

The Involvement of Disabled People in Regenerative Agriculture: Analysis of Individual, Economic and Environmental Factors

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Abstract

This study was conducted to identify the main factors that influence the level of participation of People with Disabilities (PWDs) in urban regenerative agriculture by focusing on three main dimensions, namely individual factors, economic factors, and environmental factors. This study used a quantitative approach with a survey design. Researchers selected a total of 56 PWD respondents involved in urban community gardens at the Community Rehabilitation Centre (PDK) in Selangor through purposive sampling techniques. The study instrument consisted of a five-point Likert scale questionnaire. The results of the descriptive analysis showed that the levels of all three factors studied were high. This finding indicates that urban regenerative agriculture has enormous potential as an economic and social empowerment platform for the PWD community, especially in a challenging urban context in terms of cost of living and formal employment constraints. The implication is that local authorities and NGOs can design more inclusive community garden programs by considering individual, economic, and environmental factors. Furthermore, we need to strengthen the provision of PWD-friendly facilities and community-based agricultural training. Regenerative agriculture can also be utilized as an alternative therapy approach and economic support strategy, especially for people with disabilities who are marginalized from the formal job market in urban areas.

Keywords: Regenerative Agriculture, Participation of Disabled People, Individual, Economic, Environmental

Introduction

Urban community gardens have emerged as a sustainable and inclusive solution to promote food security, environmental resilience, and social well-being in rapidly urbanizing societies. Rooted in the principles of regenerative agriculture, these gardens do not merely produce food but actively restore soil health, rebuild ecosystems, and mitigate the adverse effects of climate change (Wolbring et al. 2021; Wolfe et al. 2019). Unlike conventional farming practices that often degrade natural resources, regenerative agriculture emphasizes sustainability, equity, and empowerment, particularly in community-based urban settings.

Despite the growing popularity of regenerative agriculture in urban areas as a mechanism for addressing global concerns such as food insecurity, climate change, and community disempowerment (Mbogori et al. 2022b; Cross & Alston 2019), the involvement of vulnerable populations, especially people with disabilities (PWDs) remains notably limited. Urban agriculture, when designed with inclusivity in mind, offers significant potential for marginalized groups to access fresh food, earn supplemental income, and engage in therapeutic and socially enriching experiences. However, a variety of structural, economic, and attitudinal barriers have limited the participation of PWDs in these spaces.

This underrepresentation highlights a pressing research gap in understanding how urban regenerative agriculture can be harnessed as a platform for inclusive development. Previous studies have explored factors such as physical accessibility (Wadumestrige Dona et al. 2021), the importance of supportive community networks (Benjamin & Spilka 2020), technical training (Wolfe et al. 2019), and enabling policies (Mbogori et al. 2022a). However, few have comprehensively analyzed how these factors interact with individual psychosocial dimensions such as motivation, confidence, and perceived self-efficacy (Samuels et al. 2018; Clark et al. 2021).

In the Malaysian context, the integration of PWDs into the sustainable urban farming agenda remains underdeveloped, leading to a missed opportunity to tap into the transformative potential of regenerative agriculture as a tool for economic and social empowerment. This study is therefore crucial in identifying the key determinants that influence the participation of PWDs in urban regenerative agriculture. By focusing on individual, economic, and environmental factors, the study aims to contribute not only to academic knowledge but also to practical frameworks that support inclusive agricultural development. The findings are expected to benefit policymakers, urban planners, community organizations, and advocates working toward an inclusive and sustainable urban future.

Literature Review

Regenerative agriculture refers to a sustainable agricultural approach that focuses on restoring soil fertility, increasing biodiversity, sequestering carbon in the soil, and restoring ecosystems as a whole (Food and Agriculture Organization, FAO 2022; Cohen & Reynolds 2020; Elevitch et al. 2018). Compared to conventional approaches that often exploit natural resources, regenerative agriculture emphasizes the principles of resource recycling and the use of natural techniques such as growing various crop species, composting, and reducing chemical inputs (Sharma et al. 2022). This approach benefits the environment and contributes to increasing the resilience of food systems and the recovery of rural communities (Rhodes 2017).

