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SOCIAL STRUCTURE, ACTOR RELATIONS, AND CHALLENGES IN THE DEVELOPMENT OF THE COCONUT COIR INDUSTRY IN INDRAGIRI HILIR REGENCY

Mustaqim[1]* Meki Herlon[2], Ahmad Rifa'i[3], Rosnita[4], Roza Yulida[5], Didi Muwardi[6], Zulhamid Ridho[7]
[1,2,3,4,5,6,7]Department of Agribusiness, Faculty of Agriculture, Universitas Riau, Indonesia
Email: mustaqim@lecturer.unri.ac.id

Abstract

This study investigated the social structure, actor relations, and challenges in the development of the coconut coir industry in Indragiri Hilir Regency, one of Indonesia's largest coconut-producing regions. Despite abundant raw materials, the downstream coconut coir sector remains underdeveloped and characterized by structural inequalities. A qualitative descriptive approach was applied, utilizing in-depth interviews, participatory observations, and document analysis involving key actors, including farmers, collectors, small and medium enterprises (SMEs), and government institutions. The findings revealed a hierarchical social structure and pronounced power asymmetries within the production chain. Farmers occupy subordinate positions due to limited capital, technology, and market information, functioning as price takers with minimal access to added value. Large collectors dominate pricing, distribution, and access to markets, creating a local oligopsonistic structure. Patron–client relations further reinforce economic dependency, limiting farmers' autonomy to engage with alternative markets. Additionally, institutional weaknesses, fragmented government policies, rudimentary processing technologies, and insufficient logistics infrastructure hinder the development of a more inclusive and competitive value chain. The study highlights that social, economic, and institutional factors jointly shape structural barriers, underscoring the need for coordinated interventions to strengthen farmer agency, institutional capacity, and equitable value distribution.

Keywords: *Actor Relations, Coconut Coir Industry, Patron–Client, Social Structure, Structural Dependenc*

1. Introduction

Agro-industrial development plays a strategic role in driving regional economic growth, particularly through strengthening local economies based on the potential of natural resources (Susetyo et al., 2025). In rural and agrarian regions, agroindustry functions as a key driver of value-added enhancement, employment expansion, export capacity growth, and overall improvement in farmers' welfare (Candra et al., 2025; Unjia et al., 2024). To achieve these functions, agro-industrial development requires the strengthening of several fundamental aspects, including the optimization of productive research, the capacity building of cooperatives and MSMEs, product diversification, the expansion of partnership networks, sustainable market management, and the adoption of modern processing technologies (Devaux et al., 2018; Witjaksono et al., 2024). In the context of Indragiri Hilir Regency, the coconut plantation sector has long served as the backbone of the local economy. The regency is recognized as one of the regions with the largest coconut plantation areas in Indonesia. Coconuts are not only produced as primary commodities but are also processed into various high-value derivative products, such as coconut sugar, palm sugar, charcoal briquettes, copra, coconut oil, desiccated coconut, nata de coco, virgin coconut oil (VCO), activated carbon, and a variety of coconut-based handicrafts. From a scientific and strategic perspective, however, the coconut fiber (coir) industry occupies a distinct and increasingly important position compared to other coconut-derived subsectors. First, coconut fiber represents a by-product with the highest volume and lowest current utilization efficiency within the coconut value chain, meaning that large quantities of husk are often underutilized or treated as waste. This condition creates substantial potential for value addition through downstream processing without competing with food-based coconut derivatives. Second, coconut fiber-based products—such as cocofiber, cocopeat,

geotextiles, and growing media—exhibit high versatility across multiple industrial sectors, including agriculture, horticulture, automotive manufacturing, construction, and environmental engineering. This multi-sectoral applicability enhances market resilience and reduces dependency on a single demand segment. (Nabillah et al., 2025; Syarifuddin et al., 2022; Vaulina et al., 2024). At the downstream level, coconut coir represents an important component with increasing market potential, in line with the growing natural fiber industry and the rising global demand for bio-based materials (Mulya et al., 2024). However, compared with other coconut derivative products, the coconut coir industry in Indragiri Hilir remains relatively underdeveloped and is often treated merely as a by-product that has not been optimized.

