

Exploring Farmers' Practices Towards Food Security and Community¹³⁰⁰ Resilience: A Phenomenological Study

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Abstract

Agriculture remains a fundamental pillar of food security and community sustainability; however, farmers increasingly face challenges due to climate change, limited resources, and socio-economic pressures. In response, innovative farming practices have emerged as vital strategies for improving productivity, strengthening food systems, and fostering rural resilience. Despite this, existing literature largely focuses on quantitative data, policy frameworks, and macro-level analyses, with limited attention to the lived experiences of smallholder farmers in rural Philippine contexts such as Capoocan, Leyte. Moreover, the link between the adoption of innovative practices and community resilience remains underexplored, particularly through qualitative and phenomenological approaches. This study employed a qualitative phenomenological design using purposive sampling, grounded in Food Security Theory and Diffusion of Innovations Theory. Aligned with Sustainable Development Goals 2 (Zero Hunger) and 13 (Climate Action), findings reveal that farmers' experiences, adaptive strategies, and decision-making significantly influence agricultural productivity and food security. However, crop failure increases household vulnerability due to heavy reliance on farming income. In the absence of institutional support, farmers resort to informal credit systems such as "utang" or "kontra-humay," repaid through harvests. The study recommends policy interventions and local support mechanisms to enhance resilience and sustain food security.

Keywords: Innovative farming practices, food security, community resilience, smallholder farmers, phenomenology, climate change adaptation

1. Introduction

Agriculture remains an essential foundation of food security, livelihood sustainability, and rural development across the world. Innovative farming practices and climate-smart agricultural approaches have become increasingly important in addressing challenges related to climate change, food insecurity, and declining agricultural productivity (Frontiers, 2025; MDPI, 2024). In the Philippines, farming communities continue to experience difficulties such as typhoons, pest infestations, limited resources, and unstable agricultural income, which threaten both food security and community resilience (Department of Agriculture, 2022). Despite these challenges, farmers continue to adopt modern farming methods, technological innovations, and adaptive practices to sustain agricultural production and support their families. Hence, assessing farmers' practices toward food security and community resilience is necessary in understanding how rural communities cope with agricultural challenges and maintain sustainable livelihoods.

Existing studies emphasize that innovative farming practices, agricultural technologies, and institutional support contribute significantly to food security, adaptive capacity, and community resilience (Judijanto et al., 2025; ATI, 2023). Literature further reveals that climate-smart agriculture, diversified farming, and community-based agricultural initiatives improve productivity and strengthen farmers' ability to respond to environmental and socio-economic challenges (Aryal et al., 2020; Zizinga et al., 2022). However, most studies focus primarily on quantitative assessments, technological outcomes, and national-level agricultural programs, providing limited attention to the lived experiences and personal perspectives of rural farmers in local communities. Moreover, existing research often overlooks how farmers perceive, adapt, and sustain innovative farming practices amid everyday agricultural difficulties and limited institutional support. Therefore, this phenomenological study seeks to address these gaps by exploring farmers' lived experiences, coping mechanisms, and farming practices toward food security and community resilience within a rural Philippine context as this study aims to strengthen food security and community resilience through innovative farming practices in Leyte for the School Year 2026–2027. Specifically, the study focuses on the lived experiences of farmers in strengthening food security and community resilience through farming practices, the challenges they encounter in adopting innovative farming methods, the coping mechanisms they employ to address these challenges, and the possible policy reforms based on the findings of the study that can further enhance food security and community resilience among farmers.

The study is anchored on the theory of Resilience, which explains how individuals and communities adapt and recover from challenges, adversities, and environmental changes. The theory emphasizes adaptability, resourcefulness, and collective action as essential elements in strengthening farming communities facing agricultural uncertainties. In relation to innovative farming practices, the theory highlights the importance of sustainable methods, coping strategies, and institutional support in improving food security and community stability. Supporting literature further explains that farmers exposed to agricultural innovations, training, and technological support are more capable of managing risks and sustaining productivity despite environmental and economic difficulties.

This study is significant because it provides a deeper understanding of the lived experiences of farmers in Capoocan, Leyte regarding innovative farming practices, food security, and community resilience. The study highlights the challenges faced by farmers such as climate change, financial struggles, pests, and unstable harvests, as well as the strategies they use to adapt and sustain their livelihoods. Through this research, the voices and experiences of farmers are recognized and given importance, allowing society to better understand their role in ensuring food production and rural development.

