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REDESIGNING AGRICULTURAL TRADE AND LOGISTICS: TRADE POLICY INTERVENTIONS TO PROTECT LOCAL PRICE RESILIENCE IN ACEH PROVINCE

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ABSTRACT

Aceh Province faces the paradox of economic resilience due to the vulnerability of local agricultural commodity prices. Superior commodities flow out of the region without creating added value, triggering price volatility at the producer level while driving a surge in food inflation due to high dependence on reverse supply. This study aims to formulate a policy architecture to suppress price anomalies triggered by the absence of trade system protection regulations and the strong grip of the oligopsody market by external intermediaries. Using a qualitative approach with a case study design, primary data was obtained through in-depth interviews with 50 key actors in the supply chain. The data was integrated with secondary data from the Central Statistics Agency (BPS) as well as regional planning documents. SWOT analysis through the TOWS Matrix was applied to diagnose bureaucratic capacity, while alternative policy tests were measured precisely using William Dunn's evaluation criteria. The results of the study prove that the root of the problem stems from the vacuum of asymmetric regulatory instruments and the fragility of downstream institutions, not only at the upstream production level. This study recommends the issuance of a Governor's Regulation (Pergub) on Trade System Protection that mandates price safeguarding instruments, coupled with the operational assignment of Regionally Owned Enterprises (BUMDs) as standby buyers (off-takers). These structural interventions have proven to be technocratically effective in breaking price cartels, protecting the bargaining power of local farmers' economies, and realizing regional market stability that is resilient to disaster disruptions.

Keywords: *Price Resilience, Agricultural Trading System, Asymmetric Policy, Off-Taker BUMD, Supply Chain.*

ABSTRACT

Provinsi Aceh menghadapi paradoks ketahanan ekonomi akibat rentannya ketahanan harga komoditas pertanian lokal. Komoditas unggulan mengalir keluar daerah tanpa penciptaan nilai tambah, memicu volatilitas harga di tingkat produsen sekaligus mendorong lonjakan inflasi pangan akibat tingginya ketergantungan pasokan balikan. Kajian ini bertujuan merumuskan arsitektur kebijakan untuk menekan anomali harga yang dipicu oleh absennya regulasi pelindungan tata niaga serta kuatnya cengkeraman pasar oligopsoni oleh perantara eksternal. Menggunakan pendekatan kualitatif dengan desain studi kasus, data primer diperoleh melalui wawancara mendalam terhadap 50 aktor kunci rantai pasok. Data tersebut diintegrasikan dengan data sekunder dari Badan Pusat Statistik (BPS) serta dokumen perencanaan daerah. Analisis SWOT melalui Matriks TOWS diaplikasikan untuk mendiagnosis kapasitas birokrasi, sedangkan uji alternatif kebijakan diukur secara presisi menggunakan kriteria evaluasi William Dunn. Hasil kajian membuktikan akar persoalan bersumber dari vakumnya instrumen regulasi asimetris dan rapuhnya kelembagaan hilir, bukan semata pada tingkat produksi hulu. Kajian ini merekomendasikan penerbitan Peraturan Gubernur (Pergub) tentang Pelindungan Tata Niaga yang mengamanatkan instrumen pengaman harga, dirangkai dengan penugasan operasional Badan Usaha Milik Daerah (BUMD) sebagai pembeli siaga (off-taker). Intervensi struktural tersebut terbukti secara teknokratis efektif memutus kartel harga, melindungi daya tawar ekonomi petani lokal, serta mewujudkan stabilitas pasar daerah yang tangguh terhadap disrupsi bencana.

Kata Kunci: *Ketahanan Harga, Tata Niaga Pertanian, Kebijakan Asimetris, BUMD Off-Taker, Rantai Pasok.*

INTRODUCTION

Background of the problem

Efficient trade and logistics are fundamental foundations for regional economic movements in the era of globalization. Supply chain integration plays a decisive role in measuring the territorial competitiveness of a region. High logistical burdens are often the main obstacles to economic growth, so comprehensive interregional trade policy reform is urgently needed. Aceh Province has abundant agrarian potential to emerge as a major food barn, but the current market architecture shows absolute dependence on commodity supplies from neighboring provinces. This structural dependence clearly creates serious economic resilience vulnerabilities due to the leakage of value-added commodities outside the region.

