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Geopolitical Dimensions of Global Crude Palm Oil Trade: A Review on Trade Policy, Environmental Governance, and Strategic Competition

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ABSTRACT

This study critically examines the geopolitical forces reshaping the dynamics of global Crude Palm Oil (CPO) trade. The palm oil sector, dominated by Indonesia and Malaysia, which together supply approximately 83 per cent of global output, is increasingly shaped by the interplay of trade policy, environmental regulation, and strategic state behaviour, extending well beyond conventional market mechanisms. Employing a Structured Critical Literature Review (SCLR) approach drawing on peer-reviewed articles from the Scopus and Web of Science databases for the period 2000–2026, the study synthesizes findings across four thematic domains: (1) the economic foundations and competitive dynamics of the global palm oil market, (2) trade policy instruments and regulatory barriers, (3) vegetable oil market competition and substitution dynamics, and (4) emerging geopolitical narratives framing palm oil as a strategic commodity. The analysis reveals that policy instruments—including India's tariff adjustments, Indonesia's B40 biodiesel mandate, and the European Union Deforestation Regulation (EUDR) function as geopolitical mechanisms that redistribute market access, reshape supply chains, and create structural asymmetries between developed importing and developing exporting nations. Sustainability certification regimes such as the Roundtable on Sustainable Palm Oil (RSPO) and the Indonesian Sustainable Palm Oil (ISPO) standard are shown to operate as both environmental governance tools and de facto instruments of market power, often imposing disproportionate compliance costs on smallholder producers. The study further demonstrates that downstream industrialisation and market diversification particularly through South–South trade corridors with China and BRICS nations represent critical geoeconomic strategies for producing countries seeking to reduce vulnerability to regulatory pressures from traditional Western markets. The article contributes to the international political economy literature by establishing that CPO competitiveness is no longer determined solely by production efficiency or cost advantages but is increasingly contingent upon the capacity to navigate complex global regulatory architectures and to project economic sovereignty through strategic trade diplomacy.

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Introduction

Crude palm oil (CPO) is one of the most strategically significant agricultural commodities in contemporary global trade. Its extensive applications in food processing, consumer goods, oleochemicals, and bioenergy position it as the world's most consumed vegetable oil, and the scale and complexity of its production and trade networks have expanded rapidly in recent decades. Global CPO production reached approximately 80.7 million metric tons during the 2025/2026 season, with Indonesia and Malaysia accounting for roughly 83 per cent of this output, thereby forming the structural core of the international supply chain [1]. Indonesia alone is projected to produce 56–57 million metric tons in 2025, a 10 per cent increase over the previous year, with exports expected to reach 30–31 million metric tons [2–3].

The global supply of CPO is geographically concentrated in Southeast Asia's tropical belt, with smaller but growing contributions from Thailand, Nigeria, Colombia, and several West African producers. This concentration creates powerful

patterns of interdependence between producing regions and the world's largest consuming markets—India, China, the European Union, Pakistan, and various Middle Eastern and African nations. India remains the world's single largest palm oil importer, with purchases projected to reach 9.3 million metric tons in the 2025/26 marketing year, driven by palm oil's competitive pricing advantage over rival vegetable oils. China, the second-largest global importer, consumed 4.29 million metric tons of goods from Indonesia alone in 2023, valued at USD 3.88 billion, underscoring the depth of bilateral commodity dependence in Asia [3–4].

The global palm oil market, however, operates within a broader geopolitical framework in which economic exchange intersects with political interests, regulatory structures, and strategic state policies. While classical economic theories emphasise comparative advantage and market efficiency, contemporary analyses increasingly recognise that geopolitical dynamics play a decisive role in shaping trade flows, market access, and supply chain configurations. Trade policy is among the most direct geopolitical instruments affecting commodity markets. India's 2025 decision to reduce the basic import duty on CPO from 20 per cent to 10 per cent lowering the effective tariff to approximately 16.5 per cent was driven by domestic food inflation exceeding 17 per cent

and illustrates how national economic priorities in importing countries directly reshape global commodity flows [5]. Similarly, Indonesia's implementation of the B40 biodiesel mandate from January 2025 requiring a 40 percent palm oil blend in all diesel fuel—absorbs an estimated 14.2–15 million kiloliters of palm-based biodiesel annually and significantly reduces the volume of CPO available for export, thereby tightening global supply and affecting price formation in international markets [6-9].

Environmental governance has also emerged as a powerful geopolitical factor in international commodity trade. The European Union Deforestation Regulation (EUDR), which entered into force in June 2023, requires companies importing palm oil into the EU to demonstrate, through rigorous due diligence and geospatial traceability, that their products are not linked to deforestation after 31 December 2020. Although its implementation has been delayed multiple times—initially to December 2025 for large operators and now to December 2026 for SMEs and producers in exporting countries, following a second postponement the regulation has already begun to reshape trade patterns and create price differentials between EUDR-compliant and non-compliant palm oil cargoes. The US–China trade war further complicates the geopolitical landscape: US reciprocal tariffs imposed in April 2025 levied 32 per cent duties on Indonesian palm oil and 24 per cent on Malaysian palm oil, potentially redirecting trade flows and incentivising substitution with domestic soybean oil in the American market [10- 11].

