



Urban forests: critical for a sustainable city

Assoc. Prof.
Justin Morgenroth
School of Forestry
University of Canterbury

Andrew Rutledge Head of Parks Christchurch City Council









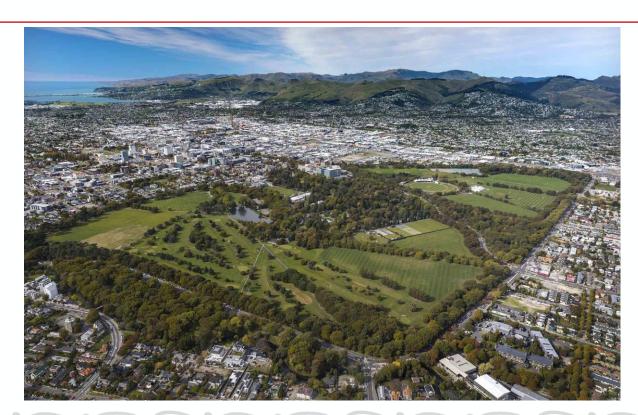
nage: John Kirk-Anderson/Stu







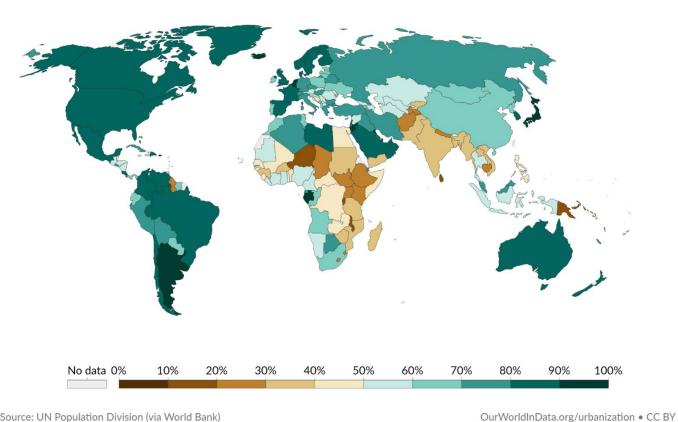




Share of people living in urban areas, 2020

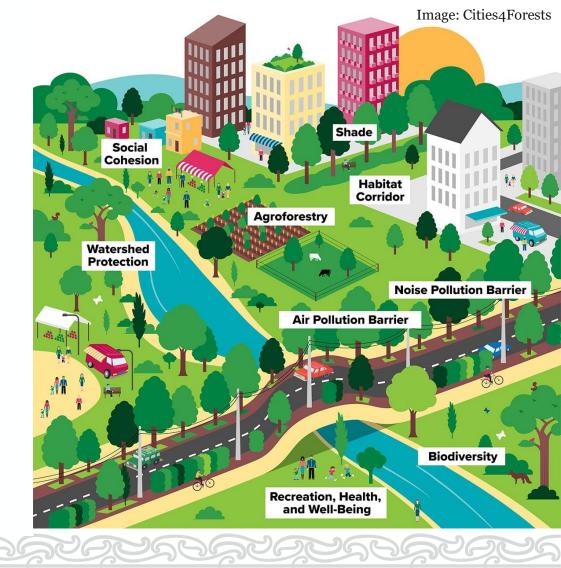


Urban Forests are Critical Infrastructure in an Urbanising World

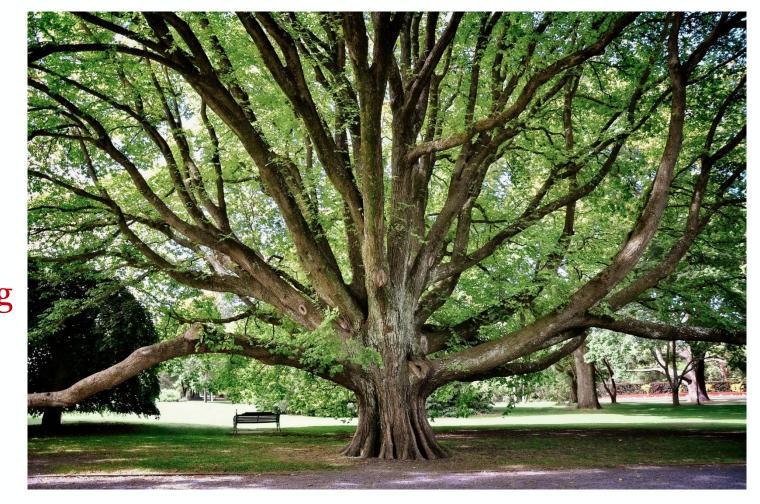


