

# The environment and health: learning how to be strategic

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## Why is the linkage between environment and health more important than ever?

### Answer 1.

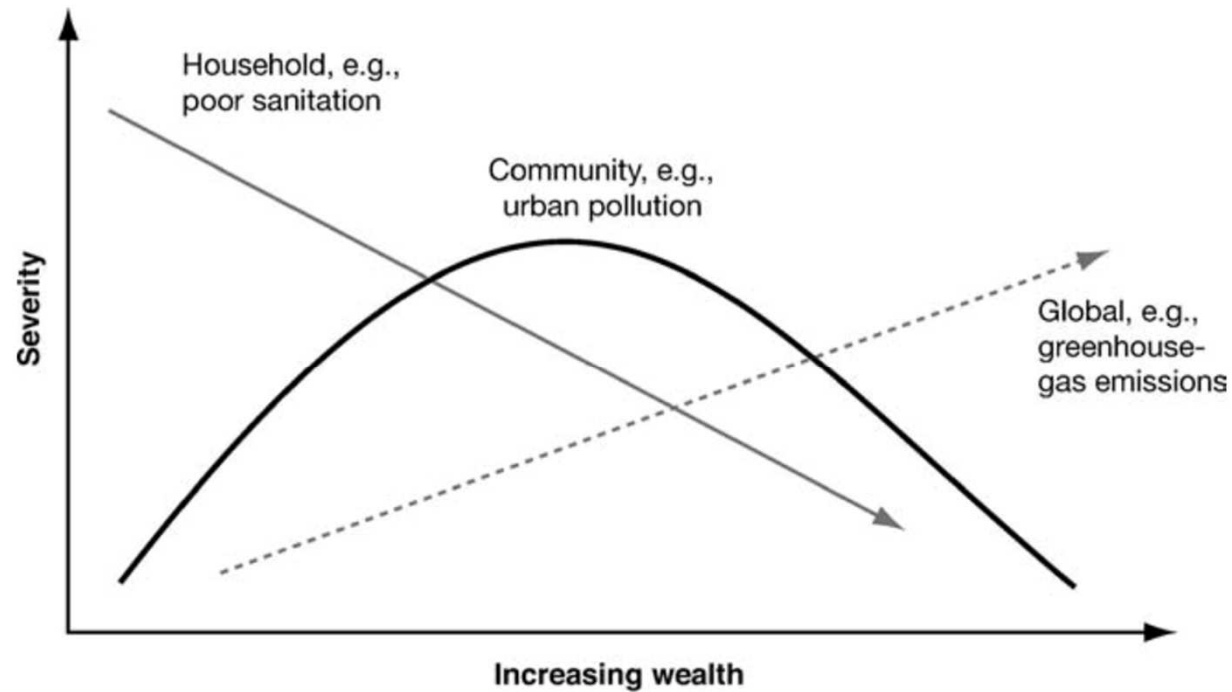
Because nearly a quarter of the global disease burden could be prevented by reducing environmental risks

Pruss-Ustun et al. J Public Health 2016

### Answer 2.

Not only do familiar, preventable environmental problems persist, we now face new, global threats of potentially unprecedented severity

