PLANNING MALAYSIA:
Journal of the Malaysian Institute of Planners
VOLUME 23 ISSUE 2 (2025), Page 1 – 13

URBAN COMMUNITY FARMING: LESSONS FROM JAPAN'S CHOKUBAI MODEL FOR BUILDING SOCIAL ENTERPRISES

Nikmatul Adha Nordin[1], Yong Adilah Shamsul Harumain[2], Keiko Yoshida[3], Fatin Nur Izzati Jufry[4]

[1]*Centre for Sustainable Urban Planning and Real Estate (SUPRE),*
UNIVERSITI MALAYA
[2] MACHINOEKI ASSOCIATION OF JAPAN

Abstract

This study examines the feasibility of implementing community farming as a framework for community-driven social enterprises in urban Malaysia. Inspired by Japan's Chokubai model, which emphasises the direct sale of locally produced goods, this study explores its potential to improve food security, economic empowerment, and social cohesion in highly urbanised areas. A roundtable discussion with nine key stakeholders was conducted using the Net-Map tool to map actors, relationships, and influences within the community farming ecosystem. This participatory approach identified critical factors contributing to project sustainability, highlighting that while government agencies provide substantial support, the most significant determinant of success is the community's active involvement. The study also noted challenges such as inadequate infrastructure and funding, which could be addressed through targeted policy interventions. The study concludes with strategic recommendations to promote community farming projects in urban Malaysia, addressing both policy and implementation challenges.

***Keywords**:* community farming, social enterprise. Net-map, sustainable community, Chokubai Model civic ecology, community garden

[1] Corresponding author. Email: nikmatul@um.edu.my

INTRODUCTION

Urban farming in urban areas in Malaysia has a distinct potential to tackle challenges such as food poverty, unemployment, and environmental degradation. This paper examines the feasibility of implementing urban farming as a community-based social enterprise in these regions, taking inspiration from Japan's Chokubai model. In this model, farmers directly sell their agricultural products to consumers, ensuring the freshness of the produce and fostering a stronger bond between producers and the community. Urbanisation in Malaysia, particularly in rapidly expanding cities such as Kuala Lumpur, Shah Alam, and Subang Jaya, has intensified the need for innovative strategies to address food security, economic stability, and social cohesion challenges. Local initiatives, like those under the Selangor State Government's Local Agenda 21 Action Plans, have encouraged urban agriculture and community gardening as approaches to enhance local food production and foster economic growth while simultaneously addressing environmental sustainability (Mokhtar et al., 2022).

Urban farming, as a form of social enterprise, is increasingly acknowledged for its capacity to effectively tackle many urban difficulties in a coordinated manner. Through the coordination of community members towards achieving the common objective of sustainable food production, these projects have the potential to generate economic prospects, especially for marginalised groups. Additionally, urban farming fosters a sense of ownership and pride in local food systems by enabling individuals to actively engage in cultivation, enhancing community cohesion, and creating visible contributions to sustainable living (Machado, 2020).

Recent research highlights urban farming as a response to challenges posed by neoliberal practices, such as limited access to food and environmental degradation. It reflects a shift towards localised, self-reliant food systems while navigating the tension between community-oriented goals and market-driven imperatives. For instance, it integrates entrepreneurial frameworks while fostering collective resilience in urban contexts (David & Blondet, 2023). Additionally, the rise of urban agriculture has been linked to broader neoliberal transformations that emphasise individual responsibility in food production and sustainability efforts (Harrison & Wolf, 2023). Local communities actively participate in environmental stewardship, mainly through initiatives like urban farming. It highlights how residents, who often face challenges such as limited green space, food insecurity, and environmental degradation, come together to reclaim underutilised or neglected urban areas.

