

# CHILD FRIENDLY PRECINCT DESIGN FOR LOW CARBON LIVING: IMPROVING POLICIES AND DECISION MAKING TOOLS

## Introduction

Child related car journeys are rapidly growing with substantial negative health and carbon emission impacts. Framing low carbon living developments through the perspective of children's daily lives, this project will develop planning strategies to create precincts which are conducive to walking, cycling and playing – precincts that are purposely child friendly.

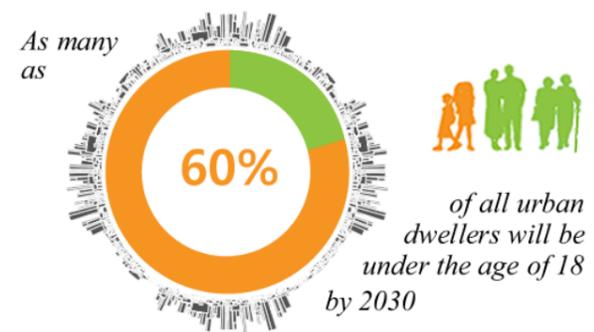


Figure 1: Urban population projections by UN-Habitat

## Research objectives

- Exploring the conditions of the higher density neighbourhoods to understand the use and non-use of public spaces with a focus on children's and parents' perception of these places as well as objective environmental characteristics
- Exploring the role of the child friendly attributes both in a social and physical context through the increased opportunities for active transport and increased choices for outdoor activities vs indoor sedentary activities and how it contributes into:

- carbon reduction
- formation of environmental attitudes and aspirations for children and youth

## Research questions

1. What conditions (social, natural and built environment) in relation to active travel and outdoor activities do new higher density developments offer to children and youth?
  - a. What are the issues and constraints arising?
  - b. What are the opportunities that exist in these developments?
2. How does child friendliness contribute into environmentally sustainable cities?
  - a. What is the carbon reduction potential of child friendly precinct design?
  - b. How does the child friendly precinct design contribute into formation of environmentally responsible lifestyles for children?
3. How can child friendliness be more effectively combined with the goals of environmental sustainability in urban consolidation policies?



Figure 2: Living Streets program in UK (source: [www.livingstreets.org.uk](http://www.livingstreets.org.uk))

## Methods

- Policy/secondary data analysis
- GIS mapping
- Surveys (children & parents)
- Travel diaries
- Semi structured interviews with children aged 10-12 and 15-17



Figure 3: Active travel to school (source: [www.essentialkids.com.au](http://www.essentialkids.com.au))

## Anticipated impacts

A framework of how best to develop low carbon living communities through the creation of child-friendly active travel opportunities and meaningful public spaces supporting the reduction in child

related private car usage and development of our children into environmentally responsible and healthy adults.

**If urban consolidation policies are to tackle car dependency, the role of children (and their carbon footprint) in this process needs to be fully understood**

This framework will be suitable for application by Renewal SA and other planning bodies. The outcomes of the project will directly inform policy development through:

- the establishment of new guidelines for child-friendly low carbon cities and an evaluation framework to evaluate the expected performance of various child-friendly urban design attributes
- providing evidence required to improve precinct assessment tools and planning instruments

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