



Economic Potential and Policy Opportunities for Coconut Development in Simeulue, Indonesia.

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ABSTRACT

Coconut is an important commodity in Simeulue, Indonesia, yet its contribution to local economic development remains largely concentrated on primary production and raw commodity trading. This study rethinks coconut-based economic development by examining how local policy discourse frames the economic potential, value creation, and development priorities of the coconut sector. Using a qualitative approach and critical discourse analysis, the study draws on policy documents, development programs, and interviews with farmers, traders, processors, and local government actors. The findings indicate that coconut development is still predominantly framed around production, productivity, and commodity output, while downstream processing, product diversification, market integration, technology adoption, and producer institutions receive comparatively limited attention. Such framing influences policy priorities and constrains broader opportunities for local value creation. The study argues that coconut-based development in Simeulue requires a shift from a production-oriented approach toward a more integrated economic strategy that connects processing, entrepreneurship, market access, technology, and institutional coordination. Reframing coconut development in this way could strengthen local value addition, diversify rural livelihoods, and expand the economic contribution of coconut beyond the harvest itself.

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Introduction

Coconut (*Cocos nucifera* L.) remains an economically important crop across many tropical economies, particularly where agricultural livelihoods depend on smallholder production (Bentayao et al., 2025; Divate et al., 2026). Its economic significance extends beyond the harvested nut because almost every component of the coconut can potentially be transformed into food, beverages, oils, fibre, charcoal, animal feed, and other value-added products (Akshaya et al., 2025; Pant et al., 2026).

Recent developments in coconut processing increasingly emphasize the importance of utilizing by-products, improving processing efficiency, and integrating innovation into local production systems. Such diversification can enable coconut-producing regions to move from dependence on primary commodity sales toward broader forms of value creation and rural economic development (Schoneveld & Weng, 2023; Wahyudi et al., 2025). The economic potential of coconut, therefore, should not be understood solely in terms of production volume but also through the capacity of local economies to convert available resources into higher-value activities.

This distinction is particularly important for smallholder-based agricultural economies. Participation in agricultural value chains does not automatically allow producers to capture a greater proportion of the value generated from a commodity. Market access, processing capacity, technology, bargaining power, institutional arrangements, and relationships between producers and intermediaries influence how value is created and distributed across the chain (Ma & Sexton, 2021; Mishra & Dey, 2018). Schoneveld & Weng (2023) further argue that smallholder value creation cannot be understood exclusively through linear supply-chain relationships because value is produced through wider networks involving producers, businesses, institutions, markets, and other supporting actors. This suggests that developing agricultural commodities requires attention to the economic and institutional structures connecting production with processing, marketing, and downstream opportunities.

These challenges are evident within Indonesia's coconut economy. Recent studies of coconut-producing areas demonstrate that large production capacity does not necessarily generate strong economic outcomes for producers. In Indragiri Hilir, Riau, for example, geographical isolation, dependence on intermediaries, limited infrastructure, and uneven access to downstream markets shape the economic position of coconut farmers (Nabillah et al., 2025). Similarly, Wahyudi et al. (2025) identify marketing as one of the weakest dimensions of coconut supply-chain sustainability in remote coconut-producing areas of Indonesia and emphasize the importance of institutional capacity, collective action, and supportive governance. Studies elsewhere also show that fragmented connections between production, processing, and marketing can restrict value-chain integration and prevent coconut-producing communities from capturing greater economic benefits from their commodities (Mahapatra & Mishra, 2026). These findings indicate that the central development problem may lie not only in how much coconut is produced, but in what happens economically after the harvest.

Simeulue provides an important setting in which to examine this issue. As an island regency on the western coast of Aceh, its economy remains strongly connected to natural-resource-based activities. Agriculture, forestry, and fisheries accounted for approximately 40.12% of Simeulue's gross regional domestic product in 2025 (BPS Kabupaten Simeulue, 2025). Coconut is among the perennial crops cultivated across the regency and forms part of the livelihood systems of rural communities. Yet geographical isolation and the characteristics of an island economy can increase transportation costs, constrain access to processing facilities and larger markets, and make local producers more dependent on specific market channels. Evidence from other remote Indonesian regions similarly demonstrates that infrastructure, market accessibility, institutional support, and technology adoption can significantly affect the capacity of rural producers to participate in higher-value economic activities (Hamid et al., 2026; Wahyudi et al., 2025). The presence of coconut resources in Simeulue, therefore, does not by itself guarantee the development of a diversified coconut-based economy.