Studies have also investigated the role of urban agriculture in supporting low-carbon cities and enhancing biodiversity, particularly in Malaysian urban centres (Zulkifli, M. F., & Kamaruddin, R., 2019). By converting vacant lots, rooftops, and other spaces into productive agricultural sites, these communities not only improve their immediate environment but also

promote broader ecological and social values. The grassroots efforts in urban farming contribute significantly to community resilience. Communities can diminish their reliance on external food supplies by cultivating their sustenance, a practice that becomes especially crucial during periods of economic decline or during a pandemic or interruptions in the supply chain. Additionally, these practices foster a sense of ownership and empowerment among residents as they actively participate in creating healthier and more sustainable living conditions. Integrating urban farming into Malaysian urban planning has been identified as a step towards more sustainable and inclusive city development (Rahman, N. A., & Ishak, S. Z., 2020). By integrating green spaces into urban areas, communities can mitigate some of the negative impacts of urbanisation, such as pollution and habitat loss. Urban farming encourages social interaction and cooperation, strengthening community bonds and fostering a cohesive social fabric (Mahmood et al., 2019). It facilitates collaboration among residents while promoting sustainable practices and local food production.

LITERATURE REVIEW

The Chokubai Model: A Japanese Inspiration

Drawing inspiration from Japan's Chokubai model, which emphasises direct sales of locally farmed produce to consumers, this article investigates how comparable approaches may be adopted and implemented in Malaysia. Chokubai, a Japanese term meaning "direct sales," refers to a system where farmers sell their agricultural products directly to consumers without intermediaries. This model, prevalent in various regions of Japan, allows for the sale of fresh, seasonal produce while also promoting transparency and trust between farmers and consumers. The Chokubai model not only supports small- scale farmers but also strengthens local economies and reduces the carbon footprint associated with food transportation. The Chokubai model has demonstrated its efficacy in Japan, not only in bolstering the livelihoods of local farmers but also in fostering social cohesion by establishing direct connections between producers and customers. The potential of this concept to improve local food security and promote economic empowerment in urban Malaysian contexts is substantial.

The development of urban farming has been driven by the need to address food insecurity, improve economic conditions, and enhance community well-being in urban areas. Studies have shown that urban farming is considered an effective way to improve food security and economic conditions in urban areas, with the potential to provide positive impacts in various aspects, including economic, social, and environmental (Dalimunthe et al., 2023).

Social Enterprises and Policy Implications

Social enterprises in urban farming are emerging as vital players in addressing the multifaceted challenges of urbanisation, including food security, community

cohesion, and environmental sustainability. According to Doherty et al. (2014), social enterprises act as hybrid organisations, balancing their social missions with the need for financial sustainability. In the context of urban farming, these enterprises often focus on local food production, providing fresh produce to underserved urban communities and creating job opportunities for marginalised groups.

Recent research highlights the role of urban agriculture as a platform for social enterprises that foster community well-being and environmental sustainability. For example, Lin et al. (2021) demonstrate how urban farming initiatives promote economic development and social inclusion, offering a model for sustainable urban livelihoods. Similarly, Adams and Pahl (2020) explore integrating social enterprise principles into urban farming, showing how these initiatives can address food insecurity while creating job opportunities for marginalised groups. In Malaysia, the potential to enhance urban farming through social enterprise frameworks remains significant, with efforts focused on community participation and resilience building (Ahmad et al., 2021). Effective social enterprises should measure their impact through indicators like food production, community engagement, environmental benefits, and economic opportunities, as suggested by recent studies (Tan & Wong, 2022).

Successful social enterprises actively involve the community in decision-making processes and operations, such as engaging residents in farm management, employing community members, or collaborating with local organisations and schools (Lin et al., 2021). Urban farming social enterprises often integrate educational initiatives to promote awareness about sustainable agriculture, nutrition, and food systems, fostering stronger community engagement and support (Adams & Pahl, 2020). Moreover, adaptability enables these enterprises to navigate changing circumstances, including market shifts, regulatory changes, and environmental challenges (Tan & Wong, 2022).

RESEARCH METHODOLOGY

Net-Map was conducted to identify stakeholders, linkages and influences, and goals pertaining to the potential of upgrading the *kebun komuniti* using an adapted version of the Net-Map methodology described by Schiffer (2007). The Net-Map methodology involves roundtable discussion for stakeholder mapping, linking stakeholders and establishing the stakeholders' influences on achieving the desired goals (Schiffer, 2007). Stakeholder mapping refers to identifying and categorising the key stakeholders who play a role in the network. Linking stakeholders means identifying relationships that connect stakeholders who are considering domains of influence (e.g., financial support).