In a social context, regenerative agriculture has the potential to be a tool for economic empowerment for marginalized groups such as PWDs due to its small-scale, community-based nature and more flexible work structures. According to Carlisle et al. (2019), regenerative agriculture opens up more equitable and inclusive participation spaces, especially in communities with diverse physical and economic capabilities. Furthermore, regenerative agriculture is often associated with the principles of social justice and community entrepreneurship, making it relevant as a platform for sustainable development and empowerment for groups with special needs (Elevitch et al. 2018).

Findings from previous studies have identified various key factors that influence the level of participation of people with disabilities in community agriculture activities based on regenerative principles. This highlight will only focus on three factors, namely the individual, the economy, and the environment.

Individual Factors

Individual factors include personal characteristics such as motivation, interest, self-confidence, and physical and mental abilities. Among the dominant individual factors are self-belief and intrinsic motivation (Bandura 1997). Samuels et al. (2018) found that involvement in community agriculture benefits the psychological well-being of PWDs by increasing their sense of self and social recognition. Cocks and Thomson (2021) found that individuals with disabilities who demonstrate intrinsic motivation and belief in their abilities are more likely to actively engage in regenerative agriculture activities.

Access to technical training, information on sustainable agricultural practices, and the ability to understand the principles of agricultural ecology are critical to building confidence and feasibility among PWDs (Murray et al. 2020; Osei-Assibey & Acquah 2019). Individual attitudes toward environmental sustainability also affect their tendency to choose regenerative-based activities. Nguyen and Nguyen (2022) found that pro-sustainability attitudes among minority communities, including PWDs, encourage them to practice regenerative agriculture as part of their social and environmental responsibilities.

Participation in community agriculture projects provides opportunities for people with disabilities to interact, build social networks, and gain emotional support that are essential for self-development (Smith & Sparks 2020; Rimmerman 2013). Life experiences and individual levels of resilience also influence the interest and courage of people with disabilities to engage in regenerative agriculture. Thompson and Hartley (2019) found that many farmers with disabilities in low-income countries choose agriculture as a form of therapy and a manifestation of self-efficacy that rebuilds their dignity and identity in the community.

Economic Factors

Economic factors play an important role in determining the ability of PWDs to participate in community gardening activities. Pearson et al. (2019) found that PWDs with low incomes were more likely to participate in community gardening if there was a clear economic reward. Wolfe et al. (2019) also found that regenerative agriculture programs that offered microcredit support to PWD participants saw significant increases in engagement and productivity. Munene and Adolwa (2021) found that 68 percent of PWDs in rural communities cited

financial constraints as the main barrier to participating in eco-friendly farming projects, despite the presence of community social support.

PWD participation in urban community gardening increased significantly when there were direct economic incentives, such as sales of agricultural produce, daily cash payments, or small entrepreneurial opportunities. Samuels et al. (2018) found that PWD participation increased by 45 percent when gardening activities were linked to additional income, such as the sale of organic vegetables and compost products. Mbogori et al. (2022b) also showed that community gardens that received grants from NGOs and local agencies were able to attract more participants with disabilities due to the distribution of sales proceeds and fixed financial incentives.

In addition, systematic institutional financial support (government funds, NGO grants, corporate CSR) also served as a catalyst for the active involvement of people with disabilities in regenerative gardening activities. Benjamin and Spilka (2020) found that the success of inclusive community gardens depends largely on the availability of external funds that help build basic infrastructure, provide special equipment for people with disabilities, and cover maintenance expenses. Rupasingha et al. (2020) suggested that easily accessible and unsecured micro-funds are the most effective form of support to encourage the involvement of minorities and people with special needs in urban agriculture. Clark et al. (2021) found that community gardens also serve as a platform for the economic survival of people with disabilities.

