

Tariff Gains, Regulatory Costs: A Review of the Indonesia–United States Agreement on Reciprocal Trade and Its Implications for the Palm Oil Sector

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ABSTRACT

The Agreement on Reciprocal Trade (ART) between Indonesia and the United States, signed in February 2026, grants zero-tariff treatment to 1,819 Indonesian tariff lines, including palm oil and its derivatives. While this development has generated optimism regarding expanded market access, a critical question remains: Does the ART genuinely deliver net benefits for Indonesia, particularly for its palm oil sector? This study employs a qualitative literature review to examine the interplay between tariff concessions and non-tariff measures (NTMs) embedded within and alongside the ART framework. Drawing on peer-reviewed articles, policy documents, and official government sources published since 2020, this paper identifies four thematic findings. First, tariff reductions create selective but narrow export opportunities concentrated among well-capitalized agribusinesses. Second, environmental, labor, and traceability standards function as implicit market-access costs that may offset tariff gains. Third, structural vulnerabilities – particularly low smallholder productivity and limited ISPO certification coverage – amplify the distributional asymmetry of ART's benefits. Fourth, the agreement risks narrowing Indonesia's domestic policy space by embedding external regulatory standards into bilateral trade commitments. The paper concludes that ART can yield positive outcomes for Indonesia's palm oil sector only if accompanied by robust domestic reforms, including publicly financed traceability systems, accelerated smallholder replanting, mutual recognition of ISPO certification, and coherent alignment of trade, industrial, and environmental policies. Without such interventions, the apparent "tariff victory" may mask deeper structural dependencies

INTRODUCTION

1. Background

On February 19, 2026, Indonesia and the United States signed the Agreement on Reciprocal Trade (ART), a bilateral agreement to recalibrate their trade relationship. Under the ART, the United States agreed to reduce the reciprocal tariff on Indonesian goods from 32% to 19%, while granting zero-tariff treatment to 1,819 tariff lines encompassing natural commodities such as palm oil, coffee, cocoa, rubber, and spices. In return, Indonesia committed to eliminating tariffs on over 99% of United States exports, removing selected non-tariff barriers including local content requirements, and accepting US safety, emissions, and FDA standards. The agreement also encompasses commercial transactions valued at approximately USD 33 billion across energy, aerospace, agriculture, and critical minerals (BPMI of Presidential Secretariat, 2026a).

The ART emerges against a backdrop of intensifying trade dynamics between the two countries. In 2025, the United States' goods trade with Indonesia totaled approximately USD 45.8 billion, with US imports from Indonesia at USD 34.7 billion and a goods trade deficit of USD 23.7 billion. The United States ranks as Indonesia's second-largest trading partner, underscoring the strategic importance of this bilateral relationship. Palm oil and its derivatives constitute a significant component of Indonesia's export basket to the United States, and their inclusion in the zero-tariff framework has generated considerable optimism among Indonesian policymakers and industry stakeholders (BPMI of Presidential Secretariat, 2026b; IIFA, 2026; Reuters, 2026).

Palm oil occupies a central position in Indonesia's economic architecture. As the world's largest producer, Indonesia supplied approximately 46.5 million metric tons of palm oil in 2023, representing 59% of global production. The plantation subsector contributes approximately 4.17% to Indonesia's gross domestic product, while the broader palm oil ecosystem—including upstream cultivation, downstream processing, transportation, logistics, and services—supports more than 17 million jobs. The sector benefits approximately four million smallholder households and has been credited with lifting 2.6 million Indonesians out of poverty. Between January and November 2025, Indonesia's palm oil exports (crude palm oil and derivatives) totaled USD 21.63 billion, representing a 19.15% year-on-year increase. These figures affirm palm oil's role not merely as a commodity but as a pillar of national development, rural employment, and energy security (Judijanto, 2026; Kato et al., 2025; US Embassy Jakarta, 2026).

However, the contemporary architecture of global trade has evolved significantly beyond tariff-based protection. Non-tariff measures—particularly environmental regulations, labor standards, and supply-chain traceability requirements—have increasingly served as primary instruments governing market access. The European Union's experience with the Renewable Energy Directive (RED II) and the EU Deforestation Regulation (EUDR) illustrates how environmental standards can function as *de facto* trade barriers, creating compliance costs that effectively offset tariff reductions. In this context, evaluating the ART solely through the lens of tariff concessions risks

oversimplifying its implications for Indonesia's palm oil sector (Awaliyah et al., 2024; Damanhuri, 2023; Dhingra et al., 2023; Rosyita et al., 2025; Yunus, 2024).

