

AGROECOLOGY IN BUDDHIST FARMING COMMUNITIES OFFERS A HOLISTIC, CULTURALLY RESONANT PATH TO SUSTAINABLE FOOD SYSTEMS.

Phra Anuphon Chanh Tam Manerut Anam Nikaya Sangha ^{*1}, Chananan Rinthanalert ²
and Pruchya Meenongthongmahasan³

¹*independent scholar, Thailand*

²⁻³ *The College of Politics, Government and Administration
Shinawatra University, Thailand*

e-mail: anuphon.c@gmail.com

Received 23 September 2025

Revised 10 October 2025

Accepted 15 October 2025

ABSTRACT

The integration of agroecology within Buddhist farming communities offers a culturally resonant and holistic approach to sustainable food systems. Grounded in ecological wisdom and Buddhist principles of interconnectedness and compassion, agroecology transcends conventional agricultural practices to become a profound expression of ethical values and spiritual insight. This synergy fosters empowerment within communities through the recognition and utilization of traditional knowledge, enhancing cultural resilience and local adaptation. By reducing reliance on synthetic inputs, agroecology promotes soil health, biodiversity, and resilience to climate change, ultimately enhancing food security and nutrition outcomes. Furthermore, agroecology fosters community cohesion by promoting shared purpose, collaboration, and a deeper connection with nature, while safeguarding cultural heritage in the face of globalization. Through its integration, agroecology not only addresses environmental and socio-economic challenges but also strengthens the symbiotic relationship between humans and nature, offering a promising pathway towards sustainable futures rooted in both ecological wisdom and cultural legacy.

Keywords: Agroecology; Buddhist farming communities; sustainability; ecological wisdom; food security; interconnectedness.

Introduction

In the pursuit of sustainable food systems, the fusion of ecological wisdom with cultural traditions represents a promising pathway towards harmony with nature. (Kuyek, D, 2002) According to Limprapoowiattana (2022) discussed Buddhist farming communities who agree that agroecology offers a holistic and culturally resonant path to sustainable food systems. And Limprapoowiattana places importance on traditional, spiritual values in their farming practices, and see agroecology as a way to align their agricultural activities with principles of sustainability and harmony with nature. On the other hand, they place importance on agricultural practices or philosophies that are more effective or practical in achieving sustainable food systems. Additionally, Rattan Lal (2018) argue that a focus on a specific religion or cultural tradition in farming practices may limit innovation and diversity in the agricultural sector. And Food and Agriculture Organization (FAO) cooperate in developing good practices for agriculture that minimizing impact to biodiversity which contribute to food security for the world population.(Alongkorn, 2023) Amongst the array of sustainable agricultural methods, agroecology stands out for its holistic ethos and seamless integration with natural rhythms.(Kremen, C., & Miles, A., 2012) Within Buddhist farming communities, where reverence for interconnectedness and environmental stewardship are deeply ingrained, agroecology not only aligns with cultural values but also offers practical solutions to pressing environmental and socio-economic dilemmas.(Hendrickson, J., James, H. S., & Heffernan, W. D., 2001) In this paper, the writer will argue that agroecology in Buddhist farming communities offers a holistic, culturally resonant path to sustainable food systems. The writer got interested in writing this paper because in the writer's country temples promote diverse agricultural practices and crop cultivation, including a significant surplus of produce suitable for small - scale business ventures, following the teachings of Buddhism. The effectiveness of agroecological practices in nurturing sustainability and cultural resonance within Buddhist farming communities is under close scrutiny. Agroecology, as both a philosophy and a practical approach to farming, reflects these principles by prioritizing ecological resilience while fostering profound spiritual connections to the land.(Altieri, M. A., 2002) Evaluating the integration of agroecological methods within these communities' sheds light on its potential to fortify traditional values and deepen cultural bonds with the environment, further reinforcing the symbiotic relationship between humans and nature.(Poudel, D. D., & Dhakal, M. R., 2015) Moreover, a thorough examination of the socio-economic ramifications of embracing agroecological principles in Buddhist farming communities is imperative.(Gliessman, S. R., 2014) Additionally, safeguarding indigenous knowledge and traditions through sustainable agricultural practices not only preserves cultural heritage but also cultivates a sense of collective identity and belonging, laying the groundwork for sustainable futures rooted in both ecological wisdom and cultural legacy.