2. Methodology

This chapter describes the research design, participants, instruments, and procedures employed to investigate the lived experiences of farmers implementing innovative practices in Capoocan, Leyte. It provides justification for the chosen qualitative, phenomenological approach, details on sampling and data collection methods, and the procedures to ensure trustworthiness, ethical compliance, and adherence to the Data Privacy Act of the Philippines.

2.1 Research Design

This study employed a qualitative research design using a phenomenological approach to explore the lived experiences of farmers in Capoocan, Leyte regarding farming practices, food security, and community resilience. Phenomenology focuses on understanding how individuals interpret and give meaning to their experiences within specific contexts (Neubauer et al., 2019; McLeod, 2024). This approach allowed the researcher to examine the personal experiences, challenges, and adaptive strategies of farmers based on their own perspectives and realities. A qualitative design was appropriate because it provided an in-depth understanding of farmers' perceptions, practices, and social experiences that cannot be fully measured through numerical data alone. Therefore, the phenomenological approach enabled the study to capture the essence of farmers' lived experiences in sustaining agricultural productivity and community resilience.

2.2 Research Locale

The study was conducted in the municipality of Capoocan, a rural agricultural community where farming is the main source of livelihood. The area is largely devoted to rice, coconut, and root crop production. Capoocan was purposively selected due to its vulnerability to typhoons and flooding, which affect agricultural productivity and food security. It also features farmers using both traditional and innovative climate-adaptive farming practices. Interviews were conducted in accessible locations such as barangay halls, the Municipal Agriculture Office, or participants' homes, with the researcher visiting to ensure convenience and reduce travel costs and risks.

2.3 Research Participants

The participants of the study consisted of crop farmers from the municipality of Capoocan, Leyte who have direct experience in implementing farming practices, particularly in relation to traditional, innovative, and climate-adaptive approaches. Purposive sampling was used to identify individuals who could provide rich and relevant information aligned with the objectives of the study, as this technique allows the deliberate selection of participants based on their knowledge, experience, and relevance to the phenomenon under investigation rather than statistical representativeness (Ames et al., 2024). A total of 10 to 15 participants were included, which is considered sufficient to achieve data saturation, or the point at which no new themes or insights emerge (Guest et al., 2020; Hennink & Kaiser, 2022). Inclusion criteria required that participants be residents of Capoocan, Leyte, actively engaged in crop farming as their primary livelihood, have at least three years of farming experience, and possess direct experience in traditional or climate-adaptive farming practices, while exclusion criteria included individuals not directly involved in farming decision-making such as traders or farm laborers, those with less than three years of experience, and those unwilling or unable to provide informed consent.

2.4 Research Instrument

The study used a semi-structured interview guide composed of open-ended questions to explore participants' lived experiences, challenges, coping mechanisms, and perspectives on innovative farming practices, food security, and community resilience. This flexible format allowed probing and follow-up questions while maintaining consistency across interviews, and data were supported through audio recordings and field notes with informed consent to ensure accuracy and completeness. The interview guide was organized into four themes: farming background and practices, innovative and climate-adaptive farming methods, food security and livelihood outcomes, and community resilience and support systems. The study employed purposive sampling to select active farmers in Capoocan, Leyte who had experience with innovative or adaptive farming practices and were willing to participate. Sampling continued until data saturation was reached to ensure rich and meaningful findings aligned with the objectives of the study.

2.5 Data Gathering Procedure

Before data collection, ethical clearance was secured from the Research Ethics Office, along with permission from the Local Government Unit (LGU) of Capoocan, Leyte, and relevant agricultural offices to ensure proper coordination. Stakeholders were consulted to present the study's objectives, procedures, and ethical considerations. Purposive sampling was used to select participants who were active crop farmers in Capoocan with at least three years of farming experience and involvement in traditional or innovative farming practices. Eligible participants were informed about the study and provided with an Informed Consent Form (ICF), either in hard or soft copy and translated into a language they understood. For participants with literacy limitations, verbal consent was obtained and documented following ethical protocols. Interviews were conducted in safe and convenient locations such as participants' homes, barangay halls, or the Municipal Agriculture Office, lasting approximately 15 to

20 minutes. Permission was sought for audio recording; otherwise, detailed note-taking was used. Field notes were also taken to capture non-verbal cues. All data were securely stored in password-protected files and locked storage, with pseudonyms used to protect participant identities. Access was limited to the researchers only. Data will be retained for academic purposes and permanently deleted or destroyed after the required retention period through secure file deletion and shredding of printed materials. The study findings will be disseminated through academic presentations and potential publication in accordance with institutional and ethical guidelines.