Nine stakeholders participated in the roundtable discussion: local authorities (MBSJ - Majlis Bandaraya Subang Jaya and DBKL - Dewan Bandaraya Kuala Lumpur), Malaysia Cooperatives Societies Commission (SKM - Suruhanjaya

Koperasi Malaysia), Federal Agricultural Marketing Authority (FAMA - Lembaga Pemasaran Pertanian Persekutuan) and *kebun komuniti* (community garden) representatives (Subang Jaya and Kuala Lumpur). During the Net-Map exercise, six more stakeholders were identified, namely the Ministry of Agriculture and Food Security (KPKM – Kementerian Pertanian dan Keterjaminan Makanan), universities, banks, Malaysian Institute of Cooperatives (IKMA - Institut Koperasi Malaysia), Malaysian Institute of Entrepreneurship (INSKEN - Institut Keusahawanan Negara), and Implementation and Coordination Unit (ICU).

During the Net-Map exercise, the participants were asked to identify stakeholders that can influence the objective of helping *kebun komuniti* commercialise their produce using the Chokubai approach. The participants were asked to identify the kinds of support and resources that these stakeholders provide. The support and resources were then categorised into three linkages: (1) technical know-how, (2) financial support and (3) basic infrastructure. Table 1 elaborates the operational definitions of the three linkages.

Table 1: Operational definitions of the three linkages identified in this study

Linkage	Operational definition
(i) Technical know-how	Technical know-how refers to the specific knowledge, skills, and expertise required for effectively managing both the practical and operational aspects of community farming. This includes training in gardening techniques, such as crop cultivation, soil management, pest control, and sustainable practices, as well as expertise in marketing and business operations. By acquiring this comprehensive set of skills, *Kebun Komuniti* members can operate more sustainably, attract active participation, and generate income, thus advancing their transformation into a successful social enterprise.
(ii) Financial Support	Financial support refers to the funding and monetary resources needed to help *Kebun Komuniti* develop into a social enterprise. This support can come from various sources, such as grants, donations, loans, or investments from individuals, government bodies, non-governmental organizations, or private entities. Access to adequate financial resources enables the community farms to scale up their operations, enhance productivity, and create a sustainable model for generating income, aligning with the goals of a social enterprise like Chokubai.

Linkage	Operational definition
(iii)Basic Infrastructure	Basic infrastructure refers to the essential physical facilities and services required to support the smooth functioning of *Kebun Komuniti* as a social enterprise. This includes the development and maintenance of necessary structures such as greenhouses, storage facilities, irrigation systems, composting areas, and access roads. It also involves ensuring the availability of utilities like water supply, electricity, and waste management systems. Proper infrastructure provides the foundational support needed for efficient farming operations, increases productivity, and enhances the quality of the produce.

A roundtable discussion involving key participants was conducted to explore stakeholders' roles in transforming *kebun komuniti* into Chokubai. During the discussion, participants listed relevant stakeholders, including various government offices and agencies, and wrote their names on sticky notes. The central node of the Net-Map established "*Kebun Komuniti* as Chokubai", representing the goal of the exercise. The participants were subsequently asked to position sticky notes symbolising the stakeholders' distance from the centre node according to their perceived influence on attaining the goal in question. To visually represent the level of influence, arrows were drawn between the stakeholders and the central node, with thick lines indicating high influence and thin lines indicating low influence. Throughout the mapping process, participants were reminded to consider the influence of stakeholders in three specific categories: technical know-how, financial support, and basic infrastructure. This structured approach helped to clarify the roles, relationships, and levels of influence among stakeholders, providing valuable insights into the dynamics required to support *kebun komuniti*'s transformation into a Chokubai-like social enterprise. The participants were also asked to elaborate on the stakeholders' roles based on the following categories: Control, Improvement, Combination of Control, and Improvement. Table 2 shows the operational definitions of the categories:

Table 2: Operational definitions of the category of roles used in this study

Category	Operational Definition
Control	Represented by the stakeholders with green-colored nodes, indicating entities that have direct authority or regulatory power in providing technical assistance or shaping the guidelines for community farming practices.
Improvement	Represented by blue-colored nodes, indicating entities focused on enhancing the skills and knowledge base of *Kebun Komuniti*.