Despite the growing strategic importance of palm oil, existing academic literature has largely focused on economic perspectives—trade flows, price volatility, revealed comparative advantage, and production efficiency while relatively little attention has been paid to the geopolitical dimensions shaping the sector's evolution. This gap is significant given that recent policy developments demonstrate how environmental regulations, trade wars, biodiesel mandates, and diplomatic negotiations increasingly determine the conditions under which palm oil can access global markets [12-15].

Consequently, this study aims to critically examine the geopolitical influences shaping the dynamics of global CPO trade by analysing how trade policies, sustainability governance frameworks, and strategic national policies interact within the broader context of international political economy. Three research questions guide this investigation: (1) How do trade policy instruments function as geopolitical tools in the global palm oil market? (2) To what extent do environmental governance mechanisms, particularly the EUDR and sustainability certification regimes, create structural asymmetries between producing and consuming countries? (3) What strategic responses have major producing and consuming nations adopted to navigate the evolving geopolitical landscape of the palm oil trade?

Methods

Research Design

This study employs a Qualitative Literature Review (QLR) approach to analyse the academic literature addressing global CPO trade dynamics within a geopolitical context. The QLR methodology combines a literature search with the critical evaluation of theoretical perspectives, underlying assumptions, and dominant narratives in existing studies [16-17]. Unlike purely systematic literature reviews that focus primarily on quantitative synthesis or meta-analysis of empirical findings, this Qualitative Literature Review seeks to identify conceptual patterns, discursive constructions, and areas of scholarly contention that shape

academic understanding of a complex phenomenon [18-19].

This approach is particularly suitable for examining the geopolitics of commodity trade, where interactions among economic power, state policies, and global institutions produce competing interpretations within the academic literature. The QLR enables the study not only to map research trends but also to evaluate how certain analytical perspectives particularly those originating from consumer-country institutions may dominate scholarly discussions surrounding palm oil trade [19].

Data Sources and Search Strategy

The literature was sourced from major academic databases such as Scopus and Web of Science. These databases were selected for their extensive coverage of international academic publications, rigorous journal selection standards, and broad disciplinary indexing spanning international economics, global trade, agribusiness, public policy, and environmental governance.

The search strategy employed multiple keyword combinations to capture the multidimensional nature of research on the palm oil trade. Primary search terms included “palm oil trade,” “global palm oil market,” “geopolitics of palm oil,” “palm oil trade policy,” “vegetable oil trade competition,” “EUDR palm oil,” “palm oil biodiesel mandate,” and “palm oil sustainability certification.” These keywords were applied both individually and in combination using Boolean operators (AND, OR) to capture studies examining both economic and political dimensions of the global palm oil market. The search was restricted to article titles, abstracts, and keywords to maximise relevance.

Inclusion and Exclusion Criteria

The selection criteria were designed to ensure both relevance and academic quality. Articles were included if they: (1) were published in peer-reviewed journals; (2) demonstrated substantive relevance to international CPO trade dynamics, trade policies, or market competition among vegetable oils; (3) addressed economic, political, regulatory, or trade-policy dimensions of the palm oil industry; and (4) were published between 2000 and 2025. This timeframe captures the period of the industry's most significant global expansion and the emergence of sustainability regulations as major determinants of trade. Studies focusing exclusively on agronomic or technical aspects of oil palm cultivation, without engaging with trade or policy dimensions, were excluded.

Analytical Framework

The analytical process proceeded through three stages. The first stage involved thematic classification, in which collected articles were grouped by primary research themes: global market dynamics, international trade policy, environmental and sustainability governance, vegetable oil competition, and the geopolitics of commodity trade. The second stage consisted of comparative synthesis, which compared findings, analytical approaches, and theoretical orientations across studies to identify convergences, divergences, and the evolution of scholarly perspectives. The third stage involved critical discourse analysis, which examined how specific narratives especially those concerning sustainability, trade regulation, and competition among vegetable oils are constructed in the literature. This stage highlights potential biases, competing interests, and dominant theoretical frameworks shaping the scholarly debate.

The entire analytical process is guided by the conceptual framework of International Political Economy (IPE), which allows the study to interpret palm oil trade not merely as a market-driven phenomenon

but as an outcome shaped by interactions among economic power, state policies, and global institutions that structure the international trading system [20-21].

Results

Economic Foundations and Competitive Dynamics

The economic literature consistently positions CPO as a strategic export commodity that plays a crucial role in the macroeconomic structure of major producing countries. Palm oil exports generate substantial foreign exchange earnings, support large-scale employment, and contribute to rural development through both upstream plantation activities and downstream processing industries [22-24]. In Indonesia, the palm oil sector supports the livelihoods of approximately 17 million people. It contributes significantly to the country's trade balance, while Malaysia's palm oil industry constitutes a central pillar of its agricultural export economy [25-26].

A recurring theme in the literature is the importance of downstream industrial development as a mechanism for enhancing economic value capture. The expansion of refinery capacity, oleochemical processing, and biodiesel production strengthens domestic industrial linkages and enables producing countries to move beyond raw commodity exports toward higher-value-added products [22-28]. Indonesia's B40 biodiesel mandate exemplifies this strategy: by absorbing an estimated 14.2 million kiloliters of domestically produced palm-based biodiesel in 2025, the policy simultaneously reduces export dependence, supports energy security, and creates industrial demand for domestically processed palm derivatives [29].

