



Tree costs and financing options (Held online)

Chair: Dr Susannah Gill, The Mersey Forest

What does it cost to plant and maintain a tree in hard and soft landscapes?

Philip Simpkin, Natural Environment Officer, Buckinghamshire Council

Urban Forest Accelerator – a costing approach

Anne Jaluzot, Green Infrastructure Planning Consultant and **David Coughlin**, Project Manager, Urban Forest Accelerator for the National Trust

Cost benefit comparison of smaller and larger tree planting and impact on the ecosystem, sense of place and community

Luke Fay, Managing Director, Treework Environmental Practice

Funding support for local authorities

Rob Taylor, Scientific Officer -Tree Health, Department for Environment, Food and Rural Affairs

QUESTIONS, COMMENTS AND REFERENCES BY TOPIC (AS FAR AS POSSIBLE!)

NB. Questions and comments are anonymised unless answered in the chat by one of the speakers.

How to plant a tree

Trees in Hard Landscapes is still the go to guide to look at the details for planting -

<https://www.tdag.org.uk/trees-in-hard-landscapes.html>

Philip Simpkin introduced his approach and analysis for tree planting costs

Maybe an idea to create an online calculator to work out the true costs of planting and care of a tree.

- Yes - but we need common agreement on the model so that it can be used by everyone on a level playing field?
- I think this is what Philip has produced, which just goes to show how complex it is. So as Sue says, a commonly agreed model, and then the right balance between usability and complexity.

Are there any costs included on community engagement? If not, we'd be happy to contribute indicative costs on this aspect.

- It's a very good point Kate, we did consider it, but found the cost categories were spiralling. I also think the variation in practice could make it hard to get even an indicative range. Although I'd definitely agree it's an essential part of pre- and post-planting.

Phil's tree size tab suggests it must have growth rates considered with it.

Just wondered what growth rates were used please?

- Philip's response: The last tab suggests some growth rates for different tree species. I can't remember where I got these figures from, I think there was a little bit of informed judgement involved. Happy to take this off line for a further chat.

Some volume housebuilders plant trees on new developments to satisfy the planning condition, then don't maintain them as its cheaper to let them die and replant just before adoption.

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- In Melbourne there is a rigid tree adoption protocol whereas trees are annually inspected to check establishment before adoption
- I understand this principle also applies in certain states in USA. We need stronger enforcement here.

Have future management costs been discounted?

Are the benefits, e.g. natural capital included?

Do you think the model will make a difference for investment in trees in your council?

Just wondering if these costs could be used to calculate commuted sums?

- I have long thought that the commuted sum charged by local authorities should be related to the investment originally put into the tree at time of planting. One way or the other, trees need investment
- Too often the commuted sum is based on the likely cost to maintain and replace failing trees over 20 years or so

Taken in the round urban trees should probably be cost-neutral as the benefits outweigh the disbenefits, but unfortunately LAs budgets don't work that way. Savings on public health won't be redistributed to those funding the tree maintenance

The crunch seems to be the post-planting costs. Is it fair to say that, if decisions for location, species, planting method, establishment is successful that, barring accidents or diseases, annual maintenance costs should be really just inspection cost?

Does the cost take into account an acceptable/expected failure rate? Are the costs split over the number of trees planted on a project or the number of specimens surviving X years down the line?

In new tree planting, can we avoid 'pollarding' and that kind of intensive maintenance...because we have factored maintenance into all the 'right' decisions about location, species etc...so perhaps would not present the same problems as some of our Victorian and Edwardian planting decisions?

We also need to consider that different planting methodologies require different maintenance requirements. For example, some structural soil types require more intensive irrigation due to the poorer water holding capacity.

David mentioned 'repayable finance' – what does it mean?

- Meaning finance from investors that would fund interventions/management, and produce income (e.g. through outcome buyers) to then "repay" those investors.

Is whole life as problem as it puts a good case for return on investment but investment today is, ideally, for the next 1)0+ years...

- I think that the next 30 years is a good time frame to think about, because that is the minimum time frame for Biodiversity Net Gain. If tree planting is going to be offset from a site to somewhere else then the developer needs to pay for it to ensure it can actually happen.
- I suggest that assessing whole life costs will not encourage more tree planting but will hopefully change the way organisations consider tree planting initiatives. Better to have less trees that deliver their planting objectives, rather than planting more trees. Philip's work will help to change the mindset which is so important

But I think it's a serious and good point Howard, to make sure public space is not unduly commodified or privatised.