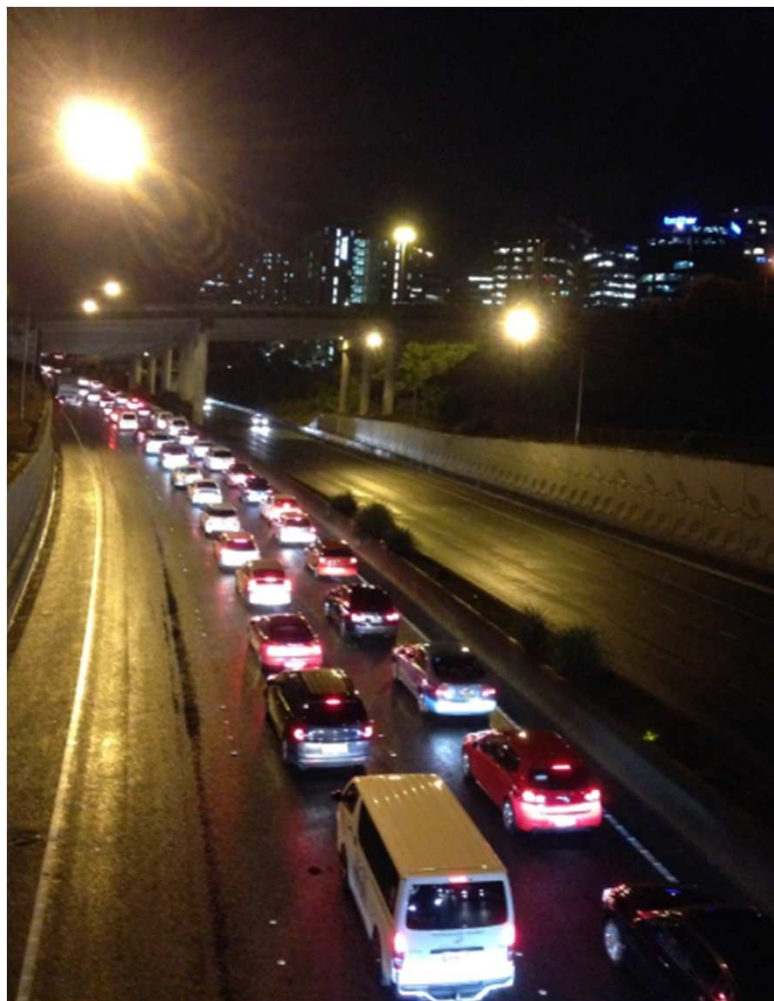
McMichael N Engl J Med 2013;368:1335



**SHIFTING ENVIRONMENTAL BURDENS**



**Figure 2** Environmental risk transition framework in which household risks fall with development, community risks rise and then fall, and global risks rise throughout the development process.



So many reasons for change

NEW ZEALAND / TRANSPORT

## Aucklanders spend 4 weeks a year stuck in traffic

6:50 am today

Share this



Aucklanders who drive to work are spending an extra 172 hours, or four working weeks, stuck in traffic every year, new data from GPS technology company TomTom shows.

That was well up from 2014, when Aucklanders were spending an extra 95 hours a year stuck in traffic.

70% growth in transport GHG emissions since 1990; \$1 billion a year avoidable congestion costs; 1/3 of NZ adults are obese

## A transport policy to improve health and the environment

Shifting 5% of short urban car trips to bicycles in New Zealand would

- Save 22 million litres of fuel a year
- Save 116 deaths a year due to increased physical activity (*versus* 5 extra road crash deaths)
- Save \$200 million a year in health costs

ANZJPH 2011





What could go wrong?