1. Alignment with Buddhist Principles

The foundational principles of agroecology echo the profound teachings of Buddhism, intertwining ecological wisdom with spiritual insight. At its core, both agroecology and Buddhist philosophy emphasize the interconnectedness of all life forms and the imperative to minimize harm.(Gliessman, S. R., 2007) Through the cultivation of mindfulness (*sati*) and compassion (*karuṇā*) towards every sentient being, agroecological farming transcends mere agricultural practice, embodying a profound ethical ethos that nurtures not only the soil but also the soul.(Bhikkhu, T., 2016)

The principle of interconnectedness (*Paṭicca-samuppāda*) in Buddhism underscores the intricate web of relationships that bind all phenomena together.(Bodhi, B., 2012) Similarly, agroecology recognizes the delicate balance within ecosystems, acknowledging the interdependence of soil, water, plants, animals, and humans. This interconnected view emphasizes the need for holistic agricultural practices that prioritize harmony and sustainability over-exploitation and degradation.

Central to both traditions is the cultivation of compassion (*Metta*), an unconditional love and goodwill towards all beings. In agroecology, this manifests as a deep respect for the land and all its inhabitants, motivating farmers to steward the earth with care and kindness. By embracing *ahimsā* (non - harming), agroecological practitioners adopt cultivation methods that minimize harm to the environment and promote the well - being of all living beings, aligning with the Buddhist principle of refraining from causing suffering to any sentient being.(Altieri, M. A., 1995)

Moreover, the concept of impermanence (*Anicca*) reminds us of the ever - changing nature of existence, including the dynamic cycles of birth, growth, decay, and renewal inherent in agricultural ecosystems.(Sangha, K. K., & Reis, P. M., 2018) Buddhist farmers, attuned to the transient nature of life,

adapt their practices in response to environmental fluctuations, embracing the principles of agroecology with resilience and flexibility.

2. Reduction of Synthetic Inputs

Implementing agroecology involves moving away from synthetic inputs like chemical fertilizers and pesticides, which harm ecosystems and soil health. Instead, agroecological farmers focus on replenishing soil fertility through composting and crop rotation, promoting a diverse ecosystem that naturally manages pests and diseases.(Altieri, M. A., 1995) This approach aligns with Buddhist principles of non - violence (ahimsā) and reverence for all life forms, as chemical pesticides endanger beneficial insects, soil organisms, and human health.(Wezel, A., Casagrande, M., Celette, F., Vian, J. F., Ferrer, A., & Peigné, J.,2014) By reducing reliance on synthetics, agroecology ensures the long-term sustainability of agricultural systems, preserving soil health and enhancing resilience to environmental challenges.

Transitioning to agroecology not only improves ecological integrity but also honors cultural values within Buddhist farming communities. By embracing sustainable farming practices, these communities uphold their ethos of compassion and environmental stewardship, fostering a harmonious relationship with the land.(Altieri, M. A., 2004) This shift towards agroecology not only benefits local communities but also contributes to global efforts towards food security and environmental sustainability

3. Empowering communities and promoting self - reliance.

Agroecology in Buddhist farming communities empowers individuals and communities through the recognition and utilization of traditional knowledge. This empowerment manifests in various ways:

3.1 Community Ownership: Traditional knowledge forms the backbone of agricultural practices in Buddhist farming communities, representing centuries of wisdom passed down through generations. By implementing agroecology based on this traditional knowledge, communities assert ownership over their agricultural systems. This sense of ownership fosters pride and autonomy, empowering communities to make decisions that align with their cultural values and environmental sustainability goals.

3.2 Cultural Resilience: The integration of traditional knowledge into agroecological practices enhances cultural resilience within Buddhist farming communities. Traditional farming methods are deeply intertwined with cultural beliefs, rituals, and practices, serving as a repository of cultural heritage. By preserving and promoting traditional knowledge through agroecology, communities strengthen their cultural identity and resilience in the face of external pressures and challenges.