The literature further emphasises the interconnectedness of palm oil markets with the broader global vegetable oil system. Because palm oil competes directly with soybean, sunflower, and rapeseed oil, fluctuations in supply, policy interventions, or geopolitical disruptions affecting any of these commodities can rapidly alter palm oil's competitive position [30-32]. The RussiaUkraine conflict, which began in February 2022, dramatically illustrated this interconnection: Ukraine and Russia account for nearly 80 percent of global sunflower oil exports, and the war's disruption of Black Sea shipping caused an abrupt global shortage of sunflower oil that triggered surging demand for palm oil as a substitute, driving CPO prices from RM 5,931 in February to RM 6,873 per metric ton in March 2022 [33-37].

Methodological approaches in the economic literature predominantly rely on quantitative techniques, including gravity models, Poisson pseudo-maximum likelihood (PPML) estimation, revealed comparative advantage (RCA) indices, and computable general equilibrium (CGE) models [23,38,39]. While these methods provide robust assessments of trade patterns and competitiveness, they often treat policy and institutional variables as exogenous parameters, thereby underemphasizing the political agency and strategic behaviour of states a gap that the geopolitical strand of the literature seeks to address [38,40].

Trade Policy and Market Regulation

Trade policy instruments are the most direct means by which geopolitical power is exercised in the global palm oil market. The literature identifies three principal categories of policy instruments: tariff regimes, non-tariff measures (NTMs), and environmental or sustainability-linked regulations [41].

Tariff structures in major importing countries significantly affect the competitiveness of the palm oil trade. Studies employing gravity models and CGE frameworks consistently identify tariff levels as statistically significant determinants of bilateral trade flows [42-45]. India's 2025 tariff reduction illustrates this dynamic: by lowering the effective CPO import duty to approximately 16.5 per cent, the Indian government sought to increase domestic edible oil supply and stabilise consumer prices, simultaneously redirecting global trade flows toward Indonesian and Malaysian exporters at the expense of competing vegetable oils. In contrast, the US reciprocal tariffs of 2025—imposing rates of 32 per cent on Indonesian and 24 per cent on Malaysian palm oil—represent a punitive tariff mechanism designed to favor domestic soybean oil and penalise palm oil imports, although the US accounts for only 2.4 percent of global palm oil consumption, limiting the aggregate trade impact [46-48].

Non-tariff measures constitute an equally significant category of trade barriers. Sanitary and phytosanitary (SPS) regulations, technical trade barriers (TBT), certification requirements, and administrative procedures are frequently identified as consequential barriers to market access, particularly for exports destined to the European Union [38,43,44]. The development of composite indicators such as the palm oil trade restrictiveness index (TRI) demonstrates that NTMs operate alongside tariff regimes to create complex policy environments in which liberalisation in one dimension may be offset by regulatory tightening in another [38, 49].

Environmental regulation represents the most rapidly evolving dimension of trade governance in the palm oil sector. The EUDR is the most prominent example, requiring comprehensive due diligence, geospatial traceability data, and verification that palm oil imports are deforestation-free as of 31 December 2020. The regulation's implementation has been subject to repeated delays due to IT system inadequacies and political pressure from both EU member states and producing countries, with the current timeline placing full application for large operators at December 2025 and for SMEs and exporting-country farmers at December 2026. Producing countries particularly Indonesia and Malaysia have consistently characterised the EUDR as a form of green protectionism that imposes disproportionate compliance burdens on developing-country producers while reinforcing market access advantages for European domestic agriculture [50-52].

Competition in the Global Vegetable Oil Market

Palm oil's dominant position in the global vegetable oil market rests on its superior yield per hectare and relatively low production costs compared with those of soybean, sunflower, and rapeseed oils [22], [25], [53]. However, competition among these oils operates within a tightly interconnected commodity system in which substitution dynamics, energy market linkages, and regulatory environments jointly determine market shares.

Soybean oil represents the most significant competitor, with the United States, Brazil, and Argentina as the leading producers. Policy changes in these countries—including subsidies, export regulations, and biofuel mandates—indirectly influence palm oil demand and prices [31], [54]. The US-China trade war has amplified these dynamics: China's retaliatory 34 per cent tariff on US goods (including soybeans) shifted Chinese soybean purchases toward Brazil, creating cascading effects across global vegetable oil supply chains [55].

Sunflower and rapeseed oils are important competitors, particularly in European markets. The Russia–Ukraine conflict demonstrated the vulnerability of these markets to geopolitical disruption: Ukraine’s disrupted sunflower oil exports triggered global supply shortages and price spikes, temporarily redirecting demand toward palm oil [33, 37, 56]. The EU’s Common Agricultural Policy and biodiesel directives continue to shape the competitive landscape by supporting domestic rapeseed and sunflower production [57].

Energy market linkages add further complexity. Biodiesel mandates, crude oil price fluctuations, and renewable energy policies affect demand for vegetable oils as biofuel feedstocks, creating transmission channels between energy and agricultural commodity markets [57], [58]. Indonesia’s B40 mandate, for instance, absorbs a significant domestic palm oil supply for energy purposes, tightening export availability and supporting global prices [59].

Emerging Geopolitical Narratives

Recent scholarship increasingly frames palm oil not merely as an agricultural commodity but as a strategic resource embedded within energy transitions, food security systems, environmental governance architectures, and international trade diplomacy.