2.6 Data Analysis Procedure

Data gathered from the semi-structured interviews were analyzed using thematic analysis, a qualitative method used to identify, organize, and interpret patterns of meaning within textual data, which is appropriate for phenomenological studies as it enables a systematic examination of participants' lived experiences (Braun & Clarke, 2019; Terry, Hayfield, Clarke, & Braun, 2019). All audio-recorded interviews were transcribed verbatim, while non-recorded interviews were documented through detailed field notes, and the researcher repeatedly reviewed the transcripts to achieve data familiarization and deeper understanding of participants' narratives (Neubauer, Witkop, & Varpio, 2019). Initial coding was then conducted by identifying meaningful statements and recurring ideas related to farmers' experiences in innovative farming practices, food security, and community resilience, with codes systematically organized into broader categories. These categories were further developed into themes that reflected patterns such as farming challenges, agricultural support systems, and transformation of farming practices, which were then reviewed and refined to ensure alignment with the study objectives (Clarke & Braun, 2019; Terry et al., 2019). To enhance trustworthiness and credibility, the researcher employed reflective journaling, peer debriefing, audit trail documentation, and integration of field notes.

2.7 Ethical Consideration

This study strictly adhered to ethical principles in conducting research involving human participants. Prior to data collection, permission and approval were secured from the appropriate authorities and concerned offices in Capoocan, Leyte. Participants were fully informed about the purpose, procedures, benefits, and possible risks of the study through an Informed Consent Form written in a language understandable to them. Participation was entirely voluntary, and participants were given the right to decline answering any question or withdraw from the study at any time without penalty. To protect their privacy and confidentiality, pseudonyms were used in all interview transcripts, analyses, and reports, while all gathered data such as audio recordings, field notes, and transcripts were securely stored and accessed only by the researcher. The study also ensured that participants were treated with respect, dignity, and fairness throughout the research process, following ethical standards in qualitative and phenomenological research (Neubauer et al., 2019; Hennink et al., 2022; Ames et al., 2019).

2.8 Trustworthiness

Trustworthiness in this study was established to ensure that the findings accurately reflected the lived experiences of the participants and were conducted with rigor, consistency, and transparency. The researcher maintained systematic procedures throughout the data collection and analysis process by using audio-recorded interviews, verbatim transcription, field notes, and organized thematic coding. To strengthen credibility and dependability, the study employed reflective journaling, peer debriefing, and audit trail documentation to monitor analytic decisions and minimize researcher bias. Direct quotations from participants were also included to preserve authenticity and ensure that interpretations remained grounded in the actual narratives of the farmers (Forero et al., 2019; Nowell et al., 2019; Shenton, 2004).

2.9 Reflexivity

Reflexivity was observed throughout the study to ensure that the researcher remained aware of personal assumptions, perspectives, and possible biases that could influence the interpretation of the data. The researcher practiced continuous self-reflection by maintaining reflexive notes and journals during the data collection and analysis process. This allowed the researcher to critically examine how personal experiences, beliefs, and interactions with participants may shape the research findings. Through reflexive practice, the researcher ensured that the voices and lived experiences of the participants remained the primary focus of the study rather than the researcher's own interpretations or preconceptions (Berger, 2015; Finlay, 2021).

3. Results and Discussion

This chapter presents the findings and discussion of the study on strengthening food security and community resilience through innovative farming practices in Capoocan, Leyte. The data gathered from the participants through semi-structured interviews were carefully analyzed using thematic analysis to identify common experiences, challenges, coping mechanisms, and perspectives related to farming practices and agricultural sustainability. The findings are organized into themes that emerged from the participants' responses, supported by significant statements and corresponding discussions.

Lived Experiences of Farmers in Strengthening Food Security and Community Resilience

The findings revealed that farmers encounter various challenges in sustaining their livelihood and ensuring food security. 1303

These experiences were categorized into three themes: Environmental Challenges in Farming, Financial Constraints in Agricultural Production, and Farming as the Primary Source of Livelihood.

Theme 1: Environmental Struggles in Farming

Farmers continuously experience environmental challenges that greatly affect agricultural productivity and food security. Natural calamities such as typhoons, climate change, and pest infestations remain major threats to farming communities and often result in low harvests and economic losses. According to Zhao, Liu, and Huang (2023), climate change and extreme weather events significantly threaten agricultural production and farmers' livelihoods. Similarly, Bibi and Rahman (2023) emphasized that environmental stresses and changing climatic conditions negatively affect crop yield and overall farm sustainability. Despite these challenges, farmers continue to persevere in sustaining their livelihood and providing food for their families. The responses reveal that environmental challenges such as typhoons, heavy rains, pests, and changing weather conditions greatly affect farmers' agricultural productivity and livelihood. These problems often result in damaged crops, low harvests, and financial losses among farming communities. Participants emphasized that despite their hard work, natural and environmental factors remain beyond their control, making farming difficult and uncertain. The findings demonstrate the vulnerability of farmers to climate-related disasters and pest infestations that threaten food security and economic stability.