Lack of information

Institutional barriers

Not meeting the challenges of change

Missed opportunities



Jane Bishop died here



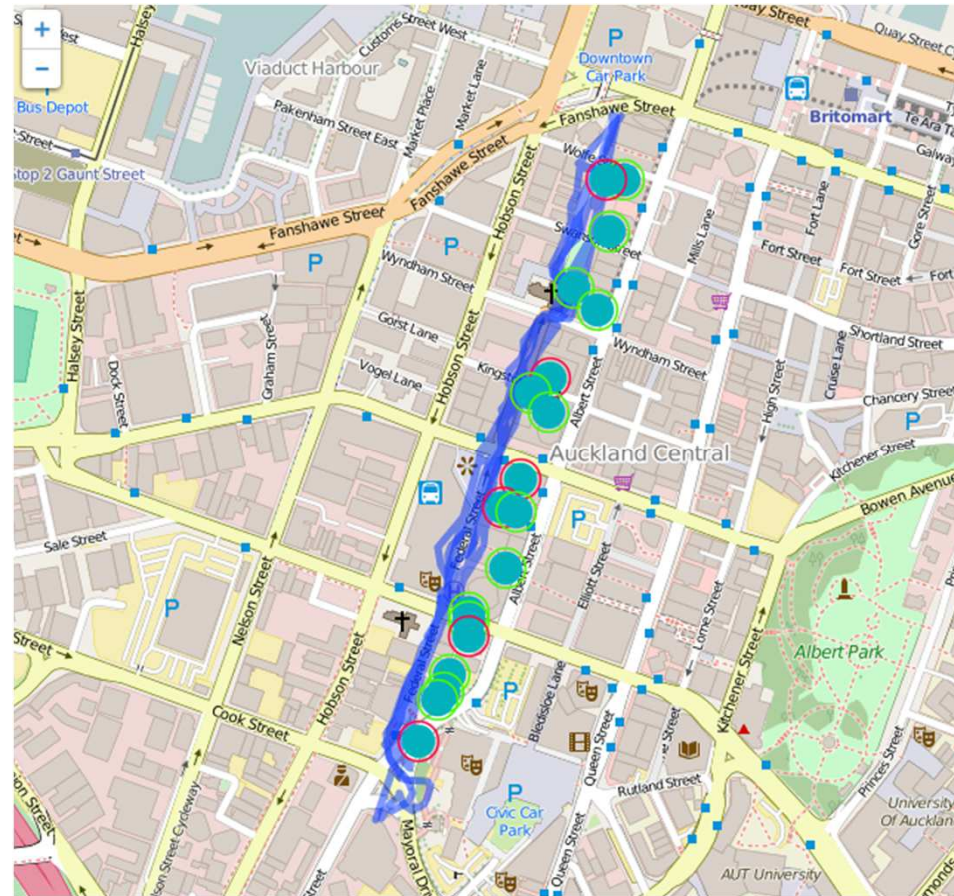
# Sensibel MVP

Using a remote device to capture live cyclist experience data to better inform cycleway infrastructure.



New  
School  
Thinking





Evaluation of Federal Street contra-flow



What could go wrong?