A broader concern is that agricultural development is frequently framed primarily through production-oriented indicators, such as cultivated area, productivity, output, and availability of raw commodities. Although these indicators remain important, they can give

insufficient attention to downstream processing, product diversification, entrepreneurship, post-harvest innovation, institutional development, and access to higher-value markets. A recent evidence-gap analysis of agricultural value-chain policies in developing countries shows that policy interventions remain concentrated in particular stages of agricultural production, while important dimensions of value-chain coordination and post-harvest development receive uneven attention (Yeritsyan et al., 2024). Agricultural value chains, however, are governed through complex interactions among producers, traders, processors, governments, and other institutions, meaning that economic outcomes cannot be explained by production factors alone (Mishra & Dey, 2018). Rethinking coconut development therefore requires examining not simply existing economic resources but also how development problems and opportunities are defined within policy.

Policy discourse becomes important in this context because policies do more than allocate resources or establish programs; they also construct particular understandings of economic problems and legitimate particular forms of intervention. Critical discourse analysis views policy language as part of wider social and institutional practices through which certain interpretations of development are prioritized while others may receive less attention (Fairclough, 2013). For instance, framing coconut primarily as an agricultural commodity may privilege interventions concerned with production and productivity, whereas framing it as part of a local value-creation system may direct attention toward processing, technology, entrepreneurship, markets, and institutional coordination. Discourse analysis therefore provides a means of examining how economic possibilities are represented, which actors and activities are prioritized, and how particular development pathways become embedded within policy thinking.

Despite growing research on coconut supply chains, sustainability, processing, and market integration, comparatively little attention has been given to the discursive foundations of coconut-based economic development. Existing studies provide increasingly detailed explanations of supply-chain constraints, relationships between farmers and intermediaries, market access, institutional capacity, and opportunities for value-chain integration (Mahapatra & Mishra, 2026; Nabillah et al., 2025; Wahyudi et al., 2025). However, these approaches generally begin from the economic or organizational structure of the value chain itself. Less is known about how local policy narratives construct the economic role of coconut and whether prevailing development discourse encourages or limits movement from primary production toward value creation. This represents an important analytical gap because policy priorities are partly shaped by how governments define the problems that require intervention. An emphasis on increasing production may generate substantially different interventions from a discourse centred on processing, value addition, market development, and technological upgrading.

Against this background, this study examines how coconut-based economic development is constructed within policy discourse in Simeulue and how such framing relates to opportunities for local value creation. Rather than treating coconut potential simply as a function of production, the study investigates how policy documents and stakeholder narratives represent coconut resources, economic constraints, downstream opportunities, technology, markets, and institutional support. Drawing on critical discourse analysis, the

study asks how dominant development narratives shape the boundaries of what is considered economically possible within Simeulue's coconut sector. By connecting discourse analysis with debates on agricultural value creation, the study contributes to a broader understanding of how commodity-based local economies can move beyond the coconut harvest toward more diversified forms of economic development.

Research Method

This research employed a qualitative design to examine how coconut-based economic development is constructed through policy and institutional discourse in Simeulue, Indonesia. A qualitative approach was selected because the analysis focuses not only on the material conditions of coconut production but also on how development problems, economic opportunities, and policy priorities are represented through language. Documentary analysis is particularly appropriate for examining how institutional meanings, policy priorities, and social representations are constructed across official and public texts (Bowen, 2009). Rather than measuring coconut potential solely through production or financial indicators, the analysis investigates how coconut is framed in relation to productivity, replanting, processing, value creation, technology, market development, and institutional support.

Data were derived from purposively selected documentary and secondary sources relevant to coconut development in Simeulue. These included government statements, regional development information, agricultural and plantation programs, statistical reports, institutional publications, media reports, and academic literature concerning coconut production, processing, value addition, and rural economic development. Particular attention was given to sources containing information on plantation area, production levels, raw-material demand, processing industries, community-based coconut utilization, replanting programs, market access, and emerging forms of value creation. Document selection was guided by relevance to the research questions and by the capacity of the sources to provide contextual and institutional evidence concerning coconut-related development narratives.

The analysis followed Fairclough's three-dimensional framework of critical discourse analysis, consisting of text, discursive practice, and social practice (Fairclough, 2013). At the textual level, recurring vocabulary, problem definitions, actor representations, and development priorities were identified. Particular attention was given to terms such as production, productivity, replanting, supply, processing, value creation, technology, and market access. These lexical patterns were examined to determine how coconut development was constructed and which economic issues were emphasized or marginalized. Fairclough's approach is particularly relevant to policy analysis because discourse helps define problems, normalize particular interpretations, and shape which forms of intervention become institutionally legitimate.

At the level of discursive practice, the analysis examined how particular narratives were reproduced across different institutional arenas. Government statements, agricultural programs, industrial activities, community initiatives, conservation-based interventions, and university-supported programs were compared to identify dominant and competing representations of coconut development. This stage also examined interdiscursivity, particularly the coexistence of production, investment, empowerment, conservation,

sustainability, and circular-economy discourses. The analysis therefore focused on how these different narratives interacted and whether they converged into, or remained separated from, a coherent coconut-development framework. This interpretation follows Fairclough's view that discourse should be examined not only as text but also through the institutional processes by which particular representations are produced, circulated, and reproduced.