	These stakeholders are more involved in capacity-building, training, and knowledge transfer.
Combination of Control and Improvement	Stakeholders marked with both control and improvement play dual roles, contributing both regulatory oversight and efforts to enhance community farming technical skills.

The positions of stakeholders and the thickness of lines between them and the central node reflect their relative importance in guiding and supporting *kebun komuniti* toward becoming a Chokubai-like social enterprise.

ANALYSIS AND DISCUSSION

1) Analysis of Stakeholders' Linkages

Fig. 1, Fig. 2 and Fig. 3 illustrate the Net-Maps of the stakeholders involved in street food safety for the three types of linkages: [A] Technical Know-How, [B] Financial Support, and [C] Basic Infrastructure. The lines and arrows between the stakeholders reflect the relationship between them, and the line's thickness denotes the strength of the relationship. The node colour represents the stakeholder's role (blue = control, green = improvement, yellow = both). If a stakeholder is involved in both roles, the coloured rim around the yellow node indicates whether control (blue) or improvement (green) is more important.

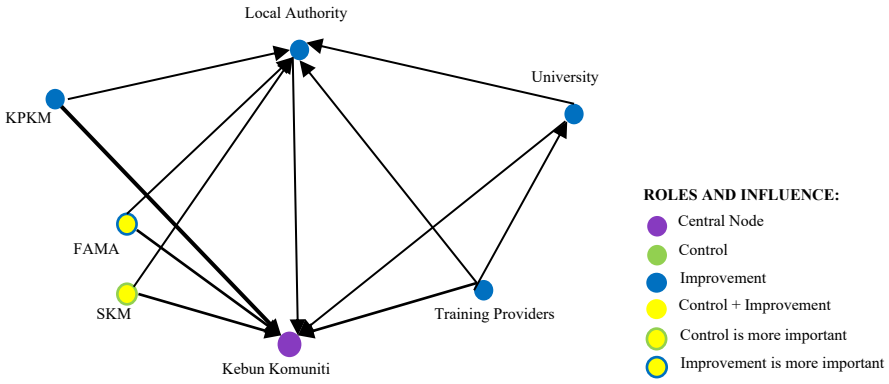

Figure 1: Net-Map Diagram showing interlinkages of stakeholders (Technical Know-How)

Figure 1 illustrates the network of relationships among various stakeholders involved in the training and capacity-building aspects of *kebun komuniti*. At the centre of the map, *kebun komuniti* is identified as the central node, emphasising its pivotal role in the network of interactions. Surrounding *kebun komuniti* are key stakeholders who are categorised according to their roles in control and improvement. Stakeholders such as KPKM, Local Authorities,

Universities, and Training Providers are represented as improvement nodes, indicating their focus on providing training, technical support, and capacity-building efforts to strengthen the community farming initiative.

In contrast, FAMA and SKM serve dual roles, balancing control and improvement. It suggests that they are involved in both regulatory oversight and offering supportive measures to promote sustainability. The direct and strong connections among these stakeholders signify collaborative efforts to enhance the operational and developmental capacities of *kebun komuniti*.