Lack of information

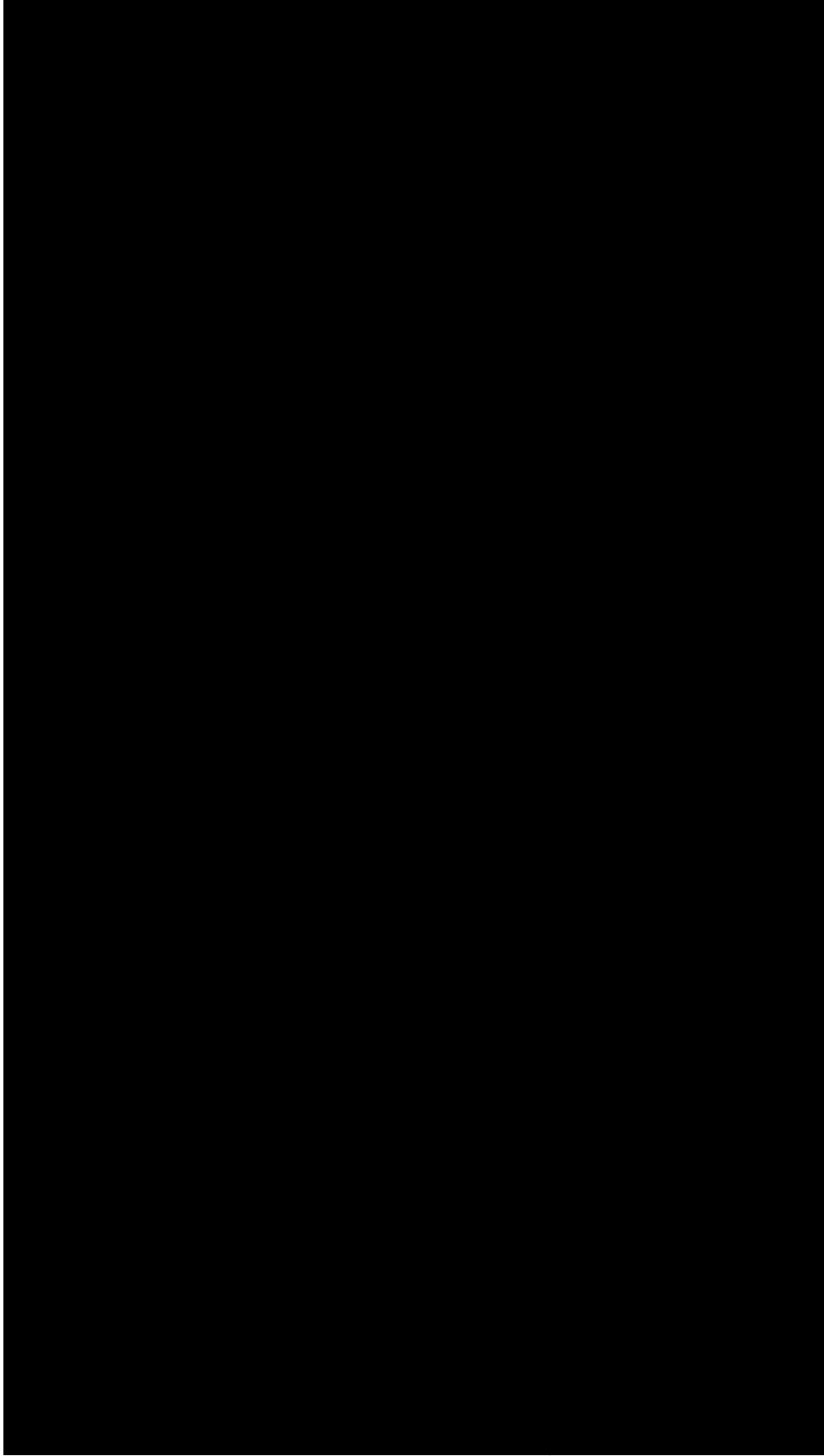
**Institutional barriers**

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The architecture of decision making – a case study: the Ngapipi/Tamaki intersection



#### 5.3.4 Significant Concern – Cyclists not following road markings

A marked on-street cycle lane is marked on the kerbside westbound lane of Tamaki Drive through the intersection of Tamaki Drive and Ngapipi Road. This cycle lane features a give way marking directing cyclists across Ngapipi Road (see Figure 55). It is noted that commuter cyclists avoid this route, preferring to travel straight past the island and then changing lanes to the kerbside lane once the Ngapipi Road left turn slip lane merges with Tamaki Drive.



Figure 55: Cyclist path ignoring give way control

#### Recommendation

Make the cycle through movement the priority movement and install a give way control on the left turn movement on Ngapipi Road.

“you will appreciate that the solution is not a straight forward one. Especially as there is quite a high demand for the left turn from Ngapipi into Tamaki Dr, and the need to balance outcomes for all road users” AT June 17 2016

