

# Understanding of Farmer's Motivations and Challenges in Organic Vegetable Production: A Case study in Vientiane Capital, Lao PDR

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## 1. Introduction

Organic agriculture (OA) promotes ecosystem health and human well-being by avoiding synthetic chemicals (MAF, 2022). In Lao PDR, organic farming was introduced in 2004 through a collaboration between the government and a Swiss NGO (Panyakul, 2012). Following the Swiss NGO's efforts there are include Japan International Cooperation Agency (JICA) and Asian Development Bank (ADB).

These efforts have resulted in approximately 1,350 farmers nationwide practicing organic agriculture, with 302 engaged in organic vegetable production predominantly in Vientiane Capital, where 256 farmers (85%) are involved (DOA, 2023). In addition to supporting farmers, these projects also promoted market development. The first organic agriculture (OA) market was established in Vientiane Capital in 2006 (Panyakul, 2012), followed by the opening of five additional markets between 2013 and 2017, with two subsequently relocated in 2018 (JICA, 2020). However, there are only two remaining in operation in Vientiane capital by 2024. Despite organic vegetable farming's known benefits for health and the environment (Bounthalamahaxay, 2024) as well as higher income compared to conventional farming (Choulamany, 2022), the sector has faced a gradual decline in recent years (field surveys, 2024–2025). Previous studies highlight challenges in both cultivation and marketing faced by organic farmers (Louangphan, 2022; Keochansy et al., 2024; Makino & Inthlangsee, 2023). While some farmers have abandoned organic farming due to these challenges, others remain committed, and new farmers continue to adopt organic vegetable production. This situation raises important questions about what motivates farmers to join and continue organic farming. Although adoption decisions have been studied extensively, there is a significant knowledge gap regarding farmers' sustained commitment and the challenges they face over time. This study aims to explore the motivations and challenges experienced by organic vegetable farmers in Vientiane Capital to better understand the factors influencing both

adoption and long-term commitment to organic farming.

## 2. Methodology

A qualitative research design was employed, incorporating document review and fieldwork. A phenomenological approach applies to understand farmer's motivations and challenges from real life experience, and purposive sampling was used to select farmers actively engaged in organic vegetable farmers in Vientiane Capital. The sampling selection criteria are farmers with more than one year of experience in organic vegetable farming and divided into three groups of experience level. This helps explore and reflect the role of support projects in influencing farmers' motivations across experience levels: short experience (<2 years) with ADB (2023); middle experience (2–12 years) with JICA (2013–2022); and long experience (>12 years) with the Swiss NGO (before 2013). Total sample size of this research is 44 farmers and interview through semi-structured. Thematic analysis was conducted to identify major patterns in farmers' experiences.

## 3. Results

The study produced two main results.

### 3.1 Motivations for joining and continuing.

The study found motivation to join varied by experience. Long-experience farmers, who pioneered organic practices without prior models, were mainly motivated by institutional support from Lao government agencies and a Swiss NGO through the PROFIL project. In my interviews, 12 out of 13 long-experienced farmers mentioned that they joined organic vegetable production by the project. For example, long participant farmers shared: "I learned organic farming in 2004 through PROFIL, which provided training, showed no yield difference from chemical farming, and raised awareness of chemical impacts." In contrast, short- and middle-experience farmers were influenced more by social relationships, especially positive examples set by existing organic farmers, with the JICA program playing a key role through capacity-

building support. For example, one middle participant farmer shared: “I joined organic farming in 2015 because my parents joined in 2006. I saw it improved their income and health.” Similarly, a farmer from NT 08 said: “I joined in 2016 after seeing nearby farmers reduce expenses by growing their own vegetables, ensuring safe food for their family, and earning extra income”. For continue reason most farmers value health benefits, environmental concerns, and higher prices. All farmers mentioned access to safe food. For example, NT 21 shared: “Since joining organic farming in 2008, I use no chemicals and eat any vegetable from my farm without worry. I never buy chemical-grown vegetables.” Similarly, NT 14 said: “I never buy from general markets; I prefer organic markets or exchange with other organic farmers”. However, the sources of support differed: long-experience farmers relied heavily on institutional support, whereas short- and middle-experience farmers depended more on peer networks for guidance.

### 3.2. Challenges

The result highlights the challenges of organic vegetable farming, particularly in farm management. Pest and weed control were major challenges for all farmers due to the restriction on chemical use, requiring labor-intensive natural methods. This was further complicated by labor shortages, especially for farmers managing larger areas. Compliance with organic standards limits farmers to organic inputs, but access to quality seeds is limited, leading to low germination rates and vulnerability to disease. Farmers also face constraints in securing animal manure, as chicken manure is available only every three months and often from distant farms. These limitations make it difficult to maintain healthy crops, which is essential in organic farming. Beyond farm management difficulties, seasonal weather extremes especially heavy rains in the rainy season and water shortages in the dry season reduce crop growth and productivity across all farmers experience levels. Additionally, low market demand in the dry season leads to unsold crops, mainly affecting middle and long-experience farmers who tend to grow crops based on seasonal varieties rather than market trends. Without considering market demand and appropriate crop choices, their produce often fails to meet consumer needs. For example, NSP 5 shared: “In the dry season, up to 50% of produce is leftover, which we exchange with other farmers or use as animal feed.” Similarly, NT 7 said: “I sell lettuce to middlemen in the dry season

because I can’t sell out at the organic market. The price drops from 20,000 LAK/kg at the OA market and 70,000 LAK/kg in the rainy season to just 2,500 LAK/kg”.

### 4. Discussion

Institutional support builds farmers’ confidence to adopt organic farming (Thapa & Rattanasuteerakul, 2011; Adebisi et al., 2019), while social relationships encourage participation through peer learning (Tran-Nam & Tiet, 2022). Health and environmental benefits are key motivators, but fair returns and ongoing support are essential for sustainability. In organic farming faces management challenges in practices and quality seed supply, compounded by chemical restrictions and seasonal cycles. These issues lead to low dry-season market demand.

### 5. Conclusion

In conclusion, farmers’ motivation to join and continue organic vegetable farming reflects a complementarity between institutional support and social relationships. Well-designed support programs should combine targeted training with opportunities for peer learning to address different farmer needs. While farmers value the health and environmental benefits of organic farming, sustaining their practices requires fair economic returns and ongoing assistance. Farm management challenges stem from strict chemical restrictions and limited access to quality organic seeds. Additionally, seasonal production cycles and fluctuating market demand highlight the urgent need for effective marketing and seed input strategies to strengthen the organic farming sector. Future research should explore strengthening farmer networks, addressing seasonal market demand, and developing value-added products to enhance income.

### References

- Adebisi, J. A., Olabisi, L. S., Richardson, R., Liverpool-Tasie, L. S. O., & Delate, K. (2019). Drivers and constraints to the adoption of organic leafy vegetable production in Nigeria: a livelihood approach. *Sustainability*, 12(1), 96.
- Thapa, G. B., and Rattanasuteerakul, K. (2011). Adoption and extent of organic vegetable farming in Mahasarakham province, Thailand. *Applied Geography*, 31(1), 201–209.
- Tran-Nam, Q., & Tiet, T. (2022). The role of peer influence and norms in organic farming adoption: Accounting for farmers’ heterogeneity. *Journal of Environmental Management*, 320, 115909.