At the level of social practice, the identified discourses were interpreted in relation to the wider economic structure of Simeulue's coconut sector. The analysis considered the coexistence of ageing plantations, local production deficits, dependence on external coconut supplies, industrial processing, export-market connections, community-based value addition, and constraints related to capital, technology, and island logistics. To maintain an explicit economic-development focus, the discourse analysis was informed by agricultural value-chain and value-creation literature. Agricultural value chains are shaped by coordination and interdependence among producers, traders, processors, and other institutional actors rather than by production alone (Mishra & Dey, 2018). Particular attention was therefore given to processing, market linkages, technological upgrading, institutional coordination, and local value capture.

The analysis proceeded iteratively through source review, coding, categorization, comparison, and interpretation. Repeated examination of the material was used to identify recurring discursive patterns while allowing categories to be refined as the analysis progressed. Such systematic and transparent coding is important for establishing trustworthiness in qualitative analysis (Nowell et al., 2017). Data triangulation was conducted by comparing information across government sources, institutional reports, statistical evidence, media accounts, and academic publications. Convergence and divergence among sources were used to assess the consistency of dominant narratives and to identify tensions between policy discourse and material economic conditions. The final analytical categories, production recovery, fragmented value creation, and the whole-coconut economy, emerged through this iterative analytical process and subsequently structured the Results and Discussion.

Result and Discussion

1. From “Coconut Island” to Production Deficit

Coconut occupies a distinctive position in Simeulue's economic and social landscape. Public narratives frequently portray the island as one of the major coconut-producing areas along the southwestern coast of Aceh, while historical accounts refer to Simeulue as Pulo U, or “coconut island.” This representation reflects the long-standing presence of coconut in local landscapes and livelihoods. Yet the contemporary material conditions reveal a striking contradiction. In 2024, local government sources reported approximately 7,700–8,000 hectares of coconut plantations, much of which consisted of ageing or inherited stands. Annual local production was estimated at only 5,000–6,000 tons, while total annual demand for household and industrial uses was reported at approximately 80,000 tons. Around 65,000 tons were consequently supplied from outside Simeulue, particularly from Nias and areas along the western and southern coast of Aceh (Afriandi et al., 2025).

This contradiction is analytically important because the representation of Simeulue as a coconut-abundant island coexists with a material condition of raw-material scarcity. The issue is therefore not simply whether coconut exists as a locally important commodity, but whether existing plantations are sufficiently productive to support the expanding economic activities built around them. Government explanations consistently connect the supply deficit to ageing coconut trees and declining productivity. Replanting and fertilization are consequently presented as the principal policy responses, with the explicit objective of restoring Simeulue's position as a coconut production centre ([Antara Aceh, 2004](#)) (see Table 2).

Table 2. The Coconut Abundance–Scarcity Paradox in Simeulue

Indicator	Evidence	Implication
Coconut resource base	7,700–8,000 ha; many ageing trees	Large but declining productive base
Local production	5,000–6,000 tons/year	Insufficient to meet local and industrial demand
Estimated demand	80,000 tons/year	Strong existing market demand
External supply	65,000 tons/year, mainly from Nias and western/southern Aceh	High dependence on imported raw materials
Existing processing	VCO, CCO, coconut flour	Downstream value creation already exists
Export orientation	Products reach international markets	Potential for higher-value coconut development

Sources: Processed by Authors (2026)

Table 2 makes visible what may be described as an abundance–scarcity paradox. Simeulue possesses a substantial coconut resource base and a strong historical identity as a coconut-producing island, yet it is unable to supply the raw material required by its own emerging processing economy. The contradiction is therefore not between the existence and absence of coconut, but between resource endowment and productive capacity. More importantly, it reveals that the meaning of “coconut potential” changes depending on whether it is defined through plantation area, actual output, industrial demand, or capacity for value creation.

At Fairclough's textual level, official representations predominantly construct this problem through a vocabulary of production, productivity, replanting, planting, supply, and raw materials. These lexical choices are not neutral descriptions. They organize the development problem around insufficient agricultural output and make interventions directed toward increasing production appear as the most logical policy response. [Fairclough \(2013\)](#) emphasizes that policy discourse contributes to defining not only what constitutes a problem but also which responses become institutionally intelligible. In Simeulue, repeated references to ageing trees, low productivity, and inadequate supply consequently establish production recovery as the dominant policy logic.

The same framing is reproduced at the level of discursive practice. Government statements, agricultural programs, media narratives, and community-development activities repeatedly circulate the language of productivity improvement. The government's replanting

agenda explicitly seeks to increase coconut production, while an integrated-farming initiative in Bubuhan Village similarly emphasizes sustainable plantation management, farm productivity, and farmers' capacity to maintain coconut-based livelihoods. The recurrence of these representations across different institutional arenas gives the production discourse greater legitimacy and contributes to its normalization. However, the existence of downstream processing complicates this narrative. Simeulue is not solely a raw-coconut economy. PT Green Enterprises Indonesia, for example, has processed coconut into virgin coconut oil, coconut cooking oil, and coconut flour. One documented production line used approximately 10 tons of coconuts per day to produce 600–700 kilograms of VCO, with products reaching domestic as well as international markets.

