Green and Blue Infrastructure Business Cases

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The GBI project

Goal: Support business case developers and appraisers with green and blue infrastructure economic valuation

Why?: Difficulty to demonstrate 'value', in comparison to other competing interventions (e.g. time savings in transport)

How?:

- Review of tools

- Review of economic conceptual frameworks

- Case studies

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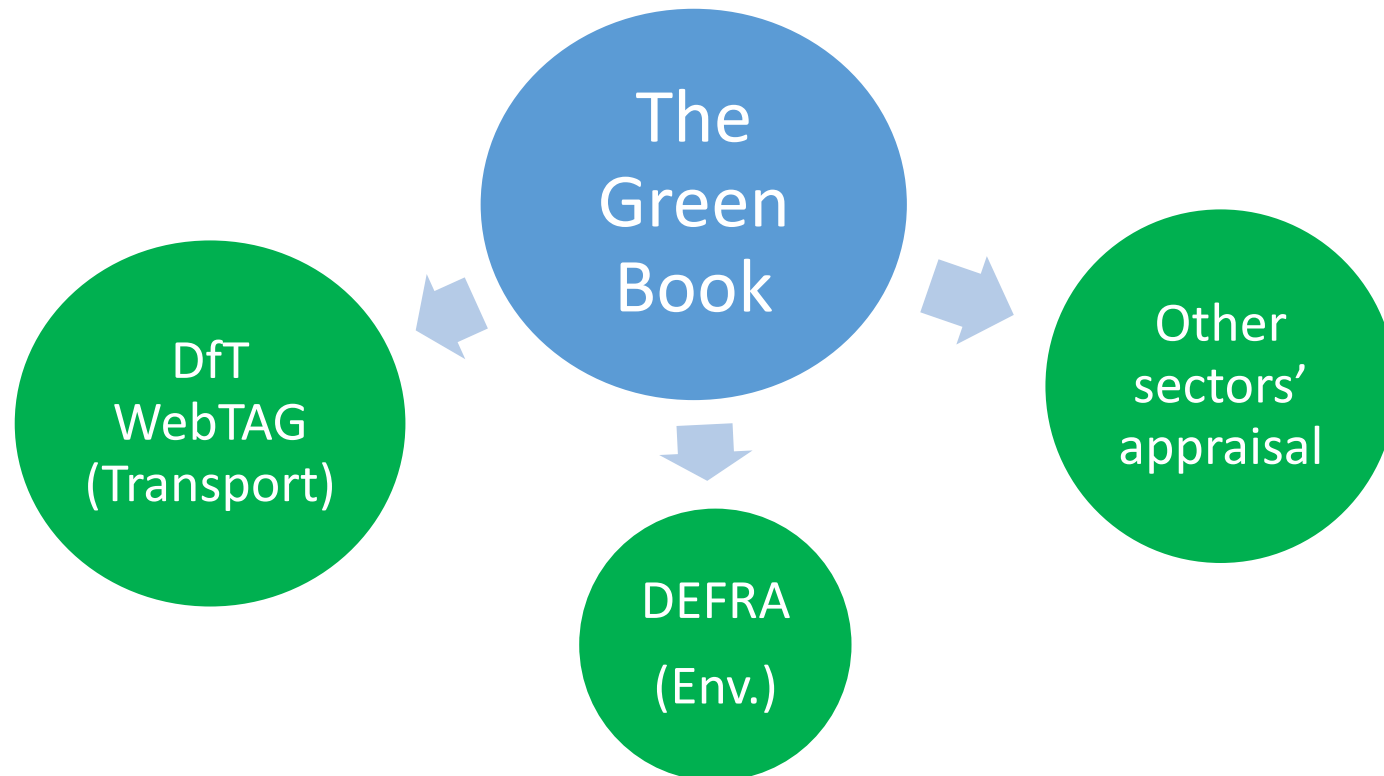Integrated Catchment Solutions Programme

Why so difficult?

- Limited evidence?
- Limited appraisal frameworks?

Evidence of significant value of green streets, e.g.

✓ Value of **street trees** reflected in London property market (Millard, Nellthorp and Ojeda-Cabral, 2018)

✓ Value of accessibility to **parks** and playgrounds (Nellthorp et al., 2019; Ojeda-Cabral et al., 2019): *5.9% property value premium if close to a park (compared to no access)*

