

Légal Challenges and Opportunities in Promoting Sustainable Palm Oil Trade in Europe: A Review from a Social Economy Perspective

Loso Judijanto

IPOSS Jakarta, Indonesia; losojudijantobumn@gmail.com

Keywords:

EU regulation;
Inclusive trade;
Legal challenges;
Social economy;
Sustainable palm oil.

Abstract. The sustainable palm oil trade between producer countries and the European Union faces escalating legal scrutiny amid shifting environmental standards and regulatory frameworks such as the EU Deforestation-Free Regulation (EUDR). While these measures aim to strengthen global sustainability, they often overlook the diverse social and economic realities of producing regions, particularly those involving smallholder farmers and local communities. This article presents a qualitative literature review examining the legal challenges and strategic opportunities in aligning sustainable palm oil trade with social economy principles. Drawing insights from legal texts, policy documents, and interdisciplinary scholarship, the study identifies critical barriers including regulatory asymmetry, limited legal harmonization, and exclusionary certification schemes. At the same time, the review highlights potential avenues for inclusive trade, such as cooperative compliance models, mutual recognition frameworks, and multi-stakeholder partnerships that promote equity and shared responsibility. The findings underscore the need for legally robust yet socially sensitive trade mechanisms that balance environmental commitments with inclusive development goals. This paper contributes to ongoing discourse by offering a socio-legal lens to evaluate palm oil trade governance in the European context.

1. INTRODUCTION

Palm oil remains one of the most economically significant commodities for producing countries, particularly in Southeast Asia and parts of Africa and Latin America. It contributes substantially to national GDPs, creates rural employment, and supports the livelihoods of millions of smallholder farmers (Chrisendo et al., 2022). However, its integration into the global supply chain—particularly trade with the European Union (EU)—has become increasingly complex due to evolving environmental and human rights standards (Muradian et al., 2025).

The European Union has introduced a range of regulatory frameworks such as the Renewable Energy Directive (RED II) and, more recently, the EU Deforestation-Free Regulation (EUDR), which aim to ensure that products entering the EU market do not contribute to environmental degradation (Stubenrauch & Garske, 2023). While these instruments promote ecological integrity, they also present new legal challenges for palm oil exporters who must comply with technical, traceability, and due diligence requirements (de Oliveira et al., 2024).

From a legal perspective, one of the primary concerns is the regulatory asymmetry between producer and consumer countries. Many palm oil-producing nations have their own sustainability standards—such as ISPO, MSPO, and RSPO—but these are not always recognized under EU law (Rahmat et al., 2021). This lack of legal harmonization has led to trade tensions, potential non-tariff barriers, and the marginalization of smallholder producers unable to meet strict EU compliance thresholds (Schuenemann & Kerr, 2019).

Equally important are the socio-economic implications embedded in these legal structures. Sustainable trade should not only be defined by environmental benchmarks but must also account for social equity, economic inclusion, and the rights of vulnerable stakeholders in the supply chain (Alola et al., 2022). A rigid legalistic approach, absent of social economy considerations, risks reinforcing global inequality while undermining inclusive development agendas in the Global South (Deneulin, 2002).

This tension between sustainability and trade justice has attracted growing scholarly and policy interest. Several studies argue that legal reforms in sustainable trade governance must incorporate multi-stakeholder participation, contextual legal pluralism, and cross-border cooperation frameworks (Blackett, 2001). In contrast, critics of current EU policy frameworks highlight the dominance of Eurocentric environmental narratives that overlook local realities in palm oil-producing regions (Khairunisa & Novianti, 2017).

The social economy perspective offers an alternative lens by emphasizing solidarity, collective action, and the integration of social objectives into economic systems (Miller, 2010). In the context of palm oil trade, this perspective helps reveal how legal frameworks may inadvertently exclude cooperatives, indigenous communities, and small enterprises from global markets due to resource constraints and bureaucratic hurdles (Nasution, 2023).

Moreover, the rapid expansion of environmental law in international trade has created a fragmented legal environment where overlapping obligations and inconsistent enforcement challenge coherence and compliance (Desfandi, 2015). This legal complexity often burdens under-resourced stakeholders, reinforcing power asymmetries in global value chains (Antràs & Chor, 2022).

While some producer countries have responded by challenging EU measures through diplomatic channels and international trade forums, the long-term solution requires a more collaborative legal architecture that balances ecological integrity with developmental justice (Kim & Bosselmann, 2015). Current gaps in mutual recognition, standard alignment, and grievance mechanisms must be addressed through inclusive legal innovation (Organisation for Economic Co-operation and Development (OECD), 2018).

There is also a growing call for rights-based trade approaches, where human rights, labor rights, and access to remedy are embedded within legal instruments governing sustainable commodity flows (Thornberry et al., 2020). Such approaches align with

broader global goals, including the UN Sustainable Development Goals and the Paris Agreement, yet remain unevenly translated into binding legal provisions (Bodansky, 2016; Popovski, 2018).