The inefficiency of regional logistics management has a direct impact on the surge in regional inflation in various districts and cities. Referring to the official release of the Aceh Provincial Consumer Price Index for 2025, the food commodity group is positioned as the main contributor to the inflation rate. The too steep price disparity between the producer and consumer levels is a strong indication of the failure of the market structure. At the upstream level, the welfare of local farmers continues to be under severe pressure due to a biased trading system, forcing the position of farmers only as passive price recipients without communal bargaining power. The absence of large-scale institutional instruments makes commodity flows very easy to control by intermediaries from outside the region.

This problem stems from three strategic issues that require technocratic solutions. The first issue is related to the vacuum of asymmetric trade regulatory interventions that function to protect local producers. The absence of non-tariff barriers makes local products unprotected from the onslaught of supply outside the region, especially during the harvest period. The second issue is the gap in post-harvest logistics infrastructure and the inefficiency of supply chains between regions. The limited communal storage facilities at the rural level trigger a high depreciation in the quality of post-harvest goods and swelling transportation costs. The third issue highlights the weak market buffer institutions and the cessation of the agricultural corporatization process. The oligophonistic character of the market is detrimental to farmers due to the absence of intervention of state-owned institutions as standby buyers.

The evaluation of the priority of the problem using the Urgency, Seriousness, and Growth analysis method confirms the level of urgency of the three structural weaknesses.

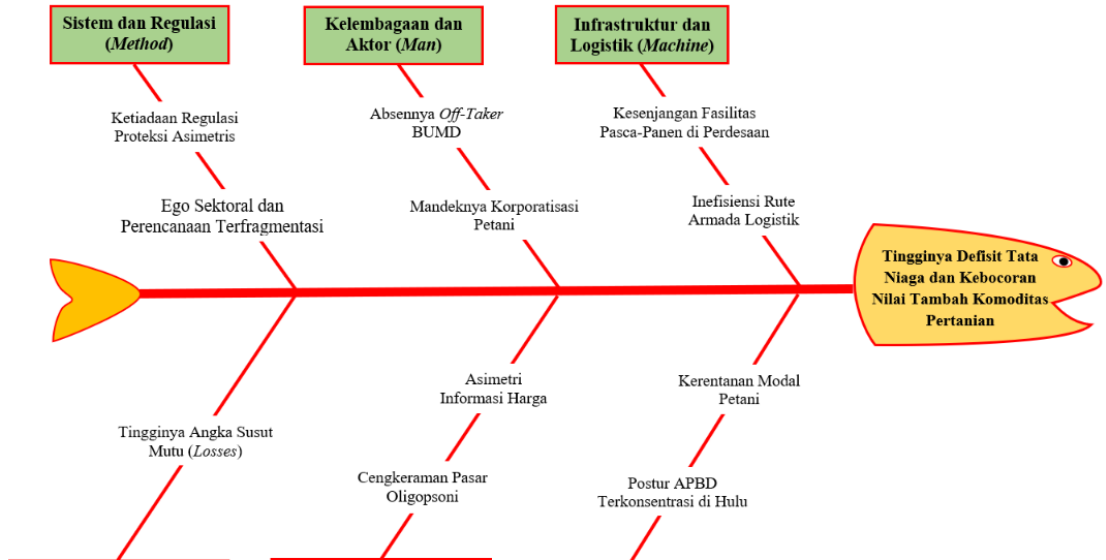
The assessment was conducted using *a Likert* scale of 1 to 5 (1 = very not urgent/urgent; 5 = very urgent/urgent). The *Urgency* parameter (U) assesses how urgent the problem should be discussed and executed; *Seriousness* (S) assesses how serious the fatal impact would be if the problem was left unchecked; and *Growth* (G) assessed how quickly the problem will worsen and spread into a multidimensional crisis if not intervened immediately.

