

The Abaca Fiber Industry: Income Generation, Innovations, Challenges, and Future Prospects

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Abstract: The abaca fiber industry in the municipalities of Madalag, Libacao, and Balete plays a vital role in sustaining rural livelihoods; however, farmers continue to face income instability, limited innovation, and production challenges affecting long-term sustainability. This study explored the income generation experiences, farming innovations, challenges, and future prospects of abaca farmers in order to generate insights for policy and program interventions that may strengthen the industry. Using a qualitative phenomenological design grounded in constructivist epistemology, the study conducted in-depth interviews with 20 purposively selected participants composed of 16 abaca farmers and 4 key informants from the Philippine Fiber Industry Development Authority (PhilFIDA), LGU, cooperative, and local enterprise sectors. Data were analyzed through thematic analysis with triangulation to ensure credibility and identify patterns across income practices, innovations, challenges, and perceived industry prospects.

Findings revealed four major areas with corresponding themes. In terms of income generation, the themes identified were: (1) abaca stripping as the primary source of income, (2) diversified and supplementary income strategies, and (3) income dependency on labor, time, and market conditions. Farmers primarily depended on fiber stripping as their main livelihood source but supplemented their earnings through paid labor, copra production, carpentry, rice farming, and other agricultural activities due to unstable income and delayed returns from abaca production. Regarding innovations in farming, processing, and marketing, the themes included: (1) persistence of traditional farming and processing practices, (2) selective adoption of agricultural inputs and basic improvements, and (3) limited market and value-adding innovations in production and selling. Farmers largely maintained traditional cultivation and fiber extraction practices while selectively adopting fertilizers, improved abaca varieties, and training-based techniques, although innovation remained constrained by limited capital, inadequate access to technology, and weak institutional support.

In relation to challenges experienced by abaca farmers, the themes identified were: (1) market and infrastructure limitations, (2) environmental and biological challenges, and (3) financial constraints and limited resources. Farmers experienced low and unstable market prices, trader dominance, poor transportation systems, pest infestations and diseases, prolonged rainy seasons, climate-related damages, labor shortages, and insufficient financial resources, all of which reduced productivity and income stability. Finally, in terms of future prospects, the themes identified were: (1) optimism for continued production with strong dependence on government support, (2) threat of disease, aging farmers, and declining youth participation, and (3) market instability and price-driven uncertainty of industry sustainability. Despite these challenges, farmers expressed cautious optimism toward the future of the abaca industry through stronger government assistance, cooperative development, market support, and skills training; however, concerns regarding disease outbreaks, limited youth engagement, and unstable market systems continue to threaten the long-term sustainability of the industry.

Keywords: abaca fiber industry, farming innovations, income generation, rural livelihoods,

I. INTRODUCTION

The natural fiber industries were increasingly positioned as key drivers of sustainable development, particularly in advancing climate-resilient livelihoods, promoting biodegradable alternatives to synthetic materials, and strengthening rural economies. At the global level, the rising demand for renewable and eco-friendly raw materials had intensified interest among industries and policymakers due to their environmental benefits, relatively low production costs, and wide applicability in textiles, packaging, and industrial products. This growing demand situated natural fibers within broader sustainability transitions that aimed to achieve inclusive economic growth while reducing environmental degradation and carbon dependency. However, despite these global advancements, there remained an uneven distribution of benefits across the value chain, where primary producers, especially in developing countries often received limited economic gains compared to downstream industries, indicating a critical imbalance between global demand and local-level benefits.

In this global landscape, abaca (*Musa textilis*), or cañamo de Manila, emerged as one of the most valued natural fibers due to its exceptional strength, flexibility, resistance to saltwater, and durability. According to Gutiérrez et al. (2022), abaca was recognized as one of the strongest natural fibers worldwide, making it highly suitable for specialized industrial applications such as ropes, specialty papers, and composite materials. The Philippines played a dominant role

in this industry, supplying approximately 86.1% of global abaca fiber demand, with production concentrated in key agricultural regions such as Bicol, the Visayas, and Mindanao (PhilFIDA, 2021). This positioned the country as a critical player in the global natural fiber value chain; however, it also exposed the sector to increasing pressure to sustain production, maintain quality standards, and respond to evolving international market demands, thereby emphasizing the need for more resilient and inclusive production systems.