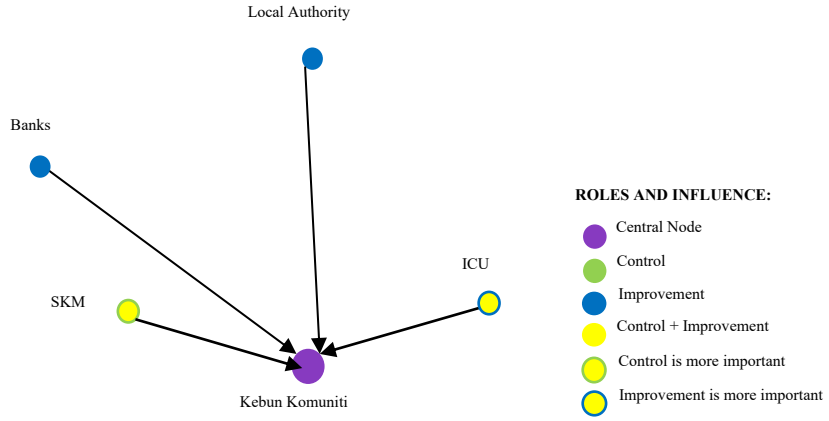

Figure 2: Net-Map Diagram showing interlinkages of stakeholders (Financial Support)

Figure 2 focuses on identifying stakeholders who are influential in providing financial support to facilitate the transformation of *Kebun Komuniti* into a Chokubai-like social enterprise. Positioned relatively close to the central node and connected with a moderately thick line, local authorities provide significant influence in providing financial support. This suggests that local authorities might offer grants, subsidies, or financial incentives to support community farming initiatives. Banks are positioned further from the central node with a thinner line, indicating a lower level of influence. Banks might play a role in providing loans or credit facilities, but their influence is more limited compared to public funding sources. They may also be less directly involved in grassroots community projects without structured financial plans.

Close to the central node with a medium-thickness line, reflecting moderate influence. SKM's involvement may relate to facilitating access to cooperative funds, grants, or other forms of financial assistance specifically for cooperatives and community-based enterprises. ICU (Implementation Coordination Unit) is positioned close to the central node with medium-thickness lines, indicating moderate influence. ICU likely plays a role in coordinating

government development funds or financial aid that could be directed to community projects like *Kebun Komuniti*. The diagram reveals that financial support is heavily influenced by governmental and cooperative bodies. Local authorities, SKM, and ICU are seen as the primary sources of financial support, which can be crucial for the sustainability and growth of community farming as a social enterprise. Banks' roles are less central, indicating that conventional banking institutions may not be the primary route for financial backing in this context.

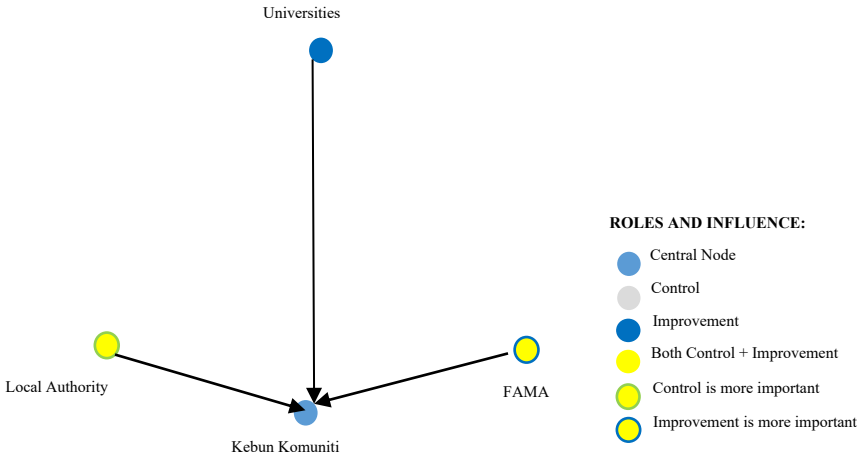

Figure 3: Net-Map Diagram showing interlinkages of stakeholders (Basic Infrastructure)

Figure 3 illustrates the stakeholders involved in providing or facilitating access to the basic infrastructure necessary for turning *kebun komuniti* into a Chokubai-like social enterprise. Universities are positioned directly above the central node with a medium-thickness line, suggesting moderate influence. Universities are likely involved in providing infrastructure support through research facilities, demonstration plots, or technical resources that can enhance the community farming environment. Their role may include capacity-building infrastructure such as labs or spaces for training and community engagement.
Local Authority is placed close to the central node with a medium-thickness line and marked in yellow, indicating a combined role in control and improvement. The local authority has moderate influence in facilitating basic infrastructure development. This could involve providing land, water access, or physical facilities like sheds or storage units for community farms, as well as ensuring access to utilities and public services. FAMA (Federal Agricultural Marketing Authority) is also positioned close to the central node with a medium-thickness

line and marked in yellow, indicating a role in control and improvement. FAMA's impact is likely associated with the development of infrastructure that facilitates market access, including collecting centres, transportation logistics, and storage facilities that align with the marketing and distribution requirements of community farms.