Table 1. Ultrasound Analysis for Prioritization of Commercial and Logistics Issues

No.	Strategic Issues / Main Issues	U	S	G	Total Score	Peringkat
1	The Vacuum of Asymmetric Trade Regulation Interventions That Protect Local Producers	5	5	5	15	**I**
2	Weak Market Support Institutions (*Off-Taker*) and Stagnation of Agricultural Corporatization	4	5	5	14	**II**
3	Post-Harvest Logistics Infrastructure Gaps and Supply Chain Inefficiencies	4	4	4	12	**III**

Based on the ultrasound assessment matrix, it is illustrated that the prioritization of problems that demand a policy intervention scenario as soon as possible The vacuum of asymmetric trade regulatory interventions ranks as the top priority with the highest cumulative score of 15. The absence of a regulatory foundation causes upstream production to increase programs always end in inefficiency, considering that crops are absorbed at the lowest price by middlemen. The issue of weak market buffer institutions ranked second with a score of 14, driven by the importance of preventing panic selling practices among farmer groups. The gap in logistics physical infrastructure occupies the third priority with a score of 12, based on the argument that the provision of physical facilities requires a multi-year budgeting scheme that cannot be solved instantly.

Tracing the root of the problem through the Ishikawa diagram approach proves that the collapse of price resilience is triggered by six intertwined problem dimensions. In the dimension of the regulatory system, the absence of an asymmetric protection legal umbrella and high sectoral ego perpetuate the void of state security instruments. The institutional dimension shows the reluctance to utilize regional business entities and the lack of farmer business entities. The infrastructure dimension shows the absence of cold chain facilities and the inefficiency of logistics distribution fleet routes. The financing aspect clarifies the inequality of the budget posture that is too biased upstream and the vulnerability of farmers' access to capital. The dimension of the market environment demonstrates the strong dominance of oligopsies of external intermediaries who monopolize the flow of price information. The characteristic dimension of commodities that are prone to damage forces the mass sale of crops below the reference price.



The entire accumulation of the dimension of the problem crystallizes into a formulation of the main problem. The vacuum of asymmetric trade regulatory instruments and trade system protection policies by local governments has triggered the collapse of local commodity price resilience. The loss of the potential absorption of agrarian economic added value in this region is a direct impact of the strong dominance of the oligopsony-based market which is completely controlled by external business actors.

1.2. Methodology

The design of this study applies a qualitative approach with a case study framework to dissect the phenomenon of inter-regional trade balance deficit and the inefficiency of agricultural logistics design. The choice of qualitative methodology is applied to explore the motivations, obstacles, and behavioral patterns of supply chain actors in depth from upstream to downstream, beyond the macroeconomic aggregate analysis alone. Primary data was acquired through an in-depth interview method involving 50 key respondents. The withdrawal of respondents was carried out purposively to ensure proportional representation at each critical node of the supply chain, including producer farmers, village-level collector traders, border crossing fleet operators, and retail traders.

Primary data validation is strengthened through triangulation techniques by integrating secondary data sets from official state publication documents. Secondary data extraction is sourced from the Consumer Price Index, Farmer Exchange Rate, Village Potential Statistics, and Directory of Agricultural Companies released by the Central Statistics Agency of Aceh Province in 2025. The bureaucratic execution capacity is evaluated using a critical analysis of the 2025 Agriculture and Plantation Office Performance Report, the 2025-2029 Strategic Plan Draft matrix, and the draft of the 2026 Initial Work Plan. The solution formulation stage is carried out using the Strengths, Weaknesses, Opportunities, Threats (SWOT) analysis instrument to balance the capacity of the internal bureaucracy with the dynamics of external market structures

CHAPTER II. ANALYSIS AND DISCUSSION

Landasan Theoretis

Investigations into the vacuum of commodity trade protection instruments in border areas are based on the theoretical foundations of asymmetric trade policy theory and the principle of adaptive sub-national protectionism. Regional economic theory asserts that regions with weak downstream industrial capacity will experience the phenomenon of resource depletion by nearby regions if commodity exchanges are allowed to run uninterrupted. Free trade between regional regions results in the supply of raw materials being sucked out, shifting economic value-added creation to the external region. The concept of legal asymmetric trade facilitates the use of legal decentralized authority to formulate non-tariff barriers to protect local commodities without infringing on national open market jurisdiction.

This price protection framework is integrated with the theory of supply chain resilience. Regional logistics networks are required to not only achieve financial efficiency, but must demonstrate responsiveness to external destructive disruptions. Modern food logistics management places warehousing infrastructure as an anchor of macro stability. When commodity distribution is halted due to disasters, supply systems supported by

communal buffer reserve capacity have been empirically proven to be able to stop extreme price shocks at the level of consumer communities.

