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From Adversity to Recovery: Adaptive Capacity Experiences of Middle-Class Farmers amidst the Implementation of Rice Tarrification Law

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Abstract

In my study, I explored how the Rice Tariffication Law (RTL) has significantly affected middle-class farmers by inundating the market with cheaper imported rice, which has lowered farmgate prices, reduced their income, and impacted their overall experiences during its implementation. Using a phenomenological approach, I purposively selected ten middle-class farmers, and through my analysis, I identified key themes. I found that the adversities they faced included rising farming costs, decreasing income, and increasing debt and financial strain. I also observed that adaptive strategies involved diversifying farming practices, adapting sustainable methods, and accessing government assistance. In terms of recovery, I saw that economic diversification, self-sufficiency, and building financial independence were essential. For future research, I suggest focusing on the experiences of landless farmers under Rice Tarrification Law and quantitative research may use the emerging themes to determine the factors of recovery, and the sub-themes as indicators.

Keywords: Adversity, Recovery, Adaptive Capacity Experiences, Middle-Class Farmers, Rice Tarrification Law

1. Introduction

During my interview with middle-class farmers, I perceived directly how the Rice Tariffication Law (RTL) severely impacted their livelihoods. They shared how the influx of cheaper imported rice drove down farmgate prices, leaving them with little to no income. Some of them could no longer compete and had to give up rice farming entirely. Even though rice became cheaper for consumers, the farmers I interviewed still faced increasing production costs, which made it harder for them to sustain their work and support their families.

Their experiences reminded me of a study from the Central District of Edo State in Nigeria, where Omofonmwan and Kadiri (2017) found that rice trade liberalization made fertilizers too expensive for local farmers. Just like in the Philippines, reduced government support and the pressure of competing with imported rice created serious problems for small-scale producers. This showed me that the impact of trade policies like RTL isn't just local—it affects farmers in many parts of the world and threatens national food security.



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In my conversations, farmers often mentioned how rice prices dropped dramatically during the implementation of RTL—from P19 to P20 per kilo in 2018 down to just P12, as noted by Dela Peña (2022). This price instability made it hard for them to plan for their families' needs and future planting seasons. Like Alvarez et al. (2022) explained, unstable rice supply and unpredictable market prices created stress and uncertainty in their lives, which I clearly witnessed in their stories.

Theoretical Lens

In this study, I centered my analysis on the Resilience Theory of Norman Garmezy. According Grigorenko (2024), this theory provides a strength-focused on how people manage to recover from adversity. It also emphasizes the adaptive capacity of individuals and communities when facing adversity. It acknowledges coping strategies in challenging situations.

Through this lens, I explored how farmers responded to the experiences brought by the Rice Tariffication Law. I examined the specific coping strategies they employed, such as diversifying their agricultural activities, relying on government support, or engaging in additional livelihood options beyond rice farming to sustain their income. This theory allowed me to analyze not just the adversities farmers faced but also their ability to adapt and recover their livelihoods.

2. Methods

In this research, I used a qualitative method utilizing phenomenological design to explore the lived experiences of middle-class farmers amidst the implementation of Rice Tarrification Law. Grounded in a phenomenological framework, the study aimed to understand farmers' lived experiences and perspectives. The study was conducted in M'lang, North Cotabato, a first-class municipality in the SOCCSKSARGEN Region known for its agricultural productivity and rice farming, the research examined how middle-class farmers employed adaptive strategies and pursued recovery efforts to combat the adversities brought about by the implementation of the Rice Tariffication Law. Using purposive sampling, I selected participants who possessed direct experiences and insights relevant to the study, ensuring that their perspectives were aligned with the statement of the problem and contributed meaningfully to the findings. A total of ten farmers participated in the study—five engaged in In-Depth Interviews (IDIs), while another five contributed to Focused Group Discussions (FGDs), which facilitated in-depth, collaborative discussions. Ethical considerations were central to the process, as I secured a certificate approval from the Society for Moral Integrity and Legal Ethics (SMILE) and the HCDC Graduate School Dean, secured informed consent from participants and focused on establishing trust and rapport to create a secure and open environment for the research.

