

Selling Nature: Aligning Green Infrastructure Principles with the Funding of Urban Landscapes

Ian Mell¹

¹ *School of Environment, Education & Development, University of Manchester, M25 0DH, UK,
ian.mell@manchester.ac.uk, +44 0161 275 6868*

Abstract

As the allocation of funding for urban greening continues to diminish planners, landscape professionals and environmental advocates are increasingly turning to the 'valuing of nature' as a mechanism to address these shortfalls. Whilst consensus exists that urban nature holds a critical role in promoting ecological sustainability and liveability, there is a less established understanding of how we translate these ideas into funding. Such variation in landscape valuation practices leading to significant disparity between how cities support their natural environment. In turn this has led to a growing reflection on how we can valorise the environment to ensure it is attributed with the same value as other built infrastructure. By increasing the proportion, diversity and functionality of urban areas it is possible to examine how city governments, developers, and the environment sector have utilised green infrastructure to generate institutional and financial buy-in for investment in nature-based interventions. Through an assessment of the implementation, management and funding of green infrastructure, with specific reference to London, this paper discusses the nuances of valuing nature to identify barriers and successes to investment in urban nature. It goes on to reflect on who, how and where resources are being delivered, enhanced or downgraded and asks how the nuances of value can be used to shift the understanding of stakeholders towards a more nature-based mind-set for development.

Introduction

The funding of green infrastructure has never been more difficult in the UK. Following thirteen years of a centre-left New Labour government (1997-2010) the UK elected a centre-right administration, whose policy mandate included austerity measures for all government services (Clarke & Cochrane, 2013). This was a significant shift for landscape management practices because they are not protected as a statutory service in the UK. As a consequence we have seen funding cuts to landscape, environmental and green space delivery of up to 58% for some local government environment budgets (Mell, 2018a), and a rethinking of how stakeholders will fund landscape management in the future. Moreover, due to funding shortfalls, which have occurred periodically in the UK, e.g. in the 1980's, we can identify a growing variability in discussions of financial support, delivery and management moving away from traditional views that government should fund green infrastructure. Within such discussions we see a growing number of stakeholders located within public and community forums, and more recently private sector organisations stepping forward with new, and in many cases, innovative forms of financial support (Neal, 2013).

The following paper discusses alternative approaches to the funding of green infrastructure contextualises them against existing practices and ongoing austerity financing in the UK. Drawing on research undertaken in 2018 (via Valuing Nature Placement funding) the paper discusses where support for green

infrastructure can be identified in London from across public, private and third/environment sector organisations. The paper's aim is therefore to highlight where good/alternative practices can be identified, which could be utilised by other stakeholders in the UK and internationally.

Background and Literature Review

As funding for green infrastructure in its many forms: parks, greenspaces, water bodies and corridors, biodiversity hotspots and urban woodland/trees decreases local government in the UK has been required to reconsider how it delivers environmental management within our cities and towns. Although this phenomenon is occurring in many developed counties, the UK government's pursuit of austerity has placed environmental management at the forefront of funding cuts (Jones et al., 2016). The outcomes of which have been changes to landscape maintenance regimes in many cities and renegotiations of existing service level agreements with public/private contractors (Mell, 2018b).

In many cities, including Sheffield and Liverpool, these changes have led to civic unrest and campaigns to halt the "civic vandalism" or "territorial injustice" of poor quality management or the sale of publically accessible and local government owned green infrastructure (Butler, 2018). Although many communities view decreased funding for parks and green spaces as part of a wider process of promoting/facilitating development, at the expense of sustainability and liveability (Tait, 2011), local government representatives are alternatively engaged in a process of rationalisation in order to delivery legally required services. Unfortunately, the process of communication between stakeholders regarding the funding of green space is somewhat opaque in places leading to mistrust and protest (Mell, 2018). Moreover, it has also slowed the pace of change needed within local government thinking, as new or innovative ideas regarding land sales, transfers, sponsorship or commercialisation are received negatively. As a response to negative publicity, and as discussed by Mell (2018b), many cities have instigated a period of reflection to assess what is legally required, what might be possible in terms of continuing to fund green infrastructure, and what new sources of financial support they can identify to assist this process.