Significant Response 1: *"Farming is very difficult especially when there are typhoons and pests because sometimes we harvest nothing." (P₁, L₁₀₋₁₁)*

Significant Response 2: *"When heavy rains and strong typhoons occur, our crops are destroyed and sometimes we need to start planting again because nothing is left for harvest" (P₄, L₂₁₅₋₂₁₆)*

Significant Response 3: *"Pests and changing weather conditions greatly affect our farming because even if we work hard, there are times that the crops become damaged and our income becomes low" (P₇, L₅₄₁₋₅₄₂)*

Theme 2: Financial Constraints in Agricultural Production

Farmers continuously experience financial difficulties that affect their agricultural productivity and overall livelihood. Limited farming capital, increasing prices of fertilizers, and expensive farming materials create challenges in sustaining agricultural production. According to Ahmed and Hassan (2022), financial limitations and rising agricultural input costs significantly affect farmers' productivity and food security. Despite these financial hardships, farmers continue to work hard in order to sustain their families and livelihood. The responses reveal that financial limitations remain one of the major challenges experienced by farmers in agricultural production. High farming expenses, insufficient capital, and low income from harvests place economic pressure on farming households. Participants emphasized that the rising cost of agricultural inputs often forces them to borrow money or struggle financially to continue farming activities. These findings demonstrate how economic difficulties affect farmers' productivity, livelihood sustainability, and food security.

Significant Response 1: *"Sometimes our capital is insufficient and fertilizers and other farming materials are expensive, which makes farming difficult" (P₅, L₃₁₉₋₃₂₀)*

Significant Response 2: *"There are times that we borrow money just to buy fertilizers and pesticides because farming expenses are very high" (P₃, L₁₈₈₋₁₈₉)*

Significant Response 3: *"Even if the harvest is small, we still need to pay for farming materials and other expenses which makes it difficult to earn enough income" (P₆, L₄₄₇₋₄₄₈)*

Theme 3: Farming as the Primary Source of Livelihood

Farming remains the primary source of livelihood for many rural families and plays an important role in sustaining their daily needs and food security. Despite numerous environmental and financial challenges, farmers continue agricultural activities because it serves as their main source of income and family support. According to Garcia and Santos (2021), farming continues to be a vital livelihood among rural communities, particularly in areas where limited employment opportunities exist. The commitment of farmers to continue farming demonstrates their resilience, perseverance, and dedication to providing for their families. The responses reveal that farming serves as the primary source of livelihood and income among participants despite the many hardships they encounter. Farmers continue agricultural activities because it is essential for supporting their families' daily needs and sustaining food security. Participants emphasized their perseverance and dedication in continuing farming even during difficult situations. These findings demonstrate the resilience and commitment of farmers in maintaining their livelihood and ensuring the survival of their households.

Significant Response 1: *“Despite many problems, we continue farming because this is our only source of livelihood where we can feed our family”* (P₈, L₆₃₂₋₆₃₃)

Significant Response 2: *“Even if farming is difficult, we continue working in the farmland because this is how we earn money for our daily needs”* (P₂, L₁₄₃₋₁₄₄)

Significant Response 3: *“Farming is not easy, but we cannot stop because our family depends on the income we get from our harvest”* (P₇, L₅₅₂₋₅₅₃)

Difficulties Faced in Innovative Agricultural Techniques

The findings revealed that farmers encounter various difficulties in adopting and implementing innovative agricultural techniques. Analysis of the participants' experiences identified three major themes: Insufficiency of Agricultural Assistance, Limited Access to Technical Knowledge and Training, and Inadequate and Inconsistent Farming Support. These themes reflect the barriers that farmers face in utilizing innovative farming practices to enhance agricultural productivity, food security, and community resilience.

Theme 1: Insufficiency of Agricultural Assistance

The implementation of innovative agricultural techniques often requires adequate resources and institutional support. However, many farmers experience difficulties due to the limited availability of agricultural assistance, including seeds, fertilizers, and other farming inputs. Insufficient support can hinder farmers from fully adopting innovative practices and improving agricultural productivity. According to Dube and Moyo (2021), inadequate access to agricultural inputs and support services remains a significant barrier to the adoption of improved farming technologies among smallholder farmers. Likewise, Nchanji et al. (2021) emphasized that limited institutional support reduces farmers' capacity to implement innovative agricultural practices effectively. The responses reveal that while agricultural assistance provides some relief, it remains insufficient to fully support the implementation of innovative farming practices. Participants emphasized that limited resources continue to create difficulties in sustaining agricultural production and improving productivity.

