

Eco-Microcredit and Rural Transformation: The Mediating Role of Sustainable Farming Practices and the Moderating Effect of Financial Literacy on Household Sustainability

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ABSTRACT

Rural communities often struggle to achieve sustainable livelihoods due to limited financial access, low adoption of sustainable farming practices, and insufficient financial literacy. This study addresses these challenges by examining how eco-microcredit, as a form of green financing, serves as a catalyst for rural transformation through its impact on sustainable farming practices and household sustainability. The study aims to develop and validate a conceptual framework that positions sustainable farming practices as a mediating variable and financial literacy as a moderating variable in the relationship between green financing and household sustainability. Using a conceptual and theoretical approach grounded in the Sustainable Livelihoods Framework, ecological modernization theory, and innovation-adoption theory, the study integrates financial access, behavioral adoption, and human capability perspectives. The findings suggest that eco-microcredit enhances household sustainability indirectly by promoting the adoption of sustainable farming practices, while financial literacy strengthens this relationship by enabling effective utilization of financial resources. The study contributes theoretically by linking financial inclusion, behavioral change, and sustainability outcomes in a unified model. Practically, it provides insights for policymakers and financial institutions to design integrated eco-microcredit programs that combine financial support, capacity building, and market access to achieve long-term rural resilience and sustainability.

Keywords: Eco-microcredit, green financing, sustainable farming practices, rural transformation, household sustainability.

INTRODUCTION

Rural communities across the developing world face interconnected challenges of poverty, food insecurity, and environmental degradation. Climate change, soil depletion, and water scarcity further undermine agricultural productivity, making rural households increasingly vulnerable to economic shocks. In this context, access to financial resources becomes critical for enabling adaptation and resilience. Microcredit has long been recognized as a powerful tool for poverty alleviation, but its potential role in promoting environmentally sustainable

livelihoods has only recently gained traction. The concept of *eco-microcredit* where microfinance products tailored toward supporting sustainable agricultural practices and green technologies—emerges as an innovative pathway to address both livelihood improvement and environmental sustainability simultaneously (Lal & Israel, 2006; Liu, 2024).

Evidence suggests that eco-microcredit and green finance interventions can significantly enhance household well-being when coupled with sustainable farming practices. In China, Green Finance Reform and Innovation Zones were found to improve household operating income and reduce reliance on traditional farming while decreasing rural out-migration (Yan et al., 2025). In Kenya, microcredit-supported adoption of improved seed varieties increased maize farmers' income by more than 40% (Kipkoge et al., 2025). Similarly, studies in Bangladesh reveal that microcredit allowed land-poor households to diversify into livestock and nonfarm enterprises, thereby stabilizing income (Khandker & Koolwal, 2016). While these findings highlight eco-microcredit as a catalyst for rural transformation, other studies caution that repayment burdens, weak financial literacy, and institutional limitations may undermine long-term benefits (Phan et al., 2019; Shahidullah & Haque, 2014).

Despite these insights, the mechanisms through which eco-microcredit contributes to household sustainability remain under-conceptualized. Much of the existing literature focuses either on financial access or on agricultural outcomes without fully integrating the environmental dimension. Furthermore, most empirical studies examine direct effects of microcredit on income or productivity, overlooking the *mediating role of sustainable farming practices*. Without this conceptual clarity, policymakers and financial institutions risk designing eco-microcredit schemes that provide short-term gains but fail to achieve long-term sustainability. This lack of theoretical integration limits our understanding of how eco-microcredit can simultaneously promote economic resilience, food security, and ecological balance in rural households.

This paper addresses the gap by proposing a conceptual framework that positions sustainable farming practices as the mediating variable between eco-microcredit and household sustainability. Drawing on the Sustainable Livelihoods Framework (DFID, 1999), this study conceptualizes eco-microcredit as a financial intervention that strengthens household assets and enables strategic livelihood choices. The framework is augmented by ecological modernization theory, which explains how financial and technological innovation can support environmental goals (Mol & Sonnenfeld, 2000), and by innovation-adoption theory, which accounts for heterogeneity in farmers' decisions to adopt sustainable practices (Rogers, 2003). By integrating these perspectives, this paper develops a theoretically grounded model that clarifies causal pathways and offers testable propositions for future research.