Part of the rationalisation process has been to (a) identify what green infrastructure resources are considered economically and socio-politically valuable (b) how this thinking sits within local planning policy and practice, and (c) deciding which spaces should be managed despite financial cuts. This has proved to be difficult, as a number of cities in the UK do not necessarily have up-to-date land use data on their green infrastructure. As a consequence decisions are being challenged as being based on partial information. Liverpool was one city that addressed this issues via a 24-month city-wide information gathering and data collection process, the Liverpool Green & Open Space Review (Liverpool City Council, 2016a), which engaged residential, business and environmental communities to better understand the use and functionality of the city's green spaces. The outcome of which was a rethinking within Liverpool City Council's *Local Plan* development, which evolved to include detailed assessments of the Liverpool's landscape and where investment in green infrastructure should be located (Liverpool City Council, 2016b).

Unfortunately, although we can identify several cities diversifying their knowledge and approaches to green infrastructure planning (Nesta, 2016), we can also identify others which are politically restricted due to ongoing land value discussions. In the UK the tangible and intangible value of green infrastructure, especially Green Belt land, has led to extensive arguments regarding the societal, financial and ecological 'value' of the landscape (Sturzaker & Mell, 2017). Such discussion are fraught with arguments regarding

rights to land, ecological value versus development potential, and whether there is a need to protect environmental resources (Papworth, 2015). These arguments are most keenly felt in areas of housing shortage or excessive (and often speculative) land values, such as London. With regards to green infrastructure this means that any debate of its value, management or funding is subject to calls for other forms of development to be promoted over its landscape management. This has a subsequent impact on planning policy at a national and local scale as the valorisation of landscape for housing or transport/commercial infrastructure often outweighs its perceived value of green infrastructure (Department of Communities and Local Government, 2012). How we manage these conversations, the stakeholders involved and the influence they have on policy is therefore a careful balancing act (Lowndes & Gardner, 2016) and one which environmental advocates do not always win.

Goals and Objectives

The papers sets out a discussion identifying current thinking and practice within local government, Business Improvement Districts (BIDs), transport/infrastructure providers, developers, and the environment sector regarding investment and long-term funding for green infrastructure in urban areas. This discussion is contextualised against the austerity politics of the UK post-2010, which has cut funding for local government and the environment sector leading to a decreased level of financial support for investment in green infrastructure. The following discussion is based on primary research undertaken in 2018 funded by the Valuing Nature Programme and assisted by the Greater London Authority (GLA).

Methods

The following is based on information generated from two primary methods. First, interviews with local government, Business Improvement Districts (BIDs), transport/infrastructure providers, developers, and the environment sector representatives were undertaken in London between January-May 2018 (N:18, see Table). Interviews focused on four key thematic areas: *structural issues*, *development issues*, *thematic delivery issues*, and *land-use issues*, which were derived from an extensive literature review of green infrastructure and funding academic and grey literature, and through discussions with the GLA. These four areas were cross-referenced against lines of enquiry focussed on the financing of green infrastructure in London (see Table 2).

Table 1. Stakeholder engagement with Valuing Nature project

Local Planning Authority (LPA)/Public Sector	Environment/Third Sector	Developer/land holder	BIDs
GLA	Sustain	Berkeley Homes	Brixton BID
London Assembly	Thames 21	Grosvenor Group	Better Bankside
Transport for London (TFL)	Trees for Cities		London Bridge BID
London Legacy Development Corporation (LLDC)	Wandle Valley Regional Park		Cross River Partnership
	Groundwork London		
	CPRE		
	Peabody Trust		
	Parks for London		

Table 2. Key questions/thematic allocation for Valuing Nature project interview

Questions	Theme
What GI is being developed?	TH
Who is developing GI?	ST, DEV, S/LU
How much does it cost to invest in GI?	DEV, S/LU, ST
Are any key thematic ideas being used to frame investment in GI?	TH, ST
What funding options are being used to fund GI?	ST, DEV, S/LU, TH
What partners are involved in the development, design and management of GI?	ST, DEV, TH, S/LU
What are the long-term approaches/aspirations for including GI in investment?	TH, DEV
Are there any barriers to investment in GI (financial, legal, administrative, community based)	DEV, S/LU, ST

ST: Structural issues; DEV: Development issues; TH: Thematic issues; S/LU: Spatial/Land-use issues

The second method supporting the investigation was a policy analysis was undertaken on documentation produced by relevant stakeholders engaging with green infrastructure planning in London. Selected documents were analysed to highlight where green infrastructure investment was proposed and how this would be funded/delivered.

