



Climate adaptation; the future for Arboriculture?

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(Presentation by Jeremy Barrell, AA Conference, Exeter 2009)



At the 2007 Arboricultural Association (AA) Conference, I warned that urban deforestation was happening unnoticed across the UK and identified a range of causal factors including poor central government leadership and vision, ineffective local government planning delivery and a disproportionate public focus on tree problems at the expense of their many benefits. My concerns were shared by many other arboriculturists who had become increasingly suspicious that the extent and sustainability of our urban tree population was declining. However, it was a tough message to sell because these concerns were based on anecdotal evidence, with no solid research base. In 2008, that changed with the publication of government-backed research, which identified that new tree planting is down, our biggest trees are becoming increasingly vulnerable and that urgent action is needed.

Trees in Towns II (Britt & Johnston, 2008) reinforced observations over the last few decades that one of our most valuable urban assets, mature trees, is slowly being eroded. The reasons for the losses are varied and the impact is widespread; there is no single culprit or one big reason why it is happening. Instead, the losses are gradual and scattered, which makes the impact much less obvious. Urban deforestation has been occurring before our very eyes, but the process is relatively slow compared to the pace of normal life, and no one had noticed!





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In a more global context, earlier this year the Prince of Wales introduced the concept of Natural Capital in his treatise titled 'Facing the Future' (Prince of Wales, 2009) in the Richard Dimbleby Lecture. It is a compelling analogy; in the financial world, spending income received from capital without eating into the capital reserve is sustainable. However, spending beyond the income and reducing the capital reserve without replenishment has only one outcome, bankruptcy! There is a strong parallel with Nature; if we continue to use resources beyond the Earth's capacity to replenish them, then environmental bankruptcy is our inevitable end. His point was that an obsession with consumerism at the expense of sustaining our natural environment has led humanity to the brink of disaster and there is very little time left to act. Tropical deforestation is a global problem that needs a global solution and every one of us individually has a responsibility to contribute to climate mitigation through the reduction of the emission of green house gasses (www.rainforestsos.com).

In practical terms, as arboriculturists providing the management expertise for the urban tree resource, how can we help is a pressing question. We should be under no illusion about climate mitigation; it is beyond our capacity as a profession to make any significant impact in addressing escalating carbon emissions. Planting trees in the urban realm has no realistic potential to mitigate and we should not be concerning ourselves with this aspect. However, increasing canopy cover where we live and work has tremendous potential to improve the urban environment and

make us all much more comfortable in the face of the extremes expected from global warming. Climate adaptation holds a strong and vibrant future for arboriculture; focusing on tree benefits rather than the preoccupation with tree problems that has dominated the evolution of urban tree management to date. Trees in towns are Urban Natural Capital and our Environmental Bank is in crisis; arboriculturists have the expertise to pull us back from the brink, and reversing the trend of urban deforestation is a worthy destiny.

So where do we start and how do we begin to organise ourselves in the chaos that permeates national tree policy and its local implementation? In the absence of any leadership or vision from arboricultural organisations, it was left to individuals to drive forward an initiative to address the canopy cover agenda. Following my 2007 AA Conference presentation, I teamed up with Neville Fay from Treework Environmental Practice (TEP) to jointly conceive and promote an urban canopy initiative through the TEP *Innovations in Arboriculture* seminar series. The first step concentrated on raising general awareness with a seminar in July 2008 at the Royal Geographical Society, titled *Trees: the key to climate proofing our cities (Part 1)*. This second day of the 2009 AA Conference, devoted to climate change issues, is an arboriculturally orientated update from the first seminar and a stepping-stone to the second TEP event in November 2009 (www.treeworks.co.uk/seminars). *Trees and Urban Climate Adaptation: A social agenda for liveable cities*, will aim to



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mobilise policy makers and the wider community to ensure a sustainable urban forest canopy capable of meeting future climate adaptation needs.

Despite this progress and the burgeoning acknowledgements of the role that trees have to play in climate adaptation, government policy is confused and lagging behind the emerging consensus that decisive action is urgently needed. The responsibility for managing our urban tree resource lies with Local Planning Authorities (LPAs) and yet they are also failing to adequately respond to the climate change challenge. Another key finding from *Trees in Towns II* (Britt & Johnston, 2008) was that only 28% of councils had a specific tree strategy, worrying evidence that the framework for widespread and consistent delivery of climate adaptation does not yet exist. Our present passive model of setting national policy for local government to interpret with no active enforcement has demonstrated its redundancy through its obvious failure; we need a different approach and we need it fast!