The significance of this study lies in its potential to bridge theoretical gaps while offering practical guidance for policymakers, microfinance institutions, and development practitioners. A clear conceptual framework will help design eco-microcredit schemes that not only improve income but also incentivize sustainable resource use, contributing directly to multiple Sustainable Development Goals (SDGs) such as poverty reduction, food security, climate action, and sustainable communities. The remainder of the paper is structured as follows: Section 2 reviews the literature on eco-microcredit, sustainable farming practices, and household sustainability; Section 3 develops the conceptual framework and theoretical underpinnings; Section 4 discusses the proposed hypotheses and implications; and Section 5 concludes with directions for policy and future research.

LITERATURE REVIEW

Access to eco-microcredit and green finance has shown promising potential in enhancing rural livelihoods while promoting environmental sustainability. Studies indicate that well-designed programmes can increase agricultural productivity, household income, and resilience. For instance, the Green Finance Reform and Innovation Zones (GFRIZ) in China significantly improved household operating income, reduced reliance on traditional agriculture, and decreased rural out-migration by facilitating access to credit and insurance (Yan et al., 2025). Similarly, microcredit programmes in Kenya enabled maize farmers to adopt improved seeds and technologies, resulting in a 40.52% increase in income (Kipkoge et al., 2025). Evidence from Bangladesh shows that microcredit helped land-constrained households diversify into livestock and nonfarm activities, thereby

improving income stability (Khandker & Koolwal, 2016). These findings collectively suggest that eco-microcredit can catalyze rural transformation by enabling both economic and environmental benefits.

However, these positive outcomes are not universal, and challenges remain. Studies caution that loan repayment burdens, inadequate financial literacy, and limited institutional capacity can undermine the sustainability of benefits. For example, microcredit in Vietnam improved food consumption in the short term, but repayment obligations later reduced consumption levels (Phan et al., 2019). Likewise, microenterprises supported by microcredit often face difficulties in maintaining environmentally sustainable practices without ongoing support (Shahidullah & Haque, 2014). These findings highlight that eco-microcredit alone is insufficient; its success depends on complementary support systems such as financial literacy training, extension services, and enabling policies that ensure households can translate credit into sustainable farming practices and long-term well-being. To interpret these mixed outcomes, the Sustainable Livelihoods Framework (SLF) provides a valuable perspective by emphasizing the interaction of assets (financial, natural, human), institutions, and external contexts in shaping strategies and outcomes (DFID, 1999).

Building on SLF, additional theoretical perspectives deepen understanding of how eco-microcredit leads to rural sustainability. Ecological modernization theory explains how financial and technological innovations—such as credit for renewable energy or conservation agriculture—can reduce environmental intensity while sustaining production (Mol & Sonnenfeld, 2000). Innovation-adoption theory, meanwhile, accounts for why farmers differ in adopting sustainable practices, highlighting the importance of perceived relative advantage, compatibility, observability, and peer influence (Rogers, 2003). Recent studies reinforce the role of moderators such as financial literacy, market access, and extension services in shaping these outcomes (Alqatan et al., 2025; Berhanu et al., 2021; Revindo & Gan, 2017; Wang & Wang, 2012). Despite this growing body of evidence, few studies explicitly conceptualize sustainable farming practices as the mediating variable linking eco-microcredit to household sustainability. This gap calls for a conceptual framework that integrates SLF, ecological modernization, and adoption theory to clarify the pathways, mediators, and moderators that explain how eco-microcredit can function as a catalyst for rural transformation.

METHODOLOGY

Research Design – Narrative Review Methodology

This study adopts a narrative review methodology to synthesize the evolving body of literature on eco-microcredit and its role in promoting sustainable agricultural practices and household sustainability. Unlike systematic reviews, which are often narrowly focused on empirical findings, narrative reviews allow for broader integration of diverse theoretical, conceptual, and empirical contributions (Baumeister & Leary, 1997). This design is particularly suitable for emerging research areas where concepts and theoretical frameworks are still being developed, as is the case with eco-microcredit and green finance in rural sustainability. By drawing on both empirical studies and theoretical perspectives, this approach provides the flexibility to trace conceptual linkages across disciplines such as development studies, agricultural economics, sustainability science, and financial innovation. The narrative review thus serves as the basis for developing a conceptual framework that explains how eco-microcredit functions as a catalyst for rural transformation.