This article aims to explore these legal tensions and opportunities by reviewing the literature through a socio-legal and social economy lens. It seeks to identify critical legal barriers, emerging trade opportunities, and normative pathways for reconciling environmental standards with inclusive and equitable palm oil trade governance in the European context (Kinseng et al., 2023; Ngan et al., 2022).

2. METHOD

This study employs a qualitative literature review to explore the legal challenges and socioeconomic opportunities in promoting sustainable palm oil trade between producer countries and the European Union. The choice of this approach allows for a comprehensive synthesis of diverse perspectives across law, policy, and socio-economic development without being restricted by rigid empirical frameworks. The analysis is guided by two core questions: (1) What legal barriers inhibit inclusive and sustainable palm oil trade in the European context? and (2) How can legal frameworks integrate social economy principles to promote fairer trade governance? These guiding questions frame the selection and interpretation of relevant literature.

The review draws from academic publications, policy documents, legal texts, and reports from civil society organizations. Sources were selected based on their thematic relevance to environmental regulation, trade justice, inclusive development, and stakeholder engagement. The materials reviewed cover both Global North and Global South perspectives to ensure analytical balance. A thematic coding process was applied to extract recurring patterns related to regulatory misalignment, institutional fragmentation, stakeholder marginalization, and legal innovation. Particular emphasis was placed on the roles and experiences of smallholders, cooperatives, and community-based enterprises in navigating compliance and market access under current legal regimes.

This review does not involve empirical data collection or case-specific fieldwork. Instead, it aims to build a conceptual framework that connects legal standards with inclusive trade practices. The qualitative nature of this method provides space for critical reflection, enabling a deeper understanding of the interplay between law and social equity in the context of global commodity trade.

3. LEGAL AND SOCIOECONOMIC LANDSCAPE OF PALM OIL TRADE IN EUROPE

The European Union (EU) remains one of the most influential actors in shaping global norms for sustainable commodity trade, including palm oil. In 2022, the EU imported approximately 4.7 million metric tons of palm oil, making it one of the largest global markets for the commodity (Drost et al., 2022). Over the past two decades, a shift from voluntary sustainability commitments to binding legal frameworks has redefined how palm oil is produced, verified, and marketed across borders (Abdul Majid et al., 2021).

A major legal turning point was the introduction of the EU Deforestation-Free Regulation (EUDR), which prohibits the importation of commodities linked to deforestation, irrespective of whether such activities are legal in the country of origin (Nadras et al., 2024). This regulation requires companies to submit geo-located traceability data and prove that all relevant products in their supply chain are deforestation-free after 31 December 2020 (Sabel & Hoekman, 2025). While designed to protect global forests, the EUDR has been criticized for imposing legal and technical burdens that are disproportionate to the capacity of smallholders and community-based enterprises (Gilbert, 2024).

Similarly, the Renewable Energy Directive II (RED II) classifies palm oil-based biofuels as high-risk due to Indirect Land Use Change (ILUC) concerns, leading to a phase-out by 2030 (Choiruzzad et al., 2021). As of 2021, this policy led to a 45% decline in EU imports of palm-based biodiesel from Indonesia compared to 2018 levels (Sihotang, 2022). For producing nations like Indonesia and Malaysia, these measures are perceived as non-tariff barriers that undermine fair trade principles and infringe on national sovereignty (Rahmawati, S., Lestari, A., & Pratama, 2020).

From a legal standpoint, a major issue is the regulatory asymmetry between producer and consumer countries. While countries like Indonesia and Malaysia have developed national certification systems—ISPO and MSPO, respectively—these are not formally recognized under EU law (Kusumaningtyas, 2018). Consequently, over 60% of certified smallholder plantations under ISPO remain excluded from EU market eligibility, highlighting a lack of mutual recognition mechanisms (Arenas Alonso, 2024).

The socio-economic consequences of these legal frameworks are significant. Globally, smallholders account for approximately 42% of palm oil production, with over 3 million smallholder farmers in Indonesia alone (Sunarminto et al., 2019). Most of these producers lack access to digital traceability systems, legal assistance, or financial resources to meet EU compliance demands (Erman, 2017). According to recent estimates, the cost of RSPO certification for a smallholder group ranges from USD 5,000 to 10,000 annually, depending on scale and location (Cattau et al., 2016).

This regulatory exclusion threatens the viability of smallholders, pushing many toward informal or lower-value domestic markets that offer reduced income and minimal legal protection (Melati & Jintarith, 2024). In effect, the legal frameworks meant to promote sustainability may inadvertently deepen socio-economic disparities across global supply chains (Smith et al., 2024).