2. Problem Statement and Urgency

The paradox at the heart of the ART is that palm oil enjoys favorable tariff treatment while simultaneously facing heightened exposure to non-tariff pressures. The ART commits Indonesia to adopting and implementing environmental protections, effectively enforcing environmental laws, improving forest sector governance, and combating the trade in illegally harvested forest products. Additionally, Indonesia is required to implement a forced labor import ban, protect internationally recognized labor rights, including freedom of association and collective bargaining, and strengthen enforcement of labor laws. These commitments, while normatively commendable, entail substantial compliance costs that are unevenly distributed across the palm oil value chain (Kato et al., 2025; Perdana, 2020; Young, 2026).

The distributional concern is particularly acute given the structure of Indonesia's palm oil production. More than 40% of the country's oil palm plantations are managed by smallholders, many of whom operate with productivity levels below 3.5 tons of crude palm oil per hectare, compared to 5–6 tons for corporate estates. The Indonesian Sustainable Palm Oil (ISPO) certification system, mandated for all plantations since 2020, has achieved coverage of only 35.67% of the total plantation area as of April 2024, with smallholder certification covering only 4.03% of the smallholder plantation area. From the total 6.2 million hectares of smallholder oil palm plantations, only 81 ISPO certificates covering approximately 59,718 hectares had been issued as of 2023. This certification gap reflects fundamental challenges of financing, technical capacity, and institutional support that will only intensify under ART-driven compliance expectations (Judijanto, 2025h, 2025f; Mahatma, 2025).

Various simulations indicated that ART's benefits for Indonesia are generally limited and commodity-specific, with tariff reductions primarily encouraging shifts in export destinations rather than increases in real output or domestic value addition. The policy urgency is further underscored by the fact that the ART requires ratification in both countries before becoming legally binding, creating a window for informed policy reflection.

3. Research Questions and Objectives

This study addresses one overarching question: Does the Indonesia–United States Agreement on Reciprocal Trade deliver genuine net benefits for Indonesia, particularly for the palm oil sector, when tariff and non-tariff dimensions are jointly evaluated?

The specific objectives are: (a) to map the evidence on tariff concessions for Indonesian palm oil under the ART; (b) to explore how non-tariff measures—environmental, labor, and traceability standards—shape the conditions under which Indonesia can utilize ART's tariff benefits; and (c) to assess the distributional, governance, and long-term competitiveness implications for Indonesia's palm oil sector, with attention to smallholder inclusion and domestic policy space.

4. Scope and Structure

This paper is organized into six sections. Following this introduction, Section 2 reviews the conceptual and theoretical literature on Indonesia–US trade, tariff instruments, and non-tariff barriers relevant to palm oil. Section 3 describes the methodology for the qualitative literature review. Section 4 presents thematic findings. Section 5 offers a synthesized discussion and analysis oriented toward answering the research questions. Section 6 concludes with substantive findings and policy recommendations.

LITERATURE REVIEW

1. Indonesia–United States Bilateral Trade and Palm Oil

Indonesia's trade relationship with the United States has grown steadily in both volume and strategic significance. According to USTR data, US goods trade with Indonesia totaled approximately USD 45.8 billion in 2025, with US imports from Indonesia reaching USD 34.7 billion—a 23.8% increase from 2024. The US goods trade deficit with Indonesia stood at USD 23.7 billion in 2025, a 32.5% increase over the previous year. Indonesia's exports to the US encompass a diverse range of products, including electronics, textiles, footwear, rubber, and agricultural commodities, with the United States serving as Indonesia's second-largest export destination (US Embassy Jakarta, 2026; Yang et al., 2023).

Within this trade landscape, palm oil occupies a strategically important position. Indonesia is the world's largest palm oil producer and exporter, with the USDA projecting exports of 23.6 million metric tons for the 2024/2025 marketing year. The total value of Indonesian palm oil exports reached approximately USD 22.9 billion in 2024. While India and China remain the primary export destinations for Indonesian palm oil, the United States is a growing market with significant expansion potential. The inclusion of palm oil in ART's zero-tariff provisions is therefore viewed as an opportunity to accelerate penetration of the US market (IPOSS, 2026; Jakarta Globe, 2026; Judijanto, 2026; The White House, 2025).

The competitiveness of Indonesian palm oil has been extensively documented in the literature. It has been demonstrated that Indonesia maintains a strong Revealed Comparative Advantage (RCA) in palm oil exports, with key predictors including destination countries' GDP per capita, free trade agreements, and exchange rate dynamics (Pratiwi, 2021). More recent analyses confirm that Indonesian crude palm oil retains competitive advantages in major markets, including India and China, driven by cost efficiency, economies of scale, and geographic proximity to key consumer markets (Judijanto, 2025c).

2. The Role of Tariffs in Contemporary Trade Relations

Tariffs remain the most transparent and measurable form of trade protection, but their relative importance in governing actual market access has diminished considerably. A writing in *Economica* provides rigorous evidence that non-tariff barriers generate substantially larger welfare effects than tariffs in modern trade, with deep trade agreements contributing to welfare gains primarily through non-tariff commitments rather than tariff reductions alone (Dhingra et al., 2023). A 2025 UNCTAD working paper on non-tariff measures at the border, using GTAP methodology, confirms that regulatory standards,

technical barriers, and sanitary/phytosanitary measures increasingly determine the effective cost of market access for agricultural commodities from developing countries (Nicita & Koloskova, 2025; Wuri et al., 2025; Young, 2026).