Environmental Factors

The physical and social environment greatly influences the ability of PWDs to actively engage. Community gardens that lack universal access pose a significant physical barrier for individuals with disabilities. Without level paths, wheelchair-accessible plant carts, or appropriate workspaces, agricultural activities become difficult, if not impossible, for some individuals (Goodrick & Webb 2021; Clark et al. 2021). Terras et al. (2019) found that individuals with intellectual disabilities face challenges in community participation if they do not feel safe. Feelings of insecurity can prevent them from participating in community activities, including community gardens.

Facilities such as PWD-friendly toilets, rest areas, shelters, and accessible public transportation will affect the sustainability of participation. If these facilities are lacking or absent, even if PWDs are interested, they may not be able to commit. Mbogori et al. (2022a) found that logistical constraints and a lack of support facilities are among the main reasons for PWDs' low participation in urban gardens in East Africa. Government initiatives to provide agricultural aid subsidies and technical training opportunities for people with disabilities have proven effective in increasing their participation rates (Mgweda & Rukuni 2020).

The social environment is one of the important components of environmental factors that influence people with disabilities' participation in regenerative agriculture. Samuels et al. (2018) found that communities that demonstrate an open attitude toward diversity of abilities can be catalysts for the active participation of people with disabilities in community gardens. Cross and Alston (2019) also found that the values of empathy and solidarity among members of the farming community contribute to the formation of a more inclusive space

and support the participation of people with disabilities. In addition, Rimmerman (2013) found that strengthening social capital through positive social interactions can increase the sense of belonging among people with disabilities, thus encouraging continued involvement in community activities.

Method of Study

This study uses a quantitative design to identify the level of involvement of People with Disabilities (OKU) in urban community gardens based on individual, economic, and environmental factors. The study was conducted in an urban community garden at the Community Rehabilitation Centre (PDK) in Selangor, Malaysia. The target population was participants with disabilities involved in the urban community garden program at PDK. The study successfully obtained 56 respondents by using the purposive sampling technique (Chua 2021). The study instrument was a questionnaire using a Likert scale measurement, namely 1=strongly disagree, 2=disagree, 3=somewhat agree, 4=agree, and 5=strongly agree. Next, the level of involvement of OKU in urban community gardens was measured based on an average score of 1.00 to 5.00, which was classified into three levels (Konting 2009), namely low level (1.00-2.33), medium level (2.34-3.67), and high level (3.68-5.00). We conducted face-to-face interviews with enumerators specifically trained for this study to collect data. Descriptive analysis was used to explain the overall study and answer the study objectives.

Research Findings and Discussions

Respondent Profile

Table 1 shows the profile of the respondents. The respondents came from various demographic backgrounds, showing diversity in their involvement in regenerative agriculture activities. In terms of gender, the majority of respondents were male (62.5%), and the rest were female (37.5%). This finding reflects the dominance of male participation in regenerative agriculture activities, which may be attributed to physical ability factors or traditional roles in the agricultural sector. In terms of ethnicity, the majority of respondents were Malay (91.1%), followed by Chinese (7.1%) and Indian (1.8%). This composition is relatively in line with the ethnic distribution of the local population in the study area and reflects the higher involvement of the Malay community in community-scale regenerative agriculture activities.

Table 1

Respondent Profile

Respondent Profile	Freq.	%	Respondent Profile	Freq.	%
Gender:			Education level:		
Male	35	62.5	Primary school	42	75.0
Female	21	37.5	Secondary school	14	25.0
Ethnic:			Employment status:		
Malay	51	91.1	Self-employed	3	5.4
Chinese	4	7.1	Not working	53	94.6
Indian	1	1.8	Income (monthly):		
Age:			< RM1,500	2	3.6
≤ 20 years	13	23.2	RM1,501 – RM3,000	9	16.1
21-30 years	41	73.2	RM3,001 – RM4,500	22	39.3
31-40 years	2	3.6	RM4,501- RM6,000	22	39.3
Household number:			> RM6,000	1	1.8
2-3 persons	11	19.6	Disabled category:		
4-5 persons	34	60.8	Physical disability	3	5.4
>5 persons	11	19.6	Mental disability	3	5.4
			Learning disabilities	50	89.3