Significant Response 1: *“Government assistance helps us, but it is not enough to cover all the materials needed for farming. For example, while we receive seeds and fertilizers, there are still other expenses such as pesticides, farming tools, and labor costs that we need to shoulder ourselves. Because of this, we sometimes struggle to fully implement the farming practices that could improve our productivity and harvests.”* (P₁, L₄₈₋₅₃).

Significant Response 2: *“The support we receive is helpful, but many farming needs are still left unsupported”* (P₄, L₂₇₆₋₂₇₈).

Significant Response 3: *“The free seedlings and fertilizers reduce some expenses, but we still spend a lot on other farming requirements”* (P₆, L₄₅₉₋₄₆₂).

Theme 2: Limited Access to Technical Knowledge and Training

The successful implementation of innovative agricultural techniques requires adequate knowledge, skills, and technical guidance. However, some farmers experience challenges due to limited access to agricultural training, seminars, and extension services. Insufficient technical knowledge may affect farmers' ability to apply innovative practices effectively. According to Davis and Sulaiman (2020), access to agricultural extension services and training programs plays a crucial role in promoting the adoption of modern farming technologies. Without adequate training, farmers may encounter difficulties in maximizing the benefits of innovative agricultural methods. The responses indicate that limited technical knowledge and insufficient training opportunities create challenges in adopting innovative agricultural techniques. Participants highlighted the need for continuous learning and technical support to improve farming practices and productivity.

Significant Response 1: *“The problem in the system, only the ones who has connections can be listed, for example, if some foundation visits here, I myself is not always aware of that. We need more seminars because not all farmers know how to apply new farming methods”* (P₉, L₇₃₂₋₇₃₃).

Significant Response 2: *“Some farming techniques are difficult to understand without proper training and guidance. I have never experienced being in a seminar with some apparatus or what that I can use in farming.”* (P₅, L₃₉₈₋₃₉₉).

Significant Response 3: *“There are practices that we want to try, but we lack enough knowledge about them”* (P₃, L₂₀₁₋₂₀₂).

Theme 3: Inadequate and Inconsistent Farming Support

Farmers often face challenges in sustaining innovative agricultural practices due to inadequate and inconsistent support from agricultural institutions. Beyond seeds and fertilizers, farmers require assistance in pest management, farming equipment, financial resources, and other production needs to effectively implement modern farming techniques. According to Torres and Reyes (2023), continuous support systems are essential in enhancing farmers' ability to adapt to agricultural innovations and changing environmental conditions. Similarly, Davis and Sulaiman (2020) emphasized that sustained institutional support and agricultural extension services play a crucial role in promoting the successful adoption and long-term use of innovative farming practices. Inconsistent support may therefore limit farmers' capacity to maximize the benefits of agricultural innovations and maintain productive farming operations.

Significant Response 1: *"If support is continuous, it becomes easier for us to maintain our farming activities. However, that's the main problem, if support comes, it only lasts for how many weeks, not well sustained."* (P₆, L₄₆₇₋₄₆₈).

Significant Response 2: *"We still lack medicines for pests and other materials needed in farming."* (P₂, L₁₅₄₋₁₅₅).

Significant Response 3: *"Farming expenses keep increasing, and additional support is needed to continue our work. In one year, sometimes support is only given once or twice only. It really affects our harvests like its quality."* (P₈, L₆₄₈₋₆₄₉).

Farmers' Coping Mechanism for Sustaining Food Security and Community Resilience

This chapter presents the findings and discussion of the study on strengthening food security and community resilience through innovative farming practices in Capoocan, Leyte. The analysis was guided by three objectives: Lived Experiences of Farmers in Strengthening Food Security and Community Resilience, Difficulties Faced in Innovative Agricultural Techniques, and Farmers' Adaptive Strategies for Sustaining Food Security and Community Resilience. The data gathered through semi-structured interviews were analyzed using thematic analysis, and the findings are presented through emerging themes supported by participants' significant responses and corresponding discussion.