In the context of Indonesian palm oil, CGE simulations provide instructive evidence on the limits of tariff-centric analysis. Using a GRIPS Policy Analysis framework to compare two ART scenarios (32% tariff versus 19% negotiated tariff), found that the ART negotiation scenario boosts Indonesia's real GDP by 0.46% relative to the higher-tariff scenario (I. A. Putri, 2025). However, the same simulation shows that Indonesia's trade balance deteriorates by USD 1.6 billion under the negotiated scenario, and Indonesian agricultural and food exports to the US still decline by 22.29% even after negotiation. These findings suggest that tariff concessions alone do not guarantee sectoral gains and may, in some configurations, exacerbate trade imbalances. An earlier CGE analysis of Indonesia's free trade agreements found that benefits can be significant but are substantially discounted when restrictive rules of origin are applied (I. A. Putri, 2025; Yutiningsari, 2020).

Regarding palm oil specifically, it has been demonstrated that trade policy support for palm oil downstreaming is essential to capture greater value addition, as tariff preferences do not automatically translate into upgrading domestic processing. The analysis published in JEJAK: Journal of Economics and Policy indicates that Indonesian palm oil exports remain heavily concentrated in crude and semi-processed forms, with the bulk of value addition occurring in destination countries. Similarly, a study published in Cogent Economics & Finance finds that while the determinants of Indonesian palm oil downstream exports include tariff regimes and exchange rates, the efficiency of downstream export performance varies significantly across destination markets (Husin, Wijaya, Ghafur, et al., 2023b; Husin, Wijaya, Hanief, et al., 2023).

3. Non-Tariff Measures and Regulatory Standards in Palm Oil Trade

The evolution of non-tariff measures affecting palm oil trade has been one of the most significant developments in global agricultural trade governance over the past decade. In a study published in *Agricultural Economics – Czech*, a palm oil trade restrictiveness index (TRI) was used to demonstrate that rising NTBs are becoming the primary determinant of market access for palm oil, with differential impacts on Indonesia and Malaysia depending on the specific composition of regulatory measures applied (Hamidi et al., 2024).

The European Union's approach to palm oil regulation provides the most extensively studied precedent for understanding how environmental standards function in trade. It has been critically examined whether the EU Deforestation Regulation (EUDR) constitutes genuine environmental protection or functions as a non-tariff barrier, with the conclusion that its practical effects disproportionately burden developing-country producers while offering limited environmental additionality (Maharani, 2025). It has been found that EU non-tariff trade barriers on crude palm oil imports from Indonesia have significant trade-restricting effects, with compliance costs falling most heavily on smaller producers. It has been projected that the EUDR will reduce Indonesia's palm oil export commodities to the EU unless accompanied by substantial investments in

traceability and certification infrastructure (Awaliyah et al., 2024; Bangun & Ridho, 2025; Damanhuri, 2023; Maharani, 2025; Wening & Setiyono, 2026; Yunus, 2024).

These precedents are directly relevant to the ART. The agreement's environmental provisions commit Indonesia to adopting and maintaining environmental protections, effectively enforcing environmental laws, and improving forest-sector governance, including combating the trade in illegally harvested forest products. The labor provisions require implementing a forced-labor import ban and protecting internationally recognized labor rights. While the ART does not explicitly replicate the EUDR's deforestation-free supply chain requirements, the regulatory direction is converging: external standards are increasingly defining the conditions of market access. The OECD's 2020 report on greening regional trade agreements through technical trade barriers confirms that environmental provisions in trade agreements can generate compliance costs that function as de facto trade barriers, particularly for small and medium enterprises (Awaliyah et al., 2024; Damanhuri, 2023; Montfaucon et al., 2024; Romanchyshyna, 2023; Rosyita et al., 2025).

An important dimension of this regulatory landscape is the domestic governance framework. The ISPO certification system, intended to demonstrate the sustainability credentials of Indonesian palm oil, faces significant implementation challenges. As of mid-2024, only 35.67% of Indonesia's total oil palm plantation area had secured ISPO certification. Among smallholders, the situation is particularly concerning: only 4.03% of smallholder plantation area has been certified, with just 81 certificates issued covering approximately 59,718 hectares out of a total smallholder area of 6.2 million hectares. GAPKI Chairman Eddy Martono identified six primary obstacles to ISPO certification: certification costs, overlapping plantation and forest areas, inadequate government funding for land valuation, slow and expensive environmental licensing, delayed revision of the ISPO presidential regulation, and dysfunctional governance of the ISPO secretariat. Research on barriers to ISPO implementation among independent smallholders confirms that limited perceived benefits, insufficient technical and financial capacity, and lack of market recognition significantly constrain certification uptake (EFI, 2025; Hidayat & Fajri, 2026; Judijanto, 2025k, 2025e; Reich et al., 2025).

