Supplementary written evidence submitted by Daniel Black, Daniel Black and Associates (db+a)

Making the business case for planetary health in urban development

Questions posed by the Panel

Philip Dunne questioned the cost-benefit of undertaking renovation of existing housing stock (Q261, Q262, Q266, Q267).

Alex Cunningham started to question the issue of covering cost, particularly in light of reduced local authority resource (Q300, Q301).

Our response

This line of enquiry is critical, as it identifies a fundamental barrier with regards addressing planetary health issues: namely, how we value quality of life in decision-making.

We partially responded to the MPs questions in the oral session (responses to Q291, Q297, Q304), but provide here a fuller response:

1. In order to take a balanced view on cost-benefit we must seek to consider all linked costs and benefits (see boxes 1 and 2 below)

2. There is widespread recognition - from senior decision-makers across the UK’s urban delivery agencies - that these costs are not adequately factored in to urban development, and widespread support from them for doing so (see UPSTREAM Project Report - pp.14-18)

3. These economic valuations are valued by industry as they provide a robust assessment of the scale of an issue and enable prioritisation of action (see UPSTREAM Project Report - pp.9-13, pp.14-18 and Table 2 below)

4. Use of economic valuation is important, but it forms only part of the evidence used in decision-making. There are multiple systemic barriers and associated opportunities that need to be addressed in concert. We have identified hundreds of these across nine core areas: land, finance, valuation, governance, politics, public realm, capacity, partnership, risk (see UPSTREAM Project Report pp.14-18)

5. Much is understood about these areas individually so we are not starting from scratch, but much more work is needed to integrate these disciplines in order to enable real change (Black et al, 2018)
Box 1: Example costs linked to the quality of the built environment:
(e.g. poor air quality, lack of access to nature, physical inactivity, carbon emissions)

- **Air pollution**: “The [OECD](http://www.oecd.org) has estimated that people in its 34 Member countries would be willing to pay USD [1.7 trillion](http://www.oecd.org) to avoid deaths caused by air pollution. Road transport is likely responsible for about [half](http://www.oecd.org).” ([OECD, 2014](http://www.oecd.org))

- **Obesity**: “In the United Kingdom, we estimate that the total impact on employers is $7 billion. Of this, $5 billion comes from decreased productivity in the workplace rather than outright absenteeism…the government currently spends about £6 billion a year on the direct medical costs of conditions related to being overweight or obese. That is 5% of the entire budget of the NHS…The cost of obesity and diabetes to the healthcare system is equivalent to the United Kingdom’s combined “protection” budget for the police and fire services, law courts, and prisons; 40% of total spending on education; and about 35% of the country’s defence budget…On current projections of rising prevalence of obesity and overweight conditions, the cost to the NHS could increase from between £6 billion and £8 billion in 2015 to between £10 billion and £12 billion in 2030.” ([McKinsey & Co, 2014](http://www.mckinsey.com))

- **Mental Health**: “Mental illness is costing the UK more than £94bn every year in treatment, social support costs and lower employment, the [OECD](http://www.oecd.org) has estimated. The cost to the UK economy is in line with the average for Europe at 4% of GDP. Nearly half - £42bn – of the costs for the UK are related to lower employment and productivity…There are also stark inequalities with the poorest fifth in the UK almost three times as likely to report a mental health problem as the richest fifth and the underlying causes of health including poverty must be addressed to tackle this.” ([Public Finance, 2018; OECD, 2018](http://www.oecd.org))

- **Biodiversity**: “The estimated annual loss in ecosystem services resulting from the cumulative loss of biodiversity will be worth nearly €14 trillion (thousand billion) by 2050” ([European Commission, 2008](http://www.europa.eu))

- **Flooding**: “Annual damage to UK properties currently total £1.3 billion, for England and Wales the figure is projected to rise to somewhere between £2.3 billion and 12 billion by the 2080s.” ([UK CCRA, 2012](http://www.ccra.uk))

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Box 2: Climate risk valuation for Bristol’s healthcare providers

Daniel Black + Associates (db+a) and University of Bath undertook two InnovateUK / NERC-funded case studies on climate risk valuation, the second with Bristol Health Partners, a strategic collaboration between the city’s three NHS Trusts, three clinical commissioning groups, two universities and its local authority. Headline estimates suggest the following costs:

- **Flooding**: £35 million annual cost (£600 million by 2040) – 30% of total; cost of medical treatment only
- **Overheating**: £800,000 - £3.8 million annual cost (£20-90m by 2040) – 5% of total; cost of treatment only
- **All costs over 5 years**: £198 million

InnovateUK/NERC-funded feasibility study - Solving Urban Challenges with Data
For further details, see: [https://www.db-associates.co.uk/climate-change--risk-management.html](https://www.db-associates.co.uk/climate-change--risk-management.html)
REFERENCES