Structurally, Indragiri Hilir Regency possesses substantial agro-industrial potential for coconut-based industries (Nabillah & Fawzi, 2025). The total area of productive coconut plantations reaches 341,625 hectares, or approximately 84.76 percent of the total coconut plantation area in Riau Province. With a productivity level of 263,732 tons per year, the region produces more than 1.5 billion coconuts annually (RPD Indragiri Hilir 2024–2026). This significant potential should constitute a strong foundation for the development of the coconut coir industry as a sustainable natural fiber–based subsector. In terms of economic contribution, the manufacturing sector in Indragiri Hilir consistently ranks second after the agricultural sector in the structure of the Regional Gross Domestic Product (PDRB). In 2019, the manufacturing sector contributed 23.63 percent, increasing to 24.06 percent in 2020, 24.63 percent in 2021, and reaching 25.06 percent in 2022. Although 2023 saw a slight decline to 24.09 percent (BPS Indragiri Hilir, 2024), the sector remains stable and holds significant potential for further development, including in the coconut coir processing subsector.

However, the development of the coconut coir industry is influenced not only by the availability of abundant raw materials but also by the social structure and inter-actor relations within the production chain. Coconut farmers, collectors, local entrepreneurs, cooperatives, local government agencies, and global market actors each hold distinct roles and interests that shape the direction and dynamics of the industry (Desrial et al., 2025; Kaunang et al., 2024). Unequal access to capital, information, and technology often places farmers in a weaker position within the value chain. In addition, limited institutional capacity, weak coordination among actors, and the low utilization of modern technology serve as structural obstacles that hinder the industrialization of coconut coir. Moreover, local economic practices—shaped by patron–client culture, traditional social networks, and the dominance of certain actors in distribution systems—also exert significant influence on the effectiveness and sustainability of industrial development in this sector (Barnes et al., 2020; Samah et al., 2023; Wahyudi et al., 2025). Based on these conditions, this study aims to address a key conceptual gap in previous agro-industry research, which has largely focused on technical efficiency, value chains, and market performance, while insufficiently integrating the roles of social structure, power relations, and patron–client dynamics in shaping agro-industrial development. Specifically, this study seeks to identify and analyze the social structures that influence the development dynamics of the coconut coir industry in Indragiri Hilir Regency; to describe the patterns of interaction, dependency, and power relations among actors across the production and distribution chains; and to uncover the social, economic, and institutional constraints—particularly those rooted in patron–client

relationships—that hinder the advancement of the coconut coir industry as a leading agro-industrial subsector in the region.

2. Methods

This study employed a qualitative descriptive approach to explore social dynamics within the coconut coir industry, focusing on actor roles, stakeholder relationships, and socio-cultural influences shaping industry development (Villamin et al., 2025). The research was conducted in purposively selected subdistricts and villages of Indragiri Hilir Regency that function as key centers of coconut cultivation and coir processing. These locations were chosen due to their relevance to downstream coconut industry development and the diversity of socio-economic interactions among actors. Informants were selected using purposive sampling based on their knowledge, experience, and involvement in the coconut and coir value chain, including farmers, collectors, small and medium-scale industry operators, artisans, community leaders, local government officials, and representatives of financial or MSME support institutions. Data collection techniques included in-depth interviews, field observations, and documentation. Data analysis followed the Miles and Huberman model, consisting of data reduction, data display, and conclusion drawing to identify patterns of social structure, actor relations, and industrial challenges. Research validity was ensured through source and method triangulation, member checking, and peer debriefing.

3. Results and Discussion

Social Structure in the Coconut Coir Production Chain

Configuration of Actors within the Social System of Production

The findings indicate that the coconut coir production system in Indragiri Hilir Regency constitutes a complex social configuration involving multiple actors who occupy distinct structural positions, perform differentiated economic functions, and pursue heterogeneous interests with unequal degrees of influence. This constellation of actors forms a production field characterized by power relations, interdependencies, and mechanisms of value distribution that collectively reflect patterns of socio-economic stratification at the local level.

At the upstream level, coconut farmers serve as the principal producers responsible for supplying all raw materials essential for downstream processing. Structurally, farmers constitute the foundational layer that sustains the continuity of the coir industry. Nevertheless, within the broader social system of production, farmers remain situated at the lowest stratum due to limited access to financial capital, processing technologies, and market information. These structural constraints produce a condition of asymmetric dependency, in which farmers rely heavily on intermediary collectors to market their harvests. As a consequence, farmers typically sell whole coconuts without extracting or processing the coir, allowing the majority of value added generated in the downstream phase to be captured by actors with greater capital endowments and infrastructural capacity.