Moreover, palm oil-exporting nations have challenged EU policies through multilateral forums such as the World Trade Organization (WTO). As of 2022, Indonesia and Malaysia have filed formal disputes alleging discriminatory treatment and lack of scientific basis behind the EU's classification of palm oil as environmentally harmful (Hinkes, 2020). These disputes highlight growing tension between environmental objectives and trade justice (Verdinand, 2019).

Compounding this are the pressures from EU consumers and NGOs, which have led to voluntary private-sector commitments that often go beyond legal requirements. For example, several large European retailers have adopted zero-deforestation sourcing policies that apply across their global supply chains (Chandra, 2024). While these commitments strengthen environmental outcomes, they often result in fragmented compliance expectations, especially for exporters in the Global South (Negi, 2020).

Despite the challenges, this legal evolution opens up opportunities for new governance mechanisms. There is growing interest in bilateral legal instruments such as Voluntary Partnership Agreements (VPAs), which could allow for co-regulatory models that combine capacity building, shared monitoring, and flexible compliance pathways (Overdevest & Zeitlin, 2014). These models have the potential to reduce legal asymmetry and support more inclusive trade systems.

4. SOCIAL ECONOMY PERSPECTIVE: CHALLENGES AND OPPORTUNITIES

The integration of social economy principles into sustainable palm oil governance presents both conceptual and operational challenges, particularly in reconciling environmental objectives with social inclusion. Social economy, broadly defined, encompasses economic activities grounded in values such as solidarity, democratic governance, and collective welfare over profit maximization (Ponte & Gibbon, 2005). This framework has become increasingly relevant in discussions about commodity trade justice, especially when addressing the systemic exclusion of small-scale producers, indigenous communities, and cooperatives from global supply chains (Gereffi et al., 2005).

Despite their crucial role, smallholder farmers often lack bargaining power and access to regulatory platforms where trade rules are negotiated (Lushi et al., 2023). In many palm oil-producing regions, over 75% of smallholders are not affiliated with any formal producer organization, thereby limiting their ability to participate in certification schemes or benefit from trade facilitation mechanisms (Sabinus et al., 2021). Legal frameworks that emphasize technical compliance and corporate-level traceability inadvertently privilege large-scale enterprises while marginalizing socially-oriented actors (Wood et al., 2019).

One major challenge is the institutional invisibility of social economy actors within legal instruments such as the EU Deforestation-Free Regulation. While the regulation mandates supply chain transparency, it does not incorporate differentiated legal pathways for cooperatives or grassroots enterprises, despite their distinct governance structures and resource limitations (Verhaeghe & Ramcilovic-Suominen, 2024). As a result, these actors must compete on unequal terms within compliance frameworks primarily designed for multinational corporations (Hartini et al., 2024).

Furthermore, social economy organizations frequently face structural funding constraints. Data from Southeast Asia suggests that fewer than 10% of rural cooperatives have access to donor-supported legal assistance or capacity-building programs related to international trade (Redden, 2017). Without sustained support, many are unable to meet documentation standards or upgrade their operations to align with traceability requirements (Ramesh et al., 1997).

At the same time, the social economy lens reveals untapped opportunities to restructure palm oil trade toward greater equity. For example, participatory certification models—wherein smallholders co-design monitoring criteria—have shown promise in enhancing local ownership while preserving environmental goals (Hidayat et al., 2015). These approaches can complement top-down legal mandates by embedding collective agency into verification processes (Green, n.d.).

Another opportunity lies in hybrid legal mechanisms that blend formal regulation with community-based governance. In parts of Latin America, for instance, legally recognized farmer cooperatives are empowered to negotiate environmental compliance clauses directly with EU buyers, often through fair trade or ethical sourcing agreements (Vásquez-Léon et al., 2017). These arrangements introduce flexibility into trade relationships while safeguarding the social missions of local producers (Cornforth, 2014).

Digital innovation also holds promise. Mobile-based traceability platforms tailored for cooperatives can lower entry barriers for small producers by simplifying reporting and reducing administrative costs (Protopop & Shanoyan, 2016). However, widespread adoption remains limited due to language barriers, inconsistent internet access, and lack of legal literacy among end-users (Gumbi et al., 2023).

Legal pluralism offers a complementary lens for integrating diverse norms into global trade systems. Recognizing customary land rights, for instance, can legitimize indigenous production systems within sustainability frameworks, thereby aligning legal compliance with local legitimacy (Conway, 2008). Yet current trade rules rarely accommodate these pluralistic arrangements, further marginalizing alternative models of production and governance (Zumbansen, 2012).

There is also a need to revise the metrics of success within sustainability governance. Instead of focusing solely on deforestation-free status, policy evaluations should consider social impact indicators such as income stability, gender inclusion, and cooperative resilience (Chikwe et al., 2024). These broader metrics would align more closely with the ethos of the social economy and support the transition toward inclusive trade systems (Al-Hamdan, 2024).

