

NEIGHBOURHOOD SUSTAINABILITY

Improving sustainability at a neighbourhood level has positive knock-on effects in the wider community, and Beacon Pathway research has developed some practical tools to assist in this process.

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Although small in both land area and population, New Zealand is an urbanised country. Over 80% of our 4.3 million residents live in urban areas, with over half of the total population concentrated in the 12 largest cities – 30% in the Auckland region. The majority of New Zealand's total population growth is projected to take place in these 12 cities, creating infrastructural, environmental and societal pressures.

Why neighbourhoods are important

Most people's daily lives revolve around their neighbourhood. A neighbourhood's sustainability reflects both individual behaviour, such as walking and cycling, and the built environment that links people together locally and with the wider region.

Improving sustainability at a neighbourhood level contributes to more sustainable environments at a wider scale. Equally, the sustainability of a house depends partly on the built environment of the neighbourhood in which it is located. Therefore, given our large urban population, getting neighbourhoods right is important both for the people who live in them and the resources they consume.

Beacon's focus for neighbourhoods encompasses buildings, infrastructure and spaces – green and open spaces, connecting and dividing spaces. Neighbourhood sustainability is about how buildings and the spaces around them work together and the impact they have on the activities that take place there, for example, the state of infrastructure systems and services such as public transport. As well as the functional aspects of buildings and spaces, their design, quality and aesthetics all work together to shape the urban built environment and influence local social and cultural identity.



By understanding the nature of sustainable neighbourhoods, Beacon believes the industry will be more likely to design and build successful and lasting ones.

Practical New Zealand tool developed

The task of Beacon's Neighbourhoods Team was to develop practical tools to guide the design, building, retrofitting and management of neighbourhoods. The outcome is the Neighbourhood Sustainability Framework. It assists users to identify and prioritise changes that will improve the sustainability of neighbourhoods.

The framework and tools are based on a systematic analysis of international research and has been developed, tested and refined in New Zealand for use here. It will be useful for:

- developers
- local authority planners, engineers, policy-makers or community developers
- designers
- planners

- neighbourhood managers, for example, with Housing New Zealand Corporation or a housing trust.

Assessment kit helps inform decision-making

The kit brings together the Neighbourhood Sustainability Framework and the tools needed to apply it. These tools provide an independent assessment of the sustainability of New Zealand neighbourhoods to inform decision-making. The goal is to show how to design, construct and manage neighbourhoods that:

- are adaptive and resilient
- allow people to create rich and satisfying lives
- respect the limitations of the environment.

The framework considers both residential and non-residential environments, including shops and community facilities, public and open space such as streets, walkways and parks and the state of the infrastructure systems and services available. It also looks at the way existing neighbourhoods are used, how people

in them behave and interact and how all these things work together.

The framework is also designed to assess sustainability of any neighbourhood, recognising that outcomes often result from decisions that are made by a range of stakeholders. For example, the tools will reflect the good outcomes achieved by a well designed and well located neighbourhood. Where a neighbourhood has been poorly sited, the tools make these deficiencies explicit, but also pick up good design that may optimise performance in that challenging location.

The tools collect comprehensive data that can be applicable to the activities of all stakeholders and highlight their collective responsibility to neighbourhood sustainability issues. This information will contribute to discussions on how to optimise the ongoing performance and sustainability of existing and new neighbourhood built environments and may encourage greater collaboration and partnership.

Assessment kit

The assessment kit includes:

- an introduction to the Neighbourhood Sustainability Framework – it identifies six areas (or domains) crucial to sustainable neighbourhoods
- a guide to tool choice – for example, an existing neighbourhood has residents so the assessment uses both the observational tool and the resident self-report tool but the assessment of new neighbourhoods uses only the observational tool
- the observational tool
- the resident self-report tool.

OBSERVATIONAL TOOL

Based on on-site observation by professionals trained in the assessment of built environments, this tool assesses the buildings and structures of the neighbourhood through measured data and scores. It weights this data into sustainability bands for each section (low, medium, high, very high). Core prerequisites fundamental to good neighbourhood outcomes are identified, the outcomes are listed and the report indicates whether or not they are met.

The tool itself is an Excel-based calculator, and guidelines for its use are provided.

RESIDENT SELF-REPORT TOOL

This tool assesses what residents think of their neighbourhood through a survey process that analyses their behaviour and perceptions. The

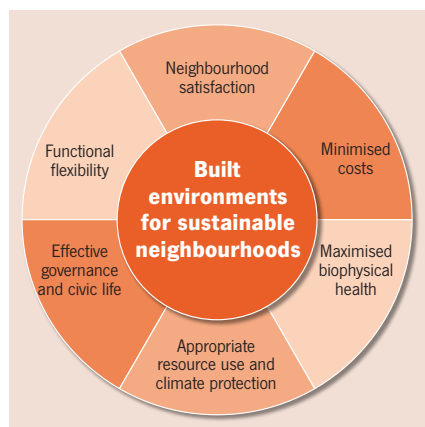


Figure 1: Critical outcome domains for sustainable neighbourhoods.

analysis relates to data collected through a national survey in 2009. Each report presents an overall neighbourhood sustainability band (low, medium, high) and states where the assessed neighbourhood lies in relation to national patterns.

The resident self-report tool comprises a survey and an Excel-based calculator. Detailed instructions for conducting the survey are provided, along with questionnaire templates for telephone, face-to-face and self-complete interviews.

Framework is not a rating tool

Although the Neighbourhood Sustainability Framework provides the ability to assess a neighbourhood at a single point in time, it does not provide a comparative ranking or provide direction about what to do. Rather, the results provide an assessment to help think about the neighbourhood and how the built environment supports, or does not support, sustainable behaviours.

Its purpose is to identify and reflect on actual and potential changes and trade-offs that will improve performance around neighbourhood built environments.

All information and tools associated with this kit are available free from www.beaconpathway.co.nz.

This research was prepared as part of a contract with the Foundation for Research, Science and Technology by Beacon Pathway Limited, a research consortium working to find affordable, attractive ways to make New Zealand's homes more sustainable. ◀