HOW TREES ADD VALUE

KENTON ROGERS TALKS US THROUGH THE NUMEROUS BENEFITS OF TREES AND THE CONTRIBUTION THEY MAKE TO THEIR SURROUNDING ENVIRONMENT

Trees are important. They contribute directly and indirectly to creating liveable places and healthy communities. The benefits of trees have, in the main, long been known, even if they have not been fully understood. Trees are fundamental to making better places to live in a whole variety of ways – from the large woodland on the edge of town to the small ornamental cherry in a front garden. All of these are silently contributing to making our lives more comfortable.

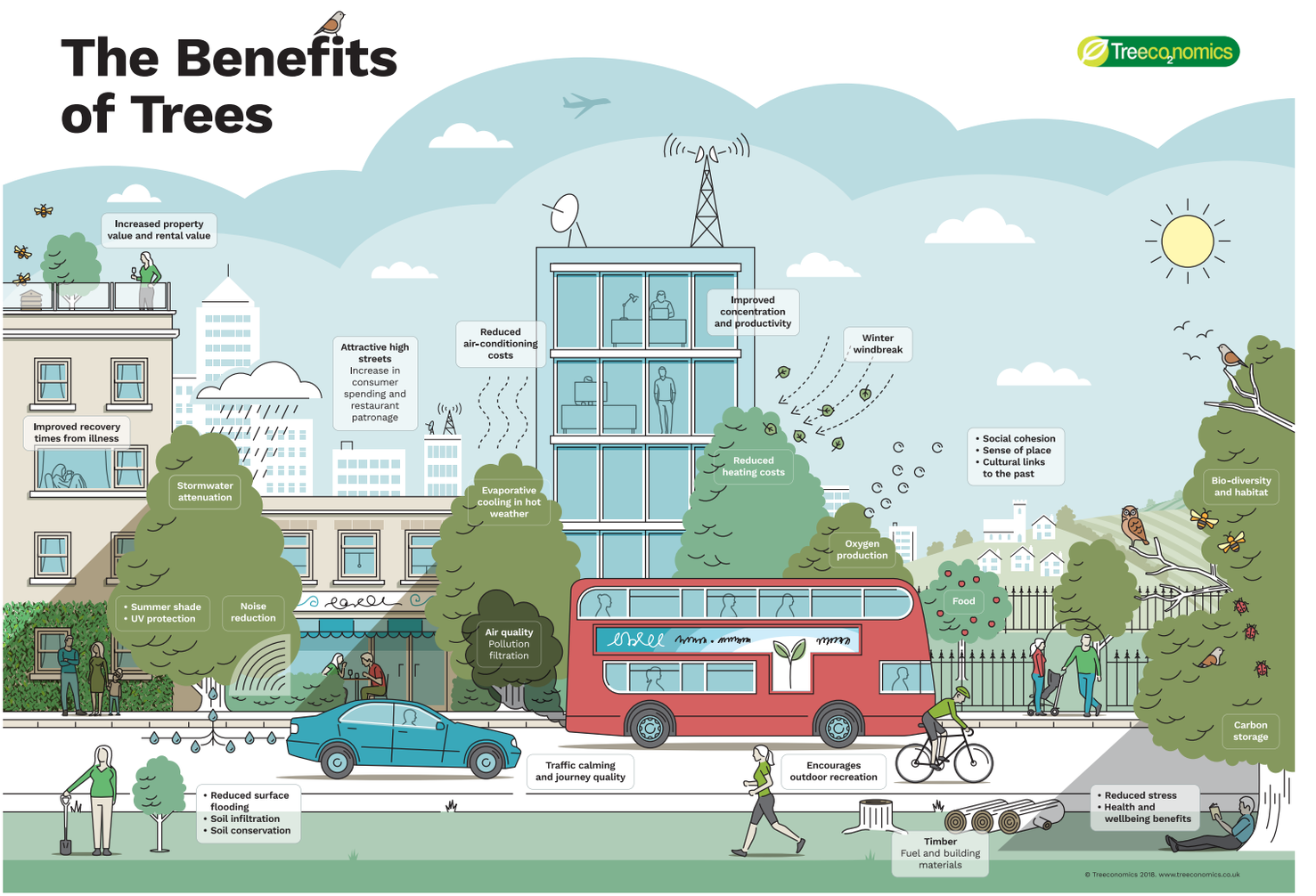
> "TREES ARE **FUNDAMENTAL** TO MAKING **BETTER PLACES** TO LIVE IN A **WHOLE VARIETY OF WAYS**"

The Victorians, for example, recognised that the plane tree filtered sooty particles from the air, trapping them on its leaves and bark, while also tolerating the dense pollution of London at that time. It is through these extensive Victorian plantings and propagation that the tree became known as the London plane, the most dominant street tree in both London and New York. Many cities across the globe enjoy a legacy of trees of a similar stature, planted over 100 years ago in the Victorian era.