To analyze the data, I employed Braun and Clarke's thematic approach, systematically coding the interview transcripts to uncover key themes that reflected the core of the farmers' experiences. This method ensured a structured interpretation of findings while maintaining the credibility, dependability, and confirmability of the study. Comparing the interview transcripts with the audio recordings to ensure consistency and enhance the reliability of the data. All audio recordings were securely stored as part of research data. with digital copies kept on a protected Google mv Drive folder (https://drive.google.com/drive/u/0/folders/13CJHuk9BuNUqDLNwUH4vyYC7J9BBRVMV). Ethical guidelines were rigorously followed, in compliance with both national and institutional research standards, to ensure the protection of participant confidentiality.



3. Results and Discussion

As I explored the participants, I gained a deeper understanding of their lived experiences amidst the implementation of Rice Tariffication Law. Through analysis, I uncovered the adversities they faced and the adaptive capacities they employed to recover. I reviewed the goals of the Rice Tariffication Law and its unintended challenges for farmers. The research presented a modified paradigm that highlighted sub-themes related to adversity, adaptive capacities, and recovery, offering insights into how farmers' resilience shaped their response to these challenges. In capturing these experiences, I aimed to highlight the complex ways in which adversity, adaptive capacity, and recovery are connected.

Adversity

Farmers experienced adversities such as rising cost of farming inputs, decreasing income and debt and financial strain.

Adaptive Capacity

Farmers relied on diversification on farming practices, adapting sustainable agricultural practices and accessing government assistance and subsidies.

Recovery

Farmers recovered through economic diversification, self-sufficiency and building financial independence.

The findings underscored the farmers' ability to adapt and recover from the adverse effects of the Rice Tariffication Law. Despite economic hardship, the farmers demonstrated resilience through various coping strategies. These responses reflect their internal strength, problem-solving skills, and determination to maintain their well-being and sustain their livelihoods amid policy-driven challenges.

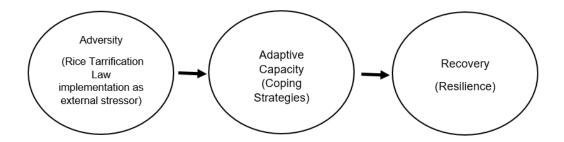


Figure 1: Adversity to Recovery: Adaptive Capacity Experiences of Middle-Class Farmers amidst the Implementation of Rice Tarrification Law International Journal on Science and Technology (IJSAT)

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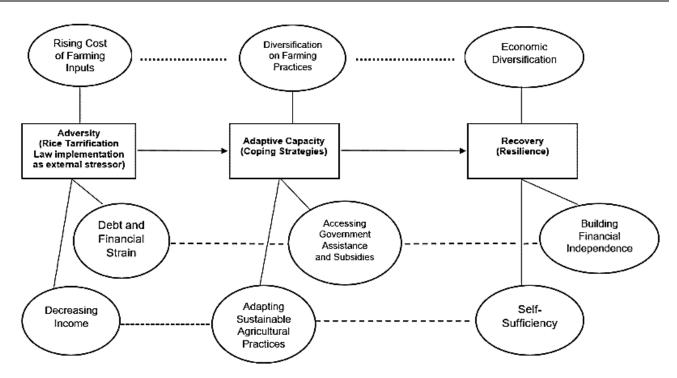


Figure 2: Themes and Sub-Themes of Adversity to Recovery: Adaptive Capacity Experiences of Middle-Class Farmers amidst the Implementation of Rice Tarrification Law

4. Conclusions

This study shed light on the complex and layered impacts of the Rice Tariffication Law (RTL), particularly on middle-class farmers who, while not the most impoverished, face unique challenges that place them at risk of downward mobility. These farmers often operate without the full protection of land ownership or consistent access to government support, making them especially vulnerable to economic shifts and policy changes. The adversities they encountered—ranging from income instability and rising production costs to market competition—revealed critical gaps in current agricultural policies.

Despite these challenges, the resilience of middle-class farmers was evident in their coping strategies and gradual recovery efforts. Many adapted by diversifying their farming activities, seeking government aid, and engaging in alternative sources of livelihood such as livestock raising, micro-enterprises, or short-term employment. These efforts demonstrate a strong capacity for adaptation and a commitment to sustaining their families' welfare despite reduced earnings from rice farming.

The findings highlight the importance of supporting this segment of the farming population through more inclusive and flexible policy frameworks. Future initiatives must prioritize education, financial literacy, and community-led programs to help middle-class farmers not only recover from adversity but also build long-term resilience and economic independence.