Figure 3 indicates that basic infrastructure development is a collaborative effort among various stakeholders, including universities, local authorities, and FAMA. Local authorities and FAMA are critical in providing or regulating the necessary physical infrastructure, while universities contribute more through research facilities and knowledge-based infrastructure. All three stakeholders play important roles, indicating that infrastructure support is both a technical and governance-related effort, requiring coordination between academic institutions and government bodies.

2) Proximity Factor

In analysing the identified stakeholders' influences, these three key components were analysed: Influence Scores, Role Scores, and a Proximity Factor to the central node. First, Influence Scores were assigned to each stakeholder based on the thickness of the lines connecting them to the central node, representing "*Kebun Komuniti* as Chokubai". A thick line indicates high influence (3 points), a medium line indicates moderate influence (2 points), and a thin line indicates low influence (1 point). Next, Role Scores were assigned to stakeholders based on their specific functions in the process: those with roles in "Control" or "Improvement" were given 2 points each, stakeholders with roles combining both "Control + Improvement" were given 3 points, while those where "Control is More Important" or "Improvement is More Important" received 2.5 points. These scores help capture the different ways each stakeholder contributes to the goal.

The "Proximity Factor" was calculated to reflect how close each stakeholder is to the central node, indicating their importance in transforming *kebun komuniti* into Chokubai. The Proximity Factor used a multiplier to weigh the scores: stakeholders positioned very close to the central node were assigned a factor of 1.5, those moderately close were given a factor of 1.2, and those positioned far away were assigned a factor of 1.0. This factor helps account for stakeholders' relative importance in terms of their proximity to the central objective. The Final Weighted Influence Score was then calculated by summing each stakeholder's Influence Score and Role Score and multiplying the result by the Proximity Factor. This approach allows for a comprehensive understanding of each stakeholder's overall impact, incorporating their influence level, specific role, and proximity to the goal. By quantifying these aspects, a more transparent and more strategic view of the key players and their roles in the development of *kebun komuniti* as a social enterprise is provided.

Table 3: Weighted Influence Scores of Stakeholders

	Technical Know-How Score	**Financial Support Score**	**Basic Infrastructure Score**	**Overall Weighted Influence Score**
Local Authority	9.0	7.5	6.0	22.5
University	7.5	N/A	4.8	12.3
Training Providers	4.8	N/A	N/A	4.8
KPKM	4.8	N/A	N/A	4.8
SKM	3.5	5.4	N/A	8.9
FAMA	3.5	N/A	5.4	8.9
Banks	N/A	3.0	N/A	3.0
ICU	N/A	5.4	N/A	5.4

Based on Table 3, the local authority scores the highest across all categories, showing a strong influence in technical know-how, financial support, and basic infrastructure. This high score reflects its central role in providing both regulatory oversight and practical support, making it a key stakeholder in the success of *kebun komuniti*. The quantified findings highlight that the local authority is the most influential stakeholder in all three categories: technical know-how, financial support, and basic infrastructure. Universities also play a significant role, especially in technical and infrastructure support. Other stakeholders like training providers, KPKM, SKM, FAMA, ICU and banks have more specialised roles, contributing to specific areas crucial for the sustainable development of *kebun komuniti* into a Chokubai-like social enterprise. This quantification helps in understanding where efforts should be concentrated, and which stakeholders should be prioritised for engagement.

CONCLUSION

The transformation of *kebun komuniti* into a Chokubai-style social enterprise presents a unique opportunity to create sustainable, community-driven models that benefit urban environments. As social enterprises, these community farms can generate income, create jobs, and empower local residents, fostering social inclusion and community ownership. This shift is not just about producing fresh food but also about building social and economic resilience. By attracting diverse funding sources and forging partnerships, these farms can effectively address urban challenges like food security and local economic development.