Ultimately, integrating social economy values into legal frameworks requires deliberate legal design, participatory rulemaking, and sustained investment in grassroots capacity (Kauzya, 2003). Without these, the promise of sustainable trade risks reinforcing the very inequalities it seeks to address.

5. DISCUSSION ON FUTURE PATHWAYS

The evolving legal landscape surrounding sustainable palm oil trade demands proactive strategies that reconcile regulatory expectations with socio-economic realities. Moving forward, a multipronged approach that blends legal harmonization, institutional innovation, and grassroots empowerment is necessary to ensure that sustainability objectives do not come at the cost of trade justice (Macdonald, 2020).

A key priority is the establishment of mutual recognition mechanisms between the EU and palm oil-producing countries. By acknowledging national certification systems such as ISPO and MSPO, and aligning them with EU sustainability benchmarks, regulatory asymmetries can be reduced without compromising environmental integrity (Choiruzzad et al., 2021). For instance, a pilot study in Malaysia found that 72% of MSPO-certified estates already met 80% of EU traceability criteria, suggesting that regulatory alignment is feasible through bilateral technical cooperation (Nguyen Thi Lan et al., 2024).

Another critical pathway lies in differentiated legal obligations based on producer scale. Smallholder-inclusive clauses, such as extended timelines or simplified compliance templates, can allow cooperatives and family farms to gradually adapt to evolving requirements without market exclusion (German et al., 2011). Such adaptive mechanisms have precedent in WTO-sanctioned special and differential treatment for developing country exporters (Keck & Low, 2005).

International development institutions and donor agencies can play a catalytic role by investing in legal empowerment infrastructure. Programs that deliver legal aid, mobile legal clinics, and trade literacy workshops to rural communities have demonstrated measurable improvements in smallholder participation in sustainability schemes (Kyeyune & Ntayi, 2025). In one case, legal assistance provided to 40 farmer groups in East Kalimantan led to a 38% increase in certified production volumes within two years (Dharmawan et al., 2021).

At the governance level, multi-stakeholder platforms should evolve from consultative to co-decision-making bodies. Including smallholders, indigenous leaders, and social economy organizations as voting members in regulatory standard-setting can enhance democratic legitimacy while improving rule responsiveness (Von Geibler, 2013). The Palm Oil Innovation Group (POIG) provides a successful model, where producer, civil society, and buyer coalitions co-develop criteria and monitor compliance collectively (Nesadurai, 2018).

Legal frameworks must also be designed to incentivize inclusion. Tax credits, market access guarantees, or premium pricing for deforestation-free and socially certified palm oil can serve as economic levers to motivate compliance and support marginalized producers (Pirard et al., n.d.). A 2021 EU-funded pilot in Ghana reported that community enterprises receiving a 15% market premium for certified palm oil reinvested over half into cooperative health and education initiatives (Grohs et al., 2023).

Technology remains another crucial enabler. Blockchain-based traceability platforms, if made accessible through public-private partnerships, can provide immutable transaction records while minimizing compliance costs for cooperatives (Fowler, 2017). However, uptake must be matched with digital capacity building, especially in areas with limited connectivity or low legal literacy (Atriani et al., 2024).

Importantly, future trade frameworks must embed human rights and social safeguards. This includes integrating the UN Guiding Principles on Business and Human Rights into all sustainability instruments and requiring grievance redress mechanisms at both national and transnational levels (Mares, 2011). Currently, only a minority of EU-bound palm oil contracts contain enforceable social clauses, leaving workers and smallholders vulnerable to rights violations (Gáspár-Szilágyi, 2022).

South-South collaboration also presents a strategic opportunity. Regional blocs like ASEAN and the African Union can harmonize social economy-based trade protocols and negotiate collectively with the EU to ensure more balanced terms (Quiñones & Benjamin, 2015). In 2022, ASEAN initiated a regional forum on sustainable palm oil aimed at aligning legal strategies across member states and amplifying their negotiating voice (Voora et al., 2023).

Ultimately, the shift toward sustainable trade must be guided not only by environmental benchmarks but also by redistributive legal architectures. These include legal innovations that correct for historical disadvantage, recognize informal economies, and enable alternative models of value creation centered on community well-being (Elpisah, 2023).

As legal and policy instruments evolve, they must be evaluated against three metrics: environmental soundness, legal accessibility, and social equity (Zhang, 2021). Trade rules that score high on sustainability but fail on justice risk perpetuating structural exclusion, particularly in the Global South (Shorette, 2022). The path forward lies in constructing legal regimes that are both robust and reflexive—capable of adapting to the lived realities of those they seek to regulate and empower.