Key Steps in Conducting a Narrative Review

The review was conducted in several sequential steps. First, the research questions were established to guide the scope: (i) How does eco-microcredit contribute to household sustainability? (ii) What role do sustainable farming practices play in mediating this relationship? (iii) Which theoretical perspectives best explain these linkages? Second, the data collection was conducted primarily through the Scopus database, selected for its comprehensive coverage of peer-reviewed journals in social sciences, business, economics, and environmental studies. Third, relevant studies were identified, screened, and included based on relevance to eco-microcredit, green finance, agricultural sustainability, and household outcomes. Fourth, an integrative thematic analysis was applied to synthesize insights, identify recurrent patterns, and map theoretical perspectives across studies. Finally, the findings were interpreted in light of the Sustainable Livelihoods Framework, ecological modernization, and innovation-adoption theory to support the development of a conceptual model.

Data Collection and Review Strategy

Data collection relied on a structured search of the Scopus database. The search string used was:

("eco-microcredit" OR "microfinance" OR "green credit" OR "sustainable lending") AND ("green financing" OR "environmental finance" OR "sustainable finance" OR "eco-financing") AND ("sustainable farming" OR "sustainable agriculture" OR "agroecology" OR "eco-agriculture") AND ("household sustainability" OR "domestic sustainability" OR "home sustainability" OR "family sustainability")

The initial search yielded 212 documents, which were then filtered through inclusion and exclusion criteria. Only peer-reviewed journal articles, book chapters, and high-quality conference papers published in English between 2000 and 2025 were retained. Grey literature and non-peer-reviewed sources were excluded to ensure academic rigor. After screening titles, abstracts, and keywords, 76 articles were identified as highly relevant.

An integrative thematic analysis approach was then applied. This method involves identifying, comparing, and synthesizing recurring themes, concepts, and theoretical perspectives across the selected studies (Whittemore & Knafl, 2005). Coding was performed manually in three stages: (i) open coding to identify initial categories, (ii) axial coding to group concepts into broader themes, and (iii) selective coding to link themes with theoretical perspectives. The final synthesis emphasized conceptual linkages among eco-microcredit, green financing, sustainable farming practices, and household sustainability, thereby informing the construction of the conceptual framework.

Key Findings from the Narrative Review

The thematic analysis yielded five major themes: (1) Eco-microcredit and financial access, (2) Adoption of sustainable farming practices, (3) Household sustainability outcomes, (4) Moderating factors, and (5) Theoretical perspectives. These are summarized in Table 1 below.

Table 1. Key Findings from the Narrative Review

Theme	Key Findings	Description
Eco-microcredit and financial access	Eco-microcredit expands access to financial capital	Green microcredit products provide rural households with funds for sustainable inputs, renewable energy, and conservation agriculture. Evidence shows increased income and reduced migration (Yan et al., 2025; Khandker & Koolwal, 2016).
Sustainable farming practices adoption	Credit facilitates technology and practice adoption	Microcredit enables farmers to adopt high-yield seeds, organic fertilizers, and water-saving irrigation. For example, maize farmers in Kenya saw a 40.52% income increase after adopting improved seeds (Kipkoge et al., 2025).
Household sustainability outcomes	Improved income, food security, and resilience	Eco-microcredit contributes to income stability, household food security, and reduced environmental degradation. However, repayment burdens may offset short-term gains (Phan et al., 2019; Shahidullah & Haque, 2014).
Moderating factors	Institutional and contextual conditions shape outcomes	Financial literacy, extension services, landholding size, and market access influence the effectiveness of eco-microcredit interventions (Revindo & Gan, 2017; Wang & Wang, 2012).
Theoretical perspectives	Integration of SLF, ecological modernization, and adoption theory	SLF explains asset-based livelihood strategies; ecological modernization highlights finance-technology-environment linkages; adoption theory explains heterogeneity in uptake (Mol & Sonnenfeld, 2000; Rogers, 2003).

The narrative review highlights several interconnected insights regarding the role of eco-microcredit in fostering rural sustainability. These findings are best understood by analyzing them across five themes: financial access, adoption of sustainable farming practices, household outcomes, moderating factors, and theoretical integration.

