

Urban Forest Accelerator Case Study:



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UNDERSTANDING THE CHALLENGES FACING URBAN TREE PLANTING

Tree planting has become much more common in rural areas and planting has scaled up in recent years. Sadly, this is widening the divide between canopy cover in rural and urban areas.

Urban areas face a complex interplay of factors that complicate tree planting efforts. One of the most pressing challenges is the high cost, associated with planting in densely populated environments. **"If you look at the cost of planting trees, it's really significant compared to the rural and countryside locations,"** explained financial consultants, Finance Earth, adding **"you have all sorts of underground infrastructure that you need to take into account."** Urban planting often involves larger, more mature trees, which demand extensive considerations, including access, soil quality and underground utility placement.

It's also harder to show impact in urban areas. Mersey Forest are working in both rural and urban areas. They explained they **"probably do more schemes in number of quantity in urban areas, but the area is small because we're in amongst the urban fabric and quite small sites which gets blown away by one five hectare site on the urban fringe."**

The costs associated with planting trees, particularly in city centres, are notable. The expense can also be misinterpreted by members of the public, as one UK resident stated to tree planters in the Mersey Forest, **"£20,000 per one tree, how many nurses for that?"** This raises public awareness and scrutiny over costs, as people often compare tree expenses to other pressing investment needs. It is important to note that not all urban trees cost £20,000 but the difference in cost between planting in a rural area and an urban area is a very significant difference.



In more populated areas, losing trees and canopy cover in gardens is a huge challenge. Treeconomics explain **"That tree is in the way... That's probably our biggest source of loss... We're driving big planting programs in public streets and parks. Meanwhile, we're losing loads in back gardens and front gardens. We're concreting everyone's own gardens still to put our cars on them."**

Adding to that, is the challenge of losing mature trees in urban developments, they continued saying **"chopping big trees down, which happens in major developments and things, it's very hard to replace that cover. It's decades"**

Having space and big spaces to plant in means rural areas can benefit from economics of scale, as it is cheaper per tree to plant many than to plant a

few. Rural areas simply have more space. Rural areas also have farms and large landowners too – and they are often incentivized to plant now. In rural areas, landowners can approach tree planting with specific objectives, such as improving aesthetics or restoring historical landscapes. For example, farmers may be motivated by contracts from **“retailers who increasingly require sustainable practices”**, explained Mersey Forest, sharing that farms which have contracts with national bodies, such as Sainsburys and Tesco, can have planting requirements as part of their contracts, such as maintaining woodlands on their farms.



Urban areas have more competition for space, so it is more challenging to work in that space. You might want to plant lots of trees but **“cover the thing with new trees, in which case, you got nowhere left to put the building”** said Treeconomics. This means that you might not actually have space.

The current funding models often overlook the unique challenges presented by urban settings. Traditional carbon offset models are generally more applicable to rural areas, which can create difficulties in urban contexts. As Finance Earth explained, **“Often the models that have been developed for carbon are [not] applying that well to the urban settings, because tree densities are lower.”** This results in a lower overall carbon sequestration potential, making it harder to attract

investment based on carbon credits.

A critical aspect of urban greening is the preservation of existing trees. Treeconomics stated, **“We cannot plant our way out of it. We’ve got to look after existing trees... The better we can get at looking after the trees we already have, that’s the only real... big trick to this,”** The loss of mature trees during urban development poses significant challenges. It’s essential for stakeholders in the construction sector to recognize that trees are not merely obstacles but valuable assets.

WHAT IS THE VALUE OF TREES AND CANOPY COVER IN GENERAL?

HEALTHIER ENVIRONMENTS HAVE MANY BENEFITS.

Urban forests significantly impact public health and well-being. There are a number of social benefits for people. For example, one benefit is that increased greenery correlates with higher walking rates, which can reduce healthcare costs. **“Saving half a life a year is worth £600,000,”** a member of Mersey Forest stated, emphasising the economic benefits of improved health outcomes due to increased access to green spaces.

“This is people lives, you know, it’s about quality of life fundamentally... the raft of issues you’re trying to deal with, trees can contribute positively to helping you solve them. In some of them they’re a big

contributor, in others, they're just a contextual thing that helps them in the right direction. They tend to be positive on all sorts of agendas that people don't even think about." Explained Treeconomics, adding "You're not going to spend a million pound planting trees and you'll get ten million pounds back in twenty years' time. You can't get those ten million pounds back. Those ten million pounds exist because you didn't spend them on other things that you might have had to, which is hospital bills for various people or educational interventions or mental health challenges that they wouldn't have had if you had more greenery."

Tree planting contributes to flood mitigation and improved air quality. Finance Earth explained, "**We're doing drainage, flood mitigation... green spaces are correlated with health.**" The multifaceted benefits of urban trees extend to reducing urban heat and enhancing community well-being. More trees can capture more carbon. They can help with shading and mitigating city heat. There are impacts for climate change and use of resources. More trees equals more birds and wildlife.

