

Leading Commodities and Business Opportunities in the Coastal Area of West Aceh: A Regional Economic Analysis

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Abstract: Coastal areas play an important role in regional development by connecting natural resources, livelihoods, market access, and local business opportunities. In West Aceh, fisheries, plantation commodities, and community-based economic activities have significant development potential, yet policy discussions often remain broad at the sectoral level. This study aims to identify the leading commodity in the coastal area of West Aceh and analyze the associated business opportunities. The study employs a descriptive-quantitative approach using secondary data from official statistics, regional publications, and relevant scholarly references. Four commodities were compared: marine capture fisheries, coconut, smallholder oil palm, and brackish-water aquaculture. The analysis applies a Commodity Potential Index (CPI) based on five criteria: production continuity, market strength, downstream opportunity, labor absorption, and coastal suitability. The results identify marine capture fisheries as the leading commodity, followed by coconut, smallholder oil palm, and brackish-water aquaculture. The findings indicate that the potential of West Aceh's coastal economy lies not only in primary production but also in strengthening value chains through post-harvest handling, processing, logistics, packaging, and the development of micro and small businesses. This study provides a practical framework for commodity prioritization in data-constrained coastal regions and offers policy directions for strengthening local economic development through territorial relevance, employment absorption, value-chain development, and local value creation.

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INTRODUCTION

Regional development is closely related to the ability of a region to recognize, manage, and strengthen its own economic base. In development economics, local resources become meaningful for growth when they are transformed into productive activities that create income, employment, and value added for the community (Hayami & Godo, 2005; Davis, 2023). For coastal regions, this transformation is particularly important because coastal economies are shaped not only by natural resources, but also by the interaction among marine production, trade, transportation, household livelihoods, and local business networks (Rochester et al., 2016; Zulham et al., 2023).

West Aceh is one of the regions in Aceh whose economic structure is closely connected to coastal and primary-sector activities. Official statistics show the importance of fisheries, plantations, and related productive activities in supporting the regional economy of West Aceh (Badan Pusat Statistik Aceh, 2024; Badan Pusat Statistik Kabupaten Aceh Barat, 2025a, 2025b). Studies on regional specialization and local economic development in Aceh also indicate that resource-based sectors remain central to regional economic performance, especially in areas that depend on agriculture, fisheries, and supporting rural business activities (Iskandar & Nurrahmi, 2018; Abadi et al., 2024).

However, sectoral importance alone is not sufficient for effective development planning. Local governments need a more operational basis for deciding which commodities deserve strategic priority.

Previous studies in Indonesian regions have shown that identifying leading sectors and leading commodities can help local governments sharpen planning priorities and allocate development interventions more effectively (Ahdan et al., 2015; Hidayat & Darwin, 2017; Hikmahwidi, 2018). Broader regional analyses often use Location Quotient and Shift Share to identify comparative advantage and structural change (Kasikoen, 2018; Suryani, 2019; Tanggu Redu et al., 2023; Abadi et al., 2024). These approaches are useful at the sectoral level, but they do not always provide a sufficiently direct basis for choosing among specific commodities, especially in coastal areas where territorial relevance and livelihood linkages are highly important. In coastal economies, a commodity should not be judged only by output scale, but also by whether it is strongly embedded in local coastal livelihoods, has market potential, supports downstream activities, and creates employment.

Various previous studies have successfully demonstrated the usefulness of sectoral approaches such as Location Quotient and Shift Share in identifying economic specialization and regional structural change (Ayu Monica et al., 2019; Kasikoen, 2018; Suryani, 2019; Tanggu Redu et al., 2023; Abadi et al., 2024). However, these approaches are generally stronger in reading the relative position of sectors than in determining the most development-relevant commodity within a specific territorial context. In coastal areas, this limitation becomes more visible because development priorities are not determined only by aggregate sectoral contribution, but also by the degree to which commodities are embedded in local livelihoods, support downstream business opportunities, absorb labor, and fit the ecological-spatial character of coastal areas.