- Totally agree David. We see many corporations funding public art etc, but why not green infrastructure. There are some great examples in London I'd like to take you of a tour of one day!

Getting standardised costs for planting and establishment (to 'independence in the landscape') seems achievable. Once you get in to lifetime costs of maintenance and management it seems like there are too many variables.

One thing that I realised was not being factored in is future planning and costs for successional replacement planting when trees both private and public reach the end of their lifespan for residential roads or streets. This was stark for many roads in the Garden suburbs in Charnwood when I worked there. It was obvious to me that the trees were peaking or past peak.

- Yes, agree succession planning is important and presumably relevant to maintaining and increasing canopy cover?

We need to also remember that even if you replace a tree with the same species in the same space, compaction of the ground over time does not mean that the new tree will grow to the same size eventually.

- I think the way we will probably get around this, as Philip has done, is to provide scope for the user input to enter his/her own assumptions on this. The way I was thinking the cost model could do this would be to prompt/invite data entry on this for all public realm scenarios (i.e. not Carparks), either as a default position (Buildouts, High-footfall footways) or when the number of trees planted are above a given threshold (say 5).

<https://www.forestresearch.gov.uk/research/quantification-and-valuation-of-benefits-provided-by-urban-trees/selecting-urban-trees-for-ecosystem-service-provision/>

We need to think about population diversity, disease risk and climate change (amongst other things) when considering species choice for replacement trees.

Carbon budget approach? The carbon footprint of trees establishment that would be influenced by choices re species, size, ground prep, watering set against future carbon sequestration and other benefits as the tree grows to maturity.
Luke, for your cost-benefit graph, which types of trees, planting sizes, planting contexts, etc. were included in this?

Failure rates are high because people don't understand the costs of tree establishment. This is why this subject is important.

I am very sorry I will need to leave soon. If you commission urban tree planting, please do consider sharing your cost data with us - we are particularly seeking: (1) Schedules of rates for standard tree planting in hard landscapes and in softscapes (2) Highways engineering costs such as creating a build out, or simply a simple new tree pit in hard landscapes (3) Highway access costs: traffic management costs along different segments of the network; cost of amending a traffic regulation order to enable the creation of a buildout (4) Maintenance and felling costs.

So, Luke, with your made-up case study...which sounds quite familiar! How do we make the mind-shift for more appropriate choices i.e. not large from the outset, but large over time?

More information on tree value published in 2018.

<https://www.barrelltreecare.co.uk/assets/Uploads/BTC-125-2018-Ecobuild.pdf>

<https://www.uboc.co.uk/tree-replacement-for-carbon-sequestration-parity/>

Interesting paper on this subject, showing up to 33:1 replacement needed depending on a range of variables

Please do not forget the importance of mature trees and fungi in maintaining the biodiversity and survival of young trees

Issues and questions raised in response to funding support for LAs

In my experience it takes longer than 2 months for applications to be determined. It took 4 months this year.

- Yes, it does generally take longer than 2 months due to the need for Section 31 approval on top of internal approval. The 2-month windows just mean that you can apply from now and your application will be processed and approved sooner. Previously all applications per round were sent for S31 approval following the June deadline.

Does the fund only apply to the purchase of trees, or could an application fund the actually growing of the trees instead, e.g. via community tree nurseries - helping increase the secondary benefits of tree production, reduce transport and get local buy-in for tree planting. Same outcome - trees in the ground - but much higher overall societal benefit and potentially leads to higher survival rates (local eyes, ears and hands)

Why does the fund only cover replacement in urban areas, rather than planting in new locations?

- Just to clarify that in urban areas it is replacement STANDARDS, new whips and feathers are permitted. Rural areas can be any size of tree, not necessarily for replacement purposes.

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Held on 13th December 2023. Questions, comments and references

Partners: IHE, CIHT, AA

- New standards can be planted under the Urban Tree Challenge Fund in urban areas.
 - Understood, so is there a specific reason standards are separated into a different fund?

The new Tree Equity Score site will likely be quite useful for getting the information together for LATF

Political commitments to plant trees often aren't followed up with sufficient funding. These tools will allow us to educate leaders on the resources that are necessary.

Many thanks to all for your comments and helpful references. I trust that I have just about got things in a logical order!

Sue James for the Trees and Design Action Group