At the national and local levels, abaca production remained a significant livelihood source, particularly among participants in rural agricultural communities. In Aklan, known as the “Queen of Philippine Fabrics” (Aklan Provincial Tourism Office, 2025), municipalities such as Madalag, Libacao, and Balete served as major production areas contributing to both domestic supply and export demand. Within these communities, abaca farming was closely linked to household survival and was often practiced alongside coconut, rice, corn, and bamboo production. However, despite its economic importance, participants largely remained confined to raw fiber production with minimal engagement in value-adding processes. This limitation was attributed to inadequate access to technological innovations, weak extension services, and underdeveloped or fragmented market systems that restricted their participation in higher-value segments of the supply chain, thereby limiting their capacity to improve income and achieve long-term economic stability.

Despite its strong global demand and economic potential, the abaca industry continued to face persistent structural constraints that hindered its full development. These included supply chain inefficiencies, vulnerability to climate-related hazards, declining fiber quality due to environmental stressors, and limited investment in modern farming and processing technologies (PCAARRD-ISP, 2015; Abaca Fiber Market Report, 2023). At the local level, participants expressed concerns over persistently low farmgate prices despite increasing international demand, highlighting a disconnect between global market value and local producer income (BusinessMirror, 2025). These issues collectively reflected systemic inequities in the value chain that disproportionately affected smallholder participants and weakened the overall sustainability of the industry.

Empirical evidence further supported these challenges. The study of Señeris (2024) revealed that participants in Madalag and Libacao experienced severe production disruptions due to natural calamities, with 35% reporting significant income loss and production decline. Additionally, 34% of participants identified lack of tools, equipment, and production inputs as major constraints in sustaining abaca farming. These findings highlighted not only environmental vulnerability but also structural inadequacies in institutional and material support systems, which directly affected productivity, resilience, and livelihood stability, thereby reinforcing the need for context-specific and participant-centered interventions.

Anchored on these realities, this study addressed a critical gap in understanding how participants navigated the intersection of traditional practices, limited access to innovations, and unstable market conditions within local agricultural systems. While existing studies documented production challenges and market issues, there remained limited qualitative exploration of participants’ lived experiences, adaptive strategies, and perceptions of industry sustainability within the specific contexts of Madalag, Libacao, and Balete. Furthermore, there was insufficient localized evidence examining how multi-stakeholder support systems including PhilFIDA, local government units (LGUs), cooperatives, and local entrepreneurs collectively influenced the development of the abaca industry at the community level. This indicated a clear research gap in capturing the interaction between local knowledge systems and external interventions, as well as how these dynamics shaped long-term livelihood decisions and sustainability outcomes from the perspective of participants.

In response, this study was anchored on the research thrust of Capiz State University (CAPSU) on sustainable development, innovation, and community empowerment, particularly aligning with the College of Education’s Research Agenda – FORGE (Fostering Opportunities for Responsive and Globalized Education). The study specifically aligned with FORGE’s emphasis on community-based and extension-oriented research through its focus on the lived experiences, challenges, and livelihood conditions of abaca farming communities in Madalag, Libacao, and Balete. It also supported contextualized and culturally grounded research by examining local agricultural practices and community-based livelihood systems. Furthermore, the study reflected FORGE’s commitment to livelihood education and socially responsive research initiatives by generating evidence-based insights that may contribute to policy formulation, curriculum contextualization, and the development of responsive extension programs that address real-world community needs.

Furthermore, this research supported key global and institutional development goals, including Sustainable Development Goal (SDG) 1 (No Poverty), SDG 8 (Decent Work and Economic Growth), and SDG 12 (Responsible Consumption and Production) (CAPSU, 2025). Ultimately, the study sought to strengthen the linkage between research, instruction, and extension by providing grounded evidence that could inform sustainable interventions for the abaca industry, enhance participants’ participation in higher-value activities, and contribute to inclusive and resilient rural development.

General Objective:

This study aimed to analyze the abaca fiber industry in terms of income generation, innovations, challenges, and future prospects among abaca farmers in Madalag, Libacao, and Balete, Aklan.

Specifically, the study sought to answer the following questions:

1. How did participants describe their experiences in generating income from abaca fibers?
2. What innovations in abaca farming, processing, and marketing were practiced by participants?
3. What challenges did participants experience in abaca farming?
4. How did participants perceive the future prospects of the abaca fiber industry in terms of production, market expansion, and sustainability?
5. What policy or program interventions could be proposed based on the findings of the study?