5. Recommendations

This study highlights the need for more inclusive and responsive agricultural policies that address the specific challenges faced by middle-class farmers. Although not the poorest, these farmers are vulnerable to downward mobility due to their limited access to land ownership, unstable income, and minimal government support. It is recommended that future policy frameworks recognize this group as a distinct sector requiring targeted assistance—particularly in stabilizing production costs, improving access to subsidies, and creating safety nets during times of economic transition.

To further strengthen their resilience, it is also recommended that government and community-based initiatives promote education, financial literacy, and diversified livelihood training. Programs that encourage micro-enterprises, sustainable agriculture, and alternative income-generating activities can empower middle-class farmers to adapt more effectively to market changes. Investing in these areas will not only support recovery but also foster long-term economic independence and rural development.

Furthermore, given the adverse effects of the Rice Tariffication Law (RTL), future agricultural policies should also be more inclusive, especially for vulnerable groups like landless farmers and those in remote areas. Targeted support—such as subsidies, land access programs, and localized training—must be prioritized to ensure no farming sector is overlooked.

6. Acknowledgment

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7. Author's Biography

The author is currently a graduate student at Holy Cross of Davao College, pursuing a Master of Arts in Education major in Teaching Social Studies. She has a strong interest in the social sciences, particularly in agricultural and rural development, as she has lived for 29 years as a product of a farming community. Her academic work reflects a deep commitment to promoting inclusive and sustainable practices that support marginalized farmers in the Philippine agricultural sector.



References

- 1. Alvarez, S. C., Jacoba, F., Antonio, O. C. C., Gabriel, A. G., & Herezo, M. C. (2022). Food Sufficiency, Tariffication Policy, and Business Strategy: a new business model for the rice milling industry in the Philippines. MEC-J (Management and Economics Journal), 6(2), 109–128.
- 2. Ancheta, G., Capagalan, S. M., Ortega, R. M., Blanco, J., Sotto-Evangelista, C. B., Balading, J., Fulgencio, L., Santiago, A. M., Francisco, C. D., Gumasing Lopez, M. A., & Tus, J. (2023).
- Arbes, J., Villarimo, M., Cabanog, R., Escobar, L., Mindal, M. G., & Amilbahar, G. (2024). Impact assessment of the Rice Competitiveness Enhancement Fund (RCEF) Mechanization Program on the agricultural productivity among rice farmers in a selected barangay in Davao del Norte. ResearchGate, 3(3028–1326), 71–87.
- 4. Arcalas, J., & Ordinario, C. (2023, October 10). Rice sufficiency level falls to 24-year low.
- Arianti, F. D., Pertiwi, M. D., Triastono, J., Purwaningsih, H., Minarsih, S., Kristamtini, N., Hindarwati, Y., Jauhari, S., Sahara, D., & Nurwahyuni, E. (2022). Study of organic fertilizers and rice varieties on rice production and methane emissions in Nutrient-Poor irrigated rice fields. Sustainability, 14(10), 5919.
- Aureada, C., & Dizon, R. (2024). The Impact of Rice Tariffication Law on rice farmer Income and Occupational Choice: A Microsimulation approach. International Journal of Economics, 9(3), 49– 65.
- 7. Austin, Z., & Sutton, J. (2014). Qualitative research: Getting started. The Canadian Journal of Hospital Pharmacy, 67(6).
- 8. Balié, J., Minot, N., & Valera, H. G. A. (2020). Distributional impacts of the rice tariffication policy in the Philippines. Economic Analysis and Policy, 69, 289–306.
- 9. Balié, J., & Valera, H. G. (2020). Domestic and international impacts of the rice trade policy reform in the Philippines. Food Policy, 92, 101876.
- 10. Beltran, M., & Lei Win, T. (2023, July 27). Filipino farmers' profits disappear, and hunger looms. The New Humanitarian.
- Bordey, F.H., Moya, P.F., Beltran, J.C. and Dawe, D.C. (2016) Competitiveness of Philippine Rice in Asia. Science City of Muoz, Philippines, Philippine Rice Research Institute and Manila, Philippines, International Rice Research Institute, Los Baos. - References - Scientific Research Publishing. (2023, June 28). Scientific Research.
- 12. Briones, R. M. (2019). Welfare impacts of rice tariffication.
- 13. Briones, R. M. (2021, February 19). Does rice tariffication in the Philippines worsen income poverty and inequality? Philippine Institute for Development Studies.
- Brito, L., Bedere, N., Douhard, F., Oliveira, H., Arnal, M., Peñagaricano, F., Schinckel, A., Baes, C., & Miglior, F. (2021). Review: Genetic selection of high-yielding dairy cattle toward sustainable farming systems in a rapidly changing world. Animal, 15, 100292.
- 15. Brown, K. (2022, August 10). Farmers feel the impact of rising input costs. Mississippi Farm Country.
- 16. Burgess, A. J., Cano, M. E. C., & Parkes, B. (2022). The deployment of intercropping and agroforestry as adaptation to climate change. Crop and Environment, 1(2), 145–160.
- 17. Busetto, L., Wick, W., & Gumbinger, C. (2020). How to use and assess qualitative research methods. Neurological Research and Practice, 2(1).