Theme 1: Diversification of Farming Practices

Farmers adapt to agricultural uncertainties by diversifying their farming practices to reduce risks associated with climate variability, pest infestations, and fluctuating market conditions. Crop diversification, adjustments in planting schedules, and the adoption of alternative farming methods enable farmers to maintain agricultural productivity despite environmental challenges. According to Bezner Kerr et al. (2019), diversified farming systems enhance resilience by reducing vulnerability to climatic and economic shocks while promoting food security. Similarly, Aryal et al. (2020) found that diversification strategies improve farmers' adaptive capacity and contribute to sustainable agricultural production. By adopting diverse farming practices, farmers increase their ability to cope with uncertainties and ensure a more stable source of food and income.

Significant Response 1: *"We plant different crops so that if one crop is damaged by pests or bad weather, we still have another source of harvest"* (P₂, L₁₄₃₋₁₄₅).

Significant Response 2: *"We arrange our planting schedule depending on the weather because it helps us avoid possible crop losses"* (P₅, L₃₈₇₋₃₈₉).

Significant Response 3: *"Instead of relying on only one crop, we grow several types of crops to ensure that we can still earn income during difficult seasons"* (P₈, L₆₂₁₋₆₂₃).

Theme 2: Continuous Learning Through Agricultural Innovation

Farmers strengthen their adaptive capacity by continuously acquiring agricultural knowledge and applying innovative farming practices. Participation in seminars, training programs, and agricultural extension activities enables farmers to improve crop management, pest control, and production efficiency. Continuous learning equips farmers with the skills necessary to respond effectively to changing agricultural conditions. According to Davis and Sulaiman (2020), agricultural training and extension services play a vital role in enhancing farmers' knowledge and promoting the adoption of improved farming practices. Likewise, Ragasa and Lambrecht (2021) emphasized that knowledge acquisition contributes significantly to agricultural productivity, resilience, and food security. Through continuous learning, farmers become better prepared to address farming challenges and sustain agricultural production.

Significant Response 1: *"We attend seminars to learn new farming methods that can help us improve our harvest and prevent crop damage"* (P₉, L₇₃₂₋₇₃₄).

Significant Response 2: *"The training programs taught us better ways of planting and managing pests in our farmland"* (P₃, L₁₉₈₋₂₀₀).

Significant Response 3: *"Learning modern farming techniques helps us improve productivity and adapt to changes in farming conditions"* (P₅, L₃₉₈₋₄₀₀).

Theme 3: Resource Maximization Through Institutional Support

Farmers sustain food security and agricultural productivity by maximizing available resources and utilizing institutional support from government agencies and agricultural organizations. Access to seeds, fertilizers, technical assistance, and other agricultural inputs helps farmers manage production costs and maintain farming operations. Institutional support provides farmers with resources that strengthen their resilience and capacity to overcome agricultural challenges. According to Nchanji et al. (2021), access to agricultural support services enhances farmers' adaptive capacity and improves their ability to cope with environmental and economic difficulties. Similarly, Abdul-Rahaman and Abdulai (2022) reported that institutional assistance contributes to increased farm productivity and livelihood sustainability among rural farmers. The effective utilization of available support allows farmers to sustain agricultural production while strengthening food security and community resilience.

Significant Response 1: *"Government assistance is a big help when free seeds and fertilizers are provided to us farmers, but it is still insufficient"* (P₁, L₄₈₋₄₉).

Significant Response 2: *"The support we receive from the government helps us continue farming even when farming materials are expensive"* (P₄, L₂₇₆₋₂₇₇).

Significant Response 3: *"Seedlings and fertilizers provided by the government greatly help us reduce farming expenses and improve our harvest"* (P₆, L₄₅₉₋₄₆₀).

Policy Recommendations to Enhance Farming Practices Based on Participants' Responses

Based on the findings of the study, there is a need to strengthen agricultural policies that support farming communities in improving productivity, food security, and community resilience. The participants emphasized the importance of continuous and accessible agricultural support, including farming resources, government assistance, technical training, modern agricultural technologies, and strengthened community cooperation. These components should be prioritized in policy formulation to effectively address environmental and financial challenges experienced by farmers. The study revealed that farmers in Capoocan, Leyte continue to face environmental, financial, and agricultural constraints that significantly affect their livelihood and food security. Despite these challenges, farmers demonstrate resilience through the adoption of innovative farming practices, utilization of available technologies, and application of adaptive strategies. In response, policies should focus on strengthening government support programs, expanding agricultural training and extension services, and promoting the adoption of modern farming technologies. Furthermore, policy interventions should also encourage community collaboration among farmers to enhance knowledge sharing and collective resilience. Overall, the proposed policy framework emphasizes innovation, sustained institutional support, technological adaptation, and community engagement as key strategies in strengthening agricultural productivity, food security, and community resilience.