II. METHODOLOGY

This chapter presented the methods and procedures utilized in the study. It included the methodological perspective, context of the study, participants of the study, data gathering procedure, data analysis procedure, ethical considerations, and subjectivity of the researcher.

Methodological Perspective

This study employed a purely qualitative research design grounded in a constructivist epistemology, recognizing that knowledge was socially constructed through the lived experiences, interactions, and interpretations of participants. The study specifically utilized a combination of phenomenological and contextual approaches to explore and document the experiences, practices, and perspectives of abaca farmers and key stakeholders in Madalag, Libacao, and Balete, Aklan.

The study aimed to understand how income generation, adoption of innovations, and sustainability practices were experienced by participants within the abaca fiber industry. In-depth interviews served as the primary data collection method. Open-ended questions allowed participants to provide rich narratives that reflected their lived experiences, challenges, and adaptive strategies. Furthermore, the study employed thematic analysis following Braun and Clarke (2006), which provided a systematic approach to identifying, analyzing, and reporting patterns within the qualitative data.

Context of the Study

This study adopted a qualitative research approach to gain an in-depth understanding of the lived experiences of abaca farmers in the municipalities of Madalag, Libacao, and Balete, Aklan. Qualitative research was considered appropriate when the goal was to explore how individuals interpreted their experiences, constructed meaning, and gave value to their everyday practices (Yüksel & Yıldırım, 2015).

Phenomenological inquiry was applied to focus on the lived world of participants and examine how they experienced and made sense of their involvement in the abaca fiber industry. Recent methodological literature emphasized that phenomenology was suitable for capturing firsthand accounts of challenges, innovations, and aspirations within real-life agricultural contexts (Frechette et al., 2020).

By focusing on the lived experiences of smallholder abaca farmers, this study enabled a deeper understanding of how they engaged in production practices, responded to economic and environmental challenges, and envisioned the future of the abaca industry. Moreover, phenomenological research provided rich contextual insights necessary for informing policy and development initiatives grounded in local perspectives (van Manen, 2017).

The municipalities of Madalag, Libacao, and Balete in Aklan, Philippines served as the locale of the study. These areas were selected due to their active participation in abaca production, the presence of smallholder farmers' dependent on abaca as a primary livelihood, and the involvement of cooperatives, local enterprises, and government-supported programs.

Participants of the Study

The participants of the study were selected through purposive sampling and referral sampling facilitated by barangay council members. The barangay councils identified potential participants based on their years of experience in abaca farming and their active involvement in the abaca industry, ensuring that only information-rich individuals who could provide relevant and meaningful insights were included in the study. This selection process ensured that the participants had sufficient knowledge and firsthand experience regarding abaca production and related livelihood activities.

A total of twenty (20) participants were involved in the study, composed of sixteen (16) primary participants and four (4) secondary participants. The primary participants were abaca farmers who were actively engaged in

production and harvesting activities and who provided firsthand accounts of farming practices, challenges, income generation, and sustainability strategies. Meanwhile, the secondary participants were key informants composed of one (1) PhilFIDA representative, one (1) cooperative representative, one (1) Local Government Unit (LGU) representative, and one (1) local entrepreneur representative. These secondary participants provided institutional, policy, and market perspectives that complemented and enriched the data gathered from the primary participants.

III. PRESENTATION, ANALYSES AND INTERPRETATION OF DATA

This chapter presents the findings and discussion of the study, focusing on the lived experiences of abaca farmers in Madalag, Libacao, and Balete, Aklan. It examines their income generation, innovations in farming, processing, and marketing, challenges encountered, and perceptions of the industry's future. The results are organized into key themes based on participants' narratives and serve as a basis for proposing policy and program interventions to strengthen the abaca fiber industry.

Experiences of Abaca Farmers in Generating Income from Abaca Fibers

Table 3 explores the lived experiences of abaca farmers in generating income from abaca fiber production, highlighting the complex realities of a labor-intensive yet essential livelihood in rural communities. Central to this inquiry are three major themes: abaca stripping as the primary source of income, diversified and supplementary income strategies, and income dependency on labor, time, and market conditions. Abaca farming involves a series of traditional practices including planting, maintaining, harvesting, and stripping that demand significant physical effort, time, and patience before financial returns can be realized. While abaca remains a vital economic resource, farmers' income is not always stable, as it is heavily influenced by fluctuating market prices, labor availability, and environmental conditions.