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- Calicdan, J. P. J., Gavino, C. J., Estrada, H. F., Cortez, J. M., & Balaria, F. E. (2020). Effects of rice liberalization law on rice production, farmers' wages and government budgets. International Journal of Advanced Engineering Management and Science, 6(6), 275–281.
- Caliwag, D. M. (2024, May 25). Impacts of implementing Rice Tariffication Law (Republic Act 11203) on local farmers of Sorsogon City. UIJRT » United International Journal for Research & Technology.
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. Journal of Research in Nursing, 25(8), 652–661.
- 21. Casinillo, L. F. (2020). Econometric Modelling On Satisfaction In Rice Farming Under Philippine Rice Tariffication Law. Journal of Research and Multidisciplinary, 3(2), 326–336.
- 22. Cervantes, F. M. (2024, June 6). Subsidies in rice production to continue amid rice tariff cut. Philippine News Agency.
- 23. Chen, Y., Zhang, J.-H., Chen, M.-X., Zhu, F.-Y., & Song, T. (2023). Optimizing water conservation and utilization with a regulated deficit irrigation strategy in woody crops: A review. Agricultural Water Management, 289.
- 24. De Leon, T. J. P., & Manalo, J. A., IV. (2024). Affordances in crop diversification: Three cases from the Philippines. Asian Journal of Agriculture and Rural Development, 14(2), 34–50.
- 25. Dela Pena, K. (2022, August 16). Arguments to repeal rice tariffication: Prices still high but farmers poorer.
- 26. Department of Agriculture. (2020, July 31). DA to use excess rice tariff for crop diversification, insurance. Official Portal of the Department of Agriculture.
- 27. Department of Agriculture. (2024, August 7). Agricultural Credit and Financing Programs official portal of the Department of Agriculture. Official Portal of the Department of Agriculture.
- 28. Dhillon, R., & Moncur, Q. (2023). Small-Scale Farming: A review of challenges and potential opportunities offered by technological advancements. Sustainability, 15(21), 15478.
- 29. Diaz-Gonzalez, A. M., & MoralesOpazo, C. (2019). Implications of reforming the agricultural subsidies policy in Ecuador the case of rice. SSRN Electronic Journal.
- 30. Dizon, R., Arandez Tanchuling, H., & C. Montemayor, R. (2023). The Gains and Losses of Producers and Consumers in the Implementation of Rice Tariffication Law: An Integrated Impact Analysis. Journal of Namibian Studies, 33(1863–5954), 325.
- 31. Dofweb. (2022, May 20). Rice tariffication law plows in P46.6-B to farm sector over 2019-2021 period. Department of Finance.
- 32. Dollison, M. D. (2023). Comparative yield performance of rice production under organic and inorganic fertilizer application. International Journal of Multidisciplinary Applied Business and Education Research, 4(7), 2173–2179.
- 33. Eco-Business. (2024, November 15). From farmers to importers: how Filipino rice growing went wrong. Eco-Business.
- 34. Edwards, C. A. (2019). The Importance of Integration in Sustainable Agricultural Systems. CRC Press eBooks, 249–264.
- 35. Estadilla, R. J. C. (2022). Economic Impacts of Rice Tariffication Law on The Philippine Rice Domestic Market. ResearchGate, 28, 76–92.
- 36. Esterman, I. (2024, December 27). Organic farming, and community spirit, buoy a typhoon-



battered Philippine town. Mongabay Environmental News.