**Tamaki Drive**

**Part 1, Sections 1-3**

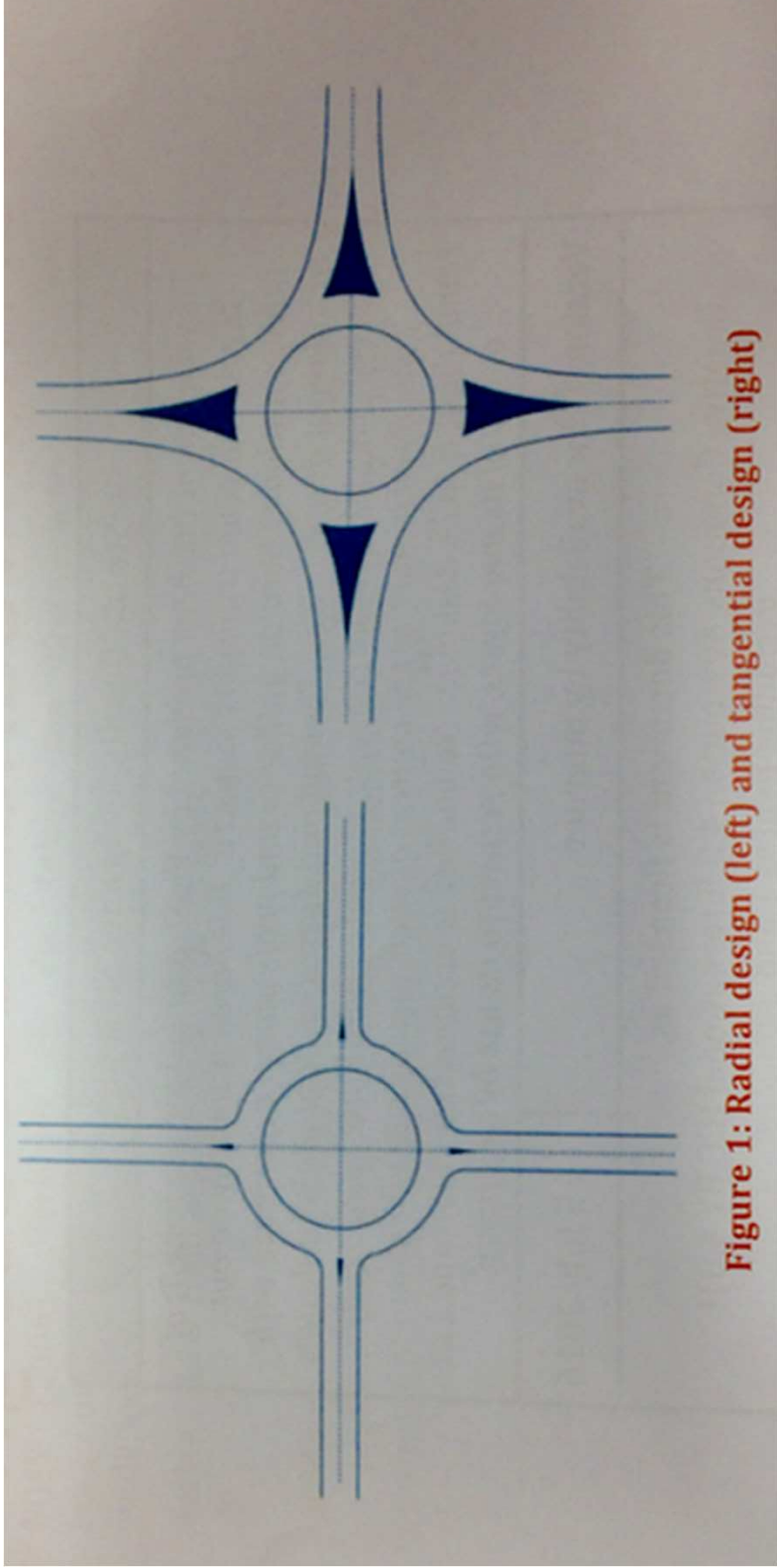
**Safety Audit**

**Prepared for**

**Auckland Transport**

**Auckland  
Transport**

An Auckland Council Organisation



**Figure 1: Radial design (left) and tangential design (right)**

## Ethnic and age differences in health benefit valuation for walking and cycling

	Walking – 15-64	Walking – 65-74	Cycling – 15-64
Everyone	\$0.86	\$5.29	\$0.43

Q2 2011 New Zealand Dollars, values per kilometre

Bassett et al (in progress)

## Ethnic and age differences in health benefit valuation for walking and cycling

	Walking – 15-64	Walking – 65-74	Cycling – 15-64
Everyone	\$0.86	\$5.29	\$0.43
Māori	\$1.53	\$13.80	\$0.77
Non-Māori	\$0.75	\$3.75	\$0.38

Q2 2011 New Zealand Dollars, values per kilometre

Bassett et al (in progress)