From an epistemological standpoint, the use of a descriptive qualitative approach enables the study to move beyond surface-level economic transactions and uncover the *socially constructed nature of power relations* embedded within the coconut fiber value

chain. Rather than treating market interactions as neutral or purely technical exchanges, this approach foregrounds actors' lived experiences, meanings, and narratives, thereby revealing how structural inequalities are reproduced through everyday practices, norms, and informal arrangements. The qualitative lens allows power asymmetries and social stratification to be understood as relational and processual phenomena, shaped by historically embedded patron–client ties, differential access to resources, and institutional constraints that are often invisible in quantitative or purely econometric analyses. These structural constraints produce a condition of asymmetric dependency, in which farmers rely heavily on intermediary collectors to market their harvests. As a consequence, farmers typically sell whole coconuts without extracting or processing the coir, allowing the majority of value added generated in the downstream phase to be captured by actors with greater capital endowments and infrastructural capacity.

The second major category of actors comprises coconut and coir collectors, differentiated into small collectors and large collectors. Small collectors operate at the village or hamlet level, serving as initial intermediaries between farmers and the wider distribution network. They purchase coconuts in small volumes and subsequently resell them to large collectors or processing units. Large collectors, on the other hand, possess stronger financial resources, more extensive logistical networks, and privileged access to regional markets. Sociologically, this group holds a dominant structural position within the value chain, as they exert significant influence over pricing, purchasing volume, and the direction of material flows. Their dominance illustrates the presence of power asymmetries that shape the bargaining capacities of subordinate actors, particularly farmers and small-scale processors. In the downstream segment, micro, small, and medium industrial actors (IKM) and artisans function as key agents in transforming raw coconut coir into value-added commodities such as cocofiber, cocopeat, coir ropes, and various natural-fiber craft products. These actors undertake a series of mechanical and technical processes including shredding, drying, fiber separation, and product fabrication. Despite their central role in value addition, their operational stability is highly contingent on the consistency of raw material supply and price fluctuations determined by large collectors. Thus, they can be considered semi-dependent actors who possess productive capability but remain constrained in their ability to shape value structures and supply dynamics.At the global level, exporting companies and international market actors exert significant influence over the trajectory of demand for coir-based products, especially in East Asian, European, and Middle Eastern markets. Although these actors are not directly involved in the local production process, they possess structural power through their determination of quality standards, required volumes, and price trends. Consequently, they function as external drivers that shape production orientation and strategic responses among local actors.

Table 1. Configuration of actors in the coconut fiber production chain

Actor	Primary Role	Interests / Position	Influence within the Production Chain
Coconut Farmers	Produce coconuts as raw materials for fiber processing	Lowest position; limited access to capital, technology, and market information	Determine raw material availability; however, gain minimal value added as fiber is not processed independently
Small Collectors	Purchase coconuts from farmers on a small scale	Village- or hamlet-level intermediaries	Channel coconuts/fibers to large collectors; moderate influence
Large Collectors	Accumulate coconuts/fibers in large volumes	Possess strong capital and logistics networks	Set prices, regulate purchase volumes, and control distribution to SMEs; high influence
SMEs and	Process coconut fiber into	Dependent on stable supply and	Increase value added; determine the

Actor	Primary Role	Interests / Position	Influence within the Production Chain
Downstream Artisans	cocofiber, cocopeat, ropes, and related products	raw material prices	quality of final products

Hierarchical Patterns and Social Stratification

The findings indicate that the social structure within the coconut-fiber production chain in Indragiri Hilir Regency is shaped by a hierarchical pattern characterized by unequal access to economic resources, technology, and information. This hierarchy is not solely economic in nature; it is also reinforced by social relations, interdependent interactions, and the long-standing reproduction of power within agrarian communities. Overall, social stratification in the coconut-fiber industry emerges through three key dimensions: disparities in access to capital and technology, the dominance of specific actors in regulating production flows, and the persistence of patron–client cultural norms in local economic interactions. First, disparities in access to capital, technology, and market information serve as structural determinants of each actor's position within the value chain. Coconut farmers, positioned at the upstream level, are the most vulnerable due to limited capital to initiate independent fiber processing activities. The absence of shredding machines, modern drying facilities, or fiber-separator technology prevents them from producing higher-value derivative products. In addition, their access to information regarding market prices, quality standards, and export opportunities remains restricted. As a result, farmers tend to function as *price takers*. In contrast, large collectors and small- to medium-scale processors possess stronger financial capacity, broader information networks, and better technological capabilities. This creates a stratified structure in which economic value tends to accumulate among midstream and downstream actors.