This indicates that coconut already participates in a considerably more complex value system than is implied by the dominant production vocabulary. From a value-chain perspective, the presence of processing capacity alongside a raw-material deficit indicates a problem not only of production but also of coordination among production, processing, and markets. Agricultural value chains are shaped by relationships of coordination, control, and interdependence among farmers, traders, processors, and other actors rather than by production volumes alone (Mishra & Dey, 2018). Moreover, smallholder value creation depends on broader institutional networks that determine how producers access technologies, markets, organizations, and opportunities for upgrading (Schoneveld & Weng, 2023).

At Fairclough's social-practice level, therefore, the production deficit reveals a deeper structural tension. Industrial demand and market connectivity have developed more rapidly than the productive capacity of ageing smallholder plantations. Coconut is simultaneously constructed as a symbol of local abundance, a livelihood commodity, and an increasingly scarce industrial input. Yet the dominant policy response privileges the first stage of this economic system, production, while questions of value distribution, local processing participation, producer organization, and value capture receive less discursive visibility.

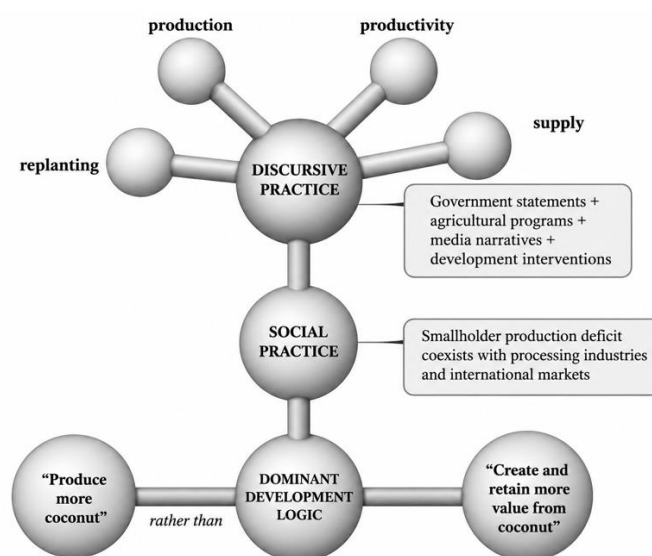


Figure 1. Discursive Construction of the Coconut Production Deficit in Simeulue
Source: Processed by Authors (2026)

Figure 1 clarifies why the contradiction cannot be understood simply as a production gap. At the textual level, the scarcity of coconut is represented through the language of productivity and supply. At the level of discursive practice, these terms are repeatedly reproduced through institutional narratives and development programs. At the level of social practice, however, this discourse operates within an economy that already contains processors, external suppliers, export markets, and differentiated opportunities for value creation. The material structure is therefore broader than the policy vocabulary used to describe it.

This distinction is critical. Replanting is a rational response to ageing plantations and inadequate supply, but when it becomes the dominant representation of coconut development, it risks reducing a broader economic transformation problem to an agricultural productivity problem. The key issue is not whether Simeulue should increase coconut production, it clearly faces a substantial supply deficit, but whether greater production will also enable local farmers and communities to participate more meaningfully in the value generated after the coconut leaves the farm.

The finding can therefore be interpreted as a tension between a discursive identity of abundance and a material condition of scarcity. More importantly, the CDA reveals a second tension between the complexity of the actual coconut economy and the relative simplicity of its dominant policy framing. Simeulue already possesses plantations, processing capacity, local employment, external supply networks, and international market connections. Yet policy discourse continues to construct coconut development primarily as a question of restoring production. In this sense, the dominant narrative represents production recovery rather than coconut-based economic transformation.

2. Value Creation Exists but Remains Fragmented

The second finding shows that coconut-based value creation is already taking place in Simeulue, but it remains fragmented across actors, products, and institutional initiatives. The most established form is industrial processing. PT Green Enterprises Indonesia processes coconuts into virgin coconut oil (VCO), coconut cooking oil (CCO), and coconut flour. One documented production unit processed approximately 10 tons of coconuts per day and produced around 600–700 kilograms of VCO for domestic and international markets. This demonstrates that coconut in Simeulue can move beyond primary production when processing technology, capital, and market access are available (see Figure 2).



Figure 2. Women Coconut Farmer in Simeulue
Source: Processed by Authors (2026)

A second form of value creation has emerged at the community level. In Batu Ralang Village, Teupah Selatan, coconut husks that were previously discarded or burned are now processed into cocopeat, cocofiber, cocobristle, and handicrafts. The initiative also creates income opportunities for women through products such as bags, flower pots, sandals, paintings, and decorative items. Importantly, the initiative originated from efforts to reduce economic losses caused by long-tailed macaques rather than from a conventional industrial-development program. Husks from damaged coconuts were reinterpreted as usable economic resources, and the community group began purchasing husks from farmers for further processing.