In terms of age, the majority of respondents were between 21 and 30 years old (73.2%), followed by those aged 20 and below (23.2%), and only a small number were between 31 and 40 years old (3.6%). This pattern indicates a tendency for higher involvement among the younger generation, especially youth who may see regenerative agriculture as a new alternative that is in line with the values of sustainability and innovation. In terms of the number of household members, the majority of respondents live in households consisting of 4 to 5 people (60.8%), followed by 2 to 3 members (19.6%) and more than 5 people (19.6%). This finding indicates that most respondents come from medium-sized household units, which are likely to influence the decision to participate in secondary economic activities such as regenerative agriculture.

In terms of education level, the majority of respondents only reached primary school (75.0%), and the rest had education up to secondary school (25.0%). This percentage reflects the limited access to formal education opportunities among respondents, which may affect career choices and the ability to access information related to regenerative agriculture practices. Employment status among respondents shows that almost all of them are not formally employed (94.6%), and the rest are self-employed. This finding indicates that regenerative agriculture activities function as an alternative space or socioeconomic intervention for groups outside the formal labor market, especially the disabled, who face challenges in obtaining permanent employment.

In terms of monthly income, most of the respondents are in the lower middle category, with 39.3% in the range of RM3,001 to RM4,500 and RM4,501 to RM6,000, respectively. Meanwhile, 16.1 percent were in the range of RM1,501 to RM3,000, 3.6 percent earned less than RM1,500, and only 1.8 percent earned more than RM6,000 per month. This finding indicates that the majority of respondents are in the middle-income group, who are most

likely to make regenerative agriculture activities an additional source of income or a sustainable self-support strategy.

For the disability category, the majority of respondents consisted of individuals with learning disabilities (89.3%), followed by those with physical and mental disabilities, with 5.4 percent each. This indicates that regenerative agriculture has the potential to be a form of self-development intervention suitable for learning disabled people because the activities carried out are practical, routine-based, and therapeutic in nature and can help them build self-skills, confidence, and community socialization.

Individual Factors

Table 2 shows the individual factors that influence respondents' involvement in regenerative agriculture. Respondents showed a very high level of agreement on the importance of producing quality crops through agricultural activities (mean=4.27). This behavior reflects a high awareness of the value of agricultural products that not only function as a source of food but also as a form of personal achievement and pride in one's own work. Samuels et al. (2018) stated that attitude and internal motivation factors play an important role in determining the level of involvement of people with disabilities in regenerative agriculture.

The second statement also recorded a high mean value (mean=4.07), indicating that the majority of respondents prioritized health aspects in producing their own food. This indicates that the motivation for involvement in regenerative agriculture is also driven by the desire for healthier, chemical-free, and safe nutrition for themselves and their families. Internal motivation factors do indeed play a role in determining the level of involvement of people with disabilities in regenerative agriculture (Samuels et al. 2018).

The third statement shows that interest in organic agriculture is at a high level (mean=4.02), indicating that respondents tend toward more environmentally friendly and sustainable practices. This shows a congruence between individual interests and the principles of regenerative agriculture, which rejects the use of synthetic inputs and focuses on the natural restoration of soils and ecosystems. This finding is in line with Wolfe et al. (2019), who stated that awareness and interest contribute to engagement in regenerative agriculture.

Table 2

Individual Factors

Statements	Mean	Standard Deviation
To produce quality crops.	4.27	0.963
To produce healthy crops for eating.	4.07	0.988
I am interested in pursuing organic farming activities.	4.02	0.981
Working on urban community gardening activities is a way to produce your own food.	3.96	1.044
Want to prove your ability	3.84	1.247
Engaging in agricultural activities is personal health therapy.	3.84	1.125
Engaging in agricultural activities will increase your peace of mind.	3.82	1.252
Want to improve self-esteem and self-worth.	3.80	1.069
Engaging in agricultural activities is a hobby to fill your free time.	3.77	0.953
I am very interested in agricultural activities.	3.39	1.171
Cumulative mean = 3.88 (High)		

Next, the fourth statement shows that respondents recognize the practical function of community gardens as an alternative food source (mean=3.96). With the high cost of living, involvement in community gardens is considered a strategy for self-support and food security, especially for low-income or unemployed people. Regenerative agriculture is an agricultural approach that can provide alternative food sources (Wolbring et al. 2021; Wolfe et al. 2019).