Second, the dominance of large collectors represents the most prominent hierarchical feature in the coconut-fiber production chain. These actors possess significant bargaining power due to their control over capital networks, transportation facilities, storage warehouses, and direct access to processing industries or regional markets. The findings show that large collectors frequently set buying prices for coconuts and fiber, while also regulating the volume of raw materials supplied to small-scale industries. This dominance produces a localized oligopsonistic structure, in which a limited number of actors play a central role in determining economic flows. By controlling strategic resources, large collectors can influence the pace of distribution, shape the operational sustainability of processing units, and reinforce farmers' dependence on collector-controlled transaction systems. Third, social stratification within the coconut-fiber chain is also sustained by the enduring patron–client culture embedded in local economic interactions. Many farmers maintain long-term transactional relationships with specific collectors, not only for economic reasons but also due to social proximity, access to small informal loans, and kinship-based emotional ties. This pattern creates a form of dependence that is both personal and structural. On one hand, patrons—represented by collectors—provide market security and financial assistance. On the other hand, such relationships limit farmers' autonomy to seek more profitable market alternatives. In this sense, patron–client culture operates as a social mechanism that reinforces stratification, where farmers' subordinate positions are reproduced through everyday social interactions and not solely through formal economic structures.

Table 2. Patterns of hierarchy and social stratification in the coconut fiber production chain

Dimension of Stratification	Actors Involved	Forms of Inequality / Dominance	Implications for the Social Structure of Production
Access to Capital, Technology, and Information	-Coconut farmers - Large collectors - SME processors	- Farmers lack capital to purchase processing machinery - Large collectors possess strong financial resources and privileged access to market information - SMEs have limited yet superior technology compared to farmers	- Farmers occupy the lowest position in the value chain - Economic value-added is concentrated among midstream and downstream actors - Structural dependence of farmers on collectors increases
Dominance of Specific Actors	- Large collectors - Small collectors - SMEs	- Large collectors set purchasing prices and regulate supply volumes - Small collectors act merely as intermediaries with minimal bargaining power - SMEs depend on stable raw material supply controlled by large collectors	- Local market structure forms an oligopsony - Large collectors function as distribution "gatekeepers" -Unequal power relations between actors become more entrenched
Local Culture and Patron–Client Relations	- Coconut farmers - Large and small collectors	- Social relationships shaped by indebtedness, interpersonal closeness, and loyalty - Farmers become socially and economically tied to specific collectors	- Reproduction of both personal and structural dependency - Farmers' autonomy becomes severely restricted - Informal economic practices hinder the strengthening of formal institutions

Patterns of Actor Relations in the Coconut Fiber Production and Distribution Chain

Transaction Mechanisms and Product Flow

The production and distribution chain of coconut coir demonstrates a structured yet only partially formalized process. The movement of coir begins at the farm level, where farmers produce coconuts as a primary commodity. In most production areas, farmers do not cultivate coconuts specifically for coir; instead, they sell whole coconuts to village-level collectors or small traders who subsequently separate the components, including the husk. In some instances, farmers or their household members manually process the husk to add value before selling it, although such practices remain limited and inconsistent across regions. Once collected, the husk is transferred to sub-district collectors or large traders who possess access to decorticating machines and storage facilities. At this stage, raw coir fiber is typically processed into semi-finished forms such as decorticated fiber or coco fiber. Portions of the processed material may undergo further refinement into cocopeat or other intermediate inputs for household industries. The product flow then moves toward small and medium industries (IKM), cooperatives, or production units that manufacture semi-finished or finished goods, including ropes, doormats, vehicle seat padding, geotextiles, and agricultural growing media. These products are subsequently distributed to local and regional markets or exported to countries with stable demand, particularly for cocopeat and high-grade fiber.

The transaction mechanisms along this chain reveal asymmetrical pricing systems and negotiation patterns. Farmers typically accept prices set by collectors with minimal bargaining power. Their knowledge of higher-level market prices—such as the value of coco fiber or cocopeat at the exporter level—is extremely limited, thereby reinforcing their subordinate position in price negotiations. Prices often fluctuate in response to shifts in export demand or global market dynamics, yet such information is not consistently transmitted to farmers. Collectors consequently hold a pivotal role in determining purchase and resale prices at various points in the distribution channel. Farmers' dependence on collectors represents one of the most structural vulnerabilities within the coir value chain. Collectors frequently maintain long-term economic relationships with farmers through in-kind credit arrangements, small cash loans, or social bonds embedded in patron–client

relations. This pattern of dependency reduces the likelihood that farmers will seek alternative buyers, even when opportunities to secure better prices exist elsewhere. As a result, farmers' autonomy in navigating the market remains constrained, perpetuating structural inequalities within the production system.