At Fairclough's textual level, this narrative introduces a vocabulary that differs markedly from the dominant production discourse identified in the previous section. Terms associated with processing, products, income, utilization, and economic value replace the conventional emphasis on production, productivity, and harvest. The most important shift concerns the meaning assigned to materials previously categorized as waste or economic loss. Coconut husks are no longer represented merely as residual materials but as inputs for new economic activities. This discursive transformation extends the meaning of coconut value beyond the whole fruit or edible kernel and makes previously invisible forms of value economically legible.

A similar logic is evident in the potential utilization of coconut water. Evidence from a community-based study in Oma Village, Maluku, shows that coconut water commonly discarded as waste can be fermented into coconut vinegar and packaged as a marketable product. The authors explicitly frame this transformation as both organic-waste reduction and the creation of new local economic opportunities (Gaspersz et al., 2025; Yasmin et al., 2025). The same study notes that coconut water can be processed into several economically useful products, including soy-sauce substitutes, nata de coco, and coconut vinegar (Asti et al., 2026). Although this evidence does not demonstrate commercial feasibility in Simeulue, it shows that by-products currently outside the dominant coconut economy may represent technically plausible pathways for future value creation (see Table 2).

Table 2. Fragmented Forms of Coconut Value Creation in Simeulue

Activity	Main actor	Value created	Dominant discourse	Main constraint
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VCO, CCO, coconut flour	Processing industry	Export value and employment	Industrial development	Raw-material shortage
Cocopeat, cocofiber, handicrafts	Community groups	Additional local income	Empowerment and conservation	Capital and logistics
Integrated coconut farming	Farmers and university actors	Productivity and sustainability	Sustainable agriculture	Scale and continuity
Coconut-water utilization	Potential pathway	New processed products	Circular economy and value creation	Technology and market not yet established

Sources: Processed by Authors (2026)

Table 2 reveals that value creation in Simeulue is not absent; rather, it occurs through different institutional arenas that employ different development languages. Industrial processing is articulated through investment and export narratives, coconut-husk utilization through community empowerment and conservation, and integrated coconut farming through sustainable agriculture. The coconut-water pathway, meanwhile, is best understood as an emerging possibility rather than an established local activity. This distinction is important because it prevents potential opportunities from being presented as existing achievements.

At the level of discursive practice, these different narratives coexist but are not yet organized into a coherent coconut-development framework. Industrial processing operates through private investment and export markets; community processing emerges through conservation and livelihood initiatives; integrated farming is promoted through university–community engagement; and by-product utilization is discussed primarily through innovation and circular-economy narratives. In Fairclough’s terms, this pattern reflects interdiscursivity: different discourses are combined around the same commodity, but without necessarily producing an integrated institutional strategy.

This fragmentation is significant from a value-chain perspective. Agricultural value chains involve multiple actors whose activities are interdependent, including producers, processors, traders, institutions, and markets. Coordination, rather than production alone, is therefore central to how value is generated and distributed (Mishra & Dey, 2018). Similarly, Schoneveld & Weng (2023) argue that smallholder value creation depends on broader organizational and institutional networks rather than on linear production relationships alone. Simeulue’s coconut economy reflects precisely this problem: multiple forms of value creation exist, but the institutional connections among them remain weak.

At Fairclough’s social-practice level, fragmentation also reflects unequal access to capital, technology, and markets. Industrial processors possess production facilities and access to international markets, whereas community groups face more basic constraints. In Batu Ralang, for example, limited working capital restricts the group’s ability to purchase more coconut husks, while Simeulue’s island geography increases distribution costs. The ability to transform coconut into higher-value products is therefore unevenly distributed. Value creation exists, but so does unequal capacity to capture that value. This finding suggests that the principal economic problem is not a complete absence of innovation but the lack of integration among existing and emerging forms of value creation. Coconut in Simeulue is simultaneously embedded in industrial, agricultural, conservation, empowerment, and

circular-economy discourses. Yet these discourses remain institutionally segmented. The result is a coconut economy in which potentially complementary activities are visible but insufficiently connected (see Figure 3).