The high mean value for the fifth statement (mean=3.84) shows that agricultural activities are a symbolic channel for people with disabilities to highlight their capabilities in society. It also reflects intrinsic motivation to overcome stigma or negative perceptions of their abilities. Cocks and Thomson (2021) found that individuals with disabilities who have internal motivation and believe in their abilities are more likely to engage in regenerative agricultural activities.

The sixth statement shows that agricultural activities are seen not only as an economic or nutritional endeavor but also as a form of self-healing therapy (mean=3.84). This value shows that respondents appreciate the positive effects of agriculture on mental and emotional health, especially in rebuilding confidence and psychological stability. Thompson and Hartley (2019) found that many disabled farmers choose farming as a form of therapy to shape their identity in the community.

The seventh statement confirms the perception that agriculture brings peace (mean=3.82) and aligns with many studies indicating that interaction with nature can reduce stress and improve mental well-being. For example, Smith and Sparks (2020) and Rimmerman (2013) found that people with disabilities' participation in community agriculture projects provides them with space to interact, build social networks, and receive emotional support to achieve peace and self-development.

The eighth statement shows that respondents tend to agree that involvement in agriculture helps increase self-esteem (mean=3.80). This reinforces the understanding that regenerative agriculture is not just a physical activity but also a medium for developing identity and self-

esteem. The involvement of people with disabilities in community agriculture benefits their psychological well-being, which can increase their sense of self and social recognition (Smith & Sparks 2020; Samuels et al. 2018).

The ninth statement shows that agricultural activities are also seen as a meaningful hobby by (mean=3.77). This mean value shows that, despite its practical and economic value, some respondents also engage in regenerative agriculture out of personal satisfaction and interest. Internal motivation factors also play an important role in determining the level of involvement of people with disabilities in regenerative agriculture as a hobby to fill their spare time (Samuels et al. 2018).

Finally, although still at a moderately high level (mean=3.39), this tenth statement shows that a general interest in agriculture exists but is not as strong as motivation based on results or psychosocial effects such as therapy and identity. This suggests that the function and benefits of the activity may exert a greater influence on their involvement than mere interest. Samuels et al. (2018) have also stated that attitudes, internal motivation, and self-confidence play a role in the involvement of people with disabilities in regenerative agriculture.

Overall, the cumulative mean value for all statements shows that the individual factor is at a high level. This means that respondents have a positive tendency toward involvement in regenerative agriculture, with a higher emphasis on practical benefits (healthy food, crop quality) and psychosocial effects (therapy, identity) compared to natural interests. The result gives the impression that regenerative agriculture is seen as a multi-dimensional intervention space that is not only sustainable but also empowering.

Economic Factors

Table 3 shows the economic factors that influence respondents' involvement in regenerative agriculture. The first statement obtained the highest mean value among the economic factors (mean=4.36), indicating that respondents strongly agreed that community farming activities have the potential to reduce daily food costs. This sentiment reflects the perception that home-grown produce, such as vegetables and herbs, can replace the need to buy from the market, thus having a direct impact on reducing kitchen expenses. In the context of low-income or unemployed communities, these savings are a very significant economic benefit. This is in line with Clark et al. (2021), who found that community gardens also serve as an economic survival platform for people with disabilities.

The second statement shows that respondents are aware that the rising cost of living in urban areas is a real economic pressure (mean=3.80). This mean value indicates a high level of awareness of the reality of higher housing, food, transportation, and services costs in urban areas. Therefore, people perceive regenerative agriculture as an adaptive strategy to manage the increasing cost of living. Samuels et al. (2018) also found that participation among people with disabilities increased when gardening activities were associated with additional income to cover living expenses.

