

Environmental Monitoring and Impact Analysis - Overview

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Introduction

One of the principles of the Towns Fund is **clean growth**. Clean growth increase productivity, create good jobs, boost earning power for people right across the country, and help protect the climate and environment upon which we and future generations depend.

Towns are well placed to incorporate clean growth investment in their TIPs. Using an 'outcome-led design process' Towns should set clear objectives at the outset of their TIP to drive positive environmental outcomes and clean growth.

This document provides outcome 'themes' that Towns could consider in their TIPs. It provides example indicators that can be used to assess the effectiveness of the environmental objectives as well as signposting to key guidance documents and information resources.

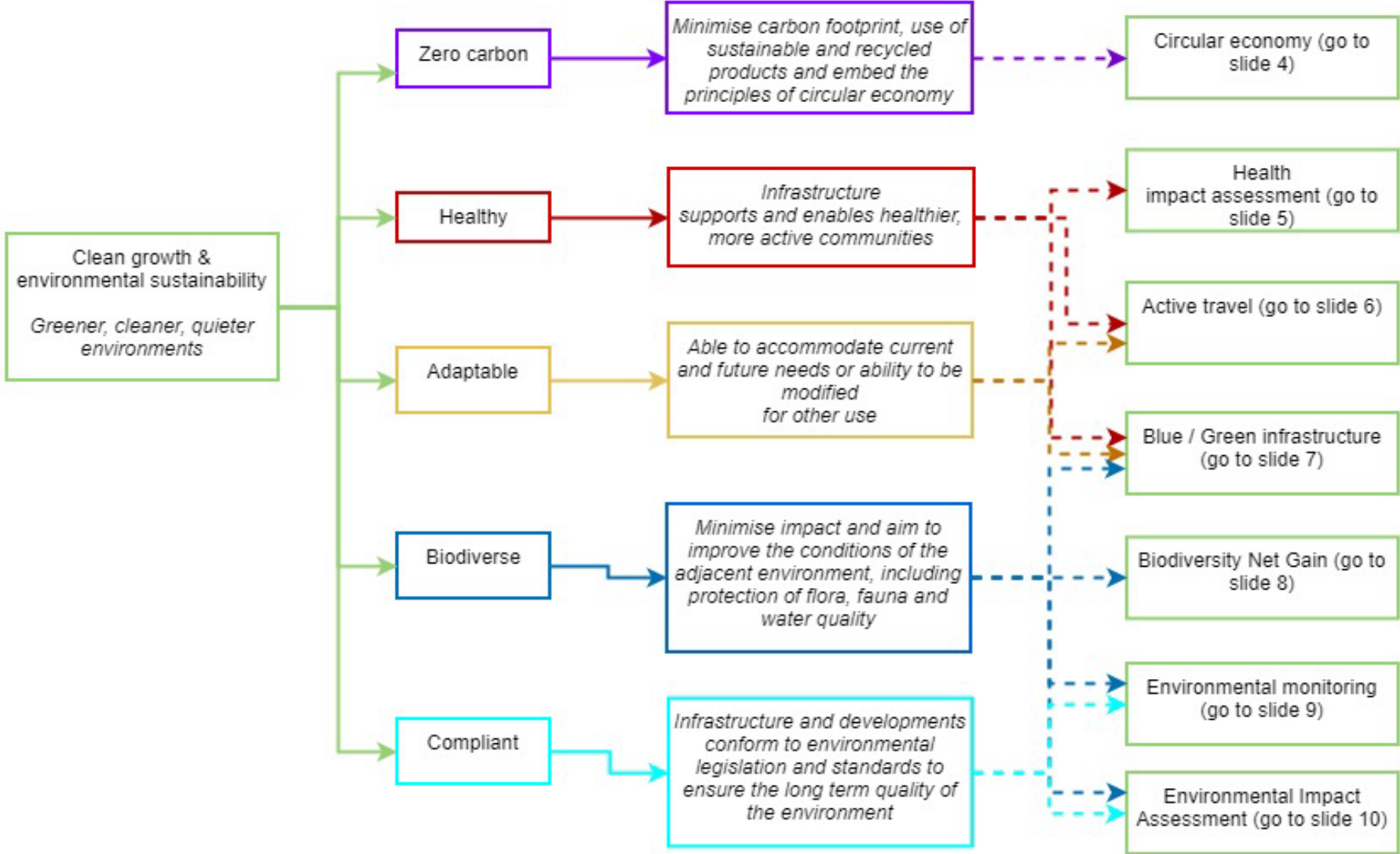
What is 'Clean Growth'?