In addition, previous studies on leading commodities in many regions have tended to focus on identification and ranking, while giving less attention to how commodity prioritization can be linked to local business ecosystems, value-chain strengthening, and practical policy direction for regional development (Ahdan et al., 2015; Hikmahwidi, 2018). This leaves an important analytical gap, particularly in coastal regions such as West Aceh, where the key issue is not merely which commodity is important, but which commodity is most capable of serving as an anchor for local value creation, employment expansion, and community-based enterprise development.

Therefore, the novelty of this study lies not only in identifying leading commodities, but also in proposing a practical prioritization framework that integrates regional development logic, coastal suitability, market potential, labor absorption, and downstream opportunity within a single analytical approach. By doing so, this study moves beyond a conventional sectoral perspective and offers a more operational basis for commodity-based planning in a data-constrained coastal region.

This issue is important in West Aceh because the region's coastal economy contains multiple potential commodities with different characteristics. Marine capture fisheries is directly linked to coastal livelihoods and marine resources. Coconut is closely associated with coastal landscapes and offers multiple small-scale processing opportunities. Smallholder oil palm is economically important, but its connection to the coastal system is less direct. Brackish-water aquaculture has future potential, yet its current development depends on technical and institutional support. Without a structured comparison, development policy may remain fragmented and fail to focus on commodities that can generate the strongest local multiplier effects.

The need for such prioritization is also consistent with broader development concerns in Aceh and Indonesia. Studies on decentralization, poverty, local business development, and village-based economic strengthening suggest that local growth becomes more effective when regional policy is aligned with local strengths and when economic activities are linked to labor absorption and community enterprise development (Permatasari et al., 2021; Rahmawati et al., 2019; Santi & Iskandar, 2021). In West Aceh specifically, recent studies on MSMEs indicate that income growth and local business performance are influenced by productive support systems, entrepreneurship capacity, and adaptation to changing market conditions (Muarif et al., 2025; Riyan et al., 2025; Sahwi et al., 2025).

This means that commodity development should be linked to value-chain strengthening rather than limited to raw production.

In addition, studies on coastal and natural-resource-based development show that resource-rich localities can generate wider economic impact when development is organized around territorially relevant activities and supporting business systems (Suning et al., 2022; Sasmito et al., 2023). Although some studies on agro-based and eco-based local development emphasize tourism and educational diversification (Ifandi & Rahma, 2020; Indrawati, 2020; Muhammad & Darmawan, 2019; Pambudi et al., 2018; Pangestuti et al., 2018; Riyani & Tamjuddin, 2017), the key lesson remains the same: local resource potential should be translated into practical economic opportunities through integrated local development strategies. For West Aceh, this principle is more urgently needed in the context of coastal commodity prioritization.

Based on this background, the study addresses two main questions: which commodity has the strongest development potential in the coastal area of West Aceh, and what business opportunities are associated with the prioritized commodities? Accordingly, this study aims to identify the leading commodity in the coastal area of West Aceh and to analyze the business opportunities that can support regional economic development. Its contribution lies in offering a practical commodity prioritization framework for a data-constrained coastal region by integrating regional development logic, coastal suitability, market potential, labor absorption, and downstream opportunity into a single analytical approach.

RESEARCH METHOD

Research Approach and Data Sources

This study employs a descriptive-quantitative approach supported by qualitative interpretation. The analysis relies on secondary data obtained from official statistical publications, regional economic reports, and relevant scholarly references. The main sources include data from Statistics Indonesia, the Statistics Office of Aceh Province, and the Statistics Office of West Aceh Regency, particularly data on marine capture fisheries production, plantation area, regional economic structure, and the general regional profile (Badan Pusat Statistik Aceh, 2024; Badan Pusat Statistik Kabupaten Aceh Barat, 2024, 2025a, 2025b; Badan Pusat Statistik, 2025). The use of secondary data is appropriate because the study is intended to develop a practical prioritization model for a coastal region where detailed commodity-level primary data remain limited.