Many farmers engage in supplementary livelihood activities to cope with financial uncertainties and sustain their daily needs. These strategies reflect their adaptability and resourcefulness in managing economic challenges. Overall, the experiences of abaca farmers underscore a deep sense of resilience as they navigate the demands of their work and the unpredictability of their income sources, reinforcing the importance of abaca farming as both a cultural practice and a means of survival. The analysis shows that abaca stripping is the primary source of income for farmers, supported by diversified livelihood activities to manage financial needs; however, their earnings remain highly dependent on labor, time, and unstable market conditions:

Abaca farmers primarily rely on abaca stripping (kigi) as their main source of income, a labor-intensive activity deeply rooted in cultural and economic practices. This process involves planting, maintaining, harvesting, and extracting fibers, often requiring two to three years before financial returns are realized. Farmers' income from abaca is influenced by labor intensity, the long growth cycle, and fluctuating market conditions. While the crop provides a stable source of livelihood, it does not guarantee immediate or sufficient income, necessitating patience, persistence, and long-term commitment. The narratives also reveal the intergenerational transfer of knowledge, where traditional methods are sustained despite limited mechanization, reflecting both cultural continuity and structural constraints in productivity and income potential.

To cope with financial uncertainties, farmers engage in diversified and supplementary income strategies, such as paid labor, share-based harvesting, crop diversification, copra-making, and carpentry. These activities provide daily earnings and buffer against the unpredictability of abaca income. Strategic decisions on when to sell, based on price fluctuations and market demand, further highlight the dependence on labor, time, and economic conditions. This adaptive approach demonstrates farmers' resilience and resourcefulness but also exposes structural limitations, such as limited market access and lack of value-adding facilities. The findings underscore the need for supportive interventions, including livelihood diversification programs, cooperative marketing, and institutional support, to enhance economic security and long-term sustainability within the abaca industry

Table 3. Experiences of Abaca Farmers in Generating Income from Abaca Fibers

Major themes	Sub-themes	Participants	Frequency
Abaca Stripping as the Primary Source of Income	Core livelihood activity (stripping/kigi) Harvesting and selling raw fiber	P1, P2, P4, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14, P15, P16	15

	Waiting period before income (2–3 years)		
Diversified and Supplementary Income Strategies	Paid labor (pamugon) in planting/clearing	P1, P2, P4, P6, P7, P8, P9, P10, P11, P12, P13, P14, P15, P16	14
	Share-based harvesting (pangagsa)		
	Engagement in other livelihood (copra-making, carpentry, rice farming)		
Income Dependency on Labor, Time, and Market Conditions	Income depends on diligence and proper farm management	P2, P3, P4, P6, P7, P15	6
	Delayed financial returns from abaca farming		
	Income influenced by market timing and selling schedules		

The findings imply that abaca farming remains a highly labor-intensive, time-dependent, and market-sensitive livelihood that cannot sustainably support farmers without complementary income sources and external support systems. The reliance on long production cycles and delayed returns suggests the need for strengthened livelihood diversification programs, improved access to alternative income opportunities, and value-adding interventions that can shorten the income gap experienced by farmers. Studies by the Food and Agriculture Organization (2019) support this implication by emphasizing that rural households engaged in fiber production often depend on multiple income streams to maintain economic stability, especially when primary agricultural activities involve long gestation periods. This underscores the importance of integrating supplementary livelihood programs that enhance resilience and reduce dependency on a single, slow-return crop such as abaca.

In addition, the strong influence of market fluctuations on farmers' income highlights the urgent need for more stable and equitable pricing mechanisms. According to the World Bank (2020), smallholder farmers in developing economies are particularly vulnerable to volatile market systems, which often result in inconsistent earnings and limited financial security. Establishing cooperative marketing strategies and strengthening collective bargaining through organized groups can help mitigate these risks. The role of the Philippine Fiber Industry Development Authority (2021) is therefore crucial in regulating prices, improving market access, and ensuring that farmers receive fair compensation for their products. Such institutional interventions can contribute to stabilizing income and enhancing the overall sustainability of the abaca industry.