Clean growth refers to increasing income while ensuring cleaner, cheaper and smarter energy, clean air and more user centric infrastructure, cities and safer streets.

Service Lead: Kerry Whalley

Kerry Whalley specialises in EIA, stakeholder engagement and Project Management for infrastructure projects. She has over 19 years' experience in the power and engineering consultancy industries and has delivered numerous Environmental Impact Assessments and other supporting documents for major and complex planning applications.

Outcome Led Design





What

A circular economy is a systemic approach to economic development designed to benefit businesses, society, and the environment. In contrast to the 'take-make-waste' linear model, a circular economy is regenerative by design and aims to gradually decouple economic growth from resource consumption.



Why consider it?

A circular economy vision could promote:

- **Thriving cities** in which economic productivity increases through new growth and business opportunities
- **Liveable cities** with improved air quality, reduced pollution, and enhanced social interactions
- **Resilient cities**, reducing reliance on raw materials¹



Example indicators

- All waste managed as a resource
- % of new buildings will be designed to XYZ standard
- Societal behaviours – e.g. number of citizens who have chosen alternatives to XYZ



Key guidance

- [Circular economy package policy statement](#)
- [BS8001](#)
- [Ellen MacArthur Foundation - Circular cities](#)
- [Arup – The Circular Economy in the Built Environment](#)
- [Circulytics™](#)
- [Ellen MacArthur Foundation – Toolkit for policymakers](#)
- [The Covid-19 recovery requires a resilient circular economy](#)

¹<https://www.ellenmacarthurfoundation.org/explore/cities-and-the-circular-economy>



What

Towns can have a significant contribution to health and wellbeing. The wider determinants of health are a diverse range of social, economic and environmental factors which influence people's mental and physical health.

Health Impact Assessment (HIA) is a tool that can help to ensure that health and wellbeing are being properly considered in planning policies and proposals.



Why consider it?

Towns can influence the wider determinants of health in order to achieve health and wellbeing improvements as an outcome.

HIA can be used to assess the health impacts of a proposal or intervention on a population.



Example indicators

- % reduction in the number of citizens suffering from Common Mental Health Disorders (CMHDs)
- % reduction in childhood obesity
- % of physically active adults



Key guidance

- [Health Impact Assessment Tools](#)
- [Health Impact Assessment of Government Policy](#)
- [WHO Health Impact Assessment](#)
- [Public Health England wider determinants of health](#)
- [Arup Introduction to Health and Wellbeing](#)



What

Shaping the built environment to increase active travel. Active travel programmes complement a wider urban improvement and resilience agenda, and can help produce healthier, more resilient and enjoyable places to live and work.



Why consider it?

The built environment is associated with how we travel and Towns have the opportunity to make changes to the built environment to promote healthier and more active communities. Making walking and cycling the natural choice for journeys could create happier, healthier communities as well as addressing issues such as air quality, congestion and seamless mobility.



Example indicators

- % change in mode share for journeys to work (from private vehicles to walking and cycling)
- % increase in walking and cycling infrastructure



Key guidance

- [Public Health England: Working together to promote active travel](#)
- [Arup Cycling for Everyone: A guide for inclusive cycling in cities and towns](#)
- [Arup Cities Alive: Towards a walking world](#)

Blue / Green Infrastructure



What

Strategically planned networks of natural and semi-natural areas. Designed and managed to deliver a wide range of ecosystem services such as biodiversity enhancement, water purification, air quality, space for recreation and climate mitigation and adaptation.