Power Relations and Economic Dependence

Within the coconut fiber production chain, the relationships among actors exhibit a distinct imbalance of power between upstream and downstream stakeholders. Large collectors, regional traders, and exporters hold considerably stronger bargaining positions due to their control over capital, access to market information, and extensive distribution networks. Their ability to influence prices—through adjustments in purchase volumes, the imposition of quality standards, or unilateral payment terms—demonstrates that command over physical assets (such as fiber-processing machines) and non-physical assets (such as market networks and information channels) is central to the configuration of power within this system. The implications of patron–client relations for farmers are particularly significant. Farmers who enter patronage-based arrangements often accept prevailing market conditions without negotiation because of their economic dependence on patrons, which may include small loans for household needs or production expenses. This dependence restricts their ability to sell to alternative buyers or to diversify income sources. In certain cases, patrons also influence farmers' production patterns, timing of sales, and the quantity of produce released to the market.

Furthermore, a range of informal practices plays a crucial role in shaping the stability of the coconut fiber industry. These practices include non-cash or delayed payments, unilateral price deductions without written agreements, and manipulation of weighing systems—mechanisms that often disadvantage farmers. At higher levels of the supply chain, informal arrangements among major traders and exporters can influence price stability, including the formation of price-setting cartels that operate beyond the reach of governmental regulation. Consequently, the market structure becomes opaque and difficult for small actors—such as farmers and small-scale processing units—to navigate effectively.

Table 3. Key dimensions of power relations and economic dependency in the coconut fiber value chain

Key Aspect	Actors	Forms of Relations / Dominance	Impact on Farmers
Market Power & Price Control	Large collectors, regional traders, exporters	Unilateral determination of prices and quality standards	Weak bargaining position; low selling prices
Access to Capital & Production Assets	Large collectors	Strong capital base, ownership of decorticating machines, and control over distribution networks	Limited ability to process independently; low value added for farmers
Patron–Client Relations	Collectors ↔ Farmers	Provision of loans, loyalty-based ties, control over timing of sales	Long-term dependency; restricted market choices
Informal Practices	Collectors and traders	Non-cash payments, undocumented price deductions, manipulation of weighing systems	Financial losses and income uncertainty
Control of Market Information	Large collectors, exporters	Price and demand information withheld from farmers	Farmers sell below fair market value

Challenges and Opportunities in the Development of the Coconut Coir Industry

The development of the coconut coir industry in various production centers across Indonesia faces a series of interconnected multidimensional challenges—social, economic, institutional, technological, and infrastructural—that collectively shape an uneven value

chain structure which disproportionately disadvantages smallholder farmers. Socially, the limited participation of farmers in downstream processing, coupled with their strong attachment to traditional modes of production, restricts their ability to adapt to the demands of modern markets. This situation is exacerbated by low levels of market and technological literacy, positioning farmers in a subordinate role vis-à-vis large collectors. Economically, the industry is burdened by fluctuations in global prices for coconuts and coir, constrained working capital, and limited access to formal financing, conditions that often compel farmers to rely on collectors through patron–client mechanisms. Such arrangements reinforce long-term dependency and further undermine farmers' bargaining power. The small-scale nature of rural economic activities also contributes to high production costs and low efficiency, limiting the capacity of farmers and small-scale industries (IKM) to meet increasingly stringent quality standards in competitive markets.

Institutional challenges intensify these constraints, as cooperatives and farmer groups remain weak and largely ineffective in performing their potential roles as aggregators, market information providers, or facilitators of financial access. Government programs at the local level likewise tend to be fragmented and insufficiently integrated, failing to build a cohesive support ecosystem for strengthening the coir value chain. A persistent lack of research and technological innovation also hampers product improvement, with existing technologies for shredding, drying, and further processing remaining rudimentary and unable to meet export-oriented industrial standards. Meanwhile, infrastructural limitations—such as inadequate production facilities, insufficient storage capacity, and logistical bottlenecks—lead to high distribution costs, declining product quality, and inefficient connectivity between producing villages, processing centers, and export markets. Collectively, these challenges intersect to form structural constraints that hinder the transformation of the coir industry into a more inclusive and competitive value chain. Addressing these issues requires comprehensive and coordinated interventions that move beyond technical and infrastructural improvements to also strengthen social capacities, institutional arrangements, and the bargaining position of farmers, enabling them to participate more equitably in the production, processing, and marketing of coconut coir products.