METHODOLOGY

1. Research Design: Qualitative Literature Review

This study adopts a qualitative literature review (QLR) approach rather than a systematic literature review. The distinction is methodologically significant. A systematic review follows a predetermined protocol with explicit inclusion/exclusion criteria, formal quality assessment tools, and often quantitative synthesis of effect sizes. A qualitative literature review, by contrast, emphasizes interpretive depth, contextual analysis, and narrative synthesis, making it particularly suitable for policy-oriented research questions where normative, political, and economic dimensions intersect. Given that the ART is a recently signed agreement with a limited empirical track record and that its implications involve contested assessments of regulatory power, distributional

justice, and sovereignty, a qualitative approach enables the nuanced analysis that this subject demands (Snyder, 2019, 2024).

2. Literature Identification and Selection

The literature was identified through searches across academic databases, including Scopus, Web of Science, ScienceDirect, and Google Scholar, supplemented by targeted searches in Indonesian academic journals indexed in SINTA (Science and Technology Index). Core keywords included "Indonesia-US trade," "palm oil," "non-tariff measures," "environmental standards," "labor standards," "trade agreement," "deforestation regulation," "ISPO," "RSPO," and "trade governance." Snowballing from reference lists of key articles was used to capture influential and recent works not captured by initial searches.

The temporal scope prioritized literature from 2020 onward, with selective inclusion of pre-2020 foundational works where theoretically or empirically indispensable. The thematic scope encompassed Indonesia-US bilateral trade, palm oil economics and competitiveness, tariff and non-tariff measures, environmental and labor standards in trade, domestic governance and certification frameworks, and the political economy of trade agreements between asymmetric partners. Sources included peer-reviewed journal articles, policy reports from organizations such as CIFOR-ICRAF and UNCTAD, official government documents from USTR and Indonesia's Cabinet Secretariat, and reputable analytical commentaries (Purnomo et al., 2024).

Inclusion was guided by relevance to the research questions rather than a rigid, predetermined protocol. Methodological diversity – encompassing CGE modeling, gravity models, case studies, legal analyses, and qualitative governance studies – was deliberately sought to enable triangulation across different epistemological approaches. Studies that were purely agronomic without trade or governance implications were excluded (I. A. Putri, 2025; Yutiningsari, 2020).

3. Thematic Coding and Narrative Synthesis

Analysis proceeded through a combination of deductive and inductive coding. Deductive codes were derived from the research questions and conceptual framework: tariff impacts, non-tariff measures, environmental compliance, labor standards, governance capacity, distributional effects, and downstream dynamics. Inductive coding allowed emergent themes to surface during iterative engagement with the literature, including "hidden tariffs," "dual market" formation, "regulatory dependence," and smallholder marginalization (Maharani, 2025).

Key arguments, findings, and policy implications were extracted from each source into a synthesis matrix organized by theme. A cross-source comparison identified convergent and divergent narratives, enabling the construction of integrative thematic narratives rather than merely aggregating individual findings. Each narrative was aligned with the overarching research question on ART's net benefits for Indonesia's palm oil sector.

RESULTS

Theme 1: Tariff Concessions and Immediate Economic Opportunities

The ART's zero-tariff provisions for palm oil and selected agricultural commodities represent a tangible improvement in formal market access conditions. Under the agreement, 1,819 Indonesian tariff lines receive zero-tariff treatment, including palm oil, coconut oil, coffee, cocoa, and tea. The Indonesian Palm Oil Association (GAPKI) has expressed optimism that zero-tariff treatment could serve as "a good impetus for US-bound palm oil shipments, which had been on the rise over the past five years". Indonesian palm oil exports to the US have indeed been growing, and the tariff exemption removes one layer of formal market access costs (Kato et al., 2025).

Indonesia's competitive position in palm oil is well established. The country's Revealed Comparative Advantage in palm oil consistently exceeds threshold values across major destination markets, driven by low production costs, extensive plantation area, and established logistics infrastructure. This competitive foundation provides a platform from which zero-tariff treatment could generate meaningful export growth, particularly in refined and specialty palm oil products where the US market offers premium pricing (Nasution & Hasibuan, 2025).

However, the literature reveals important limitations to tariff-based optimism. The GRIPS CGE simulation demonstrates that even under the negotiated 19% tariff scenario (compared to the initial 32%), Indonesian agricultural and food exports to the US decline by 22.29%, as the overall terms of trade shift in favor of the United States (I. A. Putri, 2025; Yutiningsari, 2020). The simulation projects that welfare gains from ART are concentrated in the United States through improved terms of trade, while Indonesia's benefits remain modest and sector-specific. This finding aligns with the broader literature on asymmetric trade agreements, which demonstrates that power imbalances between trading partners tend to produce distributional outcomes that favor the larger economy (Agbo-Ejeh, 2024; Araujo, 2024).

