Is urban farming in the global south potentially a temporary phenomenon?

Pay Drechsel

From all that we know, the answer to the above is no. However, the links between urban growth and urban farming are complex and dynamic, and developments largely location-specific.

At first glance, the term 'urban agriculture' may appear to be an oxymoron, or no more than a temporary phenomenon, given that agriculture is commonly considered a quintessential rural activity (Smit et al., 1996). However, already Smit and colleagues argued that this is unlikely to be the case and that, despite increasing land prices, urban farming does not disappear but adapts and moves in response to changing conditions. Even where vacant plots are built upon, vertical or rooftop gardening might emerge.

Despite the globally large extent of urban farming (Thebo et al.,2014), data to verify its development over space and time remain scarce and the perception of the temporary nature and insignificance of urban farming, particularly in low-income countries, persists (Badami & Ramankutty, 2015). Although many urban farming sites have appeared resilient to urban development (see e.g. Drechsel & Dongus, 2010), more drastic changes are likely during the recent period of accelerated urban growth, particularly in Africa.

To understand the spatial and temporal dynamic of urban farming, i.e. whether it is declining, increasing or maybe only shifting laterally within cities, Follmann et al. (2021) reviewed over 90 publications addressing 83 cities in Africa, Asia and Latin America. The authors found that the more advanced GIS studies using remote sensing images (ideally from different years) had been able to identify farmland expansions in 52-60% of cases, whereas more local studies without this remote sensing ability identified an expansion in only 20% of cases.

For example, in Freetown, Sierra Leone, in Kumasi, Ghana, and in Khartoum, Sudan, the increase in the urban built-up area saw an expected decrease in agricultural land within the same urban boundary. However, when a larger or changing baseline was considered (in line with city growth), research showed that the cropland that was lost within the inner-urban area or urban fringe was replaced with newly cultivated land elsewhere. In another example, there was no decrease in farming in the inner city area of Dar es Salaam (Drechsel & Dongus, 2010).

Credits: ©Desire J.P. Lompo

Credits: ©Desire J.P. Lompo

Credits: ©Desire J.P. Lompo

[1] The study was funded by the German Federal Ministry of Education and Research (BMBF) and the CGIAR Research Program on Water, Land and Ecosystems (WLE).

In line with the recommendations of Follmann et al. (2021), a paper (Karg et al., 2021) by the RUAF-supported UrbanFoodPlus project[1] presented new spatio-temporal data for four cities in sub-Saharan Africa. The data showed that for Ouagadougou, where urban market gardening has been recognised by the city authorities, and in Bamako, that either new inner-city farming sites emerged on previously vacant land or that farmers had shifted to the urban fringe resulting in an overall increase in irrigated cropland in the past 15 years. Conversely, urban cropland had declined substantially in Accra and to a lesser degree in Bamenda.

Across all cities, the key drivers influencing the direction of change were population pressure, official support (or lack thereof) of urban farming, land tenure and geographical factors such as land suitability and water access. In cities where cropland was decreasing, the implications included diminishing individual farm sizes, intensification of remaining sites, cessation of farming in affected suburbs and, if possible, the shift of farmers to other sites. The latter, in addition to the physical availability of land and related resources, also depends on social relations and informal rules. In other instances, farmers moved out of the city or away from agriculture (Karg et al., 2021).

Analytical challenges and limitations can greatly affect the discussion on the impact and sustainability of urban farming (Drechsel & Dongus, 2010). However, in general, its complementary role to rural agriculture, such as in the provision of particular, often perishable, commodities, or in view of social and environmental benefits to urban dwellers has been well established.

Pay Drechsel is Research Quality Advisor at International Water Management Institute (IWMI).

More information

- Badami, M.G., & Ramankutty, N. (2015). Urban agriculture and food security: A critique based on an assessment of urban land constraints, Global Food Security 4: 8-15.
- Drechsel, P., & Dongus, S. (2010). Dynamics and sustainability of urban agriculture: examples from sub-Saharan Africa. Sustainability Science 5 (1), 69–78. https://doi.org/10.1007/s11625-009-0097-x
- Follmann, A., Willkomm, M., & Dannenberg, P. (2021). As the city grows, what do farmers do? A systematic review of urban and peri-urban agriculture under rapid urban growth across the Global South. Landscape and Urban Planning 215: 104186.
- Karg, H., Drechsel, P., Dittrich, N., & Cauchois, A. (2021). Spatial and temporal dynamics of croplands in expanding West African cities. Urban Agric Region Food Syst. 2021;5:e20005. https://doi.org/10.1002/uar2.20005
- Smit, J., Ratta A., & Nasr, J. (1996). Urban Agriculture: Food, Jobs and Sustainable Cities. United Nations Development Program. Publication Series for Habitat 11, Volume One. UNDP, New York.
- Thebo, A.L., Drechsel, P., & Lambin, E.F. (2014). Global assessment of urban and peri-urban agriculture: irrigated and rainfed croplands. Environmental Research Letters 9 (11).