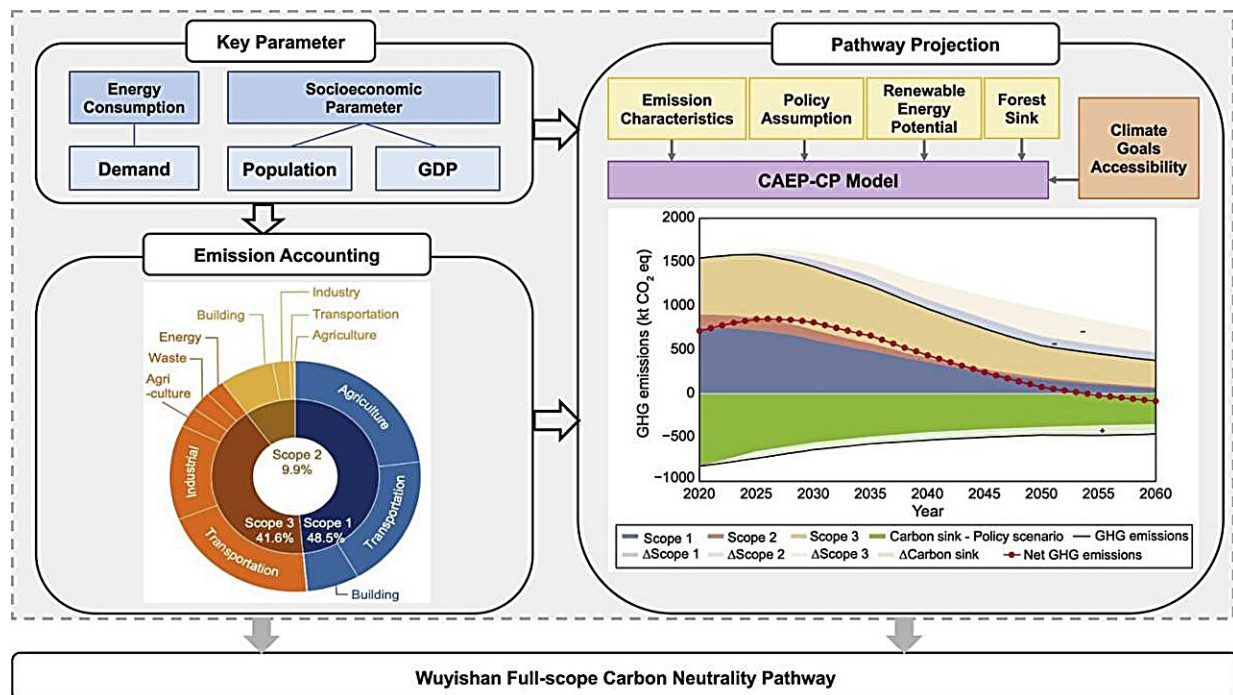


# Pioneering model for urban carbon reduction through urban greening

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Credit: *Environmental Science and Ecotechnology* (2023). DOI: 10.1016/j.es.2023.100354

Researchers have introduced an innovative framework for achieving carbon neutrality in urban areas in an article published in *Environmental Science and Ecotechnology*. [The study](#), which focuses on Wuyishan, a service-oriented city in Southern China, highlights the importance of inclusive strategies that consider both internal and external greenhouse

gas (GHG) emissions to effectively mitigate carbon.

This study presents a strategy for urban [carbon neutrality](#). It introduces a thorough method for calculating and reducing GHG emissions and highlights the importance of often-overlooked out-of-boundary emissions, which make up 42% of Wuyishan's total emissions.

The approach innovatively combines life cycle assessments with sector-specific analyses, covering all aspects of a city's emissions. In Wuyishan, mitigations include expanding [solar power](#), transitioning to electric vehicles, and improving agricultural practices. The study emphasizes the need to tackle both internal and external sources of emissions to create effective carbon reduction strategies. This is especially crucial for cities in developing countries, which face unique challenges and opportunities in sustainable growth due to rapid urbanization and industrial changes.

With plans to significantly boost [renewable energy](#) and electrification by 2035, Wuyishan demonstrates a strong commitment to a sustainable, low-carbon future. This research offers a valuable guide for cities worldwide to develop comprehensive and practical carbon neutrality plans.

The authors of the study highlight the significance of this integrated approach. "Our methodology provides a practical tool for cities, especially in developing countries, to develop effective carbon neutrality roadmaps that encompass the full spectrum of GHG emissions," they stated.

This framework provides a complete model for cities to develop and execute strategies for achieving carbon neutrality. It underscores the necessity of accounting for external emission sources and emphasizes the shift towards low-carbon technologies and sustainable practices across various sectors such as energy, transportation, agriculture, and waste

**More information:** Zhe Zhang et al, Expanding carbon neutrality strategies: Incorporating out-of-boundary emissions in city-level frameworks, *Environmental Science and Ecotechnology* (2023). [DOI: 10.1016/j.esec.2023.100354](https://doi.org/10.1016/j.esec.2023.100354)

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