4. Conclusion

This study shows that farmers in Capoocan, Leyte continue to face many difficulties in strengthening food security and community resilience, especially due to natural calamities, financial struggles, pests, and changing environmental conditions. Despite these challenges, farmers continue to persevere by adopting innovative and adaptive farming practices that help improve productivity and support their everyday livelihoods. The findings reveal that farming innovations, government assistance, and farmers' own coping strategies are important in helping rural communities maintain food security and adapt to different agricultural challenges. The study also emphasizes the need to strengthen agricultural support systems by providing accessible resources, continuous training, and responsive government programs that directly address the realities experienced by farmers. Stronger cooperation among farmers and local institutions is also necessary in promoting long-term sustainability and resilience within agricultural communities. Furthermore, the findings relate to the Diffusion of Innovations Theory, which explains that the adoption of new farming practices depends not only on the availability of technology but also on institutional support, available resources, and farmers' willingness to adapt to change. Overall, the study demonstrates that innovation, community cooperation, and sustainable agricultural practices are essential in building stronger food security and resilient farming communities.

5. Recommendation

Based on the findings of the study, it is recommended that the Local Government Unit (LGU), agricultural agencies, and other concerned institutions strengthen their support programs for farmers by providing accessible agricultural resources, timely crop insurance and calamity assistance, and continuous training on innovative and climate-resilient farming practices. Farmers should also be encouraged to participate in cooperative activities and community-based programs to strengthen unity, knowledge-sharing, and collective resilience within farming communities. Furthermore, future researchers may conduct similar studies in other municipalities or provinces to gain a broader understanding of how innovative farming practices contribute to food security and community resilience in different agricultural settings.

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About the Author

The author is a graduate of Leyte Normal University with a Bachelor of Secondary Education major in Social Studies. He is currently pursuing his Master of Arts in Education major in Social Studies at the same institution while serving as an instructor at the university. His academic interests include Sociology, History, Philosophy, Agriculture, Culture, Traditions, Practices, Beliefs, and the understanding of diverse world perspectives. He is also actively involved in research activities and has participated in both local and international research presentations. Driven by his passion for continuous learning and community service, he aspires to pursue a Doctorate Degree and a degree in Law in the future to further expand his knowledge and extend meaningful service to the community and its people.

References

- Adonadaga, M. G., et al. (2022). Climate adaptation strategies and resilience among farming communities. *Journal of Climate and Agricultural Sustainability*, 14(2), 115–129.
- Agricultural Training Institute. (2023). Climate-resilient farming programs and community-based agricultural initiatives in the Philippines. ATI Publications.
- Ahmed, R., & Hassan, M. (2022). Financial limitations and agricultural productivity among smallholder farmers. *International Journal of Agricultural Economics*, 9(3), 201–214.
- Ames, H., Glenton, C., & Lewin, S. (2019). Purposive sampling in qualitative evidence synthesis: A worked example from a synthesis on parental perceptions of vaccination communication. *BMC Medical Research Methodology*, 19(1), 26. <https://doi.org/10.1186/s12874-019-0665-4>
- Aryal, J. P., et al. (2020). Climate-smart agriculture and sustainable crop productivity. *Agricultural Systems*, 181, 102–117.
- Berger, R. (2015). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative Research*, 15(2), 219–234.
- Bibi, S., & Rahman, A. (2023). Environmental stress and climate variability effects on agricultural sustainability. *Environmental Sustainability Review*, 18(4), 288–301.
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589–597. <https://doi.org/10.1080/2159676X.2019.1628806>
- Bulletin of the National Research Centre. (2025). Smart farming technologies and agricultural sustainability. *Bulletin of the National Research Centre*, 49(1), 1–15.
- Carraro, A. (2016). Climate variability and agricultural productivity challenges. *Climate Risk Management Journal*, 8, 45–57.
- Clarke, V., & Braun, V. (2019). Thematic analysis. In P. Liamputtong (Ed.), *Handbook of research methods in health social sciences* (pp. 843–860). Springer.
- Department of Agriculture. (2021). Community-based agricultural programs and food security initiatives. Department of Agriculture Philippines.
- Department of Agriculture. (2022). Philippine agriculture situation report and climate adaptation strategies. Department of Agriculture Philippines.