Results

Each of the stakeholder groups engaged presented alternative interpretations of how funding for green infrastructure should be debated in London. However, across the interviews a view that the existing financial mechanisms used by local government were no longer fit for purpose, and subsequently new approaches were needed was made frequently. In addition stakeholders also promoted the view that disciplinary/organisational silos were hindering the ability of some organisations to work collaboratively, which was presented as an important component of effective green infrastructure planning. The following outlines the most significant points made by each group of stakeholders.

Business Improvement Districts (BIDs)

Links between BIDs and green infrastructure provision have been to date limited. However, BIDs in London have started to engage with environmental organisations, residents and their communities of interest to rethink how the physical landscape can promote economic prosperity. In the Better Bankside and London Bridge BIDs there has been a significant programme of investment in street greening, parklets and rain gardens. These have been developed to (a) improve the environmental quality of the street scene, (b) ensure climatic control and (c) encourage a greater engagement from local people and businesses with the areas streets. Visibly these investments have made a substantial difference, and each BID reported that businesses were seeing increased footfall, retail spend and real estate uplift citing green infrastructure as a contributing factor these changes. Not all local businesses are supportive of investment in urban greening with some seeing it as a local government responsibility. To address such reticence BIDs in Brixton and the Cross River Partnership have worked with individual business to explain the type of added value that green infrastructure can deliver.

Developers/Construction companies

Housing and commercial development are viewed in London as a significant contributor to atmospheric pollution during the construction phase. Grosvenor and Berkeley, high-end housing developers, have

attempted to address these concerns through a more directed engagement with green infrastructure in their master-planning activities. For example, Grosvenor's *'Living Cities: Our approach in practice'* mandate embeds green infrastructure and sustainability thinking at the heart of their developments. Berkeley are engaged in a comparable process using urban greening in the forms of parklets, street trees, rain gardens and sustainable drainage options to improve the 'liveability' of their properties. Whilst both organisations are aiming to deliver a better quality and a higher quantity of green infrastructure this is not necessarily an altruistic process. Representatives of both companies stated the economic benefits of investing in urban greening, namely increased property value, the ability to meet planning obligations, and developing a 'greener' and more 'sustainable' brand, as key drivers of their greening mandates. Their investment in green infrastructure are therefore placing them in a favourable position within a competitive property market through a delivery of high quality green infrastructure.

Transport/infrastructure providers

Infrastructure providers in London have been one of the most difficult sectors to engage with the delivery of green infrastructure. Due perceived engineering and financial complexity associated with integrating green elements into development, as well as potential disruptions to services associated with urban greening, and specifically street trees, infrastructure providers have delivered a less significant proportion of green infrastructure compared to other sectors. Network Rail's decision to deliver a programme of vegetation management along transport corridors in one example of how service provision is deemed to outweigh ecological value. However, as the technical understanding of sustainable drainage, tree planting and management, and the climatic (air quality and stormwater management) becomes increasingly prominent in investment/management discussions the use of green infrastructure is no longer off limits. For example, in 2018 Transport for London (TfL) commenced on an inventory of its land holdings and commercial/infrastructure assets to assess how they could 'green' their estate. Partially this reflected a need for more cost-effective management of buildings, e.g. through the installation of green walls/roofs, as well as addressing flooding issues on rail tracks and commercial assets using trees and better drainage. There are also significant potential for green infrastructure to be integrated into the redevelopment plans for Kings Cross and Thames Bridge transport hubs, which would help to moderate extreme heat/flooding issues. The use of green infrastructure remains though embryonic, and it will take time to alter the mind-set of engineers towards more nature-based solutions (NBS).