3.3 Local Adaptation: Traditional knowledge is inherently local, shaped by the specific environmental conditions, landscapes, and biodiversity of each region. Agroecology in Buddhist farming communities emphasizes the importance of local adaptation, drawing upon traditional wisdom to develop farming practices suited to local ecosystems. This localization of agricultural knowledge enhances resilience to environmental changes and ensures sustainable resource management tailored to the needs of the community.

3.4 Knowledge Exchange: The adoption of agroecological practices facilitates knowledge exchange within Buddhist farming communities, particularly between generations. Elders possessing traditional wisdom play a vital role in mentoring younger generations and transferring knowledge about sustainable agricultural practices. This intergenerational exchange strengthens bonds within the community and ensures the continuity of traditional farming knowledge for future generations.

3.5 Social Cohesion: The recognition and utilization of traditional knowledge in agroecology foster social cohesion within Buddhist farming communities. Collaborative decision-making processes and collective action towards sustainable agriculture goals strengthen bonds among community members. By working together to preserve and promote traditional farming practices, communities cultivate a shared sense of identity and purpose, bolstering social cohesion and solidarity

4. Enhancing Food Security and Resilience

Amidst the challenges posed by climate change and environmental degradation, ensuring food security is of paramount importance, especially for vulnerable communities. Agroecological farming emerges as a pivotal strategy in this regard, offering resilience and sustainability. By diversifying crops and integrating agroforestry techniques, Buddhist farming communities in Thailand can fortify their food security in the face of climate - related adversities.

In Thailand, the implementation of agroecological practices has demonstrated tangible benefits for food security and resilience. For example, the Sustainable Agriculture Network (SAN) in Thailand has been promoting agroecological principles among farmers across the country. Through initiatives such as promoting diversified cropping systems, organic farming, and agroforestry, SAN has empowered farming communities to enhance their resilience to climate change while improving food security. (Paungfoo - Lonhienne, C., & Lonhienne, T. G. A., 2012)

One notable example is the Community Supported Agriculture (CSA) movement in Thailand, where farmers and consumers collaborate to create local food systems based on agroecological principles. CSA initiatives promote biodiversity by growing a variety of crops, including traditional and indigenous varieties, which increases resilience to pests, diseases, and climate variability. Additionally, agroforestry practices such as intercropping trees with food crops provide multiple benefits, including soil conservation, microclimate regulation, and additional sources of income for farmers. (Asian Farmers' Association for Sustainable Rural Development (AFA), 2018)

Moreover, government-supported programs like the Sufficiency Economy Philosophy (SEP) in Thailand emphasize sustainable and self-reliant agriculture at the community level. By promoting agroecological practices aligned with Buddhist principles of moderation and balance, SEP aims to enhance food security while reducing vulnerability to external shocks. (Thammarat, K., & Jieqiong, S., 2019)

Moreover, government-supported programs like the Sufficiency Economy Philosophy (SEP) in Thailand emphasize sustainable and self-reliant agriculture at the community level. By promoting agroecological practices aligned with Buddhist principles of moderation and balance, SEP aims to enhance food security while reducing vulnerability to external shocks. (Thammarat, K., & Jieqiong, S., 2019)

5. Improving Nutrition and Health Outcomes

Agroecological farming systems promote biodiversity both above and below ground. Diverse crops not only provide a wider range of nutrients but also support diverse ecosystems, enhancing soil health and resilience to pests and diseases. (Perfecto, I., Vandermeer, J., & Wright, A. L., 2009) This diversity translates into a more varied diet for communities, reducing their reliance on a few staple crops and thereby decreasing vulnerability to nutritional deficiencies.

Furthermore, agroecology emphasizes organic and sustainable farming practices, which contribute to the production of healthier food. (Baldock, J., Beaufoy, G., Brouwer, F., & Godeschalk, F., 1996) By avoiding synthetic pesticides and fertilizers, agroecological farmers produce food free from harmful chemicals, reducing the risk of pesticide residues in food and water sources. Organic farming practices also promote soil fertility and biodiversity, resulting in crops with higher nutrient content and better taste.