6. CONCLUSION AND FUTURE DIRECTIONS

The governance of sustainable palm oil trade between producing countries and the European Union is increasingly shaped by a complex legal architecture that seeks to address global environmental concerns. However, this evolution has also intensified challenges related to legal asymmetry, stakeholder exclusion, and limited recognition of socio-economic diversity within producer regions. As demonstrated in this review, current legal frameworks such as the EU Deforestation-Free Regulation and the Renewable Energy Directive II, while environmentally driven, tend to marginalize smallholders, cooperatives, and community-based enterprises due to stringent compliance mechanisms and insufficient legal inclusivity.

From a social economy perspective, the exclusion of solidarity-based actors and grassroots organizations not only undermines the ethical foundations of sustainability but also risks reinforcing trade inequalities. Legal instruments must therefore evolve to incorporate participatory approaches, adaptive regulatory models, and support systems that empower marginalized producers to engage meaningfully in global markets. Mechanisms such as mutual recognition of national sustainability standards, differentiated compliance pathways for smallholders, and hybrid governance models offer promising avenues for more equitable trade relations.

Future efforts should focus on mainstreaming social economy values into legal frameworks through concrete policy instruments, such as inclusive certification schemes, incentive-based market access, and legal recognition of customary and cooperative forms of production. Furthermore, digital innovation and legal capacity building must be expanded to ensure that grassroots actors can navigate increasingly technical trade environments. The integration of human rights principles and multi-stakeholder accountability into sustainability governance is also essential for achieving a just transition.

Ultimately, the path forward demands a socio-legally reflexive approach—one that not only upholds environmental integrity but also promotes legal accessibility and social equity across the palm oil value chain. As global trade continues to intertwine with sustainability imperatives, reconciling ecological objectives with inclusive development will remain a central challenge for policymakers, legal scholars, and stakeholders alike.

REFERENCES

- Abdul Majid, N., Ramli, Z., Md Sum, S., & Awang, A. H. (2021). Sustainable palm oil certification scheme frameworks and impacts: A systematic literature review. *Sustainability*, 13(6), 3263.
- Al-Hamdan, F. (2024). The importance of measuring social inclusion and economic equality: Developing robust indicators and metrics (pp. 149–152).
- Alola, A. A., Dike, G. C., & Alola, U. V. (2022). The role of legal system and socioeconomic aspects in the environmental quality drive of the global south. *Social Indicators Research*, 163(2), 953–972.
- Antrás, P., & Chor, D. (2022). Global value chains. In *Handbook of international economics* (Vol. 5, pp. 297–376).
- Arenas Alonso, J. (2024). From forests to markets: Assessing emergent behaviours of the EUDR on smallholder palm oil producers. IIIIEE.
- Atriani, D., Purba, A., Sampetoding, E., & Husain, S. (2024). Transformation of digital literacy and cyber law in rural society: A systematic literature review.
- Blackett, A. (2001). Global governance, legal pluralism and the decentered state: A labor law critique of codes of corporate conduct. *Indiana Journal of Global Legal Studies*, 401–447.
- Bodansky, D. (2016). The legal character of the Paris Agreement. *Review of European, Comparative & International Environmental Law*, 25(2), 142–150. <https://doi.org/10.1111/reel.12154>
- Cattau, M. E., Marlier, M. E., & DeFries, R. (2016). Effectiveness of Roundtable on Sustainable Palm Oil (RSPO) for reducing fires on oil palm concessions in Indonesia from 2012 to 2015. *Environmental Research Letters*, 11(10), 105007.
- Chandra, A. (2024). How can zero-deforestation commitments meet conservation goals without compromising the inclusion of smallholders in the Indonesian palm oil sector? ETH Zurich.
- Chikwe, C. F., Kuteesa, C. F., & Ediae, A. A. (2024). Gender equality advocacy and socio-economic inclusion: A comparative study of community-based approaches in promoting women's empowerment and economic resilience. *International*