The obvious starting point is policy; trees will only be properly factored into urban management decision making if they are embedded in policy at the national and local levels, with robust monitoring. Furthermore, the current separation between the management of urban trees and rural trees is not logical or helpful, and must be addressed in any solution. The Government's flagship Strategy for *England's Trees, Woods and Forests* (Commission, 2008) is a good start in principle, but it has not been properly thought out and is not working effectively.

Urban trees have been dumped into the forestry-orientated document as a last minute attempt to window-dress the issue, but without the funds or the clear mandate for the Forestry Commission (FC) to cope with the magnitude of the task. The urban forest sector is broadly comparable in size to the rural forestry sector and yet the FC is being expected to organise the administration of double the resource with no increase in funding (Barrell, 2009).

Historically, the FC has effectively guided the management of rural trees and achieved practical implementation of national policies through regional frameworks that direct customised delivery on the ground. This focuses on sustaining existing woodlands and creating new ones, which is making a significant contribution to the UK climate mitigation effort. However, that effectiveness is not seen in the area of climate adaptation. The responsibility for urban tree management is primarily administered by LPAs who are failing to interpret government guidance in a nationally consistent and effective manner. We are not aware of any LPA in the UK that accurately knows what its urban canopy cover is, what it was or what it should be to deliver effective climate adaptation for its residents. Few are acting positively on this, with the pace being set by Bristol City Council, who are considering canopy cover targets, and Islington who are investigating canopy cover trends from aerial photo records.

Despite the failure of a majority of LPAs to understand the importance of trees, and to react with any urgency or decisiveness relating to climate adaptation, there is an increasingly widespread acceptance of the



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importance of urban trees and a very strong commitment to initiating change from a wide spectrum of our population (Barrell, The need for a tree framework, 2009). There are many flourishing initiatives and organisations dedicated to expanding the urban canopy, but they are mainly working independently, to their own local agendas, with no overall steer coordinating and directing the effort. The current strategy of central government setting out broad policy, to be interpreted and implemented locally is not working effectively, which is why we are seeing a proliferation of interest groups and organisations having to go it alone! This is in stark contrast to the excellent coordination for rural tree management administered by the FC.

At a strategic level, arboriculturists should be enthusiastic for the FC to have urban trees included in their remit, as set out in the *England's Trees, Woods and Forests Strategy*. However, we should also be exposing the mismatch between what is being claimed as a response to that Strategy and what is actually occurring on the ground. There is an obvious lack of commitment to climate adaptation in that Strategy and the FC only have a superficial grasp of the management requirements of the urban tree resource. Government told the FC what to do, but did not provide the funds to do it! There is an urgent need for leadership, direction, guidance and coordination for the management of the whole UK tree resource, both rural and urban, and the FC are best placed to do that. This need not involve any drastic changes; all the necessary human resources already exist as officers in the LPA sector, consultants in the private

sector and commercial contractors. The expertise and skills are already in place; it is the policy framework coordinating and directing the mass effort that is missing. In the private sector, getting everyone working as a unit is called teamwork; arboriculture and forestry are not presently working as a team and this is what needs to change. Arboriculture and forestry integrated under one overarching policy framework is the way to maximise the potential for trees to deliver the climate mitigation and adaptation benefits that will be so desperately needed. The FC has been given this role; now it needs to demonstrate that it is fit for that leadership task.

At the practical level and in the short term, budget cuts are going to dominate local government management and, traditionally, trees have always been a soft target. But, the tide is turning as the public and politicians begin to realise the potential for urban trees to deliver vast benefits that significantly outweigh the costs of producing them. Trees are proving to deliver an astonishing return on investment when the true value of the benefit is understood. There are now powerful and compelling reasons to place a high priority on trees within the urban management decision-making process. The challenge for arboriculturists is to cast off the negative baggage of the past in favour of the altogether more positive message surrounding tree benefits.

Everyone knows intuitively that trees are good, so it should not be that tough to sell!



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