Source: UN Population Division (via World Bank)
Note: Urban populations are defined based on the definition of urban areas by national statistical offices.

The Many Benefits of Urban Forests



Improving
Air Quality
and
Sequestering
Carbon





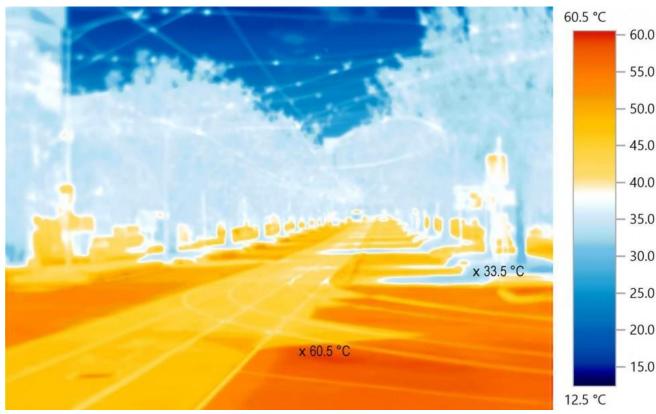


Improving Water Quality



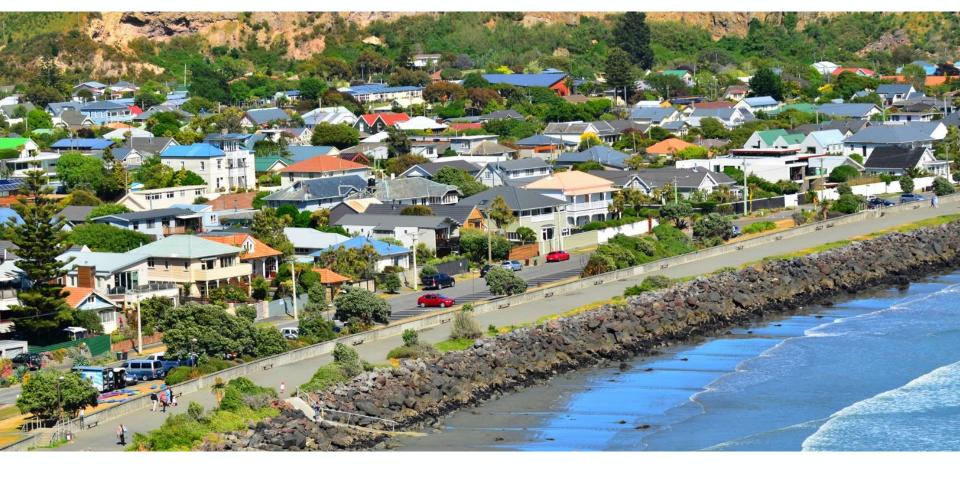
Mitigating the Urban Heat Island Effect





Improving
Physical and
Mental Health
Outcomes





Supporting Biodiversity

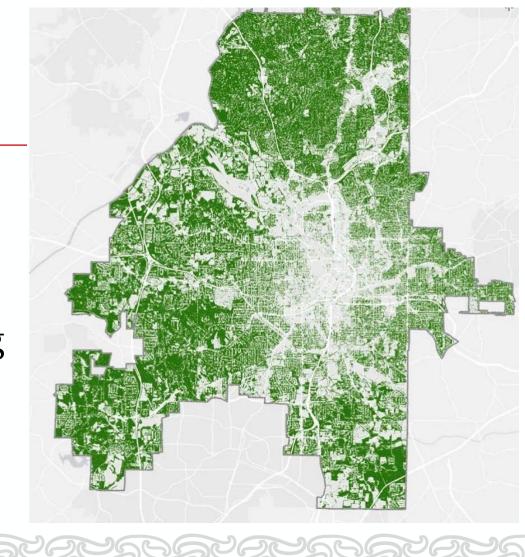
The Benefits are Clear ...

