URBAN FARMING BASED FAMILY FOOD RESILIENCE IN AN ISLAMIC PERSPECTIVE

Meri Sariningsih[1], Siti Fatimah[2], Jihan Syahirah Zaini[3], Iin Indrawati[4], Dwi Mulianti[5], Nur Choiro Siregar[6]*, Dewi Anggrayni[7]
[1,2,3,4,5,7] Department of Islamic Broadcasting and Communication, University of Ibn Khaldun, Bogor, Indonesia
[6]Universitas Muhammadiyah Tangerang
nur.choiro@umt.ac.id[6]

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Abstract
Family food resilience remains a major challenge in urban areas with limited land availability, causing communities to rely heavily on imported food rather than optimizing household yards through urban farming. Limited technical knowledge further hinders the effective use of small spaces despite the economic and ecological benefits of urban farming. This study examines the role of urban farming in strengthening family food resilience by integrating Islamic values. Using a qualitative approach through a literature review of 24 scientific journals, the analysis was guided by Islamic principles and previous empirical findings. The results show that incorporating Islamic values into urban farming enhances fresh food availability, reduces household expenses, and promotes environmental awareness. These practices align with key Islamic concepts such as khalifah fil ard (stewardship), ishlah (improvement), and tawazun (balance). Overall, Islamic-based urban farming emerges as a promising strategy to promote sustainability, strengthen family food security, and support the welfare of urban communities.

Keywords: *family food resilience, urban farming, islamic values, sustainability, household welfare*

Introduction

Urban farming often referred to as urban agriculture refers to food production activities conducted in or around cities (Dobele & Zvirbule, 2020; Xi et al., 2022). In Indonesia, this practice includes the cultivation of crops, fisheries, forestry, and small-scale livestock on limited urban land (Ogendi, 2022). Urban farming has been recognized for its potential to supply fresh produce, reduce household expenses, generate employment, and utilize idle land in densely populated areas (Yuan et al., 2022). The integration of smart-farming technologies further enhances productivity and sustainability by enabling efficient cultivation in small spaces (Musa & Basir, 2021). However, rapid urbanization and declining green spaces continue to challenge food availability, as reflected in Indonesia's increasing urban density and persistent household food insecurity.

Food resilience defined as the ability of households to access sufficient, safe, and affordable food remains a persistent issue in Indonesia. Although food is acknowledged as a fundamental human right, many urban households continue to experience varying

degrees of food insecurity. The decline in young agricultural workers and shrinking agricultural land further threatens long-term food system sustainability. Addressing this challenge requires innovative, community-based solutions that strengthen local food production and household autonomy.

While urban farming has been widely studied for its economic, ecological, and social benefits, its integration with Islamic values remains underexplored, despite the strong relevance of Islamic teachings to food stewardship, sustainability, and community welfare. The Qur'an provides clear guidance on responsible resource management, long-term food planning (e.g., QS Yusuf: 47), and the ethical foundations of work, balance, and environmental care principles that closely align with contemporary sustainable agriculture. Concepts such as khalifah fil ard (environmental stewardship), ishlah (improvement), and tawazun (balance) provide a moral and spiritual framework that can strengthen community motivation, discipline, and responsibility in urban farming initiatives.

This gap namely, the limited articulation of how Islamic principles can guide and enhance urban farming practices forms the novelty of this study. Existing research tends to focus on technical, economic, or ecological aspects, yet lacks an integrated perspective that combines agricultural practice with Islamic ethical principles and community empowerment. Such integration is particularly relevant in Indonesia, where a large Muslim population and strong religious values shape daily practices, including approaches to livelihood and resource management.

Therefore, this study adopts an Islamic value-based perspective to analyze how urban farming can strengthen family food resilience. It aims to demonstrate how spiritual motivation, ethical work principles, and Islamic guidance on resource use can enhance community participation and the long-term sustainability of urban agriculture programs. The core research question guiding this study is:

How can urban farming grounded in Islamic values contribute to maintaining and improving family food resilience?

Method

This study employs a qualitative literature review approach to examine the role of urban farming in supporting family food resilience and community welfare from an Islamic perspective. The analysis focuses on Islamic values and sustainability principles embedded in urban farming practices, using conceptual and empirical evidence from scholarly literature.

The literature was collected from three academic databases: Google Scholar, Scopus, and DOAJ. The search was conducted using keywords such as urban farming, food resilience, family food security, Islamic perspective, and community welfare. The review covered journal articles published between 2014 and 2024 to ensure the inclusion of both foundational and recent studies relevant to the topic.

Inclusion criteria were: (1) peer-reviewed journal articles; (2) studies discussing urban farming practices in relation to food resilience, food security, or community welfare; (3) articles that explicitly or implicitly addressed sustainability or Islamic ethical values; and (4) articles available in full text. Exclusion criteria included: (1) non-academic publications (e.g., news articles, opinion pieces); (2) studies unrelated to urban farming or food resilience; and (3) articles lacking conceptual or empirical relevance to Islamic or sustainability perspectives.

From an initial pool of 24 journal articles, 18 articles met the inclusion criteria and were selected for in-depth analysis. The selected studies were analyzed using three analytical indicators adapted from Permana (2016): (1) khalifah fil ard (stewardship of the earth), (2) islah (improvement and repair), and (3) tawazun (balance). These indicators served as analytical frameworks, not findings, to examine how urban farming practices reflect Islamic ethical principles.

Methodologically, family food resilience was operationalized through three practical sub-indicators: (1) availability of fresh food, (2) reduction of household food expenses, and (3) contribution to community welfare (see Table 1). Each article was systematically coded according to these indicators to identify recurring themes, patterns, and conceptual alignments between urban farming practices and Islamic values.