The Energy Food Security Nexus

Palm oil’s dual role as both food and energy feedstock has elevated its geopolitical significance. Government biodiesel policies in producing countries redirect substantial volumes toward domestic energy markets, affecting global supply availability and price formation [15,45,60]. Indonesia’s progression from B20 to B35 to B40—with B50 under active study for 2026 represents a strategic calculus aimed at reducing fossil fuel imports, enhancing energy sovereignty, and creating structural demand for domestically processed palm derivatives. The government’s consideration of raising the palm oil export levy to fund the expansion of the biodiesel program further illustrates how energy and trade policy are intertwined as instruments of resource sovereignty [13, 61, 62].

Environmental Governance as Geopolitical Instrument

The literature emphasises that environmental governance mechanisms function simultaneously as sustainability tools and as instruments of geopolitical influence. The EUDR, RSPO certification, and related initiatives increasingly determine market access conditions, yet their design and enforcement originate predominantly in consumer markets—thereby creating regulatory asymmetries between importing and producing countries [15, 25,63, 64, 65].

Scholars identify a persistent tension between the environmental rationale for sustainability standards and their function as non-tariff barriers. Some analyses interpret the EUDR as a legitimate response to the planetary deforestation crisis. In contrast, others characterise it as a continuation of European agricultural protectionism that imposes administrative burdens and compliance costs disproportionately on developing-country producers [63, 66, 67, 68]. The OECD has documented that the majority of trade-related environmental measures affecting agriculture were introduced between 2020 and 2024, confirming that green regulatory barriers represent a rapidly expanding category of trade governance [41, 69,[70, 71].

South Trade and Strategic Diversification

An increasingly important geopolitical narrative concerns the redirection of palm oil trade toward South–South corridors. As the EU market becomes more regulatory-intensive, producing

countries have actively diversified exports toward Asian, African, and BRICS markets where sustainability requirements are less stringent or differently configured [72, 73, 74].

The World Economic Forum’s 2025 briefing paper on Indonesia–China palm oil trade highlights how these two countries are positioned to co-create a deforestation-free palm oil value chain based on mutual recognition of certifications, blended finance mechanisms, and South–South cooperation frameworks [4]. Indonesia’s accession to BRICS further expands market diversification potential: BRICS member countries already account for 35.2 per cent of Malaysia’s total global trade, and Indonesia has identified Brazil and South Africa as new frontiers for palm oil export expansion [13, 72, 75].

US Trade War and Reciprocal Tariffs

The imposition of US reciprocal tariffs in 2025 introduced a new dimension to the geopolitics of palm oil trade. While direct palm oil exports to the US are modest—approximately 2.4 per cent of global consumption—the tariffs’ secondary effects are significant. Higher US tariffs incentivise American food manufacturers to substitute palm oil with domestic soybean oil. In contrast, China’s retaliatory tariffs on US soybeans shift Chinese procurement toward Brazilian suppliers, creating cascading realignment across global vegetable oil supply chains [46].

Discussion

Trade Policy Instruments as Geopolitical Mechanisms

The findings confirm that trade policy instruments in the palm oil sector function as mechanisms of geopolitical power rather than neutral regulatory tools. Tariff adjustments by importing countries—whether India’s liberalisation to stabilise domestic food prices or the US’s punitive reciprocal tariffs—reshape the geography of global palm oil flows in accordance with national strategic priorities. Exporting countries respond with their own geoeconomic instruments: Indonesia’s export levy system, which funds the biodiesel mandate, effectively converts trade taxation into a domestic industrial policy that reduces export volumes while strengthening energy sovereignty [13,47,48,61,62].

The interaction between tariff and non-tariff measures creates a layered regulatory architecture that differentially affects producing countries. The palm oil TRI demonstrates that identical products face markedly different levels of restrictiveness across exporting countries, reflecting variations in bilateral diplomatic relations, trade agreement coverage, and regulatory recognition [38]. These findings corroborate the broader IPE argument that global commodity markets are not self-regulating equilibria but politically constructed arenas in which states and institutions exercise power through regulatory instruments [20].

Environmental Governance, EUDR, and Power Asymmetries

The analysis reveals that environmental governance mechanisms—particularly the EUDR and certification regimes operate as structural instruments that redistribute power within global palm oil supply chains. The EUDR’s requirement for comprehensive geospatial traceability, due diligence statements, and deforestation-free verification creates compliance barriers that are substantially more burdensome for upstream producers in developing countries than for downstream importers in the EU [76-78].

The EUDR’s repeated implementation delays initially from December 2024 to December 2025, then with a second postponement extending compliance for SMEs and farmers to December 2026 reflect the regulation’s political complexity and

the significant opposition from both producing countries and EU industry actors. The European Commission's October 2025 deal included targeted simplifications, allowing SMEs and producer-country farmers to submit documentation once at the EU market entry point without full due diligence statements, acknowledging the disproportionate burden on smaller actors [79-80].

Certification regimes compound these asymmetries. The RSPO and ISPO represent contrasting governance logics: the RSPO operates as a private, multi-stakeholder governance mechanism driven largely by multinational corporations and NGOs, while ISPO represents a state-led regulatory framework that asserts Indonesian sovereignty over sustainability governance [81-83]. The coexistence and competition between these systems illustrate a fundamental tension in global commodity governance between externally imposed private standards and nationally determined regulatory frameworks [77].