Despite the acknowledged benefits, quantifying the full value of urban trees remains complex. The opportunity costs of not investing in green spaces, such as increased healthcare expenses, further complicate the valuation process.

ARE THERE ANY TOOLS TO HELP SHOW THIS?

The Mersey Forest have a great resource, showing the economic impact of trees.

<https://www.merseyforest.org.uk/about/how-we-benefit-the-economy/>

There are 11 key benefits listed in this resource; economic growth and investment, land and property values, labour productivity, tourism, products from the land, health and wellbeing, recreation and leisure, quality of place, land and biodiversity, flood alleviation and management and also climate change adaptation and mitigation.

There is a Green Exchange Evaluation Toolkit,

<https://ecosystemsknowledge.net/resources/tool-assessor/green-infrastructure-valuation-toolkit-gi-val/> which can help work out a valuation and this is freely available to all, although it does require user time and research to make this work.

The UK [Tree Equity Score](#) shows where trees are needed most and can also estimate the value of the ecosystem services delivered as your tree equity increases. Just select an area and click through to the Dynamic Reports.

WHAT IS NEEDED TO INCREASE THE NUMBER OF TREES AND CANOPY IN URBAN AREAS?

Although this case study focuses on finance, there are other considerations, including to increase support for trees and to look after what is already there. Legislation and social pressure could be potential levers for change, although market forces might influence developers if public sentiment shifts. However, the essential need for housing means that Treeconomics "**don't think that's going to happen to the housing sector,**" suggesting that immediate market pressures may not suffice to change practices in favour of tree preservation.

The above suggests that encouraging housing developments to work around trees might be a vital next step. **"It can be as simple as we'll do the tree survey before we design the building,"** explained Treeconomics, hoping for better integration of tree care into the planning process. The responsibility for this lies not only with developers but also with architects and landscape architects involved in land use changes.

The main focus of this case study is to improve the number of trees and canopy in urban areas through attracting more finance. There are, ultimately, only two ways to make money go further – do what you already do more cheaply or get more money.

MAXIMISE CURRENT SPENDING

First investigate the most economical solutions. Mersey Forest explained that **"grass is going to be more expensive than managing trees"** so actually planting trees can sometimes be the most cost-effective solution.

It is worth trying to plant in affordable places as much as possible **"places that are very easy to plant because there's no trees, there's space and that space is effectively soft landscapes, so it'll be verges, middles and bits and pieces like that"** explained Treeconomics, demonstrating how choosing spaces to plant, very carefully, can have a huge impact on cost.

ATTRACTING MORE FUNDING THROUGH PRIVATE INVESTMENT

Sometimes private investment comes from individuals and their motivations are often personal. Sometimes it is landowners who want to get involved. Mersey Forest explained **"Some of them come to us saying we just want to plant trees because they used to be here or I remember them being here in the landscape, they're disappearing, want to put them back in, want to leave a legacy, want to improve the aesthetic of my land."** In rural areas, individuals can have a large impact in that way, but one person is much less likely to have a large impact in urban areas.

As part of the Urban Forest Accelerator Project, Finance Earth **"were contracted to investigate new funding models for real benefits using private finance... trying to leverage the private finance into nature conservation ... the realisation of climate and nature objectives. You might have trees, but also other ecosystem, close to trees, some interdependencies, we looked at these new financial funding streams from the private sector to finance these interventions."**

It quickly became apparent that **"there was a little bit of reality check that existing models are not working that well to channel funding, private funding, and then new sources of funding to urban greening projects."** Finance Earth explained, adding **"the equation that you have to solve is really high costs, and revenues that's not in integration are correlated with this."** The aim is to establish a system that can standardise the quantification of ecosystem benefits, **"similar to existing carbon credit models."**

This **"imbalance in the economics of the benefits generated by the tree, like carbon, but it's not sufficient to cover if you want to commercialise these benefits to offset carbon costs. That made us look at the broader set of benefits... it's [urban space] densely populated, so obviously social benefits are much higher."**

That meant that Finance Earth used **“the approach of trying to monetise... we did some stakeholder engagement and all found ... knowing what you’re contributing to as opposed to just saying, okay, I’ve planted a hundred trees”** is the solution. Clearly articulating the benefits will help to convince private investors. This has led to more standardisation in the way to quantify benefits.

It’s also vital to consider maintenance costs and that has been included in the work that Finance Earth have done, developing a cost modelling tool.