Review of Existing Regulations and Field Dynamics

The legal architectural foundation for regional agricultural bureaucratic governance is guided by the Aceh Qanun Number 13 of 2016 and described in the Aceh Governor Regulation Number 1 of 2024. The normative framework in the 2025-2029 Strategic Plan Draft document has mandated the implementation of strengthening the competitiveness of crop protection. The structural policy gap occurs because the operationalization of regulatory instruments only dwells on technical development of cultivation in the upstream realm. The regional bureaucracy has not been equipped with a mandate of executive authority to engineer and intervene in the business traffic system at regional boundaries. This imbalance in authority is transparently acknowledged in the 2025 Performance Report, which notes the high sectoral ego barriers between agencies as the cause of the stagnation of the commodity downstream agenda.

The vacuum of synchronization regulations is exacerbated by the high vulnerability of regional logistics to natural disaster disruption factors. The Aceh Province region has a single-artery distribution route pattern that is very prone to being isolated by landslides and flood overflows. The paralysis of distribution lines gives birth to a double economic disaster in the supply chain system. In the downstream nodes of urban areas, the disruption of transportation triggers a scarcity of supply that leads to an extreme spike in inflation. In rural upstream nodes, fresh crops cannot be evacuated out of production centers, forcing mass spoilage due to the lack of availability of post-harvest cooling chain technology facilities.

2.3. IFE, EFE, and SWOT Quadrant Matrix Analysis

As a bridge to the formulation of alternative policy formulations in the next chapter, we need to map all internal modalities of the agribusiness value chain and the dynamics of the external strategic environment that surrounds them. The mapping of these factors is logically arranged based on the compilation of primary data from in-depth interviews with 50 key supply chain respondents as well as supporting secondary data:

1. Internal *Value Chain Factors*

- **Strengths:**
  a. **Abundance and Diversification of Upstream Products:** Aceh has a very massive production base of food commodities, horticulture, and superior plantations (rice, Gayo coffee, cocoa, patchouli) that are very massive and nationally recognized for their quality.
  b. **Clear SKPA Institutional Mandate:** Based on Governor's Regulation No. 1 of 2024, the Aceh Distanbun has an established organizational structure up to the level of field extension workers, providing a strong modality to carry out institutional development of farmers.
  c. **Medium-Term Planning Commitments:** The 2025-2029 Distanbun Strategic Plan Draft Document has explicitly placed the agenda of value-added protection and downstream as a priority pillar of regional development.
- **Weaknesses:**
  a. **Upstream Planning Bias and Fiscal Inequality:** The budgeting posture in the 2026 Preliminary Draft of Renja is still very heavily concentrated on upstream

physical assistance expenditure (seeds/fertilizers), while the portion of the budget for escorting downstream commerce is still minimal.

b. **Fragility of Regional Post-Harvest Infrastructure:** Lack of availability and utilization of cold *storage facilities* and communal warehouse receipts at the village site level (evidence: Podes BPS, 2025).

c. **The stagnation of farmer economic institutions:** The majority of farming business actors are still moving individually (gurem) and have not been consolidated into farmer corporations or modern cooperatives with legal entities (evidence: DPP BPS, 2025).

2. External *Environmental Factors*

❖ **Peluang (*Opportunities*):**

a. **Special Autonomy Rights and Decentralized Regulation:** The existence of the Aceh Specificity Law (Aceh Government Law) provides a very wide range of legal discretion for the regions to give birth to protective asymmetric Qanun or Governor's Regulation.

b. **High Domestic and Regional Market Demand:** The consumer market share in Aceh and the North Sumatra region for fresh and processed agricultural derivatives continues to grow high, promising certainty of absorption if the trade system is improved.

c. **Availability of Buffer Institutional Instruments (BUMD):** The existence of BUMD entities owned by the Aceh Government that can legally be revitalized in their functions to be assigned as *off-takers* (standby buyers) of regional agricultural commodities.

❖ **Threats:**

a. **Grip of External Oligopsoni Market Structure:** The dominance of a network of middlemen and cross-provincial market mafias that have giant capital power to dictate selling prices at the Acehnese farmer level (evidence: fluctuations in BPS NTP, 2025).

b. **High Natural Disaster Risk Index:** The vulnerability of annual hydrometeorological disasters (floods, landslides) that at any time has the potential to break the veins of national roads and damage the stability of regional food logistics distribution.

c. **Backhaul *Inefficiency*:** The asymmetrical characteristics of cross-border trade trigger high details of logistics costs because truck fleets often return to Aceh without carrying equivalent cargo.