Furthermore, tariff preferences do not automatically translate into increased domestic value added. Multiple studies confirm that Indonesian palm oil exports remain heavily concentrated in crude and semi-processed forms. The downstream processing that generates higher margins frequently occurs in destination countries rather than in Indonesia, a pattern that tariff reductions alone do not reverse. Trade policies that support the downstreaming of palm oil—such as export levies on crude products and fiscal incentives for domestic processing—are identified as essential complements to market-access agreements (Husin, Wijaya, Ghafur, et al., 2023a; Judijanto, 2025i; Tandra & Suroso, 2023).

Theme 2: Non-Tariff Measures as Implicit Market Access Costs

The second major finding is that non-tariff measures embedded within and alongside the ART framework create compliance costs that may substantially offset the benefits of tariff reductions. This is consistent with the broader literature documenting the rise of "green trade barriers"—regulatory standards that are formally legitimate under WTO rules but economically burdensome for developing-country producers (Zhao, 2024).

The ART's environmental provisions commit Indonesia to adopting and maintaining environmental protections, effectively enforcing environmental laws, and addressing environment-related issues that contribute to non-reciprocal trade. Specifically, Indonesia is required to "take measures to improve forest sector governance and combat trade in illegally harvested forest products; encourage a more resource efficient economy; accept and fully implement the WTO Agreement on Fisheries Subsidies; and combat illegal, unreported, and unregulated fishing and illegal wildlife trade". The labor provisions require Indonesia to adopt and implement a prohibition on the importation of goods produced by forced or compulsory labor, amend labor laws to ensure workers' rights to freedom of association and collective bargaining, and strengthen enforcement mechanisms (Reuters, 2026; US Embassy Jakarta, 2026).

The European precedent provides instructive evidence of how such provisions translate into economic impacts. The EUDR requires importers to demonstrate that agricultural commodities, including palm oil, are not linked to deforestation after December 31, 2020, thereby necessitating comprehensive traceability systems from the plantation to the point of import. Research projects that the EUDR will have negative impacts on Indonesian palm oil exports to the EU, with compliance costs falling disproportionately on smaller producers who lack the technical infrastructure for geolocation tracking, satellite monitoring, and due diligence documentation. While the ART does not replicate the EUDR's specific deforestation-free requirements, its environmental and forestry governance provisions point in a similar regulatory direction (Awaliyah et al., 2024; Damanhuri, 2023; Rosyita et al., 2025; Wening & Setiyono, 2026).

The palm oil trade restrictiveness index developed by Hamidi et al. provides quantitative evidence that NTBs now constitute the dominant barrier to palm oil trade, with the index rising more steeply than tariff indicators over the past decade. The NTB analysis shows that the composition of NTBs – spanning sanitary measures, technical regulations, environmental standards, and labeling requirements – varies across markets but consistently has a trade-restrictive effect on Indonesian and Malaysian palm oil (Hamidi et al., 2024).

Traceability requirements represent a particularly significant category of implicit costs. The sustainable palm oil supply chain literature emphasizes that traceability – the ability to track palm oil from the plantation of origin through mills, refineries, and manufacturers to the final consumer – is increasingly demanded by both regulatory authorities and corporate buyers. However, achieving traceability in Indonesia's complex supply chain, where independent smallholders supply fresh fruit bunches to numerous mills through multiple intermediaries, remains technically challenging and financially prohibitive for many actors (Judijanto, 2025d, 2025h; Saleh et al., 2021).

Theme 3: Structural Vulnerabilities and Distributional Asymmetry

The third thematic finding concerns the structural vulnerabilities within Indonesia's palm oil sector that amplify the distributional asymmetry of ART's impacts. These vulnerabilities are concentrated among smallholders, who constitute a significant but underserved segment of the industry (Judijanto, 2025d).

Indonesia's palm oil production structure features a pronounced duality. Approximately 40% of the country's oil palm area is managed by smallholders, who typically achieve yields of 2–3.5 tons of CPO per hectare, compared to 5–6 tons for well-managed corporate estates. This productivity gap reflects limited access to quality planting material, fertilizers, extension services, and replanting finance. Low productivity is simultaneously an economic constraint and an environmental liability: lower yields per hectare mean that more land is required to achieve equivalent output, contributing to pressure on forest frontiers (E. I. K. Putri et al., 2022).

The ISPO certification system, designed to provide an Indonesian sustainability framework that can compete with and complement international schemes such as RSPO, has not yet achieved the coverage or credibility necessary to serve as a reliable market signal. With only 35.67% of the total plantation area and 4.03% of the smallholder area certified as of mid-2024, ISPO's reach remains limited (Ningsih et al., 2025). The six obstacles identified by GAPKI—certification costs, overlapping land designations, inadequate funding for land valuation, slow environmental licensing, delayed regulatory revisions, and dysfunctional governance structures—reflect systemic institutional challenges rather than isolated implementation failures (GAPKI, 2024; Hidayat & Fajri, 2026; Judijanto, 2025e; Reich & Musshoff, 2025).