ATTRACTING MORE FUNDING IN GENERAL

Funding is still mostly driven by the number of hectares of land that can be forested. As explained by Mersey Forest, **“Because the driver for the funders is the hectares...”**

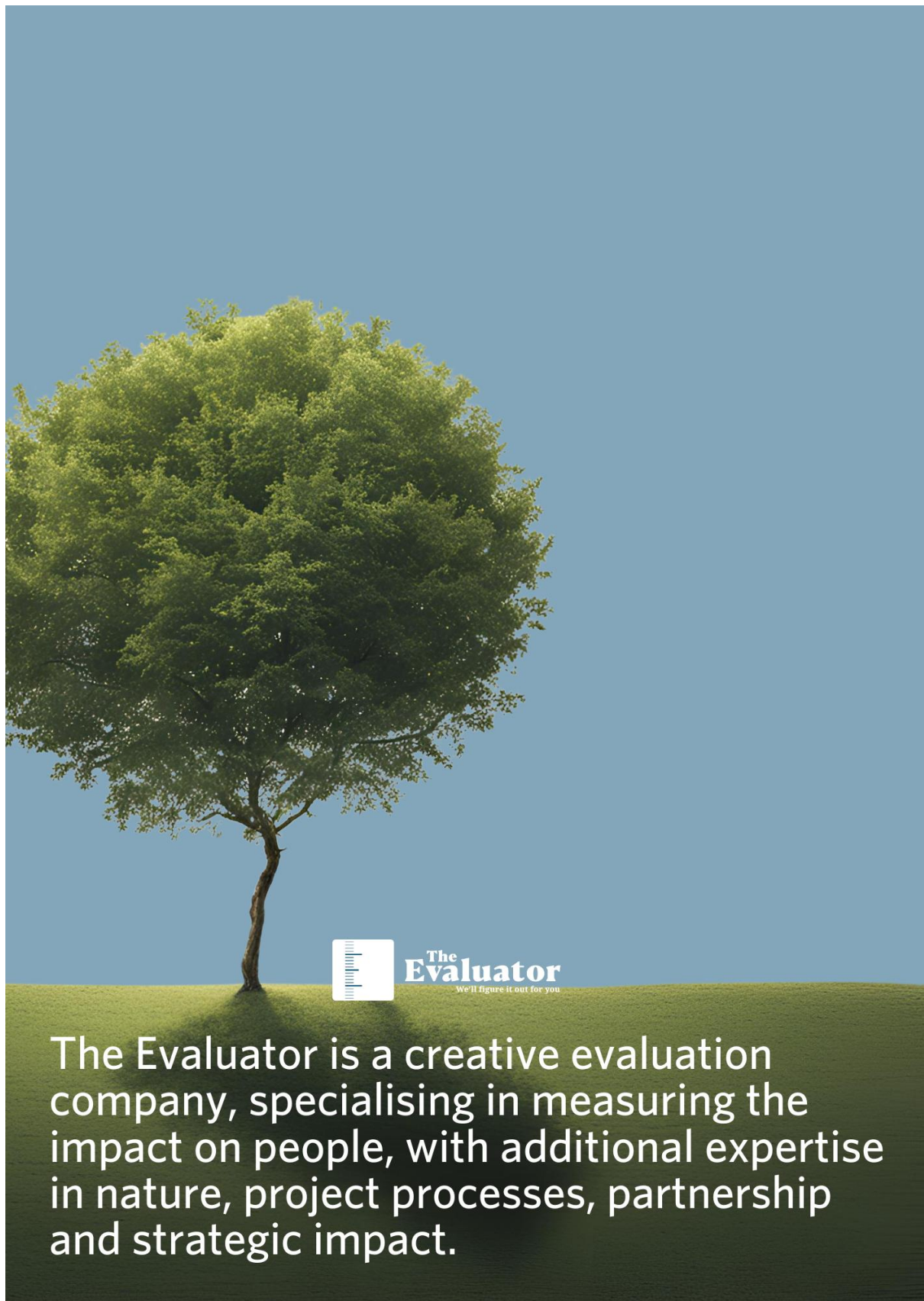
Organisations will need to find areas in the urban landscape which can give the most return in terms of hectares planted.



Mersey Forest noted, **“we don’t have a great deal of core funding, so probably 99% of our funding is external.”** To address these challenges, they have established a dedicated team responsible for identifying and securing funding opportunities, **“their job is to go out and look for opportunities for resources for funding”** as this work is time heavy. This team works diligently to align project proposals with the priorities of potential funders, particularly in relation to climate and nature conservation objectives.

Tree equity and planting in the least canopied areas are increasingly becoming a consideration for funders. It is likely that funding bodies will start to shift towards benefits for people, climate, carbon and flood management, becoming a way to make decisions.

To be ready for that, organisations can start to take a holistic approach to urban forestry, articulating both direct economic benefits and profound social impacts. As Finance Earth emphasised, **“Trees can contribute positively... they touch lots of agendas.”** By framing tree planting as an investment in community health, environmental resilience, and overall quality of life, the narrative around urban green spaces can be worded into a persuasive economic proposition.



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