Furthermore, the findings suggest that without targeted support and policy interventions, farmers will continue to rely on adaptive survival strategies that limit their long-term economic growth. Research by E. M. Israel (2014) indicates that improving rural livelihoods requires not only productivity enhancement but also systemic support in the form of infrastructure, financial services, and technological innovation. In the context of abaca farming, this includes the introduction of improved processing techniques, access to credit, and capacity-building initiatives that empower farmers to move beyond subsistence-level production. Strengthening partnerships between government agencies, cooperatives, and local communities can create a more supportive ecosystem that promotes sustainability, economic security, and inclusive development within the abaca sector.

Innovations Currently Practiced by Abaca Farmers in Farming, Processing, and Marketing

Table 4 presents the major themes emerged from the analysis of Innovations Currently Practiced by Abaca Farmers in Farming, Processing, and Marketing: (1) Persistence of Traditional Farming and Processing Practices, (2) Selective Adoption of Agricultural Inputs and Basic Improvements, and (3) Limited Market and Value-Adding Innovations in Production and Selling. These themes reflect the continued reliance of abaca farmers on long-established methods of cultivation and fiber extraction, alongside a cautious and partial integration of modern inputs and simple technological improvements. At the same time, the findings reveal minimal engagement in advanced market strategies

and value-adding activities, indicating constraints in innovation, access to resources, and opportunities for expanding profitability within the abaca production sector.

Abaca farming among smallholder farmers remains deeply rooted in traditional practices, particularly in planting, maintenance, harvesting, and fiber stripping. Farmers predominantly rely on manual tools such as stripping knives and continue techniques passed down through generations. Despite exposure to modern equipment and training programs, adoption is limited due to practical constraints, perceived inefficiency, high operational costs, and concerns over fiber quality. These narratives show that traditional knowledge remains central, and innovation in farming and processing is incremental, with farmers selectively incorporating improvements like fertilizers, improved varieties, and adaptive planting practices when practical and accessible.

Market and value-adding innovations in abaca remain minimal, as farmers largely sell raw fibers using basic grading methods, with limited engagement in higher-value products like handicrafts. Economic benefits are constrained by weak market structures, lack of sustainable value chain support, and intermittent institutional training programs. Literature confirms that smallholder farmers often adopt innovations gradually and selectively, balancing tradition with practicality. The findings imply that improving abaca productivity and income requires interventions that integrate indigenous knowledge with modern techniques, provide sustained support for inputs and training, and strengthen market linkages and value-adding capacities to ensure inclusive and sustainable industry development

Furthermore, the findings imply that policy-makers and development agencies may need to prioritize long-term and community-based programs that empower farmers to become active participants in innovation rather than passive recipients of technology. Strengthening collaboration among government agencies, academic institutions, non-government organizations, and local communities may help create more adaptive and sustainable interventions tailored to the realities of abaca farming areas.

Table 4. Innovations Currently Practiced by Abaca Farmers in Farming, Processing, and Marketing

Major themes	Sub-themes	Participants	Frequency
Persistence of Traditional Farming and Processing Practices	<ul style="list-style-type: none"> - Continued use of manual planting and stripping (baeang-baeang) - Reliance on inherited/ancestral techniques - Minimal adoption of modern technology or mechanization - Limited use or rejection of machines due to inefficiency and cost 	P1, P4, P5, P6, P7, P8, P9, P10, P11, P12, P14, P15, P16	13
Selective Adoption of Agricultural Inputs and Basic Improvements	<ul style="list-style-type: none"> - Use of fertilizers when provided by government agencies - Adoption of improved abaca varieties (e.g., hagbayanon, negro) - Basic soil and planting adjustments (spacing, timing, soil type awareness) - Application of knowledge from trainings and seminars (limited implementation) 	P2, P3, P6, P8, P10, P11, P13, P14	8
Limited Market and Value-Adding Innovations in Production and Selling	<ul style="list-style-type: none"> - Simple classification of fiber (A, B, C grades / white vs dark fiber) - Bundling and raw fiber 	P1, P2, P4, P7, P9, P10, P11, P12, P13, P14, P15	11

selling without processing
 value-added products
 - Price-driven selling
 decisions without
 innovation in marketing
 systems
 - Dependence on traders
 and lack of product
 diversification

Challenges Experienced by Abaca Farmers in Farming

Table 5 presents the thematic analysis reveals that the challenges experienced by abaca farmers are deeply interconnected across economic, environmental, and structural dimensions. Three major themes emerged from the analysis: (1) Market and Infrastructure Limitations, (2) Environmental and Biological Challenges, and (3) Financial Constraints and Limited Resources. These themes collectively illustrate the multifaceted difficulties encountered by abaca farmers, spanning structural, ecological, and economic dimensions. Revealing that these challenges are deeply interconnected. Financial constraints limit farmers’ capacity to sustain farm operations and invest in improvements, while environmental factors such as disease and climate variability directly affect production yield and fiber quality. Simultaneously, market inefficiencies and inadequate infrastructure further restrict their ability to access fair pricing and stable income opportunities, ultimately reinforcing a cycle of vulnerability within the abaca farming sector.