Research on palm oil governance in Indonesia describes these challenges as manifestations of "low-functioning governance" characterized by regulatory fragmentation across ministries and levels of government, weak enforcement capacity, and insufficient coordination between trade, environmental, and land-use policies. The sustainable pathways analysis by Astari et al. (2025), published in *World Development Sustainability*, employs historical institutionalism to trace how institutional legacies and path dependencies shape Indonesia's capacity to respond to evolving global sustainability demands. Their findings suggest that without fundamental institutional reforms, Indonesia's palm oil governance will continue to struggle with the implementation gap between policy commitments and on-the-ground outcomes (Astari et al., 2025).

The public and private regime complex governing palm oil, as analyzed by CIFOR-ICRAF, further complicates the picture (Pacheco et al., 2020). Multiple overlapping governance frameworks—ISPO, RSPO, corporate zero-deforestation commitments, and now bilateral trade agreement provisions—create a dense regulatory environment that large companies can navigate through dedicated compliance departments, but that smallholders experience as bewildering and exclusionary (Judijanto, 2025g, 2025j; Ningsih et al., 2025). The research by IDE on global and local sustainability standards in the palm oil sector finds that while standard proliferation can drive improvements in best-practice operations, it also generates "standard fatigue" and compliance fragmentation among smaller actors (Michida, 2022).

Theme 4: Policy Space, Regulatory Sovereignty, and the Risk of Dual Markets

The fourth theme addresses the implications of the ART for Indonesia's domestic policy space and the emerging risk of dual market formation. When external actors predominantly determine sustainability definitions, compliance parameters, and certification recognition – whether through the EUDR, RSPO, or bilateral trade agreement provisions – the producing country's ability to set its own development priorities may be constrained (Awaliyah et al., 2024; Damanhuri, 2023; Hidayat & Fajri, 2026; Reich & Musshoff, 2025; Rosyita et al., 2025).

The ART's provisions on good regulatory practices, which require Indonesia to "adopt and implement good regulatory practices that ensure greater transparency, predictability, and participation throughout the regulatory lifecycle", can be interpreted as mechanisms for aligning Indonesian regulatory standards with US norms. While regulatory improvement is generally desirable, the direction and pace of reform are effectively externally conditioned rather than domestically determined. Analyzing the US 2025 trade policy through an international political economy lens, it has been argued that reciprocal tariff agreements with developing countries tend to reproduce existing power asymmetries by embedding regulatory standards that reflect the dominant partner's institutional preferences (Mollah, 2025).

The concept of "regulatory dependence" – where a producing country progressively adapts its domestic frameworks to external requirements without proportionate influence over the standards themselves – resonates with Indonesia's palm oil governance trajectory. The Policy Center for the New South's 2025 analysis of the impact of reciprocal tariffs on developing countries identifies this dynamic as a structural feature of contemporary bilateral trade agreements, in which tariff liberalization is exchanged for regulatory harmonization that may constrain industrial policy options (Dinh & Van, 2025).

A particularly concerning implication is the potential acceleration of dual-market formation in Indonesia's palm oil sector. Under intensifying external standards, large integrated companies with established sustainability credentials, RSPO certification, and corporate traceability systems can access premium markets in the US and EU. Smallholders and independent mills that cannot meet these requirements are progressively channeled toward secondary markets – typically in South Asia, Africa, and the Middle East – where prices tend to be lower and sustainability premiums are absent (Ningsih et al., 2025; Reich & Musshoff, 2025). CIFOR's Pathways for Sustainable Palm Oil Trade (2024) explicitly identifies this bifurcation as a governance challenge, noting that unless inclusive mechanisms are created, sustainability-driven market segmentation will exacerbate rather than reduce rural inequality (Hidayat & Fajri, 2026; Purnomo et al., 2024).

This dual market dynamic is not inevitable. It is a policy choice – or, more precisely, a consequence of policy inaction. Indonesia possesses the institutional capacity and fiscal resources to mitigate this outcome, but doing so requires deliberate investment in smallholder inclusion, ISPO strengthening, and

proactive negotiation of mutual recognition arrangements with trading partners (Ningsih et al., 2025).

DISCUSSION

1. Reframing "Gains" Beyond Tariff Metrics

The findings above collectively challenge the dominant narrative that the ART represents an unqualified "win" for Indonesia's palm oil sector. This narrative, which focuses on zero-tariff treatment and expanded formal market access, captures only one dimension of the agreement's impact. When non-tariff measures, compliance costs, distributional effects, and governance implications are incorporated into the assessment, a more nuanced picture emerges.