Unit of Analysis and Study Scope

The unit of analysis in this study is the coastal economic system of West Aceh. In this article, the coastal area is not defined narrowly as only the immediate shoreline, but as a functional economic area consisting of shoreline-based production spaces and directly connected activities such as fish landing, local trade, transport, storage, first-stage processing, and household livelihoods dependent on marine and near-coastal resources. This definition is important to avoid an overly narrow view of the coast while also preventing the analysis from becoming too broad and treating the entire regency economy as equally coastal. This functional perspective is in line with studies emphasizing livelihood linkage and territorial relevance in coastal and natural resource use systems (Rochester et al., 2016; Puspitaningrum et al., 2021).

Commodity Selection

Four commodities were selected for comparison: marine capture fisheries, coconut, smallholder oil palm, and brackish-water aquaculture. These commodities were chosen because they are visible in the productive profile of West Aceh, represent different patterns of economic activity, and have varying degrees of coastal embeddedness. Marine capture fisheries was selected because it is directly linked to the sea and coastal livelihoods. Coconut was selected because it is widely associated with

coastal land use and small-scale processing potential. Smallholder oil palm was included because it is economically important in the regency, even though its relationship to coastal specialization is less direct. Brackish-water aquaculture was included because it represents a commodity with spatial relevance to coastal areas and future development potential, although current constraints remain significant. This selection approach is consistent with prior studies on leading commodity determination that emphasize the need for practical comparison among representative commodities rather than exhaustive listing of all products (Ahdan et al., 2015; Hikmahwidi, 2018).

To compare the selected commodities, this study applies a Commodity Potential Index (CPI). The CPI is a simple comparative index used to rank commodities based on five criteria: production continuity, market strength, downstream opportunity, labor absorption, and coastal suitability. Each criterion is scored on a scale from 1 to 5, where 1 indicates very low potential and 5 indicates very high potential. The CPI is calculated using the following formula:

$$CPI_i = \sum (w_j \times s_{ij})$$

where CPI_i is the composite score of commodity i , w_j is the weight assigned to criterion j , and s_{ij} is the score of commodity i on criterion j .

All five criteria are assigned equal weights of 0.20. This equal-weighting scheme is adopted to maintain transparency and replicability in a baseline model intended for local planning under limited-data conditions. Although more complex weighting systems could be applied, equal weighting is more defensible and easier to reproduce in the absence of detailed expert-survey data or highly disaggregated quantitative series. Similar pragmatic choices are common in applied regional prioritization studies where the main objective is decision support rather than advanced econometric modeling (Hidayat & Darwin, 2017; Kasikoen, 2018).

Operationalization of CPI Criteria

The operational meaning of the five criteria is as follows. Production continuity refers to the extent to which the commodity can be produced regularly and reliably over time. Market strength refers to the breadth and depth of demand and the likelihood of sustained market absorption. Downstream opportunity refers to the potential for value-added processing, product diversification, and business expansion. Labor absorption refers to the capacity of the commodity to create direct and indirect employment. Coastal suitability refers to the degree to which the commodity is structurally linked to coastal resources, locations, and livelihoods.

To improve scoring transparency, each criterion was interpreted through an operational lens. Production continuity was assessed from the relative persistence of commodity-related productive activities and the stability of their resource base. Market strength referred to the extent of actual and potential demand, market reach, and the likelihood of sustained absorption. Downstream opportunity captured the possibility of generating additional value through post-harvest handling, processing, packaging, product diversification, and related service activities. Labor absorption reflected the extent to which a commodity could support direct and indirect employment across production, handling, trading, transport, and processing stages. Coastal suitability referred to the degree of territorial relevance of a commodity to coastal space, marine-related livelihoods, and near-shore economic systems.

Scoring Procedure

In this study, a score of 5 indicates very high potential, very strong market relevance, or very high suitability; a score of 4 indicates high potential; a score of 3 indicates moderate potential; a score of 2 indicates low potential; and a score of 1 indicates very low potential. The scoring was not intended as a purely mechanical statistical exercise, but as an applied planning assessment based on triangulated interpretation of official data, commodity characteristics, territorial relevance, and prior findings in the literature. Such an approach remains consistent with practical regional prioritization exercises that

combine quantitative evidence with context-sensitive interpretation in order to support planning decisions (Hidayat & Darwin, 2017; Kasikoen, 2018; Davis, 2023).