Abaca farmers face significant market and infrastructure limitations that constrain their income potential. Low and unstable fiber prices, dictated by dominant traders, reduce farmers’ bargaining power and limit their control over earnings. Poor road conditions, remote farm locations, and inadequate transportation systems increase physical burdens and production costs, further diminishing income. Environmental and biological challenges, including plant diseases like bunchy top virus and pest infestations, as well as unpredictable weather and typhoons, disrupt production cycles, lower fiber quality, and reduce market value. Financial constraints exacerbate these issues, as farmers often lack capital to invest in essential inputs or hire labor, forcing reliance on traditional, labor-intensive methods and contributing to persistent economic vulnerability.

Weak adoption of technology, inconsistent disease management, and structural market inequities compound these challenges. Farmers selectively integrate innovations, such as fertilizers or improved abaca varieties, only when practical and supported by institutions. Marketing and value-adding remain limited, with most farmers dependent on raw fiber sales, reinforcing trader dominance and income instability. Triangulation with PhilFIDA observations confirms these systemic issues, showing that abaca farmers’ productivity and livelihoods are highly vulnerable to biological threats, climate variability, and unequal market structures. Effective interventions require multi-level approaches, including integrated disease management, climate-resilient practices, sustained extension support, and fairer market systems to ensure income stability and sustainable development in the abaca sector

Furthermore, the findings underscore the importance of fostering stronger collaboration among key stakeholders, including government agencies, local government units, research institutions, and farmer organizations. A more integrated approach can facilitate the co-creation of locally responsive solutions, ensuring that interventions are not only technically sound but also socially and economically feasible for farmers. Strengthening farmer cooperatives and associations can also play a crucial role in enhancing collective bargaining power, improving access to inputs and credit, and enabling shared learning experiences. In this regard, participatory approaches that actively involve farmers in decision-making and program implementation may lead to higher adoption rates and more sustainable outcomes.

Table 5. Challenges Experienced by Abaca Farmers in Farming

Major themes	Sub-themes	Participants	Frequency
Market and Infrastructure Limitations	<ul style="list-style-type: none"> • Low and unstable market prices of abaca fiber • Price manipulation and unfair buying practices • Limited buyers and lack of competitive market access • High transportation costs and poor road conditions 	P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14, P15, P16	16

	<ul style="list-style-type: none"> • Physical difficulty in transporting fiber (distance, terrain, rivers) 		
Environmental and Biological Challenges	<ul style="list-style-type: none"> • Abaca diseases and viruses (e.g., bunchy top, pests) • Prolonged rainy seasons affecting planting and harvesting • Difficulty in drying fibers due to weather conditions • Typhoons and environmental damage to crops • Decline in fiber quality due to moisture and lack of sunlight 	P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12, P14, P15, P16	15
Financial Constraints and Limited Resources	<ul style="list-style-type: none"> • Insufficient capital for labor and farm inputs (abono, pangsuho) • Inability to hire workers for clearing and maintenance • Lack of food and daily subsistence during farming activities • Limited access to financial assistance and government support 	P1, P2, P4, P5, P7, P8, P9, P10, P11, P12, P13, P14, P16	13

Perceptions of Abaca Farmers Regarding the Future Prospects of the Abaca Fiber Industry in Terms of Production, Market Expansion, and Sustainability

The perceptions of abaca farmers regarding the future prospects of the abaca fiber industry reveal a complex interplay of hope, vulnerability, and structural dependency across production, market expansion, and sustainability. Based on the qualitative findings, three major themes emerged that collectively describe how farmers envision the future of the industry. These include: (1) optimism for continued production with strong dependence on government support, where farmers express willingness to sustain abaca farming provided that financial assistance, technical support, and price improvements are ensured; (2) threat of disease, aging farmers, and declining youth participation, which highlights concerns over the abaca virus, the aging farming population, and the decreasing interest of younger generations in agriculture; and (3) market instability and price-driven uncertainty of industry sustainability, which reflects farmers' persistent struggles with low and fluctuating prices, trader dominance, and limited market access. Together, these themes illustrate that while farmers maintain a generally hopeful outlook, their perception of the industry's future remains heavily shaped by external support systems, biological risks, and unstable market conditions.