The measurement of the real capacity of local government bureaucracies in responding to the trade deficit was mapped using internal and external matrix evaluation instruments. The Internal Factor Evaluation Matrix showed an accumulated weighted score of 2.05, a value that was far below the average median limit. The acquisition of this score indicates the dominance of internal institutional weaknesses over the available strengths. The abundance and diversification of high-value upstream production is helpless in the face of the bias of budget planning that ignores trade facilitation. The stagnation of the farmer corporatization process along with the fragility of physical post-harvest infrastructure is a fatal weakness that causes the bureaucracy to stutter to secure downstream absorption prices.

The results of the External Factors Evaluation Matrix computed a total score of 2.60, indicating that government instruments have high potential to respond to opportunities to mitigate market threats. The highest opportunity lies in the existence of the decentralized authority of special autonomy laws that allow the formulation of regional head regulations related to asymmetric trade. The presence of institutional entities of regionally-owned enterprises has the potential to be transformed as standby buyers to serve the high turnover of domestic product demand. Optimizing this opportunity is an absolute requirement to neutralize structural threats in the form of external middlemen's grip, hydrometeorological disaster disruptions, and the phenomenon of losses due to empty return transportation fleets.

Gambar 2. Visualisasi Matriks Kuadran SWOT Tata Niaga Pertanian Aceh



Diagnostic visualization based on the intersection of internal and external factors values places the bureaucratic strategic position in absolute Quadrant II. This coordinate point delegates the mandate to implement a turnaround strategy or turn the direction of development policy. This quadrant position emphasizes that expansionary steps to continue to print land upstream are irrational to maintain, considering that the downstream architectural posture has proven to be fragile. The policy paradigm is required to make extreme use of special autonomy legal authority to cover the weak institutional negotiation capacity of peasant groups.

2.4. Synthesis of Policy Strategies through the TOWS Matrix

The formulation of tactical options as a follow-up to the position of the turn-of-the-arc quadrant is formulated into the TOWS Matrix. The formulation of the main priority strategy is centered on the intersection of internal weaknesses and external opportunities. This policy requires the issuance of a regulatory instrument that mandates regionally-owned enterprises to play a full role as a market buffer. This regulation is an instrument to force the reallocation of regional spending posture to support the formation of village entity corporations, while ensuring the absorption of commodities in accordance with

reasonable price limit reference standards. The high allure of regional demand is also directed to attract hybrid investment funding schemes in the construction of cooling facilities at production centers.

The intersection between strength and opportunity gives birth to a strategy to strengthen structural resilience. The agricultural extension network is mobilized massively to socialize the right to price protection regulation to all farmer groups at the site level. Th ess the he hig

