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Research Reports June 2019

# The future of urban consumption in a 1.5°C world

[Climate Action Planning](#)[Food](#)[Spotlight On: Sustainable Consumption](#)

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This report assesses the impact of urban consumption on greenhouse gas emissions, and explores the types and scale of changes needed to ensure that cities reduce their total greenhouse gas emissions in line with internationally agreed, climate-safe limits. It looks at broadening cities' assessments of their emissions to include the emissions associated with the goods and services consumed in the city ('consumption-based' emissions). It focuses on C40 member cities, but is more broadly applicable.

*“Cities drive the global economy, and urban decisions have an impact well beyond city boundaries. This report demonstrates that mayors have an even bigger role and opportunity to help avert climate emergency than previously thought - charting entirely new territory for C40, but also for the world at large.”*







Mark Watts, C40 Cities Executive Director

The main takeaways include:

- **Urban consumption is a key driver of global greenhouse gas emissions.** Cities can have a significant impact on greenhouse gas emissions beyond their geographic borders by influencing global supply chains.
- **C40 member cities alone represent 10% of global greenhouse gas emissions when accounting for consumption-based emissions.**

- While some cities (including C40 cities) have strong action plans in place to significantly cut emissions produced directly within their geographic boundaries, **emissions measured by what is consumed in cities are rising and, left unchecked, will nearly double by 2050.**
- **To avoid climate breakdown, emissions from urban consumption must halve by 2030.** To achieve this, emissions from consumption in high-income cities must decrease by two thirds within the next decade, and rapidly developing economies need to adopt sustainable consumption patterns as they grow.
- Cities are already leading on addressing climate breakdown by setting science-based targets and taking meaningful action to reduce local emissions from buildings, energy, transport and waste. However, **it is crucial that emissions from consumption are measured when considering how to reduce a city's full impact on climate change.**
- **Urban action on consumption can significantly reduce emissions from the key consumption categories** (see below).
- **Cutting consumption-based emissions will deliver wider benefits for a city and its residents.** Individuals, businesses and city governments all stand to gain if changes are delivered in the right way. For example, a city that consumes sustainably will be cities where it is safer to walk and cycle, where there is more public space and cleaner air, where water and land are used effectively, and where housing is more affordable.

The key consumption categories that cities should target are food, buildings and infrastructure, clothing and textiles, private transport, aviation, and electronics and household appliances. The main interventions for each category, and the potential emissions reductions per category, are shown below (from page 20 of the report).

Consumption category	Consumption interventions	Emission reductions per consumption category between 2017 and 2030	Emission reductions per consumption category between 2017 and 2050
	<ul style="list-style-type: none"> <li>Reduce the number of new clothing items bought every year</li> <li>Reduce supply chain waste</li> </ul>	<b>39%</b> (Reducing the number of new clothing items alone accounts for 37%)	<b>66%</b> (Reducing the number of new clothing items alone accounts for 64%)
	<ul style="list-style-type: none"> <li>Dietary change: eat in line with health recommendations and lower meat and dairy consumption</li> <li>Reduce household waste</li> <li>Reduce supply chain waste</li> </ul>	<b>36%</b> (Dietary change alone accounts for 27%)	<b>60%</b> (Dietary change alone accounts for 45%)
	<ul style="list-style-type: none"> <li>Reduce number of flights</li> <li>Increase adoption of sustainable aviation fuel</li> </ul>	<b>26%</b> (Reducing number of flights alone accounts for 18%)	<b>55%</b> (Reducing number of flights alone accounts for 31%)
	<ul style="list-style-type: none"> <li>Improve materials efficiency</li> <li>Enhance building utilisation</li> <li>Switch to lower carbon materials</li> <li>Adopt low-carbon cement</li> <li>Reuse building components</li> </ul>	<b>26%</b> (Improving materials efficiency and enhance building utilisation together account for 18%)	<b>44%</b> (Improving materials efficiency and enhance building utilisation together account for 29%)
	<ul style="list-style-type: none"> <li>Reduce car ownership</li> <li>Increase car lifespans</li> <li>Increase material efficiency</li> </ul>	<b>28%</b> (Reducing car ownership alone accounts for 24%)	<b>39%</b> (Reducing car ownership alone accounts for 31%)
	<ul style="list-style-type: none"> <li>Optimise lifetimes of IT equipment</li> </ul>	<b>18%</b>	<b>33%</b>

Download the main report from this page. A methods report is available [here](#).

For a closer look at urban consumption in the key sectors, read:

- *[In Focus: Addressing food-related consumption-based emissions in C40 Cities.](#)*
- *[In Focus: Building and infrastructure consumption emissions.](#)*

*In Focus* reports for the four remaining consumption areas are forthcoming.



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