More specifically, the assignment of scores followed a comparative decision rule applied consistently across the four commodities. A score of 5 was assigned when the available evidence placed a commodity in the strongest relative position on a criterion, showing very high continuity, market reach, downstream scope, employment linkage, or coastal relevance. A score of 4 indicated a strong position with substantial supporting evidence but with at least one clear limitation relative to the highest-performing commodity. A score of 3 represented a moderate position, meaning that the criterion was present but remained constrained by current scale, stability, technical conditions, or market readiness. A score of 2 indicated a weak position, while a score of 1 indicated very weak or limited evidence of the criterion. The scores were therefore assigned by comparing the four commodities against the same operational indicators, using official production and regional statistics, observable commodity characteristics, territorial linkage, and relevant prior studies as the evidentiary basis.

Robustness and Sensitivity Analysis

The scoring process was based on triangulated interpretation of official data, commodity characteristics, territorial relevance, and findings from previous studies. This means the CPI in this study should be understood as an applied planning instrument rather than a causal statistical model. As a simple robustness consideration, the study also reviewed whether moderate emphasis shifts toward market strength or coastal suitability would alter the leading commodity. The ranking remained stable, indicating that the top position of marine capture fisheries is not highly sensitive to minor changes in weighting emphasis.

To make this robustness check more explicit, two moderate alternative weighting scenarios were calculated using the same score matrix shown in Table 1. In the first scenario, market strength received a higher weight of 0.30, while the other four criteria each received 0.175. In the second scenario, coastal suitability received a weight of 0.30, while the remaining four criteria each received 0.175. Under the baseline equal-weight model, the ranking was marine capture fisheries, coconut, smallholder oil palm, and brackish-water aquaculture. The top two positions were retained under both alternative scenarios: the scores were 5.00, 4.35, 3.65, and 3.35 for marine capture fisheries, coconut, smallholder oil palm, and brackish-water aquaculture, respectively, when market strength was emphasized, which preserved the full baseline ordering. When coastal suitability was emphasized, the scores were 5.00, 4.48, 3.40, and 3.48, respectively, meaning brackish-water aquaculture (3.48) narrowly overtook smallholder oil palm (3.40) for the third position, while marine capture fisheries and coconut retained their top two ranks. These comparisons show that the leading position of marine capture fisheries and the second-ranked position of coconut are robust to moderate shifts in weighting emphasis, whereas the relative ordering of oil palm and aquaculture is more sensitive to how strongly coastal suitability is weighted, consistent with oil palm's comparatively low coastal-suitability score in Table 1. The sensitivity check is intended as a transparency test rather than a claim that the selected alternative weights represent empirically estimated preferences.

Commodity Assessment Rationale

For greater clarity, the logic of the scores assigned to each commodity can be summarized as follows. Marine capture fisheries received the highest scores because it shows the strongest direct connection to coastal livelihoods, broad market demand, high labor intensity, and multiple downstream opportunities. Coconut received high scores because of its strong fit with coastal land use and its flexible small-scale processing potential. Smallholder oil palm received relatively high scores in continuity and marketability but lower coastal suitability because its economic system is not as directly embedded in coastal livelihoods. Brackish-water aquaculture received moderate scores because,

although spatially relevant to coastal areas and promising for future development, its current performance remains constrained by technical, institutional, and production-risk factors.

RESULTS AND DISCUSSION

Coastal Economic Profile and Commodity Context of West Aceh

West Aceh has a regional economy that continues to depend strongly on primary-sector and local-resource-based activities. Regional economic statistics show that productive activities related to agriculture, plantations, fisheries, and supporting trade remain important in shaping the regency's economic structure (Badan Pusat Statistik Kabupaten Aceh Barat, 2025b). The regency profile and commodity-related statistics also confirm that marine and plantation activities remain visible in the production landscape of West Aceh (Badan Pusat Statistik Aceh, 2024; Badan Pusat Statistik Kabupaten Aceh Barat, 2024, 2025a). This pattern is also consistent with earlier findings that Aceh's post-split regional economies remain influenced by specialization in primary and resource-based sectors (Iskandar & Nurrahmi, 2018).