But Challenges Abound



Urbanisation

- Many urban-rural gradient studies show decline in tree canopy cover moving from rural fringe to urban core
- 'Green donut' effect











"Suburbia is
where the
developer
bulldozes out all
the trees, then
names streets
after them."
-Bill Vaughan









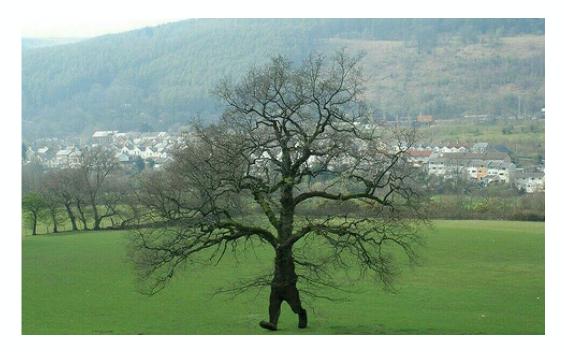






A Rapidly Changing Climate

Trees must avoid or tolerate changes in environment



Fire





Image: https://apfmag.mdmpublishing.com/fire-and-emergency-new-zealand-a-young-organisation-with-a-150-year-history/

Pests and Disease

Urban Forests – Critical for a Sustainable City



The Benefits are Clear

• • •

The Challenges Abound

• • •

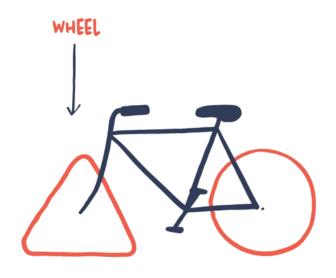
So Where to From Here?



We Don't Have to Reinvent the Wheel



Maximise urban forest benefits in the face of challenges



We Don't Have to Reinvent the Wheel



Many cities around the world have urban forest plans, strategies, or policies

So what about Christchurch?



Photo by Flávio Jota de Paula/Flickr

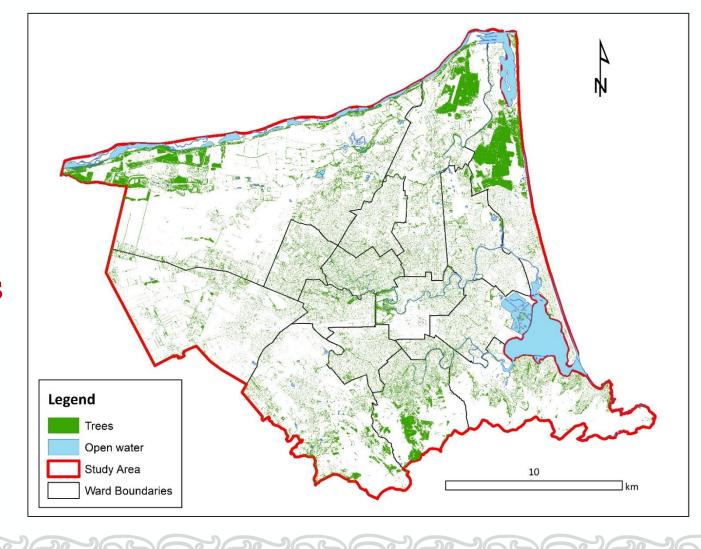




https://www.visitmelbourne.com/regions/melbourne/se e-and-do/nature-and-wildlife/parks-and-gardens/royalbotanic-gardens-victoria-melbourne-gardens#



The Current
State of
Christchurch's
Urban Forest



Christchurch's Future Urban Forest Will Be Influenced By Its **Urban Forest Plan**





- Questions to:
 - justin.morgenroth@canterbury.ac.nz
 - @jamorgenroth