Tabel 2. Matriks Formulasi Strategi TOWS Tata Niaga Pertanian

	Kekuatan Internal (Strengths - S)	**Kelemahan Internal (Weaknesses - W)**
	S1: Kelimpahan produksi komoditas bernilai tinggi. **S2: Mandat SKPA & jaringan penyuluh (Pergub 1/2024).** **S3: Komitmen hilirisasi di dokumen Renstra (2025-2029).**	**W1: Bias anggaran ke hulu & minim alokasi niaga (Renja 2026).** **W2: Mandeknya korporatisasi kelembagaan petani (DPP BPS).** **W3: Minimnya infrastru-ktur pasca-panen perde-saan (Podes BPS).**
Peluang Eksternal (*Opportunities* - O) O1: Wewenang otonomi khusus untuk regulasi perdagangan asimetris. O2: Keberadaan BUMD sebagai entitas penyangga pasar (*off-taker*). O3: Tingginya permintaan domestik akan produk segar & olahan.	**STRATEGI S-O (Agresif / *Maxi-Maxi*)** **1.** Menggunakan jaringan penyuluh (S2) untuk mensosia-lisasikan regulasi proteksi otonomi khusus (O1) agar petani sadar akan hak perlindungan harga mereka. **2.** Memaksimalkan visi hilirisasi (S3) untuk mengolah kelimpahan komoditas mentah (S1) guna diserap langsung oleh tingginya permintaan domestik (O3).	**STRATEGI W-O (*Turnaround* / *Mini-Maxi*)** **1. (Prioritas Utama)** Menerbitkan regulasi (O1) yang menugaskan BUMD (O2) sebagai *off-taker*, seka-ligus memaksa realokasi APBD (W1) untuk mendu-kung korporatisasi petani (W2). **2.** Memanfaatkan daya tarik pasar (O3) untuk mengun-dang investasi KPBU dalam membangun *cold storage* di desa guna menutupi lemahnya kapasitas fisik (W3).
Ancaman Eksternal (*Threats* - T) T1: Dominasi pasar oligopsoni tengkulak luar daerah (NTP fluktuatif). T2: Kerentanan lumpuhnya jalur logistik akibat bencana alam. T3: Inefisiensi ongkos angkut akibat balikan armada kosong (*backhaul*).	**STRATEGI S-T (Diversifikasi / *Maxi-Mini*)** **1.** Menggunakan mandat Renstra (S3) untuk membangun stok penyangga logistik di titik rawan bencana demi meminimalkan *shock* saat akses jalan putus (T2). **2.** Mengkonsolidasikan produk unggulan (S1) langsung ke pasar hilir lewat pendampingan instansi (S2) untuk menekan inefisiensi *backhaul* (T3) dan tengkulak (T1).	**STRATEGI W-T (Defensif / *Mini-Mini*)** **1.** Mendorong konsolidasi darurat kelompok tani (W2) di bawah pengawasan Distanbun untuk mencegah praktik jual tebasan (ijon) kepada tengkulak (T1) saat panen raya. **2.** Merancang skema mitigasi penyelamatan komoditas rentan busuk (W3) saat terjadi disrupsi bencana (T2) melalui pola tunda jual dengan subsidi biaya simpan sementara.

Strategies to mitigate external threats are executed through the utilization of institutional strength. Price vulnerabilities due to oligopsony's grip and catastrophic disruption are mitigated by building buffer stock management architectures at multiple points of the disaster red corridor. The establishment of logistics buffer reserves has proven effective in minimizing fluctuations in the scarcity index at the urban market level whenever national highways are cut off.

The emergency containment strategy is formulated from the intersection of weaknesses and threats. This short-term defensive policy requires the bureaucracy to carry out the consolidation of farmer groups on an emergency scale to stem the practice of selling the permit system to large capital intermediaries during the harvest season. The mechanism of the deferral of sales scheme is enforced by utilizing the rental of temporary warehouses supported by storage financing subsidies, until the economic equilibrium point of commodity market prices returns to normal and rational

CHAPTER III. ALTERNATIVE POLICY SELECTION

3.1. Criteria for Evaluation of Public Policy Based on Spatial Justice

Evaluation of alternative policy formulations requires the use of precise measurement instruments to avoid sectoral subjectivity bias. The structural assessment framework is applied by referring to six public policy evaluation criteria according to the theoretical formulation of Dunn (2023), which are adapted in line with the reality of regional bureaucratic resource capacity and the principle of spatial planning justice. The first criterion is effectiveness, which measures the absolute capacity of each alternative in achieving the final goal of protecting local price resilience and breaking the chain of oligopsonyic market dominance. The efficiency criterion measures the comparative rationality between the resources sacrificed, including the allocation of the Regional Revenue and Expenditure Budget (APBD), the allocation of execution time, and the deployment of apparatus personnel, with the final achievement results.

The measurement is followed by adequacy criteria that dissect the extent to which a policy option is able to solve the root of the trade system problem without giving birth to the residue of derivative legal problems. The equity parameter is used to ensure that the distribution of benefits and policy burdens is distributed fairly, with an orientation of absolute alignment to save the economy of vulnerable farmer groups. The responsiveness criterion tests the agility of policy in responding to the empirical concerns of grassroots communities instantly. The evaluation instrument ends with the criterion of accuracy, which measures the feasibility of the execution of a policy option when faced with the reality of the availability of legal capacity and political carrying capacity of the current Aceh Provincial Government.

3.2. Description and Comparative Analysis of Policy Alternatives

The intersection of the evaluation matrix puts the regional strategic posture in a turnaround position, which gives birth to three alternative formulations of the main policy. Alternative Policy 1 centers on the issuance of asymmetric trade regulations coupled with the operational assignment of Regionally Owned Enterprises (BUMDs) as standby buyers. This alternative encourages the use of special autonomy decentralized authority to issue Governor's Regulations. This legal product acts as an instrument to regulate the legal non-tariff barrier regime while providing a legal mandate for BUMD capital injections to absorb farmers' crops at reasonable regional reference prices.