Table 3

Economic Factors

Statements	Mean	Standard Deviation
Savings in kitchen expenses.	4.36	0.749
Increasing cost of living in urban areas.	3.80	1.017
Able to generate side income through urban community garden activities.	3.70	1.278
The prices of goods in the increasingly high market in urban areas	3.59	1.203
Cumulative mean = 3.86 (High)		

For the third statement, the mean value (mean=3.70) shows a relatively high level of confidence in the economic potential of community gardens as a source of additional income. Although it may not be the main source, some respondents see community gardens as a channel for small-scale entrepreneurship, such as selling crop products, compost products, or herbal products. According to Mbogori et al. (2022b), community gardens that receive grants from NGOs and local agencies are able to attract more disabled participants because of the distribution of sales proceeds and fixed financial incentives that can generate their income.

The last statement shows that respondents agree at a moderately high level that the increase in the price of market goods is a factor that encourages them to seek alternatives such as community farming. Although this value is lower than other statements, it still shows awareness that food inflation encourages individuals to be more independent in their food production. This finding is in line with Pearson et al. (2019), who found that low-income disabled people are more likely to participate in community gardens if there is a clear economic reward to cover living expenses.

Overall, the cumulative average of economic factors indicates that economic factors are important drivers of engagement in urban regenerative agriculture. Saving on food expenses appears as the main motivation, followed by strategies to deal with urban living costs and the potential to generate side income. These findings support the view that regenerative agriculture is not only ecological and social but also offers practical economic benefits to vulnerable groups such as the disabled and low-income urban dwellers.

Environmental Factors

Table 4 shows the environmental factors that influence respondents' involvement in regenerative agriculture. The first statement shows that respondents strongly agree that regenerative agriculture is able to utilize empty or unused space in residential areas (mean=4.34). This result shows a high awareness of the potential for transforming surrounding areas into more productive and beneficial ones, especially through sustainable gardening and community activities. Regenerative agriculture is a sustainable agricultural approach that can help restore ecosystems as a whole (Cohen & Reynolds 2020; Elevitch et al. 2018).

The second statement reflects the recognition of regenerative agriculture as a practice that contributes to environmental well-being and human health (mean=4.30). Practices such as

the use of compost, chemical-free cultivation, and sustainable water management are believed to contribute to a cleaner, safer, and healthier living environment. Rhodes (2017) has also stated that regenerative agriculture benefits the environment and the restoration of rural communities.

In the third statement, respondents strongly agreed that agricultural activities in community areas provide yields and play a role in beautifying the residential landscape (mean=4.25). Visual elements such as greenery, plant layout, and planned gardens have a positive impact on the quality of the physical and psychosocial environment. In fact, the attitude of people with disabilities toward environmental sustainability also affects their tendency to choose regenerative-based activities (Osei-Assibey & Acquah 2019).

Table 4

Environmental Factors

Statements	Mean	Standard Deviation
Can optimize the use of surrounding areas for beneficial activities.	4.34	0.900
Improving a healthy/good environment through good agricultural practices.	4.30	0.872
Can beautify the residential environment.	4.25	0.958
Can green the urban area.	4.21	0.847
The existing environment is suitable for agricultural activities.	4.02	1.152
Cumulative mean = 4.23 (High)		

The findings in the fourth statement show recognition of the role of regenerative agriculture as a tool for urban greening (mean=4.21). Community garden activities are viewed as “small lungs” that support urban ecology in an urban context affected by urban heat, pollution, and a lack of green space. Nguyen and Nguyen (2022) found that pro-sustainability attitudes among people with disabilities encourage them to practice regenerative agriculture as part of their social and environmental responsibilities.

Meanwhile, in the fifth statement, respondents also agreed that their environment has the physical potential and space suitable for regenerative agriculture activities (mean=4.02). The mean value reflects the community's confidence in the suitability of land, location, or basic infrastructure for collective utilization. Wadumestrige Dona et al. (2021) have also stated that access to physical facilities and disability-friendly infrastructure requirements increases their involvement in regenerative agriculture.