Environment Sector

The environment sector in London, as elsewhere in the UK, has been the traditional alternative to local government support for green infrastructure. As with other organisations, at all scales, they have seen their funding diminish as central government has limited the amount of financial support it provides for landscape management/enhancement. Due to their precarious funding position, environment sector organisations have been relatively adept at identifying alternative funding sources from across the public-private-third/community sector. Moreover, due to the breadth of organisations working in environment sector a range of options are open to help fund green infrastructure, as discussed below.

Sustain, a charity focussed on developing food resilience across London, works with multiple partners to deliver information and awareness raising programmes promoting the value of healthy food. They have also introduced and support community food growing programmes, the reuse of meanwhile/derelict spaces for urban agricultural practices and have worked with local government to manage sections of urban parks through community stewardship, thus lowering overall management costs. This has provided opportunities for residents and other charities to engage with nature and food growing, and has been

targeted at vulnerable or marginalised socio-economic groups. The aim of which is to ensure that people are aware of healthy practices, and that they are engaging with their local environments, specifically parks and green infrastructure.

Working with corporate organisations water focussed charity *Thames 21* has engaged stakeholders to increase level of non-capital investment in green infrastructure through Corporate Social Responsibility (CSR). This has included working with banking and legal firms to ‘give something back’ to local communities. Thames 21 currently engage approximately 7,000 volunteers each year in waterway improvement. As these relationships have developed Thames 21 have moved onto obtaining capital payments from organisations to invest in new green infrastructure projects. Thames 21 have been successful partly due to the development of the CSR programmes but also because they have been delivering landscape enhancement and engagement work over several years.

Groundwork London is another body that have worked effectively with local government and other partners to attract funding to deliver green infrastructure. Working with borough councils (the planning/delivery scale below the GLA), environmental organisations including Trees for Cities and charities/campaign groups, e.g. Parks for London, they have successfully attracting funding from Europe (Horizon 2020 projects), local and central government grants, and from partner environmental groups such as the Woodland Trust. Groundwork London also delivers landscape management, design and community/social cohesion services providing additional income to deliver green infrastructure. One of the most significant aspects of Groundwork London’s success has been the longevity of their engagement with communities (public, private and environmental) enabling them to establish trust between partners. This has positioned them at the forefront of environmental discussions, and ensures that they are engaged was key stakeholders in project development and funding bids.

As a social housing provider the *Peabody Trust* has a remit of maintaining its estate to maximise the quality of life for its residents. On the Thamesmead Estate (4km²) they have begun a process of regeneration requiring master planning of the physical and natural environment. This process has enabled the Trust to think strategically about how it integrates sustainable drainage, public green space, diverse ecological planting and access to nature within its plans. The existing site has a significant proportion of green infrastructure but the proposed master plan aims to enhance its functionality and resistance to climate change. Funding for green infrastructure is being obtained from local service charges derived from residential levies and engagement with other infrastructure and environmental organisations (including TfL and water/utilities suppliers) and is a long-term project of change.

City of London Corporation

In late 2018, the City of London Corporation announced it would be requiring the delivery of green infrastructure in all future applications for planning permission. This policy is the latest step in the Corporation’s drive to ‘green’ the City of London to provide an aesthetic and functional backdrop to continued investment. This has become increasingly important due to the uncertainty surrounding Brexit and the long-term tenure of businesses. To address this, they have used licencing fess, ground and access rents, and funding derived from hiring/use of their green infrastructure portfolio to cross-subsidise the management of parks, gardens and street greening. Moreover, they are working with businesses to support a culture of ‘greening’ via investment in on-site planting, as well as supporting broader investment and management options. However, although the City of London can be viewed as successfully driving forward a green infrastructure agenda they can do so because of their political and financial position. They

are not constrained to the same extent by government austerity measures, as they obtain a significant proportion of their funding from rents/business fees. They can though be viewed as innovators in terms of their identification of a range of opportunities associated with their land holdings, which can be used to fund green infrastructure. Whilst all local governments cannot maximise their assets as effectively, the Corporation illustrates a range of opportunities that may provide other cities with a template for the commercialisation of their own assets.