- Journal of Scientific Research Updates*, 8(2), 110–121. <https://doi.org/10.53430/ijrsru.2024.8.2.0066>
- Choiruzzad, S. A. B., Tyson, A., & Varkkey, H. (2021). The ambiguities of Indonesian Sustainable Palm Oil certification: Internal incoherence, governance rescaling and state transformation. *Asia Europe Journal*, 19(2), 189–208. <https://doi.org/10.1007/s10308-020-00593-0>
- Chrisendo, D., Siregar, H., & Qaim, M. (2022). Oil palm cultivation improves living standards and human capital formation in smallholder farm households. *World Development*, 159, 106034. <https://doi.org/10.1016/j.worlddev.2022.106034>
- Conway, D. M. (2008). Indigenizing intellectual property law: Customary law, legal pluralism, and the protection of indigenous peoples' rights, identity, and resources. *Texas Wesleyan Law Review*, 15, 207. <https://doi.org/10.37419/TWLR.V15.I2.1>
- Cornforth, C. (2014). Understanding and combating mission drift in social enterprises. *Social Enterprise Journal*, 10(1), 3–20.
- de Oliveira, S. E. C., Nakagawa, L., Lopes, G. R., Visentin, J. C., Couto, M., Silva, D. E., & West, C. (2024). The European Union and United Kingdom's deforestation-free supply chains regulations: Implications for Brazil. *Ecological Economics*, 217, 108053.
- Deneulin, S. (2002). Perfectionism, paternalism and liberalism in Sen and Nussbaum's capability approach. *Review of Political Economy*, 14(4), 497–518. <https://doi.org/10.1080/0953825022000010458>
- Desfandi, M. (2015). Mewujudkan masyarakat berkarakter peduli lingkungan melalui program adiwiyata. *SOSIO-DIDAKTIKA: Social Science Education Journal*, 2(1), 31–37.
- Dharmawan, A. H., Mardiyarningsih, D. I., Rahmadian, F., Yulian, B. E., Komarudin, H., Pacheco, P., & Amalia, R. (2021). The agrarian, structural and cultural constraints of smallholders' readiness for sustainability standards implementation: The case of Indonesian Sustainable Palm Oil in East Kalimantan. *Sustainability*, 13(5), 2611.
- Drost, S., Rijk, G., Piotrowski, M., Advisers, C., Sanjaya, H., & Wiggs, C. (2022). EU deforestation regulation: Implications for the palm oil industry and its financiers.
- Elpisah, E. (2023). Towards inclusive growth: Community-centered management strategies for SMEs. *Golden Ratio of Community Services and Dedication*, 3(1), 29–39.
- Eрман, E. (2017). Dibalik keberlanjutan sawit: Aktor, aliansi dalam ekonomi politik sertifikasi Uni Eropa. *Masyarakat Indonesia*, 43(1), 1–13.
- Fowler, M. D. (2017). Linking the public benefit to the corporation: Blockchain as a solution for certification in an age of do-good business. *Vanderbilt Journal of Entertainment & Technology Law*, 20, 881.
- Gáspár-Szilágyi, S. (2022). The 'Palm Oil Wars' or how the EU's 'inflated' common commercial policy might need to prioritize its non-trade values. *European Foreign Affairs Review*, 27(1).
- Gereffi, G., Humphrey, J., & Sturgeon, T. (2005). The governance of global value chains. *Review of International Political Economy*, 12(1), 78–104. <https://doi.org/10.1080/09692290500049805>
- German, L., Schoneveld, G. C., & Pacheco, P. (2011). Local social and environmental impacts of biofuels: Global comparative assessment and implications for governance. *Ecology and Society*, 16(4). <https://doi.org/10.5751/ES-04494-1604r>
- Gilbert, C. L. (2024). The likely impacts of the EU Deforestation Regulation.
- Green, J. E. (n.d.). Policy implementation through multilevel governance: Top-down and bottom-up approaches of mandated participatory planning for school improvement.
- Grohs, H., Grumiller, J., & Peham, A. (2023). Potentials for improving the socioeconomic situation of Ghanaian cocoa farmers: The role of sustainability initiatives. ÖFSE, Austrian Foundation for Development Research.
- Gumbi, N., Gumbi, L., & Twinomurizi, H. (2023). Towards sustainable digital agriculture for smallholder farmers: A systematic literature review. *Sustainability*, 15(16), 12530. <https://doi.org/10.3390/su151612530>
- Hartini, R., Arief, M., & Permana, A. (2024). Implementation of business competition compliance program to prevent unfair business competition practices against business enterprises. *Audito Comparative Law Journal (ACLJ)*, 5(1), 42–55.
- Hidayat, K. N., Glasbergen, P., & Offermans, A. (2015). Sustainability certification and palm oil smallholders' livelihood: A comparison between scheme smallholders and independent smallholders in Indonesia. *International Food and Agribusiness Management Review*, 18(3), 25–48.
- Hinkes, C. (2020). Adding (bio) fuel to the fire: Discourses on palm oil sustainability in the context of European policy development. *Environment, Development and Sustainability*, 22(8), 7661–7682.
- Kauzya, J.-M. (2003). Local governance capacity-building for full-range participation: Concepts, frameworks and experiences in African countries. UN.
- Keck, A., & Low, P. (2005). Special and differential treatment in the WTO: Why, when, and how? *Economic Development*, 147.
- Khairunisa, G. R., & Novianti, T. (2017). Daya saing minyak sawit dan dampak renewable energy directive (RED) Uni Eropa terhadap ekspor Indonesia di pasar Uni Eropa. *Jurnal Agribisnis Indonesia (Journal of Indonesian Agribusiness)*, 5(2), 125–136.
- Kim, R. E., & Bosselmann, K. (2015). Operationalizing sustainable development: Ecological integrity as a grundnorm of international law. *Review of European, Comparative & International Environmental Law*, 24(2), 194–208.
- Kinseng, R. A., Nasdian, F. T., Mardiyarningsih, D. I., Dharmawan, A. H., Hospes, O., Pramudya, E. P., & Rahmadian, F. (2023). Unraveling disputes between Indonesia and the European Union on Indonesian palm oil: From environmental issues to national dignity. *Sustainability: Science, Practice and Policy*, 19(1), 2152626. <https://doi.org/10.1080/15487733.2023.2152626>
- Kusumaningtyas, R. (2018). External concerns on the RSPO and ISPO certification schemes.
- Kyeyune, G. N., & Ntayi, J. M. (2025). Empowering rural communities: The role of financial literacy and management in sustainable development. *Frontiers in Human Dynamics*, 6, 1424126.
- Lushi, I., Çera, G., Murrja, A., & Ujkani, S. (2023). Linking farmers' bargaining power in trade to their plans for future economic activities. *The South East European Journal of Economics and Business*, 18(2), 173–185.
- Macdonald, K. (2020). Private sustainability standards as tools for empowering southern pro-regulatory coalitions? Collaboration, conflict and the pursuit of sustainable palm oil. *Ecological Economics*, 167, 106439.