Abaca farmers maintain a generally positive outlook toward continuing production, but this optimism is strongly contingent on sustained government support. Their willingness to plant, maintain, and even expand abaca cultivation is tied to financial assistance, provision of production inputs, training, and effective disease management, particularly to control the abaca virus. Farmers recognize that the sustainability and growth of production are not solely determined by their labor or skills, but depend on external interventions, reflecting a form of "assisted optimism" where continued engagement is conditional upon consistent institutional support and incentives.

However, long-term sustainability is threatened by biological risks, demographic shifts, and market instability. Plant diseases and virus outbreaks persistently reduce yields, while the aging farming population and declining participation of younger generations weaken labor continuity and knowledge transfer. Additionally, unstable market conditions, low and fluctuating fiber prices, and trader dominance limit farmers' economic agency, discouraging reinvestment and causing potential crop shifts. These interrelated challenges indicate that ensuring the viability of abaca

farming requires integrated interventions addressing disease control, institutional support, fair market mechanisms, and youth engagement to secure both economic and generational continuity in the industry

Table 6. Perceptions of Abaca Farmers Regarding the Future Prospects of the Abaca Fiber Industry in Terms of Production, Market Expansion, and Sustainability

Major themes	Sub-themes	Participants	Frequency
Optimism for Continued Production with Strong Dependence on Government Support	<ul style="list-style-type: none"> Continued abaca farming if prices improve and support is sustained (price-driven continuity) Expectation of increased production through financial aid and subsidies 	P16, P15, P14, P13, P12, P11, P10, P9, P8, P7, P6, P5, P4, P3, P2, P1	16
Threat of Disease, Aging Farmers, and Declining Youth Participation	<ul style="list-style-type: none"> Abaca virus/disease seen as major threat to industry survival Declining youth interest in agriculture and abaca farming Aging farmer population and lack of successors 	P16, P12, P11, P10, P9, P8, P7, P6, P5, P4, P2, P1	12
Market Instability and Price-Driven Uncertainty of Industry Sustainability	<ul style="list-style-type: none"> Low and unstable abaca fiber prices discourage production Farmers shifting to alternative crops due to low profitability Lack of price control and dependence on traders Perceived unfair market system reducing farmer motivation Need for market regulation and association-based selling systems 	P15, P13, P11, P10, P9, P7, P6, P5, P4, P2, P1	11

Propose Policy or Program Interventions Based on the Findings of the Study to Strengthen Income, Innovations, and the Long-term Prospects of the Abaca Fiber Industry

Policy and Program Interventions for Strengthening Income, Innovation, and Long-Term Sustainability of the Abaca Fiber Industry

Based on the findings of the study, a set of multi-level and integrated policy and program interventions is necessary to address the identified challenges in income instability, limited innovation, and sustainability concerns within the abaca fiber industry. These interventions are anchored on the actual experiences and conditions of abaca farmers in Madalag, Libacao, and Balete, Aklan, and are intended to directly respond to the gaps revealed in the study.

First, in terms of income stability, there is a need to institutionalize income protection mechanisms such as a minimum support price scheme for abaca fiber to mitigate the effects of price volatility and market exploitation. Strengthening direct market linkages between farmers, cooperatives, and institutional buyers is also essential to reduce dependency on middlemen and improve farm gate pricing. Local government units (LGUs), in coordination with national

agencies, may facilitate organized marketing systems and contract-based selling arrangements to enhance farmers' bargaining power.

Second, to promote innovation and improve productivity, there is a need to strengthen technology adoption and extension support. This includes the distribution of disease-resistant planting materials, promotion of sustainable and climate-resilient farming practices, and provision of appropriate farm tools and inputs. In addition, the establishment of community-based abaca processing and innovation centers can support fiber quality improvement, grading standardization, and value-adding activities such as weaving and product diversification.

Third, improving access to financial support mechanisms is critical. Expanding access to low-interest credit facilities, crop insurance, and targeted livelihood assistance programs can enable farmers to invest in farm development and mitigate risks associated with pests, diseases, and climate-related disruptions. These financial interventions should be designed specifically for abaca producers to ensure accessibility and relevance.