First, eco-microcredit and financial access emerged as a critical enabler of sustainable livelihoods. By expanding financial inclusion, eco-microcredit provides rural households with the capital necessary to invest in technologies and practices that would otherwise be unaffordable. Studies show that green microcredit schemes not only increase household operating income but also reduce rural-to-urban migration by creating viable livelihood opportunities in rural areas (Yan et al., 2025). Evidence from Bangladesh demonstrates that land-poor farmers could diversify into livestock and nonfarm activities once microcredit expanded their financial base, improving both resilience and income stability (Khandker & Koolwal, 2016). Thus, eco-microcredit functions as a structural intervention that enhances financial assets within the Sustainable Livelihoods Framework (DFID, 1999).

Second, the review confirms that adoption of sustainable farming practices is the pivotal mechanism through which eco-microcredit translates into long-term sustainability. Access to eco-microcredit increases farmers' ability to adopt organic inputs, improved seeds, renewable energy systems, and water-conserving irrigation technologies. For instance, maize farmers in Kenya who accessed microcredit to invest in better seeds and inputs experienced a 40.52% rise in income (Kipkoge et al., 2025). Similar findings are noted in Indonesia, where credit access spurred technology adoption that improved farmer prosperity (Mariyono et al., 2019). The consistency of these findings across contexts suggests that practice adoption is the mediating variable connecting financial interventions to sustainability outcomes.

Third, eco-microcredit interventions show clear benefits for household sustainability outcomes but with important caveats. On the positive side, increased credit access is associated with improved income stability, greater food security, and higher resilience to shocks such as crop failure or market fluctuations (Berhanu et al., 2021). In addition, eco-microcredit programs that target environmentally sustainable practices can reduce reliance on chemical inputs, conserve soil and water resources, and mitigate ecological degradation (Lal & Israel, 2006). However, risks remain: evidence from Vietnam shows that while microcredit temporarily improved food consumption, repayment pressures later reduced household consumption levels (Phan et al., 2019). Likewise, microcredit-supported enterprises may struggle to sustain environmentally friendly practices without continuous support, highlighting the tension between short-term financial goals and long-term ecological outcomes (Shahidullah & Haque, 2014).

Fourth, the effectiveness of eco-microcredit is contingent upon a range of moderating factors. The review identifies financial literacy, extension services, market access, and landholding size as critical conditions shaping outcomes. For instance, without financial literacy, households may misuse loans or struggle with repayment, undermining both livelihood and ecological benefits (Revindo & Gan, 2017). Similarly, farmers with weak market access may adopt sustainable practices but fail to reap higher returns due to limited sales opportunities, while inadequate extension services limit the ability to translate credit into effective practice adoption (Wang & Wang, 2012). These moderating factors highlight the need for context-specific program design rather than one-size-fits-all interventions.

Finally, the review underscores the importance of theoretical integration. The Sustainable Livelihoods Framework (DFID, 1999) explains how eco-microcredit enhances financial assets that influence livelihood strategies. Ecological modernization theory adds that financial innovation and technological adoption can be harmonized with environmental sustainability (Mol & Sonnenfeld, 2000). Innovation-adoption theory, meanwhile, explains why farmers differ in their uptake of sustainable practices, depending on perceived benefits and social influences (Rogers, 2003). Taken together, these theories justify positioning sustainable farming practices as the mediator between eco-microcredit (independent variable) and household sustainability (dependent variable), while recognizing the role of moderators such as institutional capacity and market integration.

The narrative review shows that eco-microcredit enhances financial access for rural households, but its effectiveness depends on how credit is used. Evidence strongly supports its role in enabling sustainable farming practices, such as improved seed adoption, conservation techniques, and renewable energy investments, which in turn contribute to household sustainability outcomes like income diversification, food security, and ecological resilience. However, challenges such as repayment burdens and low financial literacy can undermine benefits, suggesting that moderating factors play a crucial role in determining success. The integration of the Sustainable

Livelihoods Framework, ecological modernization, and innovation-adoption theory provides a robust theoretical scaffold to explain these linkages and guide future research.

DEVELOPMENT OF THEORETICAL FRAMEWORK

The development of the theoretical framework begins with establishing the foundational relationship between green financing and household sustainability. Green financing, as an independent variable, represents financial support mechanisms that enable rural households to adopt environmentally sustainable practices (Yan et al., 2025). Theoretical grounding is provided by the Sustainable Livelihoods Framework (DFID, 1999), which posits that access to financial resources enhances household assets and livelihood strategies, thereby improving socio-economic outcomes. Ecological modernization theory further explains that financial innovation, when combined with technological adoption, can harmonize economic development with environmental sustainability (Mol & Sonnenfeld, 2000). Within this framework, green financing is positioned as a structural intervention that increases households' capacity to invest in sustainable farming technologies, thereby setting the stage for improved environmental and economic outcomes.