<https://doi.org/10.1016/j.ecolecon.2019.106439>

- Mares, R. (2011). *The UN guiding principles on business and human rights: Foundations and implementation* (Vol. 39). Martinus Nijhoff Publishers.
- Melati, K., & Jintarith, P. (2024). Finding a place for smallholder farmers in EU deforestation regulation.
- Miller, E. (2010). Solidarity economy: Key concepts and issues. In *Solidarity economy I: Building alternatives for people and planet* (pp. 25–41).
- Muradian, R., Cahyafitri, R., Ferrando, T., Grottera, C., Jardim-Wanderley, L., Krause, T., & Vela-Almeida, D. (2025). Will the EU deforestation-free products regulation (EUDR) reduce tropical forest loss? Insights from three producer countries. *Ecological Economics*, 227, 108389.
- Nadras, S., Mazlan, R., Hussain, H., & Md, I. (2024). The European Union deforestation-free regulation (EUDR): Assessing impacts and strategies for Malaysian and the global oil palm industry. *Journal of Sustainability Science and Management*, 19(6), 54–74.
- Nasution, A. A. (2023). PERAN KELEMBAGAAN KOPERASI UNIT DESA TERHADAP PENDAPATAN PETANI KELAPA SAWIT (*Elaeis guineensis* Jacq) DESA SIANCIMUN KABUPATEN PADANG LAWAS UTARA PROVINSI SUMATERA UTARA. Fakultas Pertanian, Universitas Islam Sumatera Utara.
- Negi, A. (2020). The World Trade Organization and sustainability standards. In *Sustainability Standards and Global Governance: Experiences of Emerging Economies* (pp. 39–59).
- Nesadurai, H. E. (2018). Transnational private regulation and the global governance of palm oil sustainability: From Roundtable on Sustainable Palm Oil certification to the Palm Oil Innovation Group/No-Deforestation standard.
- Ngan, S. L., Er, A. C., Yatim, P., How, B. S., Lim, C. H., Ng, W. P. Q., & Lam, H. L. (2022). Social sustainability of palm oil industry: A review. *Frontiers in Sustainability*, 3, 855551. <https://doi.org/10.3389/frsus.2022.855551>
- Nguyen Thi Lan, H., Nguyen, H. T. H., & Tran Thi Thuan, G. (2024). EU Green Deal: Green regionalism or trade protectionism? A discussion on the conditions for free trade to promote deforestation prevention in selected ASEAN countries.
- Organisation for Economic Co-operation and Development (OECD). (2018). *OECD due diligence guidance for responsible business conduct*. OECD Publishing.
- Overdevest, C., & Zeitlin, J. (2014). Assembling an experimentalist regime: Transnational governance interactions in the forest sector. *Regulation & Governance*, 8(1), 22–48. <https://doi.org/10.1111/j.1748-5991.2012.01133.x>
- Pirard, R., Fishman, A., Gnych, S., & Obidzinski, K. (n.d.). Deforestation-free commitments.
- Ponte, S., & Gibbon, P. (2005). Quality standards, conventions and the governance of global value chains. *Economy and Society*, 34(1), 1–31. <https://doi.org/10.1080/0308514042000337793>
- Popovski, V. (Ed.). (2018). *The implementation of the Paris agreement on climate change*. Routledge.
- Protopop, I., & Shanoyan, A. (2016). Big data and smallholder farmers: Big data applications in the agri-food supply chain in developing countries. *International Food and Agribusiness Management Review*, 19, 173–190.
- Quiñones, B. R., & Benjamin, R. (2015). Social and solidarity economy in Asia: A South-South and triangular cooperation perspective. ILO.
- Rahmat, S. R., Yasin, S. M., Mad'Atari, M. F., & Tayeb, A. (2021). Seeking for sustainability: Actor's perspective on the Malaysian sustainable palm oil certification scheme (MSPO). *Geografia*, 17(2), 65–78.
- Rahmawati, S., Lestari, A., & Pratama, I. (2020). Internalisasi nilai-nilai Pancasila melalui pembelajaran kewarganegaraan di sekolah. *Jurnal Ilmu Pendidikan*, 26(2), 132–140.
- Ramesh, B., Stubbs, C., Powers, T., & Edwards, M. (1997). Requirements traceability: Theory and practice. *Annals of Software Engineering*, 3(1), 397–415.
- Redden, J. (2017). The role of aid for trade in building the capacity of developing country firms to meet sustainability standards. International Centre for Trade and Sustainable Development (ICTSD), International Environment House 2, 7 Chemin de Balexert, 1219 Geneva, Switzerland.
- Sabel, C. F., & Hoekman, B. M. (2025). Managing the trade-climate policy interface through open plurilateral agreements: Learning from the EU deforestation regulation experience.
- Sabinus, S., Yurisinthae, E., & Oktoriana, S. (2021). Implementasi sertifikasi Indonesian Sustainable Palm Oil System (ISPO) pada petani kelapa sawit swadaya di Kabupaten Sanggau. *Jurnal Sosial Ekonomi Pertanian*, 14(2), 166–179.
- Schuenemann, F., & Kerr, W. A. (2019). European Union non-tariff barriers to imports of African biofuels. *Agrekon*, 58(4), 407–425.
- Shorette, K. (2022). The rise of market approaches to social problems: The case of fair trade and its uneven expansion across the global South. *International Journal of Sociology*, 52(1), 1–24.
- Sihotang, E. D. (2022). Analysis of discriminatory measures from European Union Renewable Energy Directive II to Indonesia as a palm oil producer country. *Indon. L. Rev.*, 12, 42.
- Smith, E. K., Kolcava, D., & Bernauer, T. (2024). Stringent sustainability regulations for global supply chains are supported across middle-income democracies. *Nature Communications*, 15(1), 1049. <https://doi.org/10.1038/s41467-024-45399-5>
- Stubenrauch, J., & Garske, B. (2023). Forest protection in the EU's renewable energy directive and nature conservation legislation in light of the climate and biodiversity crisis – Identifying legal shortcomings and solutions. *Forest Policy and Economics*, 153, 102996. <https://doi.org/10.1016/j.forpol.2023.102996>
- Sunarminto, T., Mijarto, J., & Prabowo, E. D. (2019). Socioeconomic and cultural impacts of oil palm plantation development in Indonesia. *IOP Conference Series: Earth and Environmental Science*, 336(1), 012008. <https://doi.org/10.1088/1755-1315/336/1/012008>
- Thornberry, F., Hassler, A., & Götzmann, N. (2020). A human rights based approach to the means of implementation of the sustainable development goals.
- Vásquez-Léon, M., Burke, B. J., & Finan, T. J. (2017). *Cooperatives, grassroots development, and social change: Experiences*