Discussions and Conclusion

Funding for green infrastructure remains in a precarious state in the UK, as central government persists with its policy of fiscal austerity (Mell, 2018). In practice this has led stakeholders engaged with landscape planning to reconsider what funding they have and how they can best utilise it to meet environmental and socio-economic needs. These differ across the UK, and are dependent on physical, socio-cultural and political/financial opportunities and constraints in each urban area. London therefore offers interesting insights into how green infrastructure can be promoted in a location where competing development/societal and land values may be restrictive to investment.

From the discussion presented above we can identify the following as providing scope for a more effective form of investment in green infrastructure. These are based on ongoing and more effective dialogue between stakeholders and a better understanding of the financial, socio-cultural and ecological benefits that accrue from urban greening. To achieve long-term funding for green infrastructure stakeholders are advised to engage with the following:

- Identifying alternative funders is, and will continue to be essential, to ensure that stakeholders are not reliant on a single funding agency.
- Stakeholders should not rely on traditional funding mechanism, e.g. from central government, as there is a concern within green infrastructure advocates that financial support via historical government grants may continue to decrease. Moreover, support generated from planning obligations in the UK (planning consent payments/levies) may also decrease, thus local government should think more strategically about possible future funders.
- Collaboration and innovation are needed to ensure that alternative approaches to planning, management and funding are discussed. This should include representatives from across public, private, charity/third sector organisations, as well as from residential communities. It is also important that any partnerships that are created are sustained to enable a longer-term process of funding and management to be developed. Short-term investment in green infrastructure projects often lack continuity due to changes in management and/of funding.
- The development of strong leadership from within private business advocating for green infrastructure would be a positive outcome of austerity. Where strategic members of the business communities are supportive of investment in urban greening we can identify buy-in from other stakeholders leading to organisational change.
- Green infrastructure resources are valuable economic assets and in many locations charging for public or private use at formal events is underused. The commercialisation of green infrastructure, and specifically destination parks, is one mechanism that local government can

use to generate income. ‘Sweating the asset’ though must be done respectfully to local communities and users who are most likely to be impacted upon by the privatisation of public space. Careful planning is therefore needed to balance income generating activities and continued access and functionality.

- Green infrastructure must remain beneficial to local/resident/business communities, as where a sense of ownership and stewardship exists there is an increased potential to find non-traditional and localised funding (capital or revenue) to support management.

References

- Butler, P. (2018). ‘Territorial Injustice’ May Rise in England Due to Council Cuts – Study. *The Guardian online*.
- Clarke, N. & Cochrane, A. (2013). Geographies and Politics of Localism: The Localism of the United Kingdom’s Coalition Government. *Political Geography*, 34, 10–23.
- Department of Communities and Local Government. (2012). *National Planning Policy Framework*. London.
- Jones, G., Meegan, R., Kennett, P. & Croft, J. (2016). The Uneven Impact of Austerity on the Voluntary and Community Sector: A Tale of Two Cities. *Urban Studies*, 53(10), 2064–2080. Retrieved December 5, 2017, from
- Liverpool City Council. (2016a). *Strategic Green and Open Spaces Review Board: Final Report*. Liverpool.
- Liverpool City Council. (2016b). *The Draft Liverpool Local Plan*. Liverpool.
- Lowndes, V. & Gardner, A. (2016). Local Governance under the Conservatives: Super-Austerity, Devolution and the ‘Smarter State’. *Local Government Studies*, 42(3), 357–375. Retrieved December 5, 2017, from
- Mell, I. (2018a). Financing the Future of Green Infrastructure Planning: Alternatives and Opportunities in the UK. *Landscape Research*, 43(6), 751–768.
- Mell, I. (2018b). Establishing the Costs of Poor Green Space Management: Mistrust, Financing & Future Development Options in the UK. *People, Place and Policy*, 12(2), 137–157.
- Neal, P. (2013). *Rethinking Parks: Exploring New Business Models for Parks in the 21st Century*. London.
- Nesta. (2016). *Learning to Rethink Parks*. London, UK.
- Papworth, T. (2015). *The Green Noose: An Analysis of Green Belts and Proposals for Reform*. London, UK.
- Sturzaker, J. & Mell, I. C. (2017). *Green Belts: Past, Present and Future*. Abingdon: Routledge.
- Tait, M. (2011). Trust and the Public Interest in the Micropolitics of Planning Practice. *Journal of Planning Education and Research*, 31(2), 157–171.