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“Can agroecological farming feed the world?  
Farmers’ and academia’s views”

## Urbanisation’s impact on agricultural production systems, social and ecological systems, and livelihood status in Bangalore’s rural-urban interaction

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### Abstract

Even at the global ecological scale, the impact of urbanisation on adjacent agro-ecosystems may be seen in many Asian cities. Over the last 40 years, Bangalore has been India’s fastest-growing city. Bangalore is surrounded by an agricultural landscape that has evolved over thousands of years and continues to contribute significantly to the city’s food supply. As a result, it is surrounded by several transition processes from rural to urban land use and lifestyles. As Bangalore approaches ‘megacity’ status, these processes are unfolding at an unprecedented rate. The dependence of cities on their surrounding ecosystems has long been neglected and little research has explicitly addressed the changes in agricultural land use and agricultural households associated with urban expansion and their interactions with surrounding natural ecosystems. The rural-urban interface refers to the area stretched out between natural and rural landscapes and entirely human-shaped cities, with multiple gradients in physical, ecological, and social conditions. In this interface different types of transformations emerge, driven by human decisions on resources use, livelihood strategies, and public policies. In this backdrop, the purpose of the research is to learn how agricultural production systems are evolving, their ability to meet food and other requirements, how these changes affect social systems, and how social and ecological systems interact where rural and urban lifestyles, aspirations, and land use collide. Bangalore was chosen as the research region for spatially explicit, real-time monitoring and analysis of changes in agriculture related to urban expansion and their interactions with neighbouring ecosystems. The main findings revealed that, as a result of urbanisation, commercial/input demanding crops tend to deteriorate soil qualities and create an imbalance in nutrient availability. For this, the policy recommendation is to develop and promote ‘Crop Specific Multi-Nutrient Mixed Fertiliser’ and ‘Soil test-based fertiliser recommendation,’ which are critical for the long-term development of the agricultural landscape. Issues and concerns that need to be studied in depth have emerged as study outcomes that are critical for the long-term development of the agricultural landscape. In terms of household livelihood security, urban households fared better than households in transition and rural areas.

**Keywords:** Agro-ecosystems, household’s livelihood status, rural-urban interface, sustainable development, urbanisation

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