

## Embedding the natural capital approach in the built environment

6 October 2017

### About the workshop

This report was informed by an interactive workshop, *Embedding the natural capital approach in the built environment: from strategy to design, implementation and maintenance*, hosted by the Natural Capital Initiative in partnership with Arcadis at Arcadis House in London on 6 October 2017. The workshop was attended by around 40 participants from research, business, the public sector and NGOs, and aimed to go beyond strategy to consider how the natural capital approach can be implemented within the built environment sector, and identify the practical steps needed to embed this approach on the ground. Participants considered key barriers to implementation and potential solutions required to start delivering the natural capital approach in the built environment sector at scale.

The following presentations preceded discussions:

- [Martina Girvan, Arcadis: Natural capital in the built environment – an overview](#): Martina discussed how the approach had been integrated into corporate strategy, design and supply chain analysis, and how we as practitioners can employ this approach across our projects.
- [Alexandra Collins, Imperial College: Measuring the benefits of green infrastructure and natural capital in urban areas - Defra's Local Action Project](#): Alexandra gave a great presentation on a new way of assessing and communicating natural capital benefits for different communities, and introduced the Benefits Of Urban Nature To You (BOUNTY) Toolkit in Manchester.
- **Laura Boccadamo**, Berkeley Group: Laura presented a developers' perspective on biodiversity and natural capital and explained why it made financial sense to develop and implement a biodiversity net gain strategy for their projects.
- [Renuka Gunasekara, Arcadis: Implementing SuDS and delivering benefits](#): Renuka presented work undertaken by him, Martina, Gregor Pecnik and Tom de la Rosa highlighting the type and value of natural capital benefits that can be derived from SuDS, using NW Bicester Eco-town as an example.
- [Lizzie Rendell, Skanska: The Natural Capital Protocol Sector Guide for the built environment](#): Lizzie outlined the goals of this sector guide and discussed how we could encourage the use of the natural capital approach and help develop the guidance.

## Headline recommendations

Collaboration and communication were key themes. Yes, we need to address the evidence base and introduce compelling business and regulatory compliance measures but only by communicating successes and failures will we reach the level of disclosure we require to move forward. Natural capital as a topic is diverse and complex and so are the practitioners and audience we are asking to take this approach forward with us. We have a great opportunity to improve the quality of life for all and the next section sets out some key principles to help us do that.

## Workshop questions around drivers, barriers and solutions

At the workshop, five interconnected key principles were identified as necessary to start delivering the natural capital approach in the built environment sector at scale:

1. Changing culture and improving communication
2. Building the evidence base
3. Sharing knowledge and best practice
4. Driving policy change
5. Developing the business case

Cutting across these five principles was a key theme: **the importance of collaboration and dialogue**. Participants highlighted the need for new partnerships to be formed, across sectors – public, private and research – and existing collaborations strengthened. This dialogue could help improve the flow of information, support more joined-up working, and raise the profile of individual initiatives. **Creating effective mechanisms to support collaboration, knowledge exchange and collective action** will be key to embedding natural capital in the built environment.

These solutions must also recognise the diversity of drivers and motivations for implementing natural capital solutions, which vary across organisations, but also importantly *between* individuals within organisations. Personal motivations and the importance of individual champions should not be discounted. These drivers include:

- intrinsic and instrumental **environmental** drivers: enhancing biodiversity, mitigating and adapting to climate change, reducing flood risk
- **social** drivers: improving the quality of urban places, enhancing people's wellbeing, creating resilient cities
- **economic** drivers: avoiding the costs of grey infrastructure, capitalising on new markets, enhancing corporate reputation and brand values
- **policy** drivers: complying with planning conditions, following government regulations

## Five key principles

### Changing culture and improving communication

A key perceived barrier to the wider uptake of natural capital solutions in the built environment was simply the prevailing culture of the sector. There is a perception of risk aversion and resistance to change, where people and organisations prefer to “do things how they've always been done”, where traditionally engineered solutions have primacy. For some, this was symptomatic of short-term thinking, and a silo mentality to addressing issues in isolation.