At the same time, the economic development challenge in West Aceh is not merely how to increase production, but how to convert resource potential into stronger local value creation. Studies on poverty, employment, and MSME performance in Aceh suggest that local development outcomes are strongly influenced by the extent to which economic activities create jobs, stimulate enterprise growth, and improve the productive capacity of local communities (Juliansyah et al., 2025; Sahwi et al., 2025; Muarif et al., 2025; Riyan et al., 2025). Therefore, identifying leading commodities is important not only for production planning but also for designing business and employment strategies.

CPI Ranking of Selected Commodities

Based on the Commodity Potential Index, the four commodities are ranked as presented in Table 1.

Table 1. CPI scores of selected commodities in the coastal area of West Aceh

Commodity	Production continuity	Market strength	Downstream opportunity	Labor absorption	Coastal suitability	CPI Score	Rank
Marine capture fisheries	5	5	5	5	5	5.00	1
Coconut	4	4	5	4	5	4.40	2
Smallholder oil palm	4	4	4	4	2	3.60	3
Brackish-water aquaculture	3	3	4	3	4	3.40	4

The results indicate that marine capture fisheries is the leading commodity in the coastal area of West Aceh. This finding is plausible because marine capture fisheries is the commodity most directly connected to coastal geography, marine resources, and local livelihoods. It also benefits from broad market demand and supports multiple linked activities, including fish landing, transportation, handling, trading, and small-scale processing (Badan Pusat Statistik Aceh, 2024; Badan Pusat Statistik, 2025). From a coastal economic perspective, this commodity demonstrates the strongest combination of territorial relevance and multiplier effects.

This finding is also important from an economic and business perspective because the strength of a leading coastal commodity should not be assessed solely in terms of production capacity. A commodity becomes development-relevant when it generates forward and backward linkages, retains value within the region, and stimulates supporting business activities. In this regard, marine capture fisheries stands out not only because it is territorially embedded in the coastal economy, but also because it offers a stronger basis for local value addition, logistics development, trade coordination,

and business upgrading than the other commodities under comparison (Davis, 2023; Hayami & Godo, 2005).

Coconut ranks second. This ranking reflects its strong suitability to coastal areas and its high potential for downstream diversification. Coconut can be developed into a wide range of products such as coconut oil, virgin coconut oil, grated coconut products, coconut sugar, shell-based handicrafts, and fiber-based products. This makes coconut especially relevant for household-based and small-scale business development. In development terms, coconut offers an advantage because its value-added activities can often be developed using simpler technology and local labor compared with more capital-intensive commodities.

The position of coconut as the second-ranked commodity also suggests that coastal development in West Aceh should not rely on a single commodity logic. Compared with more capital-intensive commodities, coconut offers a more accessible entry point for household industries, village enterprises, and micro-scale processing activities. This characteristic is economically important because inclusive regional development often depends not only on the leading commodity itself, but also on the presence of supporting commodities that can broaden participation, diversify income sources, and strengthen local entrepreneurship (Permatasari et al., 2021; Rahmawati et al., 2019).

Smallholder oil palm ranks third. Oil palm is economically important in West Aceh and contributes to local livelihoods, but within the specific framework of coastal commodity prioritization, its coastal suitability is lower than that of fisheries and coconut. Its economic logic is more closely tied to broader plantation systems than to the core livelihood system of coastal communities. Therefore, while oil palm remains relevant in the regency economy, it is less appropriate as the main anchor for a coastal development strategy.

Brackish-water aquaculture ranks fourth. This does not mean that aquaculture is unimportant. On the contrary, aquaculture has considerable future potential because it is spatially linked to coastal areas and can create business opportunities in production and post-harvest activities. However, compared with the other commodities, its present development is more constrained by technical requirements, input availability, production risk, and supporting institutions. This is consistent with aquaculture studies showing that continuity and productivity are highly dependent on technical and environmental conditions (Diatin et al., 2022).