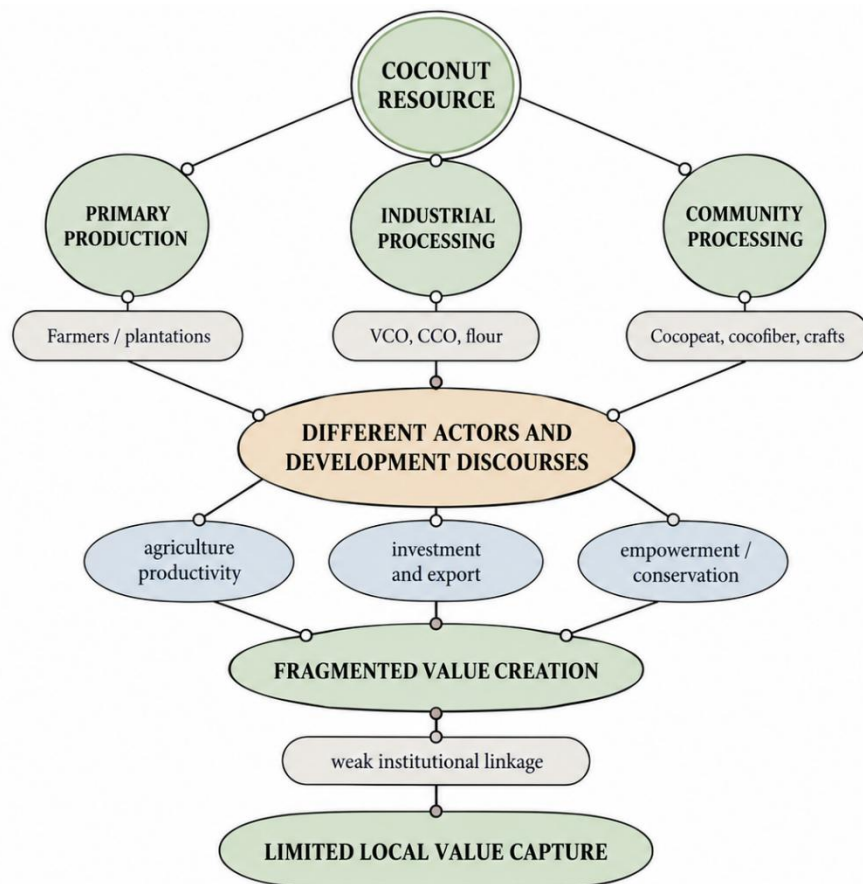


Figure 3. Fragmented Value-Creation System in Simeulue's Coconut Economy

Source: Author's Conceptualization Based on Fairclough's Critical Discourse Analysis

Figure 3 summarizes the central discursive finding. At the textual level, different activities are represented through different vocabularies of productivity, investment, empowerment, and value creation. At the level of discursive practice, these vocabularies are produced by different institutional actors and circulate through separate development programs. At the level of social practice, the separation reproduces uneven access to processing technology, capital, markets, and institutional support. The coconut economy is therefore not devoid of value-added activities; rather, value creation remains institutionally fragmented. The implications go beyond the diversification of products. Creating new products alone does not automatically produce a coherent local value chain. What matters is whether farmers, processors, community groups, research institutions, government agencies, and markets are connected through arrangements that allow value to be created and retained locally. This is consistent with the broader value-chain literature, which emphasizes that coordination and institutional relationships are central to the governance of agricultural value chains.

The key finding of this section can therefore be summarized as “value creation without integration.” Simeulue already possesses industrial processing, community innovation, sustainable-farming initiatives, and underutilized by-products with further development

potential. However, these activities have yet to converge into an integrated coconut economy capable of systematically connecting production, processing, technology, institutions, and markets.

3. Reframing Coconut Policy from Production Recovery to a Whole-Coconut Economy

The third finding suggests that coconut development in Simeulue requires a broader policy framing than production recovery alone. Existing policy responses emphasizing replanting and productivity address a genuine structural problem: many coconut stands are ageing, while local production remains insufficient to meet household and industrial demand. In 2024, the local government explicitly linked declining productivity to ageing plantations and positioned replanting as a strategy for restoring Simeulue as a coconut production centre. However, the evidence presented in the previous sections shows that Simeulue's coconut economy already extends beyond cultivation. It includes export-oriented VCO and coconut-flour processing, local employment, community-based husk utilization, integrated farming, and emerging possibilities for utilizing other coconut by-products.

At Fairclough's textual level, this finding points to a necessary change in the vocabulary through which coconut development is represented. The dominant lexicon of production, productivity, replanting, supply, and raw materials constructs the coconut problem primarily as one of insufficient output. An alternative discourse introduces terms such as processing, value creation, diversification, technological upgrading, market access, and resource utilization. In critical policy analysis, such shifts in language matter because competing representations of a problem make different forms of policy intervention conceivable and legitimate (Fairclough, 2013). Reframing therefore does not imply replacing the productivity agenda; rather, it means repositioning production as the first stage of a broader local value-creation system.

The need for this reframing is evident in the existing relationship between production and processing. PT Green Enterprises Indonesia has already demonstrated that coconut grown or supplied to Simeulue can enter higher-value domestic and international markets through VCO, coconut cooking oil, and flour production. At the same time, the firm has historically sourced part of its raw material from West Aceh, Southwest Aceh, Nias, and Banyak Island. Its documented processing capacity included approximately 10 tons of coconuts per day, producing 600–700 kilograms of VCO for domestic and international markets. The existence of export-oriented processing alongside external raw-material dependence indicates that higher production is necessary, but by itself does not explain how more economic value can be created and retained within Simeulue.