Table 1. Indicators of Family Food Resilience

Variable	Indicator	Sub-Indicator	Item
Family food resilience based on urban farming from an Islamic perspective	Urban farming to support family food resilience	Availability of fresh food	5
		Reducing household expenses	3
		Public welfare	4
	Urban farming in an Islamic perspective	Khalifah fil ard (earth care)	2
		Ishlah (repair)	2
		Tawazun (balance)	2

The analytical process involved thematic categorization and comparative interpretation across studies, allowing the identification of dominant narratives and conceptual linkages. Interpretation of findings was conducted in the results and discussion section.

Result and Discussion

Urban Farming as a Mechanism for Family Food Resilience

The literature analysis shows that urban farming strengthens family food resilience through three interrelated dimensions: availability of fresh food, reduction of household food expenses, and improvement of community welfare. Consistent across the reviewed studies, urban farming provides urban households with direct access to fresh and nutritious food, reducing dependence on volatile market supplies. This finding aligns with Langemeyer et al. (2021), who emphasize that urban agriculture mitigates food insecurity by shortening food supply chains and increasing local food availability, particularly in food desert areas.

Cost reduction emerges as a critical resilience factor, especially for low-income households that allocate a significant portion of income to food consumption. This finding is particularly relevant in contexts of food price volatility, which disproportionately affects vulnerable families (Unicef, 2025). Urban farming functions as a buffer against market instability, allowing households to stabilize food consumption quantity and quality. Empirical evidence from the Vegetable Alley Program in Tegalrejo, Yogyakarta, demonstrates that household-level food production improves food reserves and daily nutritional intake (Savarino et al., 2021).

Beyond household benefits, urban farming enhances community welfare by fostering social interaction, collective labor, and informal economic opportunities. Similar outcomes were reported by Permana (2016), who found that urban farming initiatives in Surabaya strengthened social solidarity and community-level food independence. These findings suggest that urban farming contributes to food resilience not only

materially but also socially, reinforcing collective capacity to respond to food-related risks.

Urban Farming and Islamic Values: An Integrated Analytical Interpretation

From an Islamic perspective, the contribution of urban farming to food resilience is strengthened through its alignment with three core ethical principles: khalifah fil ard (stewardship), ishlah (improvement), and tawazun (balance). Rather than reiterating doctrinal explanations, this study interprets these values as operational ethical frameworks guiding sustainable food practices.

First, khalifah fil ard is reflected in urban farming practices that emphasize responsible land use, ecological preservation, and sustainable resource management. The utilization of abandoned or underused urban land resonates with the concept of ihya' al-mawat, which encourages transforming unproductive land into beneficial resources (Husaeni, 2024). This interpretation is consistent with Nosratabadi et al. (2020), who identify food security as a collective social responsibility within Islamic economic thought.

Second, the principle of ishlah is evident in urban farming's role in improving environmental quality and household well-being, particularly in densely populated urban settings. Studies reviewed show that urban agriculture enhances green spaces, improves food quality, and supports healthier lifestyles (Mastuti et al., 2022). These improvements are not merely environmental but also socio-economic, as families gain greater control over food production and consumption.

Third, tawazun is operationalized through balanced land use and sustainable production that reconciles human needs with ecological limits. Urban farming integrates agricultural activity into limited urban spaces without compromising environmental integrity. This balance reinforces long-term food resilience, ensuring that present needs are met without undermining future resource availability. Such findings echo Bhutto (2024), who emphasizes sustainability, policy support, and coordinated governance as key factors in maintaining food system resilience.

Comparative Discussion and Broader Implications

Compared with prior studies, this research extends existing knowledge by explicitly linking Islamic ethical values with practical food resilience outcomes. While earlier research highlights the economic and nutritional benefits of urban farming (Langemeyer et al., 2021; Savarino et al., 2021), this study demonstrates that Islamic values provide a moral and behavioral foundation that strengthens household commitment, sustainability, and long-term resilience.

The findings also show that urban farming evolved from a recreational or aesthetic activity into a strategic food security practice during periods of crisis, such as the COVID-19 pandemic (Mastuti et al., 2022). This shift underscores the adaptability of urban farming as a resilience strategy. Moreover, the success of urban farming initiatives is strongly influenced by multi-actor collaboration, including community participation, government policy, media communication, youth involvement, and digital technology support (Bhutto, 2024; Schulp et al., 2022).

Taken together, the findings indicate that urban farming grounded in Islamic values contributes to maintaining and improving family food resilience by integrating ethical stewardship, economic independence, and ecological sustainability. This integration positions urban farming as a relevant and scalable empowerment model for urban

Muslim communities, capable of addressing food insecurity while upholding moral responsibility and social welfare.

Conclusion

Overall, urban farming plays a crucial role in supporting family food resilience, not only practically but also in terms of Islamic values. There are 18 items analyzed across six sub-indicators, which show that urban farming contributes to the availability of fresh food, the reduction of household expenses, and the improvement of social welfare, all of which align with the principles of Islamic teachings such as earth stewardship, sustainable improvement, and balance in life. Thus, urban farming is not only relevant practically in the context of food resilience but also supports the values of Islamic teachings in everyday life. Urban farming is not only a practical solution for improving food resilience but also a social movement that enhances community welfare and aligns with Islamic values. Supported by various scientific references, urban farming deserves to be further developed and integrated into sustainable urban development policies. Islamic-based urban farming is a strategic approach to addressing the challenges of family food resilience and community welfare in urban areas. Based on Islamic values such as khalifah fil ard (maintenance of the earth), ishlah (improvement), and tawazun (balance). This practice not only supports food provision but also ecosystem sustainability and social welfare. Support from the government, community, and religious institutions is needed to encourage the adoption of urban farming as a long-term solution.

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