Conceptualizing Agricultural Change for the Functional Integrity of Urban SESs

Julia C. Bausch∗

1School of Sustainability (SOS) – Arizona State University, Tempe, AZ 85287-5502, United States, United States

Abstract

The relationship between local agriculture and cities is understood very differently in sustainability research. On one hand, local agriculture is considered to be in competition with cities for land and water, and is associated with notions of rural culture, economic conditions, and livelihoods rather than the globalized, cosmopolitan urban context. The explicit dichotomy between urban and rural, and between farms and the built environment has fed into a vision of a future in which agricultural land is consumed by urbanization, and food production is increasingly pushed to ecological margins with global repercussions. These processes are expected to have the most significant development outcomes in the developing world, where populations are increasingly urban and land uses are increasingly contested. On the other hand, local agriculture—especially food production within urban areas—is a growing trend widely associated with sustainability, particularly in the United States and Europe: local agriculture travels shorter distances to consumers, can be picked closer to peak ripeness, is a productive way to recycle urban organic waste, and can support local economies, livelihoods, and food security. In both developed and developing world contexts, the process of periurbanization—the emergence of dynamic zones where urban, agricultural, and conservation land uses coexist—challenges the conceptual dualism of the urban and rural. While some scholars have warned of a looming food crisis due to the loss of agricultural land to urbanization, others see agriculture as a permanent feature of urban systems that shifts in location over time. Furthermore, agriculture takes many forms, especially in and near urban spaces, and is thought to play different roles for different people in the developed and developing world. These nuances and tensions suggest the need to probe further into the dynamics of urban growth and agricultural change, and the implications of both for the functional integrity of urban social-ecological systems (SESs). In this presentation, I will conceptualize agricultural change in urban contexts with a framework for understanding the role of different forms of local agriculture, and their associated dynamics, place, and identity. I will operationalize the framework with cases from Phoenix, Arizona and Mexico City, Mexico, relying on a literature review, preliminary qualitative data, and secondary quantitative data for both cases. Phoenix, the developed world case, has a history of irrigated commodity production, and is known for its suburban sprawl and rapid growth. Mexico City, the developing world case, has urbanized dramatically since the 1960s, and still features diverse agricultural production as well as forest conservation. In what way does resilience thinking allow us to reconceptualize the connections between agriculture and cities, between the "rural" and the "urban"? What are the implications for sustainable development?

∗Speaker
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