Community-level evidence strengthens this argument. In Batu Ralang, coconut husks previously associated with waste or crop losses are being transformed into cocopeat, cocofiber, cocobristle, and handicrafts. Yet the initiative also reports limited working capital and comparatively high distribution costs because of Simeulue's island location. The economic issue is therefore not merely whether additional products can be made, but whether local actors possess the technology, finance, organization, and market connections necessary to sustain value-added activities. This is consistent with the value-network perspective, which

emphasizes that smallholder value creation depends on institutional relationships and access to markets and supporting organizations, rather than production alone.

At the level of discursive practice, a whole-coconut approach would require different policy sectors to interact more systematically. At present, coconut is represented through multiple institutional languages: agricultural institutions emphasize production and replanting; processing industries emphasize investment and exports; community initiatives emphasize empowerment; conservation programs frame value creation as livelihood adaptation; and research institutions introduce technological innovation. These discourses already coexist, but they remain only partially connected. From a Faircloughian perspective, the important issue is therefore not simply the presence of different discourses, but whether their articulation produces a new development narrative capable of reorganizing institutional priorities.

This becomes especially relevant when underutilized coconut components are considered. The Batu Ralang case demonstrates how a material previously treated as waste can be discursively and economically reclassified as a resource. A similar possibility exists for coconut water. Evidence from the uploaded study in Maluku shows that coconut water commonly discarded as waste can be fermented into coconut vinegar and packaged as a marketable local product, thereby combining waste reduction with potential income creation (Gaspersz et al., 2025). The study further demonstrates a relatively simple fermentation process using coconut water, yeast, food-grade nutrients, filtration, and heating (Asti et al., 2026). This evidence should not be interpreted as proof of commercial feasibility in Simeulue; rather, it illustrates how materials outside the dominant commodity discourse can become candidates for future technological and economic upgrading (see Table 3).

Table 3. From Production Recovery to a Whole-Coconut Economy

Policy dimension	Dominant framing	Broader framing
Resource	Coconut as harvested commodity	Coconut as multi-component economic resource
Policy priority	Replanting and productivity	Production + processing + diversification
Farmer role	Raw-material producer	Producer and participant in value creation
Technology	Production support	Processing and technological upgrading
Market	Commodity supply	Local, domestic, and higher-value markets
By-products	Residual or underused	Inputs for new economic activities

Source: Authors' Interpretation Based on The Empirical Findings and Fairclough's CDA Framework

Table 3 captures the central discursive shift identified in the study. The difference between the two framings is not that one supports production while the other rejects it. Rather, the broader framing changes the economic meaning of production itself. Replanting and productivity become enabling conditions for value creation rather than final development objectives. Similarly, farmers are no longer represented solely as suppliers of coconuts but as potential participants in processing, producer organizations, enterprise development, and wider value networks.

At Fairclough's social-practice level, this reframing points toward what this study terms a whole-coconut economy. The concept refers to an economic-development orientation in which the coconut is treated as a multi-component resource whose value can be generated through different pathways, including the kernel, oil, flour, husk, shell, and water. The purpose

is not to commercialize every component indiscriminately, but to increase the proportion of value that can feasibly be created and retained locally. This is especially relevant for a geographically peripheral island economy where transport costs can disadvantage low-value, bulky products. The constraints identified by Batu Ralang's community initiative illustrate how geography can shape the viability of local value addition.

The whole-coconut framing also changes the scale at which policy problems are defined. Under a production-recovery discourse, the central question is whether local output is sufficient. Under a value-creation discourse, additional questions emerge: which components are underutilized, which actors have access to processing technology, how producers participate in downstream activities, which products are economically viable, and how institutional coordination can reduce barriers to local enterprise development. These questions expand the policy agenda from agricultural rehabilitation toward economic transformation (see Figure 4).