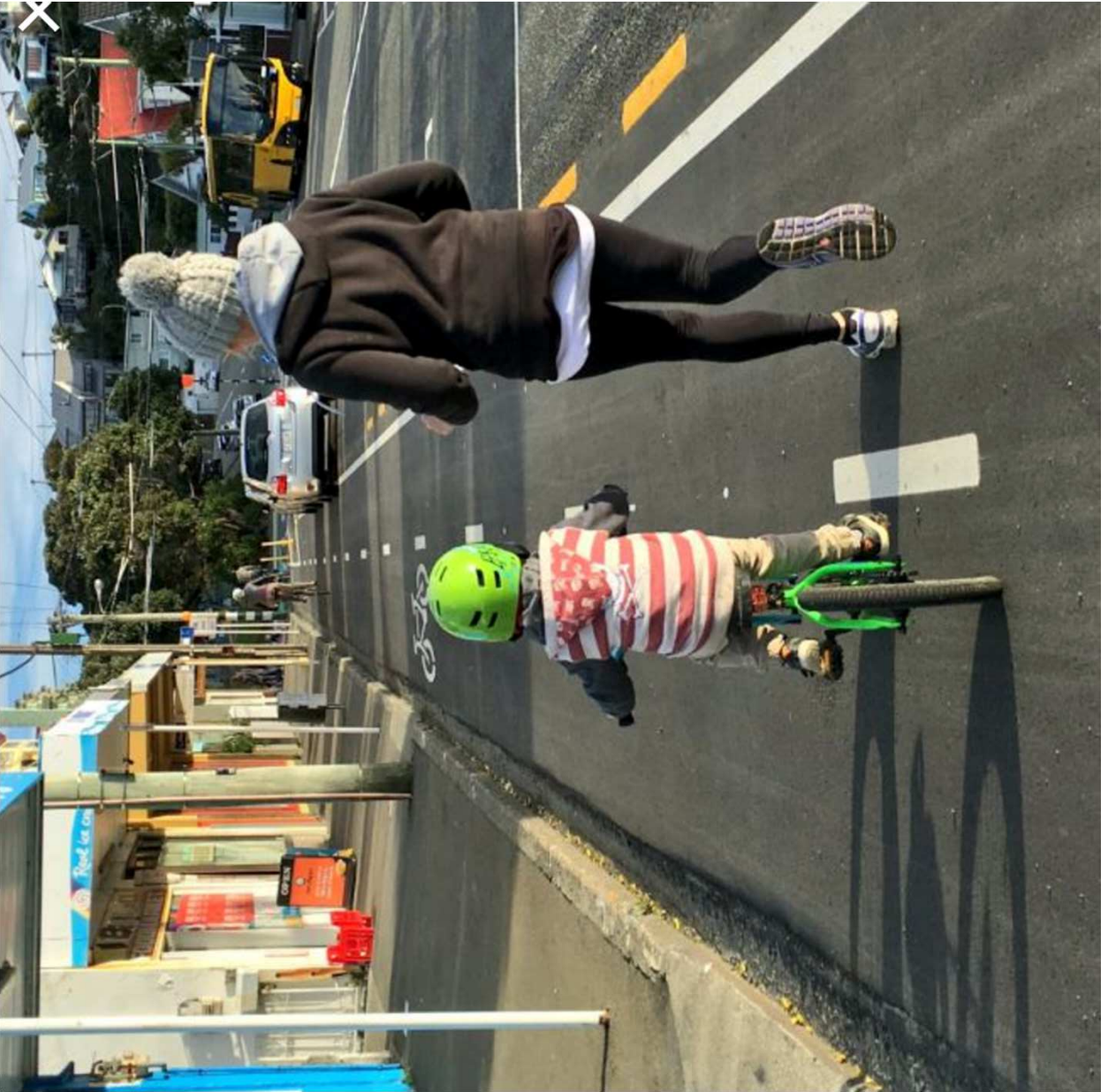
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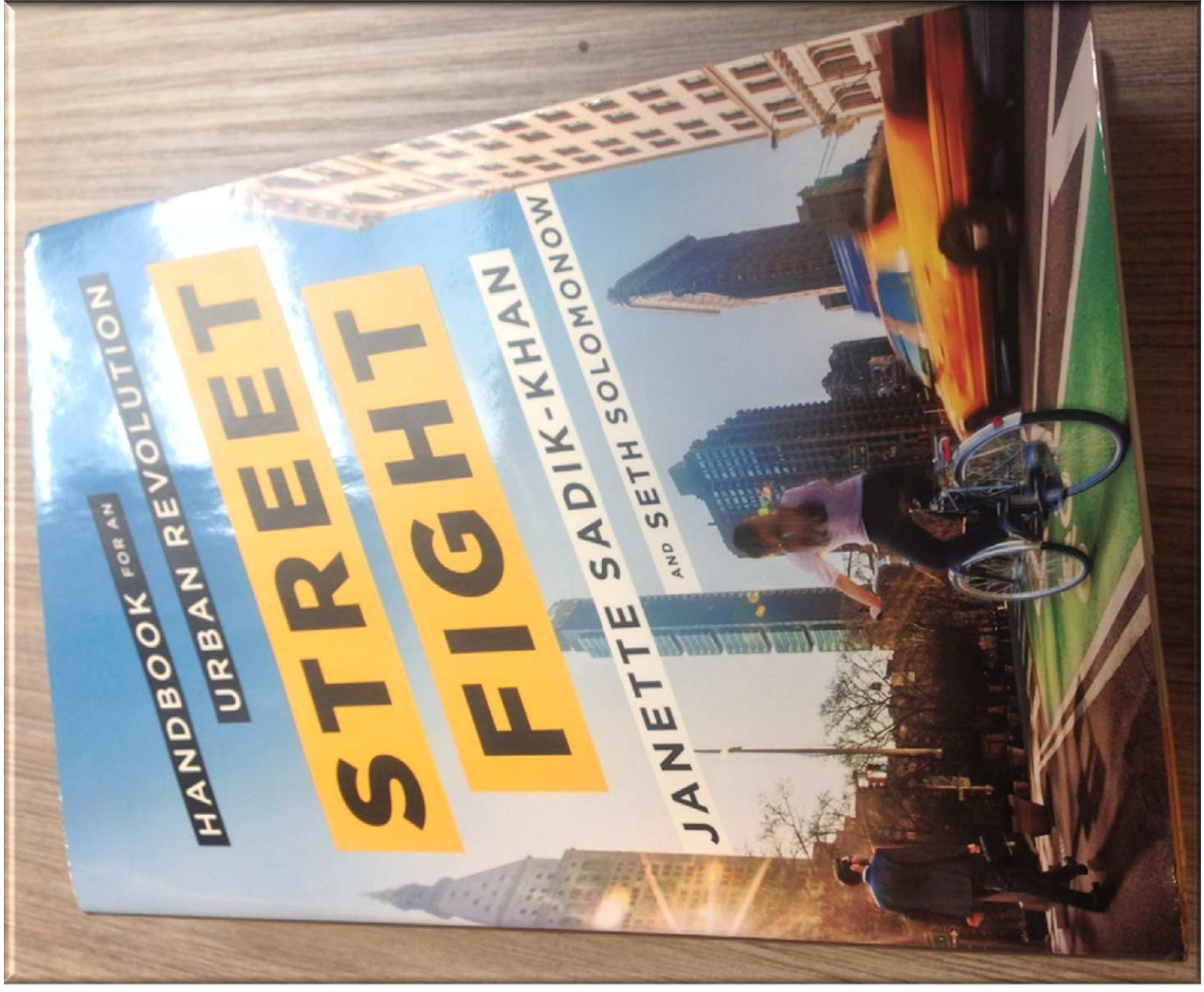




“A suburb at war” Dom Post

“Southern Ward residents had the cycleway forced on them. I talk about it being done with the delicacy of the Soviet occupation of Berlin after 1940”

Nicola Young



HANDBOOK FOR AN URBAN REVOLUTION

# STREET FIGHT

JANETTE SADIK-KHAN  
AND SETH SOLOMONOW

# Opportunities



Prime Minister



Mayor



Technocrat

# Health co-benefits of climate change mitigation: lessons from two Indian cities

	Surat	Delhi
Problem	Plague	Air pollution
Responder	Surat Metropolitan Corporation	The courts
Intervention	Better waste disposal	CNG mandatory in public buses, taxis and autorickshaws
Outcome	Sustained improvements with important co-benefits	Initial improvement, but not sustained. Potential co-benefits were not realised

Puppim de Oliveira and Doll, 2016

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