



Economic impact and Household Welfare of Urban Rooftop Gardening: Evidences from Rangpur City of Bangladesh

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Abstract

This study investigates the economic and social benefits of rooftop gardening for urban households in Rangpur City Corporation, Bangladesh. Using a cross-sectional research design, data were collected from 308 households practicing rooftop gardening through structured questionnaires. The study explores how rooftop gardening influences household income, food security, and consumption behaviors. Ordinary Least Squares (OLS) regression analysis was employed to examine the relationship between rooftop gardening practices and key economic outcomes. The results indicate that rooftop gardening positively impacts household income by providing savings on vegetable purchases and offering extra income from surplus sales. Additionally, households reported enhanced food security, with improved access to fresh produce and a more diverse diet. The findings suggest that rooftop gardening not only supports household economic stability but also contributes to greater food self-sufficiency and resilience against food disruptions. Socioeconomic factors such as education, garden size, and gardening duration were found to significantly influence these outcomes. This study emphasizes the importance of rooftop gardening as a sustainable urban agricultural practice that can improve economic well-being, enhance food security, and support healthier consumption patterns in mid-sized urban areas like Rangpur.

Key Words: Rooftop Gardening, Urban Agriculture, Economic Resilience, Sustainable Urban Development