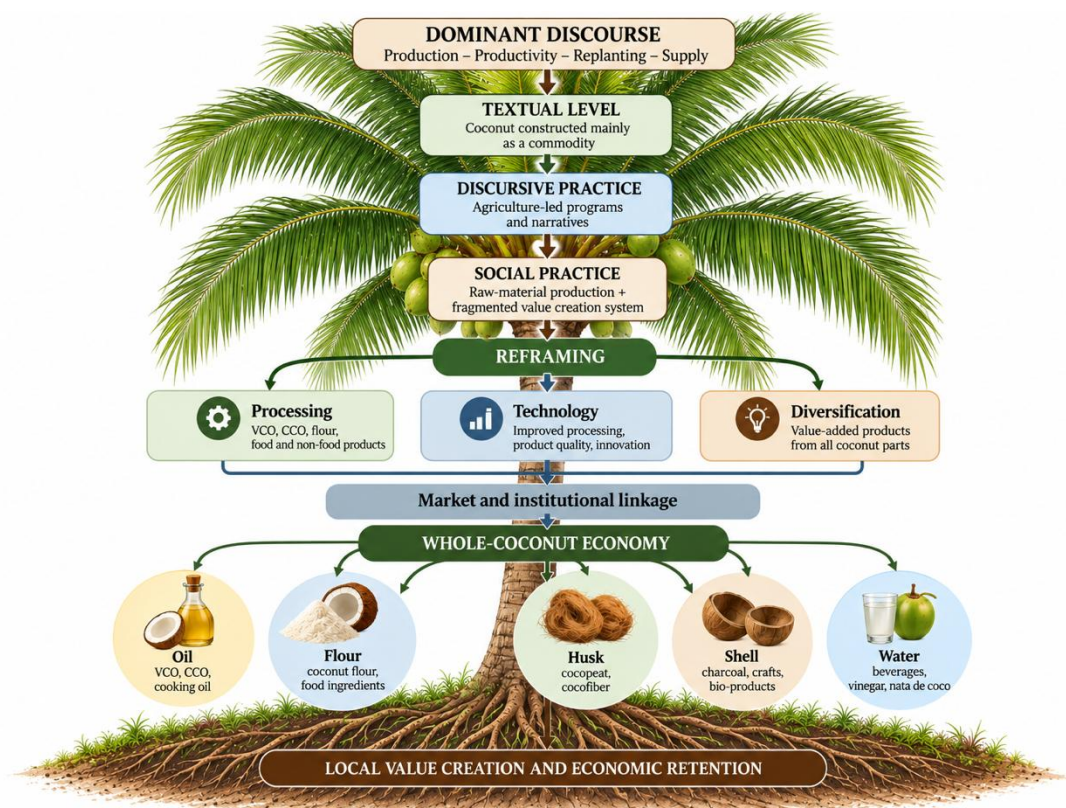


Figure 4. Reframing Coconut-Based Economic Development in Simeulue

Source: Authors' Conceptualization Based on Fairclough's Three-Dimensional CDA Framework

Figure 4 integrates the three analytical levels of Fairclough. At the textual level, coconut development is predominantly articulated through production-oriented vocabulary. At the level of discursive practice, that vocabulary is circulated through agricultural institutions and development programs. At the social-practice level, it corresponds with an economic structure in which local production remains strongly associated with raw-material provision while higher-value activities are fragmented across a limited number of actors. Reframing introduces processing, technology, diversification, and market integration into the discourse, thereby widening the institutional imagination of what coconut development can

encompass. The whole-coconut economy should be understood as an analytical and policy proposition emerging from the findings, rather than evidence that an integrated coconut economy already exists in Simeulue. The empirical material instead indicates that its building blocks are already present: coconut production, industrial processing, export connections, community innovation, and underutilized by-products. What remains weak is the institutional articulation among these elements.

The central finding of the discourse analysis is therefore not that Simeulue's existing production-oriented policies are inappropriate, but that they are insufficient to capture the full economic possibilities of the coconut sector. Through Fairclough's framework, the shift can be summarized as moving from the question of how to produce more coconuts toward the broader question of how to create and retain more value from coconut resources. The former directs policy toward replanting and productivity; the latter incorporates those measures into a wider agenda of processing, technological upgrading, enterprise development, institutional coordination, market access, and productive use of underutilized resources. In this sense, beyond the coconut harvest represents not only downstream diversification but a change in how coconut-based economic development itself is imagined and governed.

Conclusion

Coconut development in Simeulue is still predominantly framed through a production-oriented discourse centred on productivity, replanting, supply, and raw-material availability. While this framing responds to real challenges such as ageing plantations and insufficient local production, it does not fully capture the broader economic possibilities of the coconut sector. The findings demonstrate that value creation already exists through industrial processing, community-based utilization of coconut by-products, and emerging opportunities for diversification, but these activities remain fragmented across actors and institutions. Fairclough's critical discourse analysis reveals that this fragmentation is reproduced through policy narratives that separate agricultural production from processing, technology, entrepreneurship, and market development. Coconut-based development in Simeulue therefore requires a shift from production recovery toward a more integrated approach that connects replanting with downstream processing, technological upgrading, producer organization, market access, and local value retention.

The analysis is limited by its qualitative design and reliance on policy documents, stakeholder narratives, and selected evidence of existing coconut-related activities. It does not measure the financial feasibility, profitability, market demand, or technical performance of specific value-added products. Future research should therefore examine the economic viability of underutilized coconut components, particularly coconut water, husks, and other by-products, through value-added analysis, market assessment, and feasibility testing. Further research could also evaluate appropriate processing technologies and investigate how institutional arrangements, financing mechanisms, and producer organizations can support a more integrated coconut value chain. Such work would provide a stronger empirical basis for translating the proposed whole-coconut economy framework into practical and scalable development strategies for Simeulue.

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