Achieving this transformation requires close collaboration among all stakeholders—community members, local authorities, government agencies, NGOs, universities, and private sector partners. However, the sustainability of these efforts is paramount. It demands ongoing community engagement, strong leadership, and adaptable cooperative structures that can evolve with changing

needs. A sustained, collective effort is essential for ensuring that *kebun komuniti* thrives as a social enterprise, contributing to vibrant and resilient urban communities.

ACKNOWLEDGEMENT

This paper is based on research from the "Implementation of Chokubai in Malaysia" Research Project, funded by the Sumitomo Foundation, Fiscal Year 2022 under "Grant for Japan-Related Research Project" (Grant ID: 22804336).

REFERENCES

Adams, J., & Pahl, C. (2020). Urban farming and social enterprises: A pathway to community resilience. *Sustainability*, *12*(9), 3894. https://doi.org/10.3390/su12093894

Ahmad, S., Rahim, R., & Ismail, A. (2021). Social enterprises and urban agriculture: A Malaysian perspective. *Journal of Urban Studies*, *56*(4), 562-579. https://doi.org/10.1016/j.jurbstud.2021.04.002

Dalimunthe, M. A., Ohorella, N. R., & Nasution, N. F. (2023). The development of urban farming: Systematics literature review. *Journal of Peasants' Rights*, *2*(2), 11–16. https://doi.org/10.32734/jpr.v2i2.13390

David, L., & Blondet, T. (2023). Urban food systems in the age of neoliberalism. *Journal of Urban Agriculture*, *12*(3), 45-62.

Doherty, B., Haugh, H., & Lyon, F. (2014). Social enterprises as hybrid organizations: A review and research agenda. *International Journal of Management Reviews*, *16*(4), 417-436.

Harrison, J., & Wolf, S. (2023). Neoliberal governance and urban agriculture: Implications for equity and sustainability. *Agriculture and Human Values*, *40*(1), 17-30.

Lin, C., Zhang, Y., & Lu, J. (2021). Urban agriculture as a mechanism for social inclusion: Lessons from global case studies. *Agriculture and Human Values*, *38*(3), 1-13. https://doi.org/10.1007/s10460-021-10201-z

Machado, R. (2020). Community gardens in Curitiba: Strengthening social ties through urban farming. *Sustainable Cities and Society*, *74*, 103130.

Mahmood, N. Z., Aslam, M., & Yusof, M. (2019). Urban agriculture as a mechanism for building social cohesion: A Malaysian case study. *Sustainability*, *11*(3), 731–747. https://doi.org/10.xxxx/su1130731

Matsuda, T., Yamamoto, K., & Ishikawa, R. (2021). Enhancing resilience in local food systems through direct sales during crises: The case of Chokubai in Japan. *Journal of Rural Studies*, *86*, 123–133. https://doi.org/10.1016/j.jrurstud.2021.02.001

Mokhtar, S. R., Mokhtar, M. A. M., & Ismail, M. N. (2022). The potential of urban farming for food security in Malaysia. *Planning Malaysia*, *20*(2), 97-112.

Rahman, N. A., & Ishak, S. Z. (2020). The role of urban farming in sustainable city development in Malaysia. *Planning Malaysia Journal*, *18*(1), 89–104.

Seyfang, G., & Smith, A. (2007). Grassroots innovations for sustainable development: Towards a new research and policy agenda. *Environmental Politics*, *16*(4), 584-603.

Schiffer, E. (2007). *Net-Map toolbox: Influence mapping of social networks*. International Food Policy Research Institute (IFPRI).

Tanaka, K., & Suzuki, H. (2022). Consumer preference for localized food supply chains: Lessons from Chokubai during the COVID-19 pandemic. *Sustainability*, *14*(4), 2147. https://doi.org/10.3390/su14042147

Zulkifli, M. F., & Kamaruddin, R. (2019). Urban agriculture for low-carbon cities: Case studies in Malaysia. *Planning Malaysia Journal*, *17*(3), 33–47.

Received: 7th December 2024. Accepted: 5th March 2025