- 37. Giger, M., & Musselli, I. (2023). Could global norms enable definition of sustainable farming systems in a transformative international trade system? Discover Sustainability, 4(1).
- 38. Glover, D., Kim, S. K., & Stone, G. D. (2020). Golden Rice and technology adoption theory: A study of seed choice dynamics among rice growers in the Philippines. ScienceDirect, 60.
- 39. Hajjar, J., Ahmed, N., Alhudaib, K., & Ullah, H. (2023). Integrated insect pest management Techniques for rice. MDPI, 15(5).
- 40. Hukom, V. a. R. (2023). Assessment of the Financial Literacy and Loan Repayment of Rice Farmer-Borrowers of Gabay sa Kaunlaran Agricultural Cooperative in Calapan City, Naujan, Oriental Mindoro, 2023. University Knowledge Digital Repository.
- 41. Ituriaga, J., Mariñas, K. A., & Saflor, C. S. (2024). Enhancing government services to rice farmers in the Philippines: A Service Quality–Sustainability-Focused Approach for Long-Term Agricultural Resilience. Sustainability, 16(18), 8108.
- 42. Maltsbarger, B., & Laughton, C. (2023, April). Rising input costs, falling commodity prices to squeeze producer margins in 2023.
- 43. Mataia, A., Beltran, J., Manalili, R., Catudan, B., Francisco, N., & Flores, A. (2020, December 10). Rice Value Chain Analysis in the Philippines: Value Addition, Constraints, and Upgrading Strategies. AgEcon Search (University of Minnesota, USA).
- 44. Matugas, S. V. C. S., Aro, G. J. P., Solibaga, S. D., II, Paclipan, A. A., & Micabalo, K. G. (2022). The implications of rice tariffication law to the rice trading industy in a highly urbanized city in the Philippines. International Journal of Scientific Research and Management (IJSRM), 10(11), 4241– 4258.
- 45. Melendres, J. (2024). Proposed financial education program for selected rice farmers in the municipality of Bongabong. ADPEBI International Journal of Business and Social Science, 4(1), 33–44.
- 46. Mendoza, R. U., & Torres, A. G. (2019). Rice tariffication, good governance, and real food security. SSRN Electronic Journal.
- Micabalo, K., & Gimen, J. A. F.-. (2024). Sustainable Agricultural Practices and Their Effects on Environmental Quality and Economic Viability in Central Visayas, Philippines. ResearchGate, 13, 38–46.
- 48. Muthayya, S., Sugimoto, J. D., Montgomery, S., & Maberly, G. F. (2014). An overview of global rice production, supply, trade, and consumption. Annals of the New York Academy of Sciences, 1324(1), 7–14.
- 49. Naher, U. A., Biswas, J. C., Maniruzzaman, M., Khan, F. H., Sarkar, M. I. U., Jahan, A., Hera, M. H. R., Hossain, M. B., Islam, A., Islam, M. R., & Kabir, M. S. (2021). Bio-Organic Fertilizer: a green technology to reduce synthetic N and P fertilizer for rice production. Frontiers in Plant Science, 12.
- 50. 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.
- 51. Nordhagen, S. (2022, June 22). The impact of higher input prices for farmers, food security, and the planet. Food Tank.
- 52. Nueva, J., Tanaleon, J. A., & Besa, A. (2022). Rice Tariffication Law: Education and views of farmers in the Southern Philippines. ASEAN Journal of Science and Engineering Education, 2(2),



143–146.