The illustration below highlights just some of the 20 or so benefits of trees identified and listed using the Common International Classification of Ecosystem Services (CICES).

Ecosystem services are essentially the services with which the natural world provides us and from which we derive benefit.

Perhaps one of the most widely understood benefits of trees is that they look nice. They are aesthetically pleasing, breaking up the straight edges of buildings, while contrasting textures and colours provide visual interest and stimulation. Trees are one of the most useful items in the landscape designer's 'toolkit' for



> "ONE OF THE **MAIN CHALLENGES** SOCIETY NOW FACES WILL BE IN MAKING **VIBRANT, HEALTHY AND ATTRACTIVE PLACES TO LIVE**"

these aesthetic and screening qualities. On many highway networks, tree planting is often planned with the aim of improving 'journey quality', reducing the visual impact of the highway and softening road noise.

Trees also provide a cultural link to the wider environment and the past, with many trees having been present in the landscape for hundreds of years, through many cycles of human generations. Trees also act as a focal point for shared spaces and provide a backdrop and navigational aid, framing scenes and viewpoints in our towns, cities, villages and countryside.

Not only do trees contribute to attractive streetscapes and landscapes, they are also an asset that increases in value, delivering greater benefits as they grow.

Across towns and cities, trees also encourage physical activity by providing a pleasant environment in which to exercise, with greater uptake of walking and cycling through woodland, tree-lined paths, cycleways and trails. This is an important benefit, as across Europe around one in 15 deaths is associated with a lack of physical activity. In the UK, for example, only one-third of the population actually achieves the recommended level of exercise.

Trees make a buffer against climate change at international, national and local scales, locking up carbon and providing shade, summer cooling and winter warming. The fact that trees hold up floodwater and storm water means this water does not cause damage to property or enter combined sewerage systems, saving the water companies the expense of treating this water.

Similarly with air pollution, trees have been shown to remove significant amounts of pollution from the air that would otherwise damage people's health and the very fabric of buildings. A global US study carried out by the Nature Conservancy found that the cost of tree planting is less than every other pollution removal strategy considered (except for 'cool-roof' technologies).

Furthermore, trees near road networks will reduce noise, lower traffic speeds and can prolong the life of the asphalt itself, compared to roads without tree cover. Trees also provide products such as apples, pears, walnuts, chestnuts and foliage for floristry. Finally, at the end of their lives, the trees' timber can also be utilised for a whole variety of purposes, from fuel wood or wood chip to the manufacture of everything from wood pallets to fine furniture. Obviously, the better the product or furniture, the longer that carbon is locked up.

> "TREES MAKE A **BUFFER AGAINST CLIMATE CHANGE** AT **INTERNATIONAL, NATIONAL** AND **VERY LOCAL** SCALES"

We are at the beginning of what some describe as the Anthropocene age. This new geological epoch represents humanity's impact on the earth. The current epoch, the Holocene, is 12,000 years old. Carbon dioxide emissions, sea level rise, the global mass extinction of species, and the transformation of land by deforestation and development mark this 'new human' geological time.

One of the main challenges society now faces will be in making vibrant, healthy and attractive places to live. This article has focused on just one small part of this task – the contribution that trees can make.

For a list of the research see the Green Cities Good Health Website at: http://depts.washington.edu/hhwb/ Contact the author if you wish to have a high resolution copy of the tree benefits image used in this article.

ABOUT **KENTON ROGERS**

Kenton Rogers is a chartered urban forester and cofounder of Treeconomics, an employee-owned social enterprise with a mission to highlight the benefits of trees in order to better manage urban forests using a benefits approach. He is also a Fellow of the Royal Geographical Society and author of the Haynes Tree Workshop Manual. Current projects include working on urban forest masterplans and tree strategies for local authorities dealing with climate emergencies.

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