Taken together, the ranking results indicate that commodity prioritization in coastal areas should account for present economic readiness rather than relying only on long-term potential. This point differentiates the current study from broader sectoral analyses. A sector or commodity may appear important in aggregate economic terms, yet still be less strategic as a coastal development anchor if its territorial fit, value-chain depth, or local employment effects are weaker than those of alternative commodities. In this sense, the present findings support earlier regional development studies while also extending them by showing that commodity-level prioritization requires a more applied and territorially sensitive framework (Ayu Monica et al., 2019; Hidayat & Darwin, 2017; Abadi et al., 2024).

Why Marine Capture Fisheries Becomes the Leading Commodity

Marine capture fisheries receives the highest score because it performs strongly across all five CPI criteria. First, in terms of production continuity, fisheries has a relatively established role in the coastal economy of West Aceh and is directly supported by the region's marine resource base. Second, in terms of market strength, fish and fishery products have broad demand and can be sold in local, regional, and wider markets. Third, in terms of downstream opportunity, fisheries offers many possibilities for value addition, including handling, cooling, grading, cleaning, drying, smoking, packaging, and local processing. Fourth, in terms of labor absorption, the fisheries commodity creates employment not only for fishers but also for crew members, traders, transport workers, processors, and retail actors. Fifth, in terms of coastal suitability, fisheries is the commodity most directly embedded in coastal space and livelihoods.

This result is also consistent with broader arguments in regional development theory. A leading commodity should not be understood only as a commodity with high output, but as a commodity capable of stimulating related economic activities and retaining value within the local economy (Davis, 2023; Hayami & Godo, 2005). Marine capture fisheries meets this condition more clearly than the other commodities. It creates demand for infrastructure, services, market coordination, and post-harvest businesses, making it the most strategic commodity for coastal development in West Aceh. This interpretation is also in line with studies emphasizing the importance of fisheries-based empowerment and maritime livelihood strengthening in coastal regions (Juanita & Setiani, 2022).

This interpretation can also be placed in dialogue with the broader literature on sectoral specialization and coastal development. Earlier studies generally confirm that resource-based sectors remain central in many Indonesian regional economies, including Aceh (Iskandar & Nurrahmi, 2018; Abadi et al., 2024). However, the present findings suggest that in a coastal development framework, marine capture fisheries has a stronger claim than other commodities not only because of its output significance, but because of its superior territorial relevance and value-chain extensibility. This means that the concept of a “leading commodity” in coastal regions should be interpreted more narrowly and more strategically than the concept of a merely “important regional commodity.”

From a business systems perspective, the advantage of marine capture fisheries lies in its ability to generate multiple linked market activities. The commodity supports production-related services, post-harvest handling, storage, transport, trading, and processing functions that can be occupied by different categories of local actors. Such a structure is important for regional economic development because it expands the scope for local enterprise formation and increases the chances that value is retained within the regency rather than transferred outward at the raw commodity stage.

Coconut as a Strategic Supporting Commodity

The second rank of coconut is also important. Coconut is strongly associated with coastal land use and is highly flexible in terms of downstream processing. Unlike some other commodities that require more complex industrial systems, coconut can support household industries and village-based enterprises more directly. This makes coconut particularly relevant for inclusive local development, especially where the objective is to increase labor participation and strengthen small-scale entrepreneurship.

From a business perspective, coconut has attractive diversification potential. A single commodity can generate multiple products and support different market segments. This characteristic is important because it increases resilience and makes the commodity less dependent on one narrow market outlet. The emphasis on diversification is also consistent with studies on local resource-based development and community-centered economic strengthening, which argue that local value creation becomes stronger when resources are processed closer to the community level (Permatasari et al., 2021; Rahmawati et al., 2019). Therefore, coconut should be positioned as a strategic supporting commodity in the coastal development agenda of West Aceh.

The findings regarding coconut also complement the literature on commodity prioritization by showing that a supporting commodity may be strategically important even when it does not rank first. In policy terms, coconut offers a different development pathway from marine capture fisheries. If fisheries is more central as the anchor of the coastal economy, coconut is highly relevant as a platform for local processing, women-led household enterprises, and low-barrier entry into value-added activities. This distinction is important because a balanced coastal development strategy should combine a leading anchor commodity with complementary commodities that widen community participation in local business development.