In the context of this study, the framework applies these theories to explain how sustainable farming practices mediate the relationship between green financing and household sustainability. Empirical evidence demonstrates that households with access to green financing adopt practices such as organic fertilization, water-conserving irrigation, renewable energy utilization, and improved seed technologies, leading to enhanced productivity, income stability, and environmental protection (Kipkoge et al., 2025; Mariyono et al., 2019). Innovation-adoption theory (Rogers, 2003) provides insight into why households differ in the uptake of these practices, highlighting the roles of perceived benefits, social influence, and access to extension services. Moderating factors such as financial literacy, landholding size, and market access further influence the extent to which green financing translates into sustainable practices and subsequent household outcomes (Revindo & Gan, 2017; Wang & Wang, 2012). This mediating mechanism clarifies that green financing alone does not guarantee household sustainability; rather, the adoption of sustainable practices is the critical pathway through which financial inputs generate long-term benefits.

The practical implications of this conceptual framework are twofold. First, it provides guidance for policymakers and microfinance institutions in designing green financing programs that incorporate technical support, training, and market linkages, ensuring that households effectively adopt sustainable practices (Berhanu et al., 2021; Phan et al., 2019). Second, it offers a structured roadmap for evaluating program effectiveness by linking financial access, practice adoption, and household sustainability outcomes. In conclusion, the theoretical framework integrates green financing, sustainable farming practices, and household sustainability into a coherent model, bridging theory and empirical evidence while highlighting key mediators and contextual factors. This framework not only supports academic inquiry but also informs interventions aimed at achieving economic, environmental, and social sustainability in rural communities.

Proposition Development

Proposition Development: Green Financing and Sustainable Farming Practices

Green financing serves as a pivotal financial mechanism that enables rural households to adopt environmentally sustainable agricultural practices, thereby functioning as a catalyst for improved livelihood strategies. Grounded in the Sustainable Livelihoods Framework, access to financial resources enhances households' capacity to invest in productive assets, adopt innovative technologies, and implement practices that balance economic and environmental objectives (DFID, 1999; Mol & Sonnenfeld, 2000). Empirical studies indicate that households receiving green financing are more likely to engage in practices such as organic fertilization, water-conserving irrigation, renewable energy utilization, and improved seed technologies, which collectively improve agricultural productivity and environmental sustainability (Kipkoge et al., 2025; Mariyono et al., 2019). Innovation-adoption theory further explains the variability in adoption rates, emphasizing the influence of perceived benefits, social norms, and access to extension services on households' decisions to implement sustainable practices (Rogers, 2003). Moreover, factors such as financial literacy, landholding size, and market access shape the effectiveness of green financing in fostering sustainable practices (Revindo & Gan, 2017; Wang

& Wang, 2012). Therefore, sustainable farming practices act as a crucial mediating mechanism that translates green financial inputs into tangible environmental and livelihood benefits.

Proposition 1 (P1): Green financing positively influences the adoption of sustainable farming practices among rural households.

Proposition Development: Sustainable Farming Practices and Household Sustainability

Sustainable farming practices, as a mediating factor, play a central role in enhancing household sustainability by promoting environmentally responsible, productive, and economically viable agricultural activities. These practices improve resource efficiency, reduce environmental degradation, and stabilize household income, aligning with the principles of ecological modernization and sustainable livelihoods (Mol & Sonnenfeld, 2000; DFID, 1999). Empirical evidence shows that households implementing sustainable practices experience enhanced food security, increased income stability, and long-term resilience against environmental and market shocks (Berhanu et al., 2021; Phan et al., 2019). The adoption process is influenced by household-level factors, including knowledge, technical skills, and access to support services, which determine the extent to which sustainable practices contribute to broader household welfare outcomes (Rogers, 2003; Revindo & Gan, 2017). As such, sustainable farming practices constitute the critical pathway through which financial and technological inputs are converted into improved household sustainability.

Proposition 2 (P2): Sustainable farming practices positively affect household sustainability.