The analytical framework proposed here draws on the growing literature recognizing that modern trade agreements are fundamentally regulatory instruments rather than purely tariff-adjusting mechanisms. The welfare effects of such agreements depend not only on the magnitude of tariff reductions but also on the distribution of compliance costs, the capacity of domestic institutions to implement regulatory commitments, and the alignment between external standards and domestic development priorities. By these broader criteria, the ART's net benefit for Indonesia's palm oil sector is conditional rather than automatic (Dhingra et al., 2023).

The CGE evidence is particularly instructive. A simulation showing that Indonesian agricultural exports to the US decline even under the negotiated tariff scenario, and that welfare gains concentrate in the United States through improved terms of trade, suggests that the ART's economic structure may favor the larger economy (I. A. Putri, 2025; Yutiningsari, 2020). This finding is consistent with the broader literature on asymmetric trade agreements, which documents that negotiating outcomes between economies of vastly different sizes tend to reflect the bargaining leverage of the larger partner (Sohn & Quek, 2023).

2. The Political Economy of Winners and Losers

The distributional analysis reveals that ART's benefits and costs are allocated unevenly across the palm oil value chain. Large, integrated agribusinesses—particularly those already holding RSPO certification and possessing established export channels to premium markets—are well positioned to capture the gains from zero-tariff treatment. These companies have the financial resources, technical capacity, and organizational infrastructure to absorb the compliance costs associated with environmental, labor, and traceability standards (Judijanto, 2025k).

Smallholders, by contrast, face a compounding set of challenges. Low productivity, limited access to finance and technology, and minimal ISPO certification coverage (4.03% of smallholder area) create structural barriers to participating in high-standard export markets. Each additional compliance requirement—whether geolocation tracking for traceability, environmental auditing for deforestation-free certification, or labor-standard documentation—represents a cost that may exceed the marginal revenue gain from tariff-free market access. Research on oil palm smallholders and the road to certification in Indonesia confirms that the gap between certification requirements and smallholder capacity is growing rather than narrowing, with financial constraints

and lack of perceived market benefits identified as primary deterrents (Revi, 2025).

The risk is that ART accelerates a process of market segmentation in which the palm oil sector splits into two tiers: a premium tier serving high-standard markets (US, EU, Japan) dominated by corporate estates, and a commodity tier serving price-sensitive markets with minimal sustainability premiums. This outcome would concentrate the gains from trade liberalization among actors who least need policy support while marginalizing those most in need of it. Such an outcome contradicts the developmental aspirations that Indonesia articulates for its palm oil sector – poverty reduction, rural employment, and inclusive growth (Hidayat & Fajri, 2026; Judijanto, 2025b, 2025a).

3. Indonesia's Strategic Options

The analysis above does not imply that the ART is inherently detrimental to Indonesia's palm oil sector. Rather, it suggests that the agreement's outcomes are contingent on the quality and coherence of Indonesia's domestic policy response. Several strategic options merit consideration.

First, Indonesia should invest in a publicly financed national traceability system that covers smallholders and independent mills. Traceability is increasingly the baseline requirement for accessing premium markets, and leaving this infrastructure to private initiative ensures that only well-resourced actors benefit. A public investment approach – funded through palm oil fund levies or fiscal transfers – could democratize access to traceability credentials and reduce the implicit market barrier posed by traceability requirements (Silvia et al., 2025).

Second, smallholder replanting should be repositioned as a trade strategy rather than merely an agricultural program. Low productivity is both the root cause of environmental pressure (requiring more land per unit of output) and the primary economic vulnerability that prevents smallholders from absorbing compliance costs. Accelerated replanting with high-yielding varieties, combined with integrated extension services, would address both dimensions simultaneously (Judijanto, 2024, 2025h).

Third, Indonesia should pursue mutual recognition of ISPO certification with major trading partners, including the United States. Duplicative certification requirements – where producers must hold ISPO for domestic regulatory compliance and RSPO or equivalent for export market access – impose unnecessary costs and undermine the credibility of Indonesia's national standard. Mutual recognition arrangements would enable ISPO to serve as a recognized market signal, thereby strengthening both its uptake and effectiveness (Hadi et al., 2024).

Fourth, downstreaming and market diversification should be accelerated. Indonesia's palm oil downstream strategy – encompassing oleochemicals, biodiesel (B35 and beyond), and specialty fats – represents the most promising pathway for capturing higher value addition domestically. Simultaneously, diversifying export markets reduces dependence on any single high-standard market and provides alternative channels for producers who cannot immediately

meet the requirements of premium markets (Husin, Wijaya, Ghafur, et al., 2023a; Judijanto, 2025i; Tandra & Suroso, 2023).

Fifth, Indonesia should actively participate in shaping international sustainability standards rather than passively adopting externally imposed frameworks. As the world's largest palm oil producer, Indonesia possesses significant market power and technical expertise. Channeling this leverage into standard-setting processes – at the WTO, in bilateral negotiations, and in multi-stakeholder initiatives – could transform Indonesia from a "standard-taker" to a "standard-shaper" (Hidayat & Fajri, 2026; Purnomo et al., 2024).