Overall, all the statements presented recorded a mean value above 4.00, indicating a very high level of agreement among respondents about the positive impact of regenerative agriculture on the physical environment and urban communities. This reflects that agricultural activities are not only evaluated in terms of yield or food needs but also as a mechanism to improve the quality of urban life in terms of space, health, beauty, and sustainability.

Conclusions

Overall, the study findings show a high level of agreement among participants in the community garden program on the various dimensions of the benefits of urban regenerative agriculture. The mean values for all statements are high, reflecting a positive tendency toward involvement in this activity. On average, participants in community garden programs are positive that they receive practical benefits such as producing healthy and quality food, as well as psychosocial effects such as self-therapy and strengthening identity. This study shows that regenerative agriculture is not only valued as a sustainable practice but is also seen as a space for multi-dimensional interventions that are restorative, empowering, and socially inclusive.

In addition, the very high perception of the positive effects of regenerative agriculture on the physical environment and urban communities reflects the awareness of respondents that this activity can improve the quality of urban life in terms of beauty, health, and beneficial use of space. In the economic context, saving on food expenses was identified as the main driver of involvement, followed by efforts to address the pressure of the cost of living and the potential to generate additional income. In conclusion, this study confirms that urban regenerative agriculture offers comprehensive added value covering ecological, economic, social, and psychological aspects, especially for vulnerable groups such as the disabled and low-income communities in urban areas.

Several important implications from a policy, practice, and community development perspective can be considered from the results of this study. First, urban regenerative agriculture needs to be recognized as a holistic intervention approach that not only contributes to environmental sustainability but also to the psychosocial recovery and economic empowerment of people with disabilities. Therefore, local authorities, urban planners, and related agencies are advised to expand the initiative of community gardens that are friendly to people with disabilities by providing accessible physical facilities, practical training based on capabilities, and ongoing technical support.

Second, the cost savings and potential side income for community garden participants indicate that regenerative agriculture can be utilized as a self-support strategy in facing the pressure of urban living expenses. This implication is important for policymakers in designing sustainable and community-based social support programs. Finally, the active involvement of people with disabilities in agricultural activities proves that they are not just recipients of assistance but can be contributors to inclusive and resilient urban development. Therefore, the vulnerable community development agenda should incorporate regenerative agriculture in a more systematic and structured manner.

This study also offers significant theoretical and contextual contributions to the growing body of literature on inclusive urban agriculture and disability studies. Theoretically, it integrates perspectives from environmental justice, social inclusion, and regenerative agriculture by framing the participation of PWDs as a multidimensional issue influenced by individual, economic, and environmental factors. By adopting this holistic approach, the study advances existing models of community participation by highlighting how internal psychosocial elements (e.g., motivation and confidence) intersect with external structures (e.g., infrastructure, policy support) in shaping engagement levels among PWDs.

Contextually, this research provides new insights within the Malaysian urban setting, a region where scholarly attention on the role of PWDs in sustainable agriculture remains limited. The findings offer practical implications for urban planners, community leaders, and policymakers by identifying actionable barriers and enablers of participation. It also reinforces the importance of inclusive urban development strategies aligned with the Sustainable Development Goals (SDG), particularly those related to reducing inequality (SDG 10), sustainable cities (SDG 11), and decent work (SDG 8). Thus, the study not only fills a critical empirical gap but also contributes to designing more inclusive regenerative agriculture programs in urban Southeast Asia.

We recommend expanding the sample sizes and exploring diverse urban locations in future research to enhance the generalizability of the study findings. In addition, qualitative or mixed-method approaches can be used to improve one's awareness of the experiences, challenges, and actual motivations of people with disabilities in engaging in regenerative agriculture. Studies can also focus on comparisons between disability categories and the long-term impact of participation on psychosocial, economic, and quality-of-life aspects of people with disabilities.

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