

Integrating Urban Agriculture into Housing and Urban Infrastructure for Inclusive Development in Kerala

Athira Shaji

Department of Architecture and Planning, College of Engineering Trivandrum, Thiruvananthapuram, Kerala, India

Dr. Priyanjali Prabhakaran

Department of Architecture and Planning, College of Engineering Trivandrum, Thiruvananthapuram, Kerala, India

Sneha A P

Department of Architecture and Planning, College of Engineering Trivandrum, Thiruvananthapuram, Kerala, India

Abstract

Urban agriculture (UA) is increasingly recognized as a strategy to improve food security, urban resilience, and inclusive development, yet its integration into formal housing and urban planning systems in Kerala remain limited. This study explores how UA can be systematically incorporated into housing policy and planning frameworks to support sustainable urban infrastructure, with a focus on Thiruvananthapuram city. The research uses a mixed-method approach combining policy review, spatial analysis, and primary field investigations. Global and national practices were examined alongside state initiatives such as Haritha Keralam and Subhiksha Keralam to understand the institutional and policy environment. Primary data from expert interviews, practitioner surveys, and field observations were used to assess current UA practices, spatial feasibility, governance structures, and levels of community participation. The study results in a set of planning-oriented recommendations for integrating UA with housing systems. These include the incorporation of UA provisions in residential layout regulations, development of design guidelines for rooftop and community-level cultivation, promotion of space-efficient technologies through subsidies and training, and establishment of coordinated institutional mechanisms between housing and agricultural departments. The findings also emphasize the need to recognize urban agriculture as part of essential urban infrastructure and a tool for improving household food access and community resilience. These measures can help mainstream UA within housing development and contribute to more equitable and sustainable urban growth in Kerala.

Keywords

Community resilience, Food Security, Regional Planning, Urban Agriculture (UA).