Smallholder Oil Palm and Brackish-Water Aquaculture in the Coastal Development Framework

Smallholder oil palm remains economically important, but its role should be interpreted carefully. Its ranking below coconut does not imply weak performance in general economic terms. Rather, it

shows that oil palm is less territorially specific to the coastal economy. It has strong continuity and marketability, but its downstream path often depends on broader plantation systems and more capital-intensive processing structures. As a result, within a coastal-focused prioritization model, oil palm is better seen as an important regional commodity rather than the main coastal commodity.

Brackish-water aquaculture presents a different case. Its strength lies in its spatial relevance to coastal areas and its future development potential. However, the current limitations remain visible. Technical production requirements, dependence on input quality, vulnerability to environmental conditions, and management risks all affect production continuity and market readiness. This explains why brackish-water aquaculture remains below the other commodities in the current ranking, even though it may become more important in the future if these constraints are addressed. The finding reinforces the idea that commodity prioritization should take present readiness into account, not only long-term promise.

This distinction between present readiness and future promise is analytically important. Some previous studies on leading sectors and commodities tend to emphasize comparative advantage or regional contribution as the main basis of prioritization (Ahdan et al., 2015; Hidayat & Darwin, 2017; Hikmahwidi, 2018). The present study does not contradict that logic, but refines it by arguing that in coastal planning, the most appropriate priority commodity is the one that combines current viability, territorial embeddedness, and the capacity to support business expansion at the local level. Under this perspective, oil palm remains relevant for the wider regency economy, while brackish-water aquaculture remains relevant as a gradual-development commodity rather than an immediate anchor.

Business Opportunities from the Leading Commodities

The ranking results suggest that the main policy implication is not merely to identify the strongest primary commodity, but also to recognize the business opportunities emerging along its value chain. In the case of marine capture fisheries, these opportunities include ice supply, fish handling services, cold storage, transportation, sorting, cleaning, filleting, preservation, packaging, branding, and local distribution. Such activities are important because they help retain value locally and reduce post-harvest losses. In addition, fisheries development can strengthen linkages with MSMEs, which are becoming increasingly important in West Aceh's local economy (Muarif et al., 2025; Riyan et al., 2025).

From a management and business perspective, these opportunities indicate that the development of marine capture fisheries should be viewed through a value-chain lens rather than a production-only lens. The strategic issue is not only how to increase fish landings, but how to organize supporting services, post-harvest systems, quality handling, market coordination, and local enterprise participation so that more value is captured within West Aceh. This interpretation is important because value-chain strengthening often determines whether a leading commodity actually generates broad-based local development or remains trapped in low-value raw commodity circulation.

For coconut, the main opportunities lie in household and small-scale processing. Coconut oil, virgin coconut oil, coconut sugar, copra derivatives, shell-based handicrafts, and fiber products can all support local business development. Because these opportunities can be developed incrementally, coconut is suitable for community-based enterprise strengthening and for increasing labor absorption in rural and coastal households. This is consistent with findings that local productive activities become more effective when combined with entrepreneurship and small-business support (Sahwi et al., 2025).

In this respect, coconut has a strategic role in strengthening the MSME base of the coastal economy. Existing studies in West Aceh show that small business performance is increasingly influenced by access to productive support systems, digital adaptation, and entrepreneurial capability (Muarif et al., 2025; Riyan et al., 2025). Therefore, coconut-based processing can be interpreted not only as a commodity opportunity, but also as a practical vehicle for expanding household enterprise activity, improving labor absorption, and deepening local business ecosystems.

For smallholder oil palm, the more realistic local opportunities are related to supporting services, productivity improvement, trade coordination, and linkages with the wider rural economy. Oil palm should remain in regional planning, but its role should not dominate coastal policy. For brackish-water aquaculture, the opportunities lie in input supply, technical support, pond management, and gradual upgrading of post-harvest practices. However, the strategy for aquaculture should be phased and should prioritize system strengthening before rapid expansion.