Alternative Policy 2 focuses interventions on the construction of communal cold chain infrastructure centers based on private partnerships. This approach is aimed at patching the physical weaknesses of logistics through the initiation of the construction of high-tech post-harvest facilities in each regional production center. The limited fiscal space of the APBD is circumvented by offering these capital-intensive projects through the Government-Business Entity Cooperation (PPP) scheme to attract national private investment flows.

Alternative Policy 3 offers the implementation of an emergency postponement of sale scheme combined with institutional consolidation of farmers in the short term. This defensive option is oriented towards preventing a drop in commodity value due to the phenomenon of panic selling or ijon practices at the village level. The execution mechanism relies on instructions for the deployment of field extension workers to consolidate farmer groups, followed by the rental of private warehousing facilities by the

government to temporarily accommodate commodity products. The government distributes storage cost subsidies to farmers until the point where market prices gradually return to normal.

Comparatively, the three alternatives have the same objectives in an effort to protect the added value of commodities and reduce the trade deficit that is detrimental to the region. The substantial differences are rooted in the instruments of their approach. Alternative 1 relies on legal engineering and institutional interventions that unravel the root of the problem from the upstream phase of the system. Alternative 2 focuses on the provision of physical asset infrastructure, which has the potential to be a long-term solution but has a high probability of implementation bottlenecks due to the complexity of the PPP auction process and land acquisition. Alternative 3 is reactive mitigation as a temporary pain reliever that only delays the problem without being able to permanently disrupt the hegemony of external middlemen's control.

3.3. Assessment Methods and Selection of Best Policy Alternatives

Mathematical assessment through the multicriteria analysis method proves that there is a very sharp disparity in achievement scores among the three policy options. Alternative 1 dominates the calculation with the highest absolute score accumulation of 28, surpassing Alternative 3 which obtained a score of 19 and Alternative 2 with a score of 18. The dominance of Alternative 1 is driven by the acquisition of perfect scores on the criteria of effectiveness, adequacy, equity, and accuracy. In bureaucratic rationality, the use of special autonomy authority to draft local regulations is much more realistic and effective than imposing physical projects. The optimization of existing BUMDs is also considered very efficient in terms of resource absorption because it avoids the process of designing new infrastructure that drains the time and energy of the apparatus. This option simultaneously locks in the leakage of the distribution balance and injects price justice directly into the farming community.

The failure of Alternative 2 was due to the acquisition of the lowest score on the efficiency and accuracy criteria. The design of the PPP project structure requires a long-term regional budgeting commitment, convoluted feasibility studies, and a lengthy duration of construction completion. This approach has proven to be inaccurate to stem the bleeding of economic value that demands immediate corrective action. Alternative 3 was also eliminated because it was destroyed in the parameters of effectiveness and adequacy. The massive implementation of subsidized private warehouse rental schemes risks draining the fiscal space of the regional budget without providing guarantees for the elimination of middleman cartel practices in the field.

The intersection of comparative arguments validated by technocratic evaluation instruments establishes Alternative 1 as the preferred policy. The issuance of asymmetric trade regulations coupled with the assignment of BUMDs is academically recognized as the most implementable design, saves institutional resources, and has the capacity to dismantle the root of trade system inefficiencies without triggering potential policy failures in the future.

CHAPTER IV. POLICY RECOMMENDATIONS AND CONCLUSIONS

4.1. Policy Recommendations (Call for Action)

Responding to the void of trade protection instruments that trigger the evaporation of the added value of agricultural commodities, the formulation of this study proposes a mandate for a single policy recommendation on a structural scale. **The Aceh Provincial Government is recommended to immediately issue a Governor's Regulation on the Trading System Protection System for Regional Superior Agricultural Commodities**. This derivative regulation is executed through the application of an integrated logistics command instrument and the granting of a sovereignty mandate to Regional-Owned Enterprises to act directly as standby buyers (off-takers) in the production center area.

