

Present-Day Transformations and Trends in Rooftop Agriculture and Food Security

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Abstract : One of the major challenges facing society today is food security. The risks to food security have increased significantly due to the evolving urban landscape, globalization, and a rising population. The cultivation of food is essential, particularly during times of crisis, such as a recession, and has long been a necessity for urban populations. In contemporary society, many urban residents are confronted with new challenges, including high levels of unemployment, which compel individuals to adopt alternative survival strategies, such as growing their own food. Recently, rooftop agriculture has made significant contributions to urban and national food security and has been utilized as a tool to mitigate the frequent and damaging disasters that many cities encounter. They have the potential to transform unused spaces into green, productive vegetable plots, while also providing urban residents with the opportunity to enjoy the benefits of gardening. Therefore, this study looks to investigate the evolving themes around rooftop agriculture and food security globally. A bibliometric review analysis was carried out on Scopus and Web of Science using the keywords “rooftop agriculture” OR “rooftop farming” OR “rooftop garden” AND “food security” between 2004 and 2024 to ensure a broader scope was covered around the chosen study. Vosviewer software was then utilized to analyze the extracted data to create network visualization maps based on keyword occurrences, co-author analysis, country analysis. There were only 37 relevant documents within the study parameters. Preliminary results indicate that much research focused on urban agriculture, food supply, green roof, sustainability and climate change. By analysing these aspects of rooftop agriculture and food security, the trends can identify gaps in literature and dictate future applications to assist in food security.

Keywords : food security, rooftop agriculture, rooftop farming, rooftop garden

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