Why consider it?

Blue Green Infrastructure presents opportunities to unlock new opportunities for both environmental, societal and economic prosperity, while tackling a number of pressing global challenges such for example climate resilience.



Example indicators

- Creation of XYZ km of green corridors
- Installation of XYZ metres of sustainable drainage systems on existing roads



Key guidance

- [JNCC Roadmap for the BGI Manual](#)
- [Ecosystem services and Green Infrastructure](#)
- [Green infrastructure in policy](#)
- [B£ST \(Benefits Estimation Tool\)](#)
- [Valuing the benefits of blue-green infrastructure](#)

Biodiversity Net Gain (BNG)



What

BNG is an approach to embed and demonstrate the value of biodiversity within a proposal. The aim is to ensure that biodiversity is left in a better state than before.

Biodiversity metrics are tools used to measure changes in biodiversity.



Why consider it?

Restoring nature and slowing the loss of biodiversity is a primary defence against the climate breakdown.

The NPPF includes guidance that planning policies & decisions should “*minimise impacts on and provide net gains for biodiversity*”. The upcoming Environment Bill is also anticipated to make provision for a mandatory requirement for net gain in biodiversity.



Example indicators

- Flora and fauna is protected and conservation is encouraged
- Creation of XYZ km of green corridors
- % increase in vegetation/ landscaped areas



Key guidance

- Arup BNG webinar / learning burst
- [Biodiversity Metric 2.0 technical guidance – Natural England](#)
- [Biodiversity calculation tool – Natural England Biodiversity Net Gain: Good Practice Principles for Development.](#)

Environmental Monitoring



What

Environmental monitoring is a tool to assess environmental conditions and trends, to support policy development and drive improvements to the environment.

Environmental monitoring should be used to assess the effectiveness of the environmental outcomes set out in the TIP and influence future interventions.



Why consider it?

Environmental monitoring establishes the current environmental conditions to provide a benchmark as well as providing a mechanism to demonstrate the effectiveness of a plan or policy.



Example indicators

- Concentration of Particulate Matter in the air
- Water Framework Directive (WFD) status
- Contribution to GHG emissions



Key guidance

- [ISO 14001 Environmental Management](#)
- [DEFRA Local Air Quality Management Guidance](#)
- [WFD Directive](#)
- [Arup Buildings and Infrastructure Consumption Emissions](#)

Environmental Impact Assessment (EIA)



What

EIA is a tool for the assessment of the environmental impacts (both positive and negative) of a proposed development. It ensures the planning authority are informed of the likely significant effects on the environment and takes into account in the decision making process.



Why consider it?

EIA is a legal requirement for certain types of development. It is governed in England by the Town and Country Planning (EIA) Regulations 2017. An EIA can aid design iterations and reduce environmental effects from the development. Ensure that the public are given early and effective opportunities to participate in the decision making process.



Example indicators

- Number of adverse residual effects
- Statutory and non-statutory (i.e. public) feedback taken into account in the design
- Monitor the effectiveness of mitigation



Key guidance

- Arup EIA Screening Guidance
- [EIA Regulations](#)
- [Environmental Impact Assessment Guidance](#)
- [IEMA Impact Assessment Guidance](#)

How can we assist you?

A high quality TIP should have clean, inclusive growth at its heart and embedded throughout its proposals.

To help Towns set clear, desired environmental outcomes and ensure projects align and deliver these objectives, our team of experienced environmental consultants can assist with a broad range of services. Services range from a review of the overall sustainability of a TIP and alignment with clean growth principles, to more targeted training and support on designing monitoring surveys, reviewing environmental impact and risk management.

Support we can provide includes:

- Webinars on specific outcomes;
- Workshops/charettes to help Town Boards define the required environmental outcomes from the TIP;
- Group Q&A sessions around specific tools or approaches (e.g. EIA screening or circular economy tools);
- Provide outline monitoring or implementation plans to help guide towns;
- Check and challenge of TIPs to ensure environmental outcomes are maximised; and
- Data analysis support, and GIS and spatial analysis support.

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