4. Answering the Research Question

Does the ART genuinely deliver net benefits for Indonesia's palm oil sector? The evidence reviewed in this paper suggests a conditional and qualified answer. The tariff concessions are real and create genuine opportunities for export expansion. However, these opportunities are circumscribed by non-tariff measures that impose compliance costs, by structural vulnerabilities that prevent smallholders from capturing benefits, and by governance challenges that limit Indonesia's capacity to implement the regulatory commitments embedded in the agreement.

Under favorable conditions – robust domestic reforms, proactive standard-setting, and inclusive policy design – the ART could catalyze upgrading Indonesia's palm oil sector. Under unfavorable conditions – policy inaction, regulatory fragmentation, and continued smallholder marginalization – it risks deepening structural dependencies and concentrating gains among already advantaged actors. The net benefit is therefore not inherent in the agreement itself but depends on the quality of Indonesia's strategic response.

CONCLUSIONS

Substantive Conclusions

This qualitative literature review has examined the Indonesia–United States Agreement on Reciprocal Trade through the specific lens of Indonesia's palm oil sector, integrating tariff and non-tariff dimensions to provide a comprehensive assessment. Four principal conclusions emerge.

First, the ART's zero-tariff treatment for palm oil creates genuine but narrow export opportunities. The tariff concessions reduce one layer of market-access costs and can facilitate export growth, particularly if accompanied by efforts to diversify product composition toward higher value-added derivatives. However, CGE simulations indicate that tariff reductions alone do not guarantee increased aggregate output or domestic value addition, and may primarily shift export destinations rather than expand total trade.

Second, non-tariff measures – environmental compliance, labor standards, and traceability requirements – constitute the more consequential dimension of the ART for Indonesia's palm oil sector. These measures create implicit market-access costs that may offset or exceed the benefits of tariff elimination, particularly for producers lacking the institutional infrastructure to demonstrate compliance. The EU experience with deforestation regulation

demonstrates that environmental standards can function as effective trade barriers even when formally legitimate.

Third, the benefits of the ART are distributed unevenly across the palm oil value chain. Large, certified agribusinesses are positioned to capture the gains from improved market access, while smallholders – who manage over 40% of plantation area but hold less than 5% of ISPO certificates – face structural barriers to participation. Without deliberate policy interventions, the ART risks accelerating the formation of dual markets and rural inequality.

Fourth, the ART's regulatory provisions embed external standards into Indonesia's trade commitments, potentially narrowing domestic policy space. This dynamic requires careful management to ensure that regulatory alignment serves Indonesia's development interests rather than merely accommodating external preferences.

RECOMMENDATIONS

Policy Recommendations

Based on these findings, the following policy recommendations are offered:

1. Develop a publicly financed national traceability system. Indonesia should invest in an integrated digital traceability infrastructure covering the entire palm oil supply chain, with priority access for smallholders and independent mills. This system should be interoperable with international traceability platforms to facilitate market recognition.
2. Accelerate ISPO reform and mutual recognition. The revision of Presidential Regulation No. 44/2020 on ISPO should be completed urgently, including provisions that address the six identified barriers to certification. Indonesia should simultaneously negotiate mutual recognition arrangements for ISPO with the United States and other trading partners to avoid duplicative certification burdens.
3. Reposition smallholder replanting as a trade strategy. Productivity enhancement through replanting with improved varieties, combined with extension services and access to finance, is the most effective intervention for simultaneously improving competitiveness, reducing environmental footprint, and enabling compliance with external standards.
4. Accelerate downstreaming and market diversification. Indonesia's palm oil downstream strategy should be aligned with trade policy to ensure that bilateral agreements incentivize domestic processing rather than raw-material exports. Market diversification toward Asia, Africa, and the Middle East provides alternative channels that reduce dependence on high-standard markets.
5. Engage proactively in international standard-setting. Indonesia should leverage its position as the world's largest palm oil producer to actively shape – not merely adopt – global sustainability standards for palm oil, including through engagement with the WTO, bilateral negotiations, and participation in multi-stakeholder governance forums.

FURTHER STUDY

This study relies on a qualitative literature review methodology, which provides interpretive depth but lacks the statistical power of quantitative synthesis. The ART was signed only recently (February 2026) and has not yet entered into force, meaning that empirical evidence of its actual impacts is not yet available. Future research should conduct post-implementation impact assessments using micro-level data on firm behavior and smallholder outcomes once the agreement takes effect. Comparative analyses of Indonesia's ART experience with other bilateral agreements involving palm oil-producing countries would also enrich understanding of how regulatory trade dynamics affect commodity sectors in developing countries. Finally, participatory research involving smallholder communities and local governance actors could provide ground-level perspectives that complement the macro-level analysis presented here.

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