comparison and to benchmark with other tree populations / areas.
- **A compelling set of key facts for advocacy**. i-Tree provides the information needed to develop strong headlines and a common language on the relevance of trees – allowing to communicate more effectively and engage new audiences.

Example: The impact of the i-Tree findings on financial planning in Torbay Torbay's study revealed that the trees stored £5.1 million pounds worth of carbon and removed 50 tons of pollutants from the air every year, a service worth £1.4 million per annum. This information was crucial in making the case for trees and to secure investment for their on-going management. In Torbay, it has meant an extra £25,000 to the tree budget in both the year of the study and in 2014[ii].

Example: The impact of the i-Tree findings on tree planting in London Victoria
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[iii].

Example: The impact of the i-Tree findings on public engagement in Wrexham
In Wrexham, on the next day of the release of the i-Tree Eco report and before the local authority had had the time to issue the press release, the local media got interested in the key findings and put in the limelight the value of the benefits the local trees brings to the area. Such level of interest by the local press on the positive impacts of trees had never happened before[iv].

What added value does Treeconomics and Forest Research bring?

We bring an unparalleled expertise in the UK for conducting and making the most of an i-Tree Eco study. The added value includes:
- **Advice on scoping and data stratification** – ensuring your findings are both robust and adequate to local needs and opportunities (e.g. planning policy).
- **Training and quality control** – we can provide the training and QA of the field data.
- **Reporting** - Data doesn't make information! Treeconomics and Forest Research can turn standard i-Tree datasets and report into informative briefings.
- **Management planning** - Information doesn't make action! Treeconomics can support or lead the design of management plans, providing an effective and prioritised framework of action.

[i] Torbay's Urban Forest 2011. Rogers, K, Hansford, D., Sunderland, T., Brunt, A., Coish, N (2011). Measuring the ecosystem services of Torbay's trees: The Torbay i-Tree Eco pilot project. Proceedings of the ICF - Urban Tree Research Conference. Birmingham, April 13-14, 2011
[ii] http://www.treeconomics.co.uk/projects/torbays-urban-forest-assessing-urban-forest-effects-and-values
[iii] http://www.treeconomics.co.uk/wp-content/uploads/Victoria-BID-I-Tree-Report1.pdf
[iv] http://www.forestry.gov.uk/fr/itree