Table 4. Challenges in the development of the coconut coir industry

Aspect	Forms of Challenges	Main Impacts on the Coconut Coir Value Chain
Social	- Low farmer participation in downstream activities- Traditional and non-adaptive business practices- Limited market and technology literacy	- Farmers remain at the upstream level with minimal value added- High dependence on middlemen- Slow innovation and difficulty meeting market standards
Economic	- Price fluctuations of coconuts and coir- Limited working capital and restricted access to financing- Small-scale operations with high production costs	- Income instability for farmers and small industries- Low investment in technology- Low product competitiveness in domestic and export markets
Institutional	- Weak cooperatives and farmer organizations- Poor integration of local government programs- Limited research and innovation support	- Lack of strong aggregation mechanisms- Uneven distribution of market information- Slow modernization of the coir industry
Technology & Infrastructure	- Basic shredding and drying technologies- Limited production facilities and storage capacity- Logistics and distribution constraints	- Inconsistent product quality- High distribution costs and quality degradation- Limited market access and low value-chain efficiency

The development of the coconut coir industry has become increasingly prominent within the broader context of global economic transformation and the shift toward resource-based, renewable industries, thereby creating space for deeper academic and sociological analysis. From a market perspective, the rising demand for cocofiber in the

automotive sector—such as for car mattresses, spring beds, and vehicle seats—alongside the growing need for cocopeat in modern horticultural systems and export markets, reflects a widening consumer preference for sustainable and low-emission materials. The emergence of innovative derivative products, including geotextiles, coco mesh, and cocoboard, further illustrates an ongoing process of industrial diversification that strengthens the strategic position of coconut coir within the green economy. Structurally, government policy support—through coconut downstreaming programs, initiatives aimed at increasing commodity value added, and regional agro-industrial development strategies—serves as an institutional intervention designed to improve the distribution of economic benefits and foster a more efficient and competitive industrial configuration.

However, beyond these economic and policy dimensions, this study contributes to the understanding of how social capital operates unevenly within the coconut coir industry and, in practice, contributes to the reproduction of economic inequality. The findings demonstrate that social capital—manifested through trust networks, kinship ties, and long-standing patron–client relationships—does not function as a neutral or uniformly empowering resource. Instead, it often reinforces asymmetric power relations, enabling dominant actors (such as collectors, traders, or financiers) to control access to capital, information, and markets, while simultaneously constraining the bargaining position of small-scale producers. In this way, social capital becomes a mechanism through which economic advantages are accumulated and reproduced by certain groups, rather than redistributed equitably. By revealing this dynamic, the study extends existing agro-industrial literature by showing that the persistence of inequality in resource-based industries cannot be fully explained by market inefficiencies or technological gaps alone, but must also be understood through the lens of social relations and institutionalized dependency embedded in local production systems.

4. Conclusion

This study demonstrates that the development of the coconut coir industry in Indragiri Hilir remains structurally vulnerable, as the abundant availability of raw materials has yet to translate into meaningful value addition for farmers. From a sociological perspective, the coconut coir production chain is dominated by a hierarchical social stratification that positions farmers as subordinate price takers, a consequence of limited capital, restricted access to technology, and minimal capacity for independent processing. This configuration is further reinforced by the economic dominance of large collectors, who act as gatekeepers within capital, logistics, and distribution networks, thereby creating a local market structure characterized by oligopsonistic dynamics. Farmers' dependence on collectors is not merely economic but also cultural, embedded within patron–client relationships that constrain their ability to seek alternative markets independently. The findings carry important policy implications for the design of local government interventions. First, interventions that focus solely on increasing production or providing short-term assistance risk reinforcing existing power asymmetries, as benefits tend to be captured by dominant collectors rather than farmers. Local government policies must therefore shift toward structural interventions that directly address market concentration and dependency, including the strengthening of farmer cooperatives as collective marketing institutions, the provision of shared processing facilities for coconut coir downstreaming, and the facilitation of direct market access that reduces reliance on

intermediary actors. Second, regulatory frameworks should be designed to improve transparency in pricing, logistics, and quality standards, thereby limiting the discretionary power of large collectors in setting prices and controlling market access. Third, capacity-building programs need to be institutionally integrated—linking technology assistance, access to credit, and organizational development—so that farmers can gradually reposition themselves from raw material suppliers to active participants in value-added processing.

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