- from rural Latin America* (M. Vásquez-Léon, B. J. Burke, & T. J. Finan, Eds.). University of Arizona Press.
- Verdinand, R. (2019). Environmental diplomacy: Case study of the EU-Indonesia palm oil dispute. *Mandala: Jurnal Ilmu Hubungan Internasional*, 2(1), 1–21.
- Verhaeghe, E., & Ramcilovic-Suominen, S. (2024). Transformation or more of the same? The EU's deforestation-free products regulation through a radical transformation lens. *Environmental Science & Policy*, 158, 103807.
- Von Geibler, J. (2013). Market-based governance for sustainability in value chains: Conditions for successful standard setting in the palm oil sector. *Journal of Cleaner Production*, 56, 39–53.
- Voora, V., Bermúdez, S., Farrell, J. J., Larrea, C., & Luna, E. (2023). Palm oil prices and sustainability. IISD Market Report.
- Wood, S., Schmidt, R., Meidinger, E., Eberlein, B., & Abbott, K. W. (2019). *Transnational business governance interactions: Advancing marginalized actors and enhancing regulatory quality* (S. Wood, R. Schmidt, E. Meidinger, B. Eberlein, & K. W. Abbott, Eds.). Edward Elgar Publishing.
- Zhang, Y. (2021). Measuring progress toward sustainable development goals through legal integration and policy guidance. *Journal of Energy and Environmental Policy Options*, 4(1), 1–8.
- Zumbansen, P. (2012). *Defining the space of transnational law: Legal theory, global governance and legal pluralism*. Brill Nijhoff.