The implementation of this recommendation shifts the paradigm of bureaucratic services, which was originally isolated from the provision of technical assistance for upstream cultivation facilities, to a market conductor that proactively balances commodity price stability in the downstream phase. The Governor exercises the discretionary right of decentralization of special autonomy to intervene in the interinsular market regime. The Governor's Regulation Instrument establishes the determination of the Upper Purchase Price and the Lower Purchase Price calibrated with fluctuations in the Farmer Exchange Index, in order to suppress the surge in regional food inflation. BUMDs are required to purchase harvested products directly from the gurem farming community when the market price falls past the lower threshold, which automatically breaks the chain of control of the external middleman. BUMD operational contingency funding is mandated to be immediately accommodated in the preparation of the draft structure of the regional budget Work Plan. The function of field extension workers is repositioned to consolidate traditional groups into legal entity farmer corporations.

4.2. 5-Year Roadmap for the Implementation of Policy Recommendations

The achievement of the target of reducing the trade deficit and increasing price stability is guided through a multi-level implementation roadmap designed for the period 2026 to 2030. In **Phase I in 2026**, the agenda is focused on legal legalization and fiscal focus shifting. The Governor together with the Agriculture and Plantation Service, the Legal Bureau, and the Aceh Government Budget Team are tasked with formulating and ratifying the text of the Governor's Regulation. This phase targets a change in the nomenclature in the draft budget of the 2026 Work Plan to ensure the availability of buffer contingency fund allocation for BUMD operations.

Phase II in 2027 focuses on the revitalization of BUMD and the corporatization of farmer institutions. Success indicators at this stage are measured from the issuance of the Decree on the assignment of BUMDs followed by the disbursement of working capital injections. The Agriculture and Plantation Service, the Bureau of Economy, and the Cooperative Service mobilized a network of extension workers to change the status of 30 percent of traditional farmer groups into modern cooperative entities with legal entities, in order to give birth to the embryo of an agribusiness corporation that is integrated with the absorption of BUMD.

Phase III in 2028 will shift to the operationalization of border surveillance instruments. The Department of Industry and Trade, the Department of Transportation, together with regional security units activated monitoring posts to monitor the smooth operation of logistics at four land border entry points. The digital-based regional reference price system is implemented comprehensively so that the exchange rate of food products

is recorded as transparent and able to withstand the rate of decline in the Farmer Exchange Index so that it is stable above the index limit of 105.

Phase IV in 2029 executes the disaster response cooling chain integration agenda. PPP partnerships are realized to build a network of communal refrigeration storage warehouses along the corridor of areas that have high hydrometeorological disaster vulnerability. BUMDs are instructed to open direct distribution routes to the district and city main market networks. The achievement of this phase is measured by a decrease in the volume of physical depreciation of commodities to below 10 percent and the control of food inflation in the midst of extreme weather conditions.

Phase V in 2030 is the peak of achieving regional balance sheet independence and balance. The scope of consolidation of farmer corporations was expanded to dominate 80 percent of agricultural production center areas. Local governments together with academic institutions carried out a comprehensive evaluation of policy impacts. The final success was marked by the collapse of the structural dominance of the oligopsonyi market, which proves that the resilience of local food security has functioned independently and is immune to anomalies of free market fluctuations.

4.3. Conclusion

The redesign of the commodity trading system architecture and agricultural logistics structure in Aceh Province is a structural initiative to reclaim the economic sovereignty of local producers. The formulation of a Governor's Regulation legalizing asymmetric non-tariff barrier interventions and the assignment of BUMDs as standby buyers acted as the main catalyst to stop the oligopsonyic market extractive practices. This policy intervention absolutely protects the circulation of superior commodities from flowing out of regional borders in the form of raw materials without added value, while saving farmers from the price system dictated by external speculators.

The preparation of this policy analysis framework is accompanied by awareness of limitations in the technical operational dimension. The study focuses on the formulation of draft macro regulations and institutional overhaul schemes at the provincial level. Further elaboration is urgent to be carried out on the aspect of financial feasibility modeling to accurately measure the volume of initial capital injection needs of BUMDs, as well as agronomic technical engineering to synchronize the commodity planting schedule cycle with the optimal limit of the capacity of post-harvest logistics infrastructure.

The execution of these technocratic recommendations requires the presence of solid political will and consistency in cross-sectoral implementation. Regional leaders and policymakers are required to immediately formulate legal drafts of regulations without delay. The metamorphosis of government bureaucracy from an upstream utility service entity to a gatekeeper of downstream commercial stability is a fundamental step that ensures that Aceh Province is able to reduce the number of economic leaks and revive the power of communal agribusiness.

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