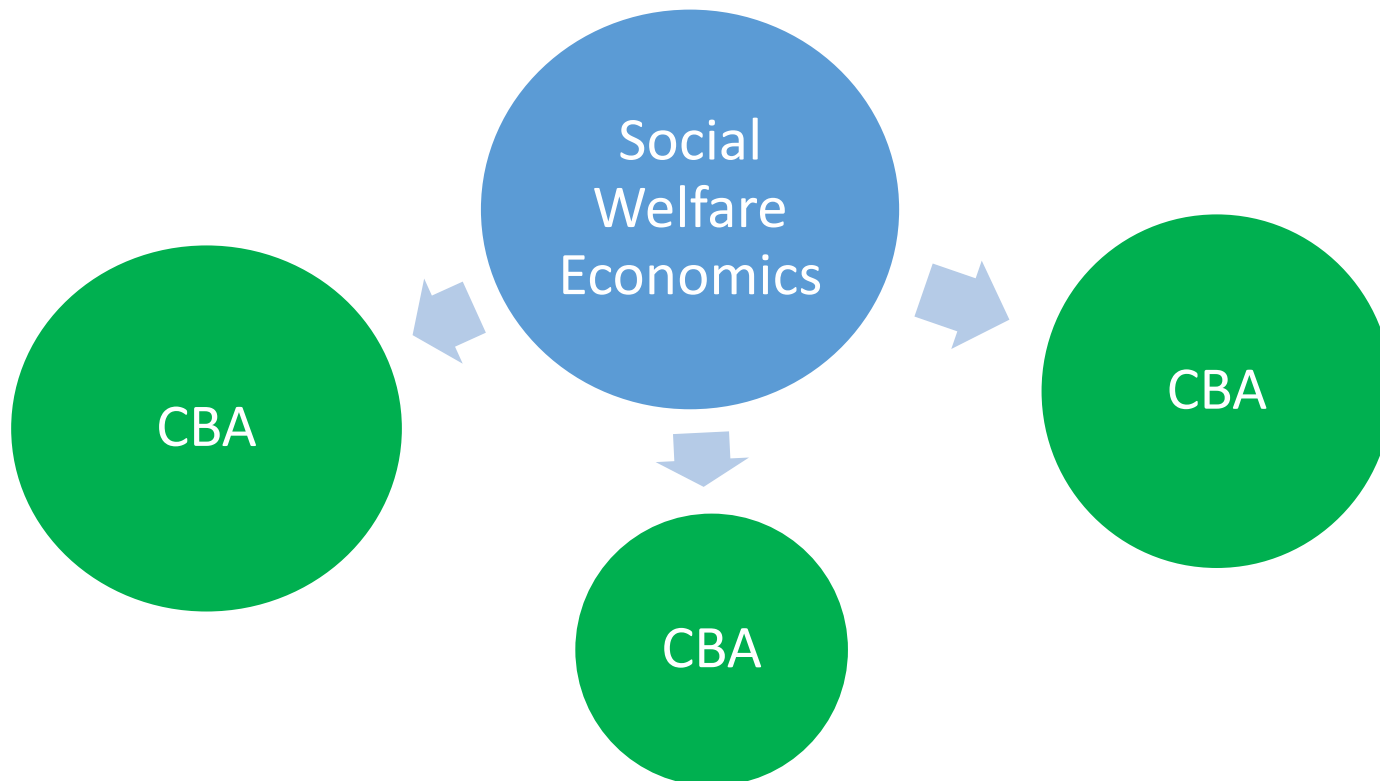✓ Value of recreational **green spaces** (Mouter et al., 2019): relative to the value of travel time savings

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Why so difficult?

- Limited evidence?
- <u>Limited appraisal frameworks?</u>

The Green Book

DfT WebTAG (Transport)

DEFRA (Env.)

Other sectors' appraisal

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- Limited evidence?
- Limited appraisal frameworks?

GBI: Conceptual frameworks review

- Welfare economics and a widely accepted version of CBA dominate the economic appraisal in UK public sector.

- 1st: Welfare economics ≠ conventional CBA
  - Scope for rethinking CBA; how do we apply welfare principles

- 2nd: Green infrastructure ≠ Transport infrastructure

- 3rd: Welfare economics ill-suited to theorise GBI:
  - System of Systems approach (e.g. Brown et al., 2018)
  - Capabilities approach (e.g. Sen, 2000, 2018)

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GBI: Toolkits review

- Green Streets ®, Green Infrastructure Valuation Toolkit (Natural England), iTree (and many others).

- What is the underlying conceptual framework? Which narrative?

- How is 'value' represented?

  Sources of value: Carbon, Air quality, Flood alleviation, Health (active travel), Aesthetics, Biodiversity, Productivity…

  Measurement of value: Land&Property value ≠ Welfare value ≠ GVA value

- Emerging patterns, best practice, 'quick wins', priorities.

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Case studies

- A62 corridor: from grey to green transport infrastructure (Kirklees City Council)

- 'Our Spaces' strategy 2018-2023 (Leeds City Council): vision & delivery of 44 green public spaces in the center

- Others potential case studies being discussed (e.g. Leeds Flood Alleviation Scheme I and II - Environmental Agency)

- Other activities (e.g. Green Streets Task Group)

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Key message: there are multiple buttons we can push to give GBI the place it deserves in the context of public sector appraisal and investment

Questions?

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