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## Cities, climate change and the biodiversity crisis

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## Cities, climate change and the biodiversity crisis

The climate and biodiversity crises are two of the greatest threats to humans and both are continuing to thrive on our planet (International Union for Conservation of Nature (IUCN), 2023; IPCC & IPBES, 2021). In this sense, causing a global health crisis (Davies & Harwood, 2023), concerns for our ecosystems and major impacts on future generations. Cities are extremely vulnerable to the impacts of the climate and biodiversity crisis, with this trend only increasing given urban population change and related pressures facing the built environment (Higgins & Larkham, 2024). Indeed, with some 70% of the global population living in cities by 2050, there is a need for more radical work in this area to create more just, inclusive and climate-resilient cityscapes.

Whilst we are beginning to see creative and more innovative approaches in parts of the world, there is even more of a need for further progress in this area. The global Net Zero agenda, domestic policies, such as Biodiversity Net Gain in the UK, and related concepts offer hope; demonstrating the potential for cities to adapt and reshape around the climate change and biodiversity crises (see for example Seto et al., 2021). Linked to this, we are increasingly witnessing investment in nature-based solutions, innovative ways of urban planning, such as 15-minute cities to even more radical ideas, such as urban food growing at scale. Yet, much of this work is ad-hoc and often poorly funded or lacking comprehensive policy support, with an urgent need for more investment moving forward.

The post-covid city urban greening agenda is one example here, which has seen significant interest. Globally, we are seeing an array of cities invest heavily in green roofs, living walls, community gardens and other forms of regenerative, green infrastructure (Washbourne & Wansbury, 2023). Evidence demonstrates that these urban greening initiatives often have substantial social, environmental, economic and health benefits, enabling urban dwellers to benefit from nature in the heart of the built environment. Yet, the financing of these assets is a major issue, alongside how they are integrated into the urban fabric.

Samangooei has looked at reimagining how buildings and streetscapes can become productive landscapes through initiatives such as vertical growing spaces, including green walls with edible plants and

rooftop gardens aimed at increasing local food production while enhancing biodiversity. For example the “Edible Streets” project, based in Oxford, UK, explores the potential of urban edible streetscapes where community food growing is located directly in the streets where people live or work (Oxford Brookes University, 2023). This approach to urban food growing supports urban climate resilience and also addresses social inequalities by providing access to fresh produce in food deserts. Other examples include cities such as Paris and Singapore embracing large-scale urban food growing. Paris’ “Les Parisculteurs” initiative aims to cover over 100 hectares of building surfaces with vegetation, much of which is dedicated to urban food growing (Mairie de Paris, 2022). Singapore, with its “30 by 30” initiative, focuses on increasing local food production to cover 30% of the city-state’s nutritional needs by 2030, utilising vertical farming and community gardens (Singapore Food Agency, 2021). These examples highlight how urban food growing can be a powerful tool for tackling both the climate and biodiversity crises while creating healthier, more equitable urban spaces.

This section of the *Climate Interactions* journal welcomes submissions which critically explore and evaluate ways in which cities are tackling the climate and biodiversity crises. We welcome an array of articles, from full research papers to reviews and commentaries. Of particular note are pieces which explore cities at a macro and/or micro level: from urban concepts and planning cityscapes, to practices on the ground and evaluations of innovation. Papers which are relevant for both an academic and policy/practitioner audience are particularly welcomed.

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