Smallholder producers bear the most acute impact of these governance architectures. Over 40 per cent of Indonesia's palm oil land is managed by independent smallholders, yet the vast majority remain outside formal traceability and certification systems. Only 7 per cent of certified mills currently source from independent smallholders, and EUDR compliance risks deepening exclusion by favouring vertically integrated supply chains with the institutional and financial capacity to meet stringent documentation requirements. This finding supports the argument that environmental governance instruments, absent deliberate inclusion mechanisms, can inadvertently reproduce structural inequalities within global value chains [84-87].

Strategic Responses: Downstreaming and Market Diversification
Major producing countries have developed multifaceted strategic responses to the evolving geopolitical landscape. Downstream industrialisation is the most prominent strategy: Indonesia and Malaysia have progressively shifted from exporting crude palm oil to processed derivatives, including refined oils, oleochemicals, biodiesel, and speciality fats [53,88]. Indonesia's B40 mandate is central to this strategy, creating guaranteed domestic demand for processed palm products while reducing exposure to volatile international crude commodity markets [59].

Market diversification constitutes the second strategic pillar. Both Indonesia and Malaysia are actively redirecting export flows toward Asian markets particularly India and China and toward Africa and Latin America through BRICS-aligned trade channels. In 2023-2024, India, Pakistan, and Bangladesh together absorbed approximately 37 per cent of Indonesia's palm oil exports, while China imported over 4.29 million metric tons. Malaysia's total trade with BRICS countries reached RM 818 billion in 2024, accounting for 35.2 per cent of its global trade, with palm oil as a key export commodity [48, 74, 89].

Trade diplomacy represents the third dimension of strategic response. Producing countries have employed bilateral negotiations, regional trade agreements, and multilateral forums to defend market access and challenge what they perceive as discriminatory environmental regulations. Indonesia's WTO dispute (DS593) against the EU's Delegated Regulation on palm oil-based biofuels and the Council for Palm Oil Producing Countries (CPOPC)'s advocacy at international forums illustrate how producer countries use institutional mechanisms to contest regulatory asymmetries [63, 66, 90].

Theoretical Implications: Reframing Palm Oil in International Political Economy

The findings of this study support a reframing of the global palm oil trade within a broader IPE framework that integrates three analytical dimensions. First, global value chain governance theory explains how lead firms and regulatory authorities in consumer markets exercise standards-setting power that suppliers in developing economies must accommodate [91-92]. Second, food regime theory situates contemporary sustainability standards and certification systems as mechanisms through which the global food system is reorganised to align with environmental and consumer preferences originating in advanced economies [15,65]. Third, the concept of regulatory sovereignty captures the tension between externally driven private governance and nationally determined policy frameworks—a tension vividly illustrated by the RSPO-ISPO competition and by producing countries' diplomatic resistance to the EUDR [41,68,90,91].

This integrated perspective reveals that CPO trade dynamics are shaped not merely by comparative advantage or market efficiency but by the distribution of regulatory power, the architecture of global governance institutions, and the strategic calculations of sovereign states. The emerging geopolitical system of palm oil trade is characterised by a fundamental tension between resource sovereignty the right of producing countries to determine how their natural resources are managed and traded and regulatory compliance the obligation to meet standards established primarily in consumer markets as conditions for market access.

Conclusion

This study demonstrates that the dynamics of global crude palm oil trade have undergone a fundamental transformation from a predominantly market-driven commodity exchange system into one increasingly shaped by geopolitical calculations, environmental governance architectures, and strategic state behaviour. The highly concentrated market structure with Indonesia and Malaysia controlling approximately 83 per cent of global supply creates structural interdependence between producing and consuming nations, mediated by an increasingly complex regulatory environment.

Three principal findings emerge. First, trade policy instruments including India's tariff liberalisation, Indonesia's B40 biodiesel mandate, US reciprocal tariffs, and the EU's non-tariff regulatory frameworks function as geopolitical mechanisms that redistribute market access, reshape global supply chains, and reflect the strategic priorities of sovereign states rather than neutral regulatory objectives. Second, environmental governance mechanisms, particularly the EUDR and sustainability certification regimes, create structural power asymmetries between developed importing countries and developing exporting nations. These mechanisms impose compliance costs that disproportionately burden smallholder producers while concentrating regulatory authority within consumer markets. Third, producing countries have adopted multidimensional strategic responses downstreaming, South-South market diversification, and trade diplomacy that represent deliberate geoeconomic strategies to reduce vulnerability to Western regulatory pressures and project economic sovereignty within the global commodity system.

The study contributes to the international political economy literature by establishing that CPO competitiveness is no longer determined solely by production efficiency but is increasingly contingent upon the capacity to navigate global regulatory architectures, comply with evolving sustainability standards,

and leverage strategic trade partnerships. The future trajectory of global palm oil trade will depend critically on whether the international community can negotiate governance frameworks that balance legitimate environmental sustainability objectives with principles of economic equity and inclusive participation for developing-country producers, particularly smallholder farmers.

Future research should pursue empirical measurement of the causal impacts of the EUDR on trade flows and smallholder welfare, analysis of the effectiveness of South–South trade diversification strategies, and examination of how digital traceability technologies may reconfigure power relations within palm oil supply chains.