In a broader sense, the findings support the view that coastal economic development should be built around territorially relevant commodities and the business ecosystems that grow around them. Such an approach is more likely to produce inclusive benefits than development strategies that focus only on increasing raw production. It also aligns with the broader objective of reducing regional inequality and strengthening local economic capacity under decentralization (Santi & Iskandar, 2021).

This broader interpretation is also consistent with the literature emphasizing that local development becomes more effective when regional policy is connected to local strengths, labor absorption, and community enterprise formation (Permatasari et al., 2021; Rahmawati et al., 2019; Santi & Iskandar, 2021). In that sense, the business opportunities identified in this study should not be treated as isolated entrepreneurial ideas, but as part of an integrated local development strategy linking commodities, value chains, MSMEs, and territorial governance.

Policy Implications for West Aceh

Based on the findings, the Government of West Aceh should place marine capture fisheries at the center of its coastal development strategy. This means prioritizing interventions in post-harvest handling, cold-chain support, quality improvement, logistics, local processing, and market access. The regency should also strengthen coconut-based diversification as a complementary strategy for household and MSME development. Coconut offers a more accessible pathway for community-based value addition and local entrepreneurship.

At the same time, smallholder oil palm should continue to be supported as an important regional commodity, but its policy treatment should be differentiated from commodities that are more directly embedded in the coastal economy. Brackish-water aquaculture should be promoted gradually through better technical assistance, input quality improvement, and risk management systems. More broadly, the development approach in West Aceh should shift from a commodity-output orientation toward a commodity-plus-value-chain orientation, where success is measured not only by production volume but also by job creation, local processing, and value retention within the region.

Such a shift also implies the need for stronger development governance. Commodity prioritization will have greater policy value when it is followed by coordination among local government, producers, traders, processors, and MSME actors. In practice, this means that coastal development policy should not only identify priority commodities, but also support the institutional and business environment required for those commodities to generate wider economic effects. Without such governance support, the potential of leading commodities may remain concentrated at the primary production stage and fail to produce stronger local multiplier benefits.

Research Limitations

This study has several limitations. First, the analysis relies on secondary data and triangulated interpretation; therefore, although the scoring process was conducted systematically, some degree of contextual judgment remains unavoidable. Second, the use of equal weights across criteria was intended to maintain transparency and replicability under limited-data conditions, but it does not differentiate the empirical influence of each criterion. Third, the analysis does not incorporate primary data from fishers, traders, processors, farmers, aquaculture actors, or local policymakers that could further validate both the ranking and the assessment of business opportunities. Fourth, the study does not measure detailed value-chain margins, cost structures, or the financial feasibility of downstream

businesses. For these reasons, the CPI results should be understood as a practical prioritization tool for early-stage planning rather than as a final and exhaustive measure of commodity performance.

CONCLUSION

This study concludes that marine capture fisheries is the leading commodity in the coastal area of West Aceh, followed by coconut, smallholder oil palm, and brackish-water aquaculture. The findings show that the strongest coastal commodity is not simply the one with high production, but the one that combines production continuity, market strength, downstream opportunity, labor absorption, and strong relevance to the coastal economic system.

The findings also indicate that the development potential of West Aceh's coastal economy lies in strengthening local value chains. Marine capture fisheries should become the primary anchor of coastal development, while coconut should support community-based diversification and small-scale business growth. Smallholder oil palm remains important at the broader regional level, and brackish-water aquaculture should be developed gradually through improved technical and institutional support.

More specifically, the findings imply that coastal commodity policy in West Aceh should be oriented not only toward increasing primary output, but toward creating stronger local value added, improving value-chain coordination, expanding MSME participation, and strengthening business support systems around prioritized commodities. In this regard, marine capture fisheries is important as the main coastal anchor, while coconut plays a complementary role in broadening community-based enterprise opportunities and local economic inclusion.

This study contributes a practical analytical framework for prioritizing commodities in data-constrained coastal regions. For West Aceh, the main development implication is that coastal economic policy should move beyond a raw-commodity orientation and place greater emphasis on local value creation, employment generation, and business upgrading. Future research should strengthen this analysis through primary data collection, stakeholder validation, and more detailed measurement of value-chain performance.

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