- 53. Ocampo, K. (2020, March 4). Rice tariff law a year later: Prices down but farmers lose. Philippine Institute for Development Studies.
- 54. Omofonmwan, S. I., & Kadiri, M. A. (2017). Problems and prospects of rice production in central district of Edo State, Nigeria. Journal of Human Ecology, 22(2), 123–128.
- 55. Pham, D. D., Cai, K., Phung, L. D., Kaku, N., Sasaki, A., Sasaki, Y., Horiguchi, K., Pham, D. V., & Watanabe, T. (2019). Rice Cultivation without Synthetic Fertilizers and Performance of Microbial Fuel Cells (MFCs) under Continuous Irrigation with Treated Wastewater. Water, 11(7), 1516.
- 56. Purugganan, J. (2019, November 26). Farmers demand government to repeal Rice Liberalization Law | Focus on the Global South.
- 57. Raj, J., Jat, S., Kumar, M., Reema, & Yadav, A. (2024). The role of organic farming in sustainable agriculture. Advances in Research, 25(3), 128–136.
- 58. Ramos, M. (2024, November 7). From farmers to importers: how Filipino rice growing went wrong. Context by TRF.
- 59. Rani, M., Kaushik, P., Bhayana, S., & Kapoor, S. (2023). Impact of organic farming on soil health and nutritional quality of crops. Journal of the Saudi Society of Agricultural Sciences, 22(28), 560–569.
- 60. Rebualos, J., V., Vistal, J. P., Sato, S. M. B., Cano, J. C., Camino, J. R., & Dagohoy, R. (2021, September 6). Rice Tariffication Law through the Lens of the Farmers: A Case in the Municipality of Carmen.
- 61. Rieger, J. (2022). Fighting the good fight: the case of the Philippine rice sector. The Asia Foundation.
- 62. Sadoy, Y. (2024). Awareness and Implications of the Rice Tariffication Law (Republic Act 11203) among Irrigation Association Members in Dipolog City, Philippines. ResearchGate.
- 63. Salam, M. A., Sarker, M. N. I., & Sharmin, S. (2021). Do organic fertilizer impact on yield and efficiency of rice farms? Empirical evidence from Bangladesh. Heliyon, 7(8), e07731.
- 64. Salazar, A. M., Sison, J. R., & Cruz, F. B. (2020). Improving financial literacy among Filipino farmers: Strategies for Long-term Economic recovery. Journal of Community Dedication, 4(2), 230–242.
- 65. San Agustin, A., Jr. (2022, April 22). Sustainable farming: A narrative analysis of the values, beliefs, and attitudes of organic farmers | Ateneo de Manila University. Ateneo De Manila University.
- 66. San Juan, D. M. (2021). A Review of Rice Tariffication in the time of COVID-19: Rationale and Road to Rice Self-Sufficiency in the Philippines. Animo Repository.
- 67. Sarsale, N. M. S. (2019). Creating a Financial Viability Model among Cooperatives Using Management Practices as Predictors. Journal of Educational and Human Resource Development (JEHRD), 7, 14–23.
- 68. Skevas, I., & Lansink, A. O. (2020). Dynamic inefficiency and spatial spillovers in Dutch dairy farming. Journal of Agricultural Economics, 71(3), 742–759.
- 69. Spalding, I. (2021, October 25). Filipino Rice Farmers: What We Can Learn from their Struggle -Producers Stories. Producers Stories.
- 70. Tacconi, F., Lefroy, D., Waha, K., Ojeda, J. J., Leith, P., & Mohammed, C. (2024). Agricultural



Diversity, Farmers' Definitions and uses: The case of Tasmanian farms. Journal of Rural Studies, 108.

- 71. Tobias, A. M. (2019, May 23). The Philippine Rice Tariffication Law: Implications and Issues. FFTC Agricultural Policy Platform (FFTC-AP).
- 72. Tobias, A. M. (2021, January 12). The Philippine Rice Tariffication Law: Implications and issues. FFTC Agricultural Policy Platform (FFTC-AP).
- 73. Touch, V., Tan, D., Cook, B., Liu, D. L., Cross, R., Tran, T. A., Utomo, A., Yous, S., Grunbuhel, C., & Cowie, A. (2024). Smallholder Farmers' Challenges and Opportunities: Implications for agricultural production, environment and food security. Journal of Environmental Management, 370.
- 74. Vertudes, M. F., Musa, C. D., Cosilet, M. A., Salagubang, R., & Balaria, F. (2020). Impact of Rice Tariffication Law in selected Rice Farmers in Nueva Ecija, Philippines. International Journal of Advanced Engineering Management and Science, 6(3), 147–153.
- 75. Vicente, O. D. J., Vicente, R. J., & Vedra, S. A. (2023). A Paper Review on Rice Farming Practices towards Self-Sufficiency and Sustainability in the Philippines. International Journal of Science and Management Studies (IJSMS), 39–45.
- 76. Villezar, M. (2025, March 17). Bicol Rice Farmers Empowered through Financial Literacy & Basic Financial Management | ATI BiCol. ATI Bicol.