While compelling scientific and economic evidence is necessary to overcome this resistance to change, for a culture shift to happen, **improved communication and engagement is essential**. The benefits of natural capital solutions should be better communicated to a wide range of stakeholders, with **messaging tailored appropriately for different audiences**. For developers, this may mean clearly talking the language of finance to demonstrate the long term economic benefits of a natural capital

approach. For a public audience, thinking about the living world in economic terms can be counterintuitive: a focus on the benefits of “nature”, not “natural capital” for people’s happiness and wellbeing can be more appropriate. **Messaging should be consistent, and tell compelling stories always supported by sound evidence.**

### **Building the evidence base**

While the natural capital evidence base is growing all the time, significant uncertainties remain, both in our understanding of the ecological and physical systems of the natural world, and how the benefits that flow from these natural capital stocks can be quantified and valued. Particular examples include uncertainty around natural flood management solutions, inadequate approaches to calculating cost-benefit ratios of particular interventions, and a lack of baseline data on natural capital stocks and ecosystem service flows that captures the integrated nature of multiple benefits.

Where this evidence does exist, it can be hard for the non-specialist to understand, and the range of valuation methods used can lead to a **lack of consistency, risking credibility and causing confusion**. Developers, local authorities and land owners need strong evidence and high quality data to be confident about the benefits that natural capital solutions will deliver if they are to commit to investing time and money.

Improving the evidence base for natural capital solutions in the built environment will **require strong engagement between practitioners and researchers** to identify evidence gaps and needs, for example through a consultation exercise to **identify research priorities for the sector**. A key demand is to ensure that **research and monitoring is built into projects** on the ground, with post-development monitoring embedded, adopting a **more consistent approach to evaluation**, using open-source tools where possible. Research and evaluation should happen alongside trial projects, enabling underpinning scientific evidence and practical case studies to develop in parallel.

### **Sharing knowledge and best practice**

While the scientific evidence base for many natural capital solutions in the built environment is growing - from sustainable urban drainage to the health benefits of green spaces – this does not necessarily mean that this understanding is easily translated into practical implementation. In many cases, there is a lack of appropriate capacity, skills and knowledge within the sector to know **how to implement** a natural capital approach.

Creating **platforms and networks that enable the latest knowledge, skills and best practice to be shared** across the built environment sector is essential. **Practical, local case studies** that enable practitioners to learn from the successes (and failures) of different projects and approaches to implementing natural capital solutions on the ground must complement the development of robust scientific evidence.

### **Driving policy change**

Embedding natural capital thinking in the built environment at scale will be difficult to achieve without the right policy drivers: currently, little is mandatory. Whilst natural capital has gained traction at a national scale through the work of the Natural Capital Committee, this is not yet reflected in substantial legislation or policy. The forthcoming 25-year environment plan for England should provide an opportunity to embed natural capital concepts within government policy. However this should be reinforced through the planning system and at the city scale (where devolution provides new opportunities) for green infrastructure solutions to become widely adopted. Moving away from silo-thinking, and **ensuring join up between the 25-year plan, the national infrastructure plan and the planning system is essential**.

Participants highlighted the need for government departments and agencies – including Defra, Natural England and the Environment Agency – to **demonstrate strong leadership**. In particular the opportunity for natural capital solutions in the urban environment to be explicitly linked to, and contribute towards the **delivery of international commitments**, such as the Sustainable Development Goals, was viewed as a potential powerful driver for scaling up action.

### **Developing the business case**

While policy drivers are key, these should exist alongside market based mechanisms that incentivise investments in natural capital. Participants felt that **the business case for nature-based solutions hasn't yet been fully developed**; businesses are faced with the risk of spending time and money when the returns are uncertain. Valuation and cost-benefit analysis methods remain underdeveloped, and there are often not markets for natural capital benefits. Concerns around both capital and maintenance costs need to be addressed.

As well as developing the evidence base to strengthen the business case for natural capital investments, there are also opportunities to develop **innovative financial incentives**. Could new markets in ecosystem services be developed that offer landowners new revenue streams for delivering environmental benefits? Does the growing evidence of the health and wellbeing benefits of the natural environment provide an opportunity to create better connections with public health budgets? Could local authorities issues “municipal green bonds” attractive to investors?

The Natural Capital Coalition is developing a built environment sector guide for the Natural Capital Protocol. If you are interested in getting involved in developing its content, please contact Lizzie Rendell ([lizzie.rendell@skanska.co.uk](mailto:lizzie.rendell@skanska.co.uk)) who introduced the sector guide project in our workshop.

### **Next Steps**

The audience had an appetite for a practitioner working group to help implement these principles. Our next steps are to engage with this audience to understand what form this could best take.

If you need advice on how to implement the natural capital approach in the built environment, or if you want to share your experiences with us, please contact Natural Capital Initiative ([secretariat@naturalcapitalinitiative.org.uk](mailto:secretariat@naturalcapitalinitiative.org.uk)) or Martina Girvan from Arcadis ([Martina.Girvan@arcadis.com](mailto:Martina.Girvan@arcadis.com)).