References

1. UKrAgroConsult (2026) Palm oil production shows record figures USDA. UkrAgroConsult: Agricultural Market News. <https://ukragroconsult.com/en/news/palm-oil-production-shows-record-figures-usda/>.
2. TV BRICS (2026) Indonesia forecasts 10% rise in palm oil output for 2025. TV BRICS: Economy. <https://tvbrics.com/en/news/indonesia-forecasts-10-rise-in-palm-oil-output-for-2025/>.
3. Shigetomi Y, Ishimura Y, Yamamoto Y (2020) Trends in global dependency on the Indonesian palm oil and resultant environmental impacts. *Sci Rep* 10: 20624.
4. Suradiredja D, Algamar R, Zhu C (2025) Strengthening Indonesia-China palm oil trade with sustainable practices. *World Economic Forum Report*.
5. AngelOne (2026) Government reduces import duty on crude edible oils to 10%. AngelOne News.
6. Naylor RL, Higgins MM (2017) The political economy of biodiesel in an era of low oil prices. *Renew Sustain Energy Rev* 77: 695-705.
7. Halimatussadiah A, Nainggolan D, Yui S, Moeis FR, Siregar AA (2021) Progressive biodiesel policy in Indonesia: Does the Government's economic proposition hold? *Renew Sustain Energy Rev* 150: 111431.
8. IPOSS (2026) 2026 Palm Oil Outlook. Jakarta, Indonesia.
9. Applanaidu SD, Abidin NZ, Sapiri H, Zabid MFM (2015) Impact of various palm-based biodiesel blend mandates on Malaysian crude palm oil stock and price: A system dynamics approach. *Asian Soc Sci* 11: 190-203.
10. Varqa S (2025) Palm oil price forecast and production outlook 2026. *Fastmarkets*.
11. Judijanto L (2025) A review of palm oil export resilience mechanisms under asymmetric trade wars. *Asian Bus Res J* 10: 105-114.
12. Judijanto L (2025) Co-opetition among palm oil exporting countries to navigate the complexities of the dynamic global vegetable oils market. *J Polit Sci Int Relat* 3: 1-6.
13. Judijanto L (2025) Bridging the gap: The role of palm oil in shaping global trade and international relations. *J Polit Sci Int Relat* 3: 1-13.
14. Waters K, Altiparmak SO, Shuttters ST, Thies C (2024) The Green Mirage: The EU's complex relationship with palm oil biodiesel in the context of environmental narratives and global trade dynamics. *Energies* 17: 343.
15. Dauvergne P (2018) The global politics of the business of sustainable palm oil. *Glob Environ Polit* 18: 34-52.
16. Snyder H (2024) Designing the literature review for a strong contribution. *J Decis Syst* 33: 551-558.
17. Snyder H (2019) Literature review as a research methodology: An overview and guidelines. *J Bus Res* 104: 333-339.
18. Tingelhoff F, Brugger M, Leimeister JM (2025) A guide for structured literature reviews in business research: The state-of-the-art and how to integrate generative artificial intelligence. *J Inf Technol* 40: 77-99.
19. Torraco RJ (2016) Writing integrative literature reviews. *Hum Resour Dev Rev* 15: 404-428.
20. Budiana M (2024) International political economy: The interaction of politics and economics in the global market. *J Manag* 3: 697-714.
21. Oatley T (2022) *International Political Economy*. 7th ed. Routledge, New York.
22. Husin S, Wijaya C, Ghafur HS, Machmud TZ, Mardanugraha E (2023) Trade policies support for palm oil downstreaming in Indonesia. *JEJAK J Ekon Kebijakan* 16: 1-15.
23. Arsyad M, Amiruddin A, Suharno S, Jahroh S (2020) Competitiveness of palm oil products in international trade: An analysis between Indonesia and Malaysia. *Caraka Tani J Sustain Agric* 35: 157-167.
24. Puspitawati E, Nurdianto NR, Pambudi A, Alamsyah MR, Pakerti KA, et al. (2025) Economic effect of biodiesel downstream industry: An analysis based on a dynamic CGE model. *Int J Energy Econ Policy* 15: 437-446.
25. Naidu L, Moorthy R (2021) A review of key sustainability issues in Malaysian palm oil industry. *Sustainability* 13: 10839.
26. Hariyanti F, Syahza A, Zulkarnain, Nofrizal (2024) Economic transformation based on leading commodities through sustainable development of the oil palm industry. *Heliyon* 10: e25674.
27. Judijanto L (2025) Beyond deforestation debates: A review of social issue blindspots in EU palm oil trade policies. *Rev Caribeña Ciencias Soc* 14: e4750.
28. Setiajiati F, Nurrochmat DR, van Assen BW, Purwawangsa H (2024) Current status of Indonesia's palm oil products and their competitiveness in the global market. *IOP Conf Ser Earth Environ Sci* 1379: 012022.
29. Ginting A (2026) Indonesia delays B50 biodiesel mandate, maintains B40 and raises palm oil export levy. *Petromindo Energy News*.
30. Murphy D, Goggin K, Paterson R (2020) Oil palm in the 2020s and beyond: Challenges and solutions. *Preprints* 2020: 2020120129.
31. Tandra H, Suroso AI, Syaukat Y, Najib M (2022) The determinants of competitiveness in global palm oil trade. *Economies* 10: 132.
32. Nugrahapsari RA, Nurmalina R, Fariyanti A (2024) The position of Indonesia's palm oil in the vegetable oil international market. *IOP Conf Ser Earth Environ Sci* 1379: 012014.
33. Enh AM, Mustafa H, Ahmed F (2025) Russia-Ukraine conflict and Malaysian palm oil: An analysis of market impacts and public sentiment. *PLoS One* 20: e0323747.
34. Monge M (2024) A time trend and persistence analysis of sunflower oil and olive oil prices in the context of the Russia-Ukraine war. *Res World Agric Econ* 5: 24-36.
35. Al-Istiqomah F (2025) Global interdependence and food security: The impact of the Russia-Ukraine conflict on Indonesia. *J Asia Pacific Stud* 9: 157-175.
36. Martignone GB (2025) Price transmission and dynamic connectedness: Consequences of US-China trade war and the Ukrainian-Russian war in the international agricultural commodity markets. *Harper Adams University*.
37. CBI (2026) What is the impact of the war in Ukraine on exports of vegetable oils? *CBI Market Information*.
38. Hamidi HNA, Khalid N, Karim ZA (2024) Palm oil trade restrictiveness index and its impact on world palm oil exports. *Agric Econ Czech* 70: 101-111.