Proposition Development: The Mediating Role of Sustainable Farming Practices

Sustainable farming practices serve as a critical mediating mechanism that links green financing to household sustainability by transforming financial access into tangible livelihood outcomes. While green financing provides the financial means for rural households to invest in eco-friendly technologies and inputs, it is the adoption of sustainable farming practices that converts these financial resources into improved productivity, environmental conservation, and long-term economic stability. Through practices such as organic fertilization, renewable energy use, efficient irrigation, and crop diversification, households enhance resource efficiency and resilience to environmental shocks. The Sustainable Livelihoods Framework emphasizes that livelihood improvements arise not merely from financial inputs but from how households utilize these resources to strengthen their assets and strategies (DFID, 1999). Similarly, ecological modernization theory suggests that environmental and economic objectives can be aligned when financial innovation facilitates green technological adoption (Mol & Sonnenfeld, 2000). Empirical evidence supports that households engaging in sustainable farming experience better income stability and ecological balance compared to those relying on conventional methods (Mariyono et al., 2019; Kipkoge et al., 2025). Therefore, sustainable farming practices function as the essential conduit through which green financing achieves household sustainability.

Proposition 3 (P3): Sustainable farming practices mediate the relationship between green financing and household sustainability.

Proposition Development: The Moderating Role of Financial Literacy

Financial literacy plays a pivotal moderating role in strengthening the relationship between green financing and the adoption of sustainable farming practices. It reflects the ability of households to understand, evaluate, and effectively utilize financial information when making investment and production decisions. Households with higher levels of financial literacy are better equipped to assess loan terms, manage credit responsibly, and allocate financial resources efficiently toward environmentally sustainable technologies and inputs. This capability enhances their capacity to convert green financing opportunities into productive agricultural practices that yield both economic and ecological benefits. Conversely, households with limited financial knowledge may face challenges in interpreting financial products, leading to suboptimal utilization of funds or reluctance to engage in sustainable investments. Prior studies have shown that financial literacy significantly influences how individuals perceive and respond to financial opportunities, particularly in rural and agricultural contexts where decision-making is often constrained by limited information and risk aversion (Revindo & Gan, 2017; Wang & Wang, 2012). Thus, financial literacy acts as a key enabling factor that determines whether access to green

financing effectively translates into the adoption of sustainable farming practices and improved livelihood outcomes.

Proposition 4 (P4): Financial literacy positively moderates the relationship between green financing and sustainable farming practices, such that the relationship is stronger among households with higher levels of financial literacy.

CONCLUSION

The study establishes that green financing plays a crucial role in enabling rural households to adopt sustainable farming practices, which subsequently enhance household sustainability. The key findings indicate that access to green financial resources provides households with the necessary capital to invest in environmentally responsible agricultural technologies and methods. However, financial access alone is insufficient to guarantee sustainable outcomes. The adoption of sustainable farming practices serves as the essential mediating mechanism through which green financing produces long-term socio-economic and environmental benefits. In addition, the study reveals that financial literacy acts as a significant moderating factor, amplifying the positive relationship between green financing and sustainable farming practices by enabling households to make informed and effective use of available financial resources.

Theoretically, this study contributes by integrating financial access, behavioral adoption, and sustainability frameworks into a unified model that explains the process through which green financing fosters household sustainability. It advances understanding of how financial mechanisms interact with human capability factors, such as financial literacy, to influence adoption behavior and livelihood outcomes. Practically, the study offers valuable insights for policymakers, financial institutions, and development agencies in designing green financing initiatives that are coupled with financial education, technical assistance, and market access support. Such integrated interventions can ensure that households not only gain access to financial resources but also possess the knowledge and capacity to apply them effectively toward sustainable agricultural development.

Despite its theoretical and practical contributions, the study faces several limitations. It focuses primarily on conceptual linkages rather than empirical validation, which restricts the generalizability of its findings. Moreover, the moderating effect of financial literacy may vary across socio-economic, cultural, and regional contexts, which the current framework does not fully capture. Future research should employ longitudinal and mixed-method approaches to examine the dynamic effects of green financing and sustainable practices over time. Further investigations could also explore additional moderating factors such as digital financial inclusion, environmental awareness, and institutional support to provide a more comprehensive understanding of the mechanisms driving household sustainability in rural communities.

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