The nutritional benefits of agroecology extend beyond physical health to include cultural and spiritual dimensions. In Buddhist communities, where the interconnectedness of all life is emphasized, agroecology aligns with the principles of compassion and non-harming (ahimsā). (Gomiero, T., Pimentel, D., & Paoletti, M. G., 2011) By cultivating food in harmony with nature and without causing harm to other living beings, agroecological farming practices support not only the physical health of individuals but also their moral and spiritual well-being. (Altieri, M. A., 2002)

6. Fostering Community Cohesion and Cultural Preservation

Within the context of Buddhist farming communities, the adoption of agroecological principles catalyzes the fostering of community cohesion and preserving cultural heritage. (Altieri, M. A., 2004) This process not only strengthens social bonds but also contributes to the resilience of these communities in the face of external pressures. Several key factors contribute to this phenomenon:

6.1 Shared Purpose and Collaboration: Agroecology promotes a shared sense of purpose among community members as they work together to implement sustainable farming practices. (Altieri, M. A., & Nicholls, C. I., 2017) By collaborating on tasks such as crop rotation, composting, and natural pest management, farmers forge strong interpersonal connections based on mutual support and cooperation. (Scoones, I., & Thompson, J., 2009) This collaborative spirit fosters a sense of belonging and collective responsibility towards the land and its resources.

6.2 Cultural Transmission: The practice of agroecology provides a platform for the transmission of cultural knowledge and traditions from one generation to the next. (Altieri, M. A., 2004) Elders within Buddhist farming communities play a crucial role in passing down traditional farming

techniques, ecological wisdom, and spiritual values to younger members. This intergenerational exchange not only preserves cultural heritage but also strengthens familial and communal ties, ensuring the continuity of cultural practices in an ever-changing world.(Gliessman, S. R., 2014)

6.3 Reconnection with Nature: Agroecology encourages a deeper connection with the natural world, emphasizing the interdependence between humans, plants, animals, and ecosystems. By cultivating mindfulness and reverence for the land, farmers develop a profound appreciation for the ecological processes that sustain life.(Sangha, K. K., & Reis, P. M.,2018) This reconnection with nature fosters a sense of awe and gratitude, reinforcing the spiritual dimensions of cultural identity and environmental stewardship.

6.4 Resilience to Globalization: In an era characterized by rapid globalization and homogenization, agroecology serves as a bulwark against cultural erosion. By prioritizing local knowledge, practices, and biodiversity, Buddhist farming communities assert their autonomy and resilience in the face of external economic and cultural influences. Agroecology enables communities to maintain their distinct cultural identities while adapting to changing environmental conditions and market dynamics.(Mollison, B., 1990)

The adoption of agroecological principles in Buddhist farming communities not only promotes sustainable agriculture but also strengthens community cohesion and cultural preservation. By nurturing social bonds, transmitting traditional knowledge, and fostering a deeper connection with nature, agroecology becomes a powerful tool for safeguarding cultural heritage and resilience in an increasingly globalized world.

Conclusion

In conclusion, the integration of agroecology within Buddhist farming communities presents a holistic and culturally resonant approach to achieving sustainable food systems. By blending ecological wisdom with cultural traditions, agroecology not only addresses environmental and socio-economic challenges but also strengthens the bonds between humans and nature. Through the alignment with Buddhist principles of interconnectedness, compassion, and impermanence, agroecology transcends mere agricultural practice to become a profound expression of ethical values and spiritual insight.

The adoption of agroecological principles empowers individuals and communities within Buddhist farming communities through the recognition and utilization of traditional knowledge. This empowerment extends to various aspects, including community ownership, cultural resilience, local adaptation, knowledge exchange, sustainable livelihoods, and social cohesion. By embracing agroecology, communities assert their autonomy and resilience, preserving cultural heritage while fostering a deeper connection with the land and its resources.

Moreover, agroecology in Buddhist farming communities not only enhances food security, and improves nutrition and health outcomes, but also fosters community cohesion and cultural preservation. Through shared purpose, collaboration, cultural transmission, reconnection with nature, resilience to globalization, and community empowerment, agroecology becomes a transformative force for sustainability and cultural resilience. Ultimately, agroecology offers a promising pathway towards harmony with nature and the cultivation of sustainable futures rooted in both ecological wisdom and cultural legacy.