Fourth, infrastructure and logistics development remain essential in strengthening the industry. The improvement of farm-to-market roads, transportation systems, and post-harvest facilities can significantly reduce production costs and losses. In addition, the development of digital market information systems may help farmers access updated price trends and market opportunities, thereby improving decision-making and market participation.

Fifth, ensuring long-term sustainability requires strengthening human capital and generational continuity in the industry. Programs that promote youth engagement in abaca farming, agribusiness education, and entrepreneurship should be prioritized. Providing incentives and incubation support for young farmers and innovators can help sustain the industry and encourage modernization.

Lastly, institutional collaboration among LGUs, national government agencies, academic institutions, cooperatives, and private sector stakeholders is vital. Strengthened partnerships can enhance research and development, improve extension services, and support community-based innovation initiatives. These coordinated efforts provide the foundation for a more resilient and competitive abaca fiber industry.

VI. CONCLUSIONS

Based on the findings of the study, the following conclusions were drawn:

Abaca farmers primarily rely on fiber stripping as their main source of income; however, due to low and unstable earnings, they engage in diversified livelihood activities to sustain their daily needs under uncertain market conditions.

Moreover, innovations in abaca farming, processing, and marketing remain limited and are slowly adopted, as farmers largely continue traditional practices while selectively integrating basic improvements when accessible.

Additionally, abaca farmers face interconnected market, environmental, and financial challenges that collectively hinder productivity, reduce income stability, and constrain farm development.

Furthermore, farmers expressed cautious optimism regarding the future of the abaca fiber industry; however, this outlook remains highly dependent on government and institutional support and is threatened by biological risks, aging farmer populations, declining youth participation, and unstable market systems.

Finally, the findings indicate the need for a comprehensive and integrated intervention program such as Project ABANTE to strengthen income stability, promote innovation, improve market systems, encourage youth participation, and ensure the long-term sustainability of the abaca fiber industry in Madalag, Libacao, and Balete, Aklan

Recommendations

Based on the conclusions, the following recommendations were offered:

Local farmers and producers may improve their productivity and income by adopting diversified farming strategies that reduce reliance on a single source of livelihood. They are also encouraged to engage in value-added processing such as fiber crafts and semi-processed abaca products, as well as to actively participate in capacity-building programs that enhance both technical farming skills and entrepreneurial competencies. These efforts may help them increase income stability and improve their competitiveness in the market.

Local government units and policymakers may strengthen agricultural development by formulating inclusive and responsive policies that directly address the needs of abaca farmers. Investment in farm-to-market infrastructure, such as roads and transport systems, is also essential in improving product accessibility and reducing production costs. Furthermore, they are encouraged to implement support programs focused on production efficiency, marketing assistance, and long-term sustainability. It is also recommended that they institutionalize and integrate Project ABANTE into local agricultural development plans to ensure its continuity and effectiveness.

Entrepreneurs and cooperatives may expand economic opportunities by exploring innovative technologies that improve processing efficiency and product quality. Strengthening cooperative linkages is also essential in building collective capacity among farmers and producers. In addition, they may develop competitive and well-integrated value chains that connect local abaca products to broader and more profitable domestic and international markets, thereby increasing income opportunities for stakeholders.

The academic and research community may contribute to the advancement of knowledge by conducting further interdisciplinary and community-based studies focused on the abaca industry and rural development. They are encouraged to develop localized innovations that address specific production and processing challenges, as well as to promote evidence-based practices that can enhance fiber production efficiency and rural enterprise sustainability.

The Philippine Fiber Industry Development Authority and other relevant agencies may further strengthen their support for the abaca sector by enhancing inter-agency collaboration and ensuring coordinated program implementation. They are encouraged to promote value-added processing initiatives, preserve indigenous knowledge systems related to abaca production, and implement sustainable livelihood programs tailored to the needs of local farming communities. Moreover, they are urged to lead and support the implementation of Project ABANTE as a strategic intervention to improve disease management, innovation adoption, market development, and farmer support systems.

The wider community and society at large may contribute to rural development by promoting greater awareness of sustainable agricultural practices and the importance of the abaca industry. Encouraging active community participation in local enterprises and livelihood programs can help strengthen rural economies. Such collective support may also contribute to poverty reduction and environmental sustainability in the municipalities of Madalag, Libacao, and Balete

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