



The European Union Deforestation-Free Regulation (EUDR) Policy: Resistance, Impact, and Challenges for Palm Oil Producing Countries

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ABSTRACT

This study examines the implications of the European Union's Deforestation-Free Regulation (EUDR) 2025 policy on Indonesia and Malaysia as major producers of land-based commodities. This study analyzes three critical aspects: the impact of implementation, forms of resistance, and challenges in its implementation. This study employs secondary data (2020-2024) sourced from Google Scholar, Scopus, government publications, and news portals. Thematic coding was applied for data analysis, with triangulation across academic journals, media reports, and policy documents ensuring validity. The EUDR has triggered systematic resistance through diplomatic alliances, WTO lawsuits, national policy adjustments, and farmer protests. Its impacts span multiple dimensions: regulatory, economic, social, and environmental. This study developed an institutional theory framework to understand the impact of global environmental policies, empirically by mapping the strategic responses of developing countries, and practically through concrete policy recommendations in the form of harmonization of certification standards, development of inclusive funding systems, and evidence-based diplomacy strategies. The main findings of the study emphasize the importance of a just transition approach that considers the specific capacities and needs of producer countries in the Global South in implementing global environmental policies.

Keyword:

EUDR, Palm Oil, Policy

Resistance, Certification

Standards, Just Transition

INTRODUCTION

Global forest degradation continues at an ‘alarming rate’. Deforestation is estimated to reach 10 million hectares per year in 2015-2020, while in the 1990s it reached 16 million hectares per year. In total, between 1990 and 2020, the global forest area decreased by 420 million hectares in several world regions such as Central Africa, South America, and Southeast Asia (FAO and UNEP, 2020). Forest conversion to agriculture and plantations in the tropics contributed net emissions of about 2.6 gigatons of carbon dioxide per year in the period 2010-2014 (Pendrill et al., 2019). This land conversion causes forest loss, which is called deforestation (Qu et al., 2024; Susanto et al., 2018). There are at least two approaches to defining deforestation, namely using an approach based on ‘land use’ or ‘land cover’. Under the ‘land use’ approach, forest areas are designated by authorities: areas with few or no trees may be considered ‘forest’, and conversely, heavily forested areas may be open to agricultural development (Baumann et al., 2022). In the ‘land cover’ approach, areas with trees are classified as forest by vegetation stratification (Atyi. et al., 2022; Shimizu et al., 2022).

International trade-driven global deforestation demands strict policies in commodity supply chains, especially palm oil and soy, to reduce emissions and ecosystem damage in producer countries such as Indonesia. The fact behind deforestation is that it is indirectly driven by international trade, namely import transactions (Pendrill et al., 2019; Susanto et al., 2018). Imported deforestation refers to the import of raw materials or processed products that directly or indirectly contribute to deforestation, forest degradation, or conversion of natural ecosystems in other countries (Atyi. et al., 2022). Europe and China are major importers, accounting for 29-39% of deforestation-related emissions driven by international trade (Pendrill et al., 2019). Six commodities - palm oil (42%), soy (17%), wood products (9%), coffee (9%), cocoa (8%) and beef (5%) - accounted for the EU's deforestation footprint in 2017 from imports (Pendrill et al., 2020). The largest tropical rainforest deforestation trade came from South America and Southeast Asia, including soybeans, palm oil, and beef (WWF, 2021). In Indonesia, oil palm plantations are the biggest driver of deforestation, followed by the expansion of timber plantations and other plantations (Austin et al., 2019; Simontini, 2024). Deforestation in Indonesia, according to data from Simontini increased in 2023 to 257,384 hectares, which was previously according to data in 2022 from several institutions such as Auriga (230,760 hectares), Geospatial World Forum (230,003 hectares), and the Ministry of Environment and Forestry (104,000 hectares) (Simontini, 2024). The largest deforestation areas are in Kalimantan with 124,611 hectares, Papua with 34,966 hectares, Central Sulawesi with 16,667 hectares, Riau with 13,268 and other areas with 67,860 hectares caused by mining concessions, palm oil, timber plantations, and logging (Simontini, 2024). Policy measures governing international supply chains are needed to reduce emissions from deforestation (Pendrill et al., 2019).

Good institutional quality is proven to have a significant effect on economic development and environmental quality. The results of a study in the European Union show that the quality of its institutions influences economic development and environmental quality of life through the mechanisms of public spending efficiency, financial sector strengthening, and foreign investment attraction, which are realized in policies such as deforestation regulations to improve the sustainability of global supply chains. Econometric estimation of the impact of institutional quality shows that good institutions have direct and indirect effects not only on economic development (Abid, 2017; Acemoglu et al., 2001), but also on environmental quality in EU countries (through public spending efficiency, strengthening financial development and attracting Foreign Direct Investment (Abid, 2017). The quality control mechanism of political institutions is an important determinant of environmental quality

(Apergis & Payne, 2014). One of them is by modifying regulations to reduce environmental impacts (Abid, 2017). To reduce these environmental impacts, the European Union, a regional institution, introduced deforestation regulations to close the regulatory gap in the sustainability and legality of global forest and agricultural commodity supply chains (Berning & Sotirov, 2023).

The European Union's Deforestation-Free Regulations (EUDR) policy, which comes into full force in 2024, sets strict due diligence requirements for palm oil commodity companies and their derivative products. With a country risk categorization system that has the potential to increase compliance costs and trade barriers for major producing countries such as Indonesia and Malaysia, the European Union's Deforestation-Free Regulations (EUDR) policy has been the focus of environmental political economy in recent years as a regulatory framework introduced by the European Union as part of the European Green Deal initiative. The regulation was officially passed in December 2022 and came into full force on December 30, 2024, with a transitional phase starting on December 30, 2023. The regulation aims to improve corporate accountability mechanisms through tough, largely state-based regulation of commodity supply chains, reducing the role of market incentives and private regulation (Berning & Sotirov, 2023). Impacts for palm oil commodities include crude palm oil, refined palm oil, oleochemicals, and various other derivative products that use palm oil as a raw material (Ostfeld & Reiner, 2024). The regulation requires companies marketing these products in the EU market to conduct rigorous due diligence to ensure that their products do not contribute to deforestation (Berning & Sotirov, 2024; Cesar De Oliveira et al., 2024; Cosimo et al., 2024; Köthke et al., 2023). The EU is also introducing a categorization system of low-, medium-, and high-risk countries, which will affect the intensity of the required checks (Köthke et al., 2023). High-risk countries will face stricter verification requirements, potentially increasing compliance costs and trade barriers for exporting countries such as Indonesia and Malaysia (Cosimo et al., 2024; Köthke et al., 2023).

Empirical studies on Deforestation Free Product (DFP) reveal multidynamics ranging from the limitations of certification, the complexity of global supply chains, to the paradox between policy demands and socio-economic realities at the producer level. Previous research on Deforestation Free Product (DFP) relates to the effectiveness of certification in reducing deforestation (Carlson et al., 2018; Hinkes & Peter, 2020; Ostfeld & Reiner, 2024; Rana & Sills, 2024), global supply chain analysis related to DFP (Cesar De Oliveira et al., 2024; Reading et al., 2024; Santika et al., 