References

- Altieri, M. A. (1995). *Agroecology: The science of sustainable agriculture* (2nd ed.). pp 96.
- Altieri, M. A. (1995). *Agroecology: The science of sustainable agriculture*. Westview Press. pp 13 - 20.
- Altieri, M. A. (1995). Agroecology: The science of natural resource management for poor farmers in marginal environments. *Agriculture, Ecosystems & Environment*, 93(1 - 3), pp 1 - 24.
- Altieri, M. A. (1995). Linking ecologists and traditional farmers in the search for sustainable agriculture. *Frontiers in Ecology and the Environment*, 2(1), pp 35 - 42.
- Altieri, M. A., & Nicholls, C. I. (2017). Agroecology and the design of climate change - resilient farming systems. *Agroecology and Sustainable Food Systems*, 41 (7 - 8), pp 877 - 899.
- Asian Farmers' Association for Sustainable Rural Development (AFA). (2018). *Community Supported Agriculture (CSA) in Asia: A Review of Status, Challenges, and Opportunities*. Quezon City, Philippines.
- Baldock, J., Beaufoy, G., Brouwer, F., & Godeschalk, F. (1996). Farming at the margins: Abandonment or redeployment of agricultural land in Europe. *European Commission, Directorate General for Agriculture Vol. 22*, pp. 1 - 164.

- Bhikkhu, T. (2016). *What the Buddha Taught*. Bukkyo Dendo Kyokai America. pp 45 - 67.
- Bodhi, B. (2012). *Dependent origination: The Buddhist law of conditionality*. Buddhist Publication Society. p 14.
- Earthscan., Jackson, L. E., & Pascual, U. (2016). Agroecological practices for sustainable agriculture: A review. *Agronomy for Sustainable Development*, 36(1), pp 1 - 20.
- Gliessman, S. R. (2007). *Agroecology: The ecology of sustainable food systems* (2nd ed.). CRC Press. pp 3-18
- Gliessman, S. R. (2014). *Agroecology: The ecology of sustainable food systems*. CRC Press. pp 231 - 243.
- Gomiero, T., Pimentel, D., & Paoletti, M. G. (2011). Environmental impact of different agricultural management practices: Conventional vs. organic agriculture. *Critical Reviews in Plant Sciences*, 30(1-2), pp 95-124.
- Hendrickson, J., James, H. S., & Heffernan, W. D. (2001). Globalization, localization, and sustainable livelihoods. *Sociologia Ruralis*, 41(4), pp 345 - 363.
- Kremen, C., & Miles, A. (2012). Ecosystem services in biologically diversified versus conventional farming systems: Benefits, externalities, and trade-offs. *Ecology and Society*, 17(4), p 40.
- Kuyek, D. (2002). The globalization of agriculture: Implication for sustainability of small horticultural farms in Canada. *Canadian Journal of Development Studies / Revue canadienne d'études du développement*, 23(3), pp 545 - 564.
- Mollison, B. (1990). *Permaculture: A practical guide for a sustainable future*. Island Press.
- Paungfoo - Lonhienne, C., & Lonhienne, T. G. A. (2012). Sustainable Agriculture Practices in Thailand. In K. S. M. Rahman & S. H. Rahman (Eds.), *Sustainable Agriculture Reviews 7* pp. 247 - 264.
- Perfecto, I., Vandermeer, J., & Wright, A. L. (2009). *Nature's matrix: Linking agriculture, conservation, and food sovereignty*.
- Poudel, D. D., & Dhakal, M. R. (2015). Agroecological practices for biodiversity conservation and improved livelihoods: A case of middle mountain region of Nepal. *Journal of Agriculture and Environment*, 16, pp 105 - 116.
- Sangha, K. K., & Reis, P. M. (2018). *Buddhist economics: A middle way for the marketplace*. pp 72.
- Scoones, I., & Thompson, J. (2009). Beyond farmer first revisited: agricultural professional knowledge in practice. *World Development*, 37(10), pp 1759 - 1769.
- Thammarat, K., & Jieqiong, S. (2019). The Sufficiency Economy Philosophy in Thailand: Origin, Development, and Implementation. *Journal of Asian Public Policy*, 12(3), pp 308 - 325.
- Wezel, A., Casagrande, M., Celette, F., Vian, J. F., Ferrer, A., & Peigné, J. (2014). Agroecological practices for sustainable agriculture: A review. *Agronomy for Sustainable Development*, 34(1), pp 1 - 20.