39. Rohaeni ES, et al. (2025) Sustainability index analysis for integration of oil palm and cattle gender-based in tidal land. *Sustain Futur* 100931.
40. Busari A, Agboola T, Akintunde O, Jimoh L (2022) Competitiveness of Nigerian palm oil in the world market: An econometric analysis. *J Agric Food Sci* 20: 154-167.
41. Osei Darkwah D, Ong-Abdullah M (2022) Sustainability of the oil palm industry. In: *Elaeis guineensis*. IntechOpen.
42. Gani MR, Yudhana IMK, Gupta W (2024) The effect of export tax on Indonesia palm oil derivative products. *Effic Indones J Dev Econ* 7: 73-81.
43. Pratama RA, Widodo T (2020) The impact of nontariff trade policy of European Union crude palm oil import on Indonesia, Malaysia, and the rest of the world economy: An analysis in GTAP framework. *J Ekon Indones* 9: 39-52.
44. Annas A, Suharno S, Nurmawati R (2020) The effect of the European Union biomass regulation and export taxation on palm oil export. *J Manaj Agribisnis* 17: 1-12.
45. Adhikari S, Poudel D, Gopinath M (2023) Is policy greasing the wheels of global palm oil trade? *Res World Agric Econ* 4: 62-77.
46. The Edge Malaysia (2026) US reciprocal tariffs to negatively impact CPO prices, may prompt earnings cut CIMB Securities. *MPOC Palm Oil News*.
47. Government of India (2026) Export import policy on edible oils. Ministry of Consumer Affairs, Food and Public Distribution, India.
48. Gupta D, Mansatta B (2020) India's response to increases in imports from countries subject to preferential tariffs under FTAs: Bilateral safeguard investigations? *Glob Trade Cust J* 15: 487-492.
49. Bangun SZB, Ridho MR (2025) Analysis of European Union non-tariff trade barriers on crude palm oil imports from Indonesia. *SSHS Strat Soc Humanit Stud* 3: 100-115.
50. Rojas H, Krisanda S (2026) Palm oil in focus: The EUDR and corporate efforts on transparent sourcing. *Sustainalytics Resource Center*.
51. Busch J (2022) Effects of demand-side restrictions on high-deforestation palm oil in Europe on deforestation and emissions in Indonesia. *Environ Res Lett* 17: 014035.
52. Bangun SZB, Ridho MR (2025) Analysis of European Union non-tariff trade barriers on crude palm oil imports from Indonesia. *Strat Soc Humanit Stud* 3: 100-115.
53. Husin S, Wijaya C, Ghafur AHS, Machmud TZ, Mardanugraha E (2023) Palm oil downstream strategy: Enhancing Indonesia's bargaining position in international palm oil trade. *Migr Lett* 20: 678-689.
54. Colombo CA, Chorfi Berton LH, Diaz BG, Ferrari RA (2018) Macauba: A promising tropical palm for the production of vegetable oil. *OCL* 25: D108.
55. UkrAgroConsult (2026) US reciprocal tariffs to negatively impact CPO prices, may prompt earnings cut — CIMB Securities. *TRIDGE News*.
56. Mohamad AHH, Ab-Rahim R (2024) European Union ban on palm oil: The trend of palm oil competitiveness and the cointegration on the soybean and rapeseed oil. *Int J Bus Soc* 25: 1-15.
57. Pilorge E (2020) Sunflower in the global vegetable oil system: Situation, specificities and perspectives. *OCL* 27: 34.
58. Murphy DJ, Goggin K, Paterson RRM (2021) Oil palm in the 2020s and beyond: Challenges and solutions. *CABI Agric Biosci* 2: 39.
59. EKONID (2026) Indonesia to maintain biodiesel mandate as palm oil prices rise. *Business Indonesia News*.
60. Arifin B, Putri KAP (2019) Indonesian government strategies on obtaining crude palm oil (CPO) market access to European Union countries over the EU parliament resolution on palm oil and deforestation of rainforest. *Andalas J Int Stud* 8: 203-223.
61. Pacheco P, Schoneveld G, Dermawan A, Komarudin H, Djama M (2020) Governing sustainable palm oil supply: Disconnects, complementarities, and antagonisms between state regulations and private standards. *Regul Gov* 14: 568-593.
62. Pantelis V (2025) The geoeconomics and geopolitics of biofuels. University of Piraeus.
63. Satnyoto A, Bainus A, Sumadinata WS, Darmawan WB, Damayanti A (2024) Indonesia's strategy in dealing with the European Union green protectionism in the palm oil trade. *Int J Innov Res Multidiscip Educ* 3: 1-15.
64. Naidu L, Moorthy R, Mohd Huda MI (2024) The environmental and health sustainability challenges of Malaysian palm oil in the European Union. *J Oil Palm Res* 36: 1-15.
65. Dauda S, Sidique SF, Sheng TY, Djama M (2021) Consumer preference for certified sustainable palm oil with environmental sustainability attributes: A choice experiment approach. *Stud Appl Econ* 39: 1-15.
66. Radmann BM (2021) Sustainability or protectionism in palm oil trade: The case (DS593) of Indonesia vs. The EU. *Acad Rev Bus Econ* 1: 1-16.
67. Jokhu JR (2022) Protectionism or sustainability? Questioning European intention on palm oil ban using time series data. *Agric* 34: 105-114.
68. Sicurelli D (2023) Conflicting standards of sustainable biofuel in the EU-ASEAN trade negotiations. In: *Standardizing the World*. Oxford University Press, New York, 195-216.
69. Hsieh PL (2024) Shaping green regionalism: New trade law approaches to environmental sustainability. *Rev Eur Comp Int Environ Law* 33: 172-182.
70. Häberli CM (2025) Food security under climate stress: With freer and greener trade. *SSRN*.
71. Toivanen R (2025) The UN 2030 Agenda in the EU Trade Policy: Improving Global Governance for a Sustainable New World. 1st ed. Bologna.
72. Ahmad Hamidi HN, Khalid N, Karim ZA, Zainuddin MRK (2022) Technical efficiency and export potential of the world palm oil market. *Agriculture* 12: 1918.
73. Afridi SJ, Kazmi UI, Ahmad I, Ali O (2025) The economic potential of the BRICS countries: Challenge to the realities of the global world. *Crit Rev Soc Sci Stud* 3: 2826-2837.
74. Noor NM, Khalid N, Rahman NAA, Alias S, Razak MFA (2025) The role of biofuel energy and institutional quality on Malaysian palm oil exports to the BRICS economies. In: *The Palm Oil Export Market: Trends, Challenges, and Future Strategies for Sustainability*. Routledge, 22.
75. Kiang BS, Liang CJ (2025) The moderating role of Malaysian and Indonesian palm oil production in the carbon emissions-income nexus. *University Tunku Abdul Rahman*.
76. Fayezi S, Varkkey H, Briones SB (2024) Implications of the EU Deforestation Regulation on global palm oil supply chains. *Adelaide* 18.
77. Carmagnac L, Touboul A, Carbone V (2022) A wolf in sheep's clothing: The ambiguous role of multistakeholder meta-organisations in sustainable supply chains. *M@n@gement* 25: 45-63.
78. Hsiao A (2026) Coordination and commitment in international climate action: Evidence from palm oil. *Econometrica* 94: 1-33.
79. Judijanto L (2025) Who pays for climate action? The disproportionate impact of deforestation-free regulations on smallholder farmers. *Eur J Manag Econ Bus* 3: 3-13.