- Fentie, A., & Beyene, A. D. (2019). Climate-smart agricultural practices and resilience outcomes among farmers. *Sustainability*, 11(23), 1–15.
- Finlay, L. (2021). Thematic analysis and reflexivity in qualitative research. *Qualitative Inquiry*, 27(8), 103–115.
- Forero, R., et al. (2019). Application of four-dimension criteria to assess rigor of qualitative research in emergency medicine. *BMC Health Services Research*, 18(1), 120. <https://doi.org/10.1186/s12913-018-2915-2>
- Frontiers. (2025). Agriculture, food security, and climate-smart farming innovations. *Frontiers in Sustainable Food Systems*, 9, 1–18.
- Garcia, P., & Santos, M. (2021). Farming livelihood and rural household sustainability in agricultural communities. *Philippine Journal of Rural Development*, 16(2), 55–70.
- Guest, G., Namey, E., & Chen, M. (2020). A simple method to assess and report thematic saturation in qualitative research. *PLOS ONE*, 15(5), e0232076. <https://doi.org/10.1371/journal.pone.0232076>
- Hennink, M., & Kaiser, B. N. (2022). Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social Science & Medicine*, 292, 114523. <https://doi.org/10.1016/j.socscimed.2021.114523>
- Hennink, M., Kaiser, B. N., & Weber, M. B. (2022). What influences saturation? Estimating sample sizes in focus group research. *Qualitative Health Research*, 29(10), 1483–1496.
- IPCC. (2022). Climate change 2022: Impacts, adaptation and vulnerability. Intergovernmental Panel on Climate Change.
- IPCC. (2023). Climate change and agricultural vulnerability report. Intergovernmental Panel on Climate Change.
- Judijanto, L., et al. (2025). Agricultural innovation and resilience in climate-vulnerable communities. *Journal of Sustainable Agriculture and Rural Development*, 12(1), 44–61.
- Manganda, T., et al. (2024). Circular economy and technological innovations in sustainable agriculture. *Sustainable Development Review*, 28(3), 311–328.
- McLeod, S. (2024). Phenomenology in qualitative research. *Simply Psychology*. <https://www.simplypsychology.org/phenomenology.html>
- Mendoza, J., & Flores, R. (2021). Farmer cooperation and agricultural community resilience. *Asian Journal of Rural Studies*, 13(2), 145–159.
- MDPI. (2024). Precision agriculture and climate-smart farming technologies. *Sustainability*, 16(4), 1–20.
- Navarro, E., & Perez, L. (2022). Modern farming technologies and agricultural productivity. *International Journal of Agricultural Innovation*, 10(2), 134–149.
- Neubauer, B. E., Witkop, C. T., & Varpio, L. (2019). How phenomenology can help us learn from the experiences of others. *Perspectives on Medical Education*, 8(2), 90–97. <https://doi.org/10.1007/s40037-019-0509-2>
- Nowell, L. S., et al. (2019). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16, 1–13.
- Ramos, D., & Cruz, A. (2022). Government agricultural assistance and farming sustainability. *Philippine Agricultural Review*, 18(1), 77–92.
- Reyes, J., & Dizon, P. (2021). Economic barriers and farming productivity among rural farmers. *Journal of Agricultural Economics and Development*, 7(2), 98–112.
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.
- Ruda, A. (2008). Communication and innovation diffusion in rural agricultural communities. *Rural Sociology Review*, 22(1), 31–45.
- Santos, M., & Rivera, P. (2023). Technological innovation and mechanization in agricultural production. *Asian Agricultural Technology Journal*, 15(3), 210–225.
- Schmitt, O., et al. (2022). Climate risks and agricultural adaptation strategies among smallholder farmers. *Climate and Development*, 14(5), 401–416.
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22(2), 63–75.
- Stratton, S. J. (2024). Population research: Convenience sampling strategies. *Prehospital and Disaster Medicine*, 39(4), 373–374.
- Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2019). Thematic analysis. In C. Willig & W. Rogers (Eds.), *The SAGE handbook of qualitative research in psychology* (2nd ed., pp. 17–37). SAGE Publications.
- Torres, R., & Reyes, L. (2023). Agricultural support systems and food security resilience. *Journal of Rural Development Studies*, 19(2), 155–170.
- Velasco, P., & Medina, T. (2021). Agricultural seminars and technical knowledge among rural farmers. *Philippine Journal of*

World Bank. (2020). Agricultural innovation systems and rural development. World Bank Publications.

Zhang, Y., et al. (2025). Barriers to precision agriculture adoption among smallholder farmers. *Journal of Agricultural Technology and Innovation*, 17(1), 75–91.

Zhao, X., Liu, Y., & Huang, Z. (2023). Climate change impacts on agricultural productivity and farmer livelihoods. *Environmental Research and Sustainability*, 21(3), 211–226.

Zizinga, A., et al. (2022). Adaptive farming practices and food security in climate-vulnerable communities. *Agriculture and Human Values*, 39(4), 987–1003.