Assessing the edible city: Environmental implications of urban agriculture in the Northeast United States

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One of the pivotal environmental challenges in the coming decades will be feeding an increasingly wealthy and populated planet in a sustainable manner. As industrialization and concomitant urbanization afects hitherto peripheral economies, much of this challenge will depend on the ability to support the nutritional demands of a global urban population in a fashion aligned with the biophysical capacity of the planet. Amongst the myriad of solutions proposed to guide humanity towards more environmentally sustainable food system, co-locating food production and consumption in cities is an area that has seen significant action in research, design and practice. In the Northeast United States, where per capita diets are amongst the most environmentally intensive globally, there is a growing interest in local food production as a way to reduce the ecological burdens of food demand. Urban farms and pro-urban agriculture planning agendas are proliferating throughout many of the region's cities, typically with urban agriculture's environmental sustainability evoked to varying degrees in support of these initiatives. However, environmental appraisals comparing urban and rural food production are scarce in existing literature, leaving a number of lingering questions surrounding urban agriculture's environmental performance. In a Northern context, it remains to be seen whether the benefits of reducing distance from farm to fork are outweighed by the energy demanded by yearround growing systems. Even if urban agriculture does provide leaner resource intensities at the farm scale, do these add up to meaningful shifts in a city's environmental footprint at the urban scale? The aim of this project was to begin removing these uncertainties using the Northeast United States as a case study, since cities within that region have some of the most vibrant and well-supported urban farming communities in the Global North. This report is comprised of six chapters that probe and add to our current understanding of urban food systems.

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