80. Dahan SH (2026) EUDR delayed again: What changed, what is now fixed, and what businesses should do in 2026. *Axiom Vinciworks*.
81. Choiruzzad SAB, Tyson A, Varkkey H (2021) The ambiguities of Indonesian sustainable palm oil certification: Internal incoherence, governance rescaling and state transformation. *Asia Eur J* 19: 189-208.
82. Veriasa TO, Nurrunisa M, Oktaviani AR, Fadhli N (2022) Measuring the implication of RSPO certification: Lesson learned from independent palm oil smallholder in Riau Province, Indonesia.
83. Veriasa TO, Nurrunisa M, Fadhli N (2024) Revisiting the implications of RSPO smallholder certification relative to farm productivity in Riau, Indonesia. *For Soc* 8: 123-139.
84. Borer M (2025) EUDR regulation: Addressing solutions in the palm oil supply chain. *Koltiva*.
85. Prasetyo D (2026) Indonesia's 40% palm oil smallholders face traceability and certification gaps as EUDR compliance looms. *Koltiva*.
86. Renner S (2024) Smallholder RSPO certification, economic benefits and agrochemical use. *Environ Res Lett* 19: 114093.
87. Irawan NC, Mahananto, Supriyadi T, Haryuni (2024) What are the major barriers and challenges faced by independent oil palm smallholder farmers in RSPO certification? *J Rural Urban Community Stud* 2: 39-53.
88. Judijanto L (2026) Navigating economic resilience and transformation: Challenges and opportunities for Indonesia's palm oil industry from upstream to downstream in 2026. *Eur J Manag Econ Bus* 3: 28-48.
89. Yang X, Zhai J, Masron TA (2024) Analysis of Malaysia's export potential of palm oil and its products to RCEP member countries. *PaperASIA* 40: 20-32.
90. Hamid S, Paramitaningrum (2023) Indonesian economic diplomacy toward palm oil: Indonesia's response to the EU resolution on palm oil and deforestation of rainforest (2016/2222(INI)). *E3S Web Conf* 388: 04006.
91. Perdana BEG (2019) Upgrading and global value chain 4.0: The case of palm oil sector in Indonesia. *Glob South Rev* 1: 8-32.
92. Gereffi G, Lee J (2016) Economic and social upgrading in global value chains and industrial clusters: Why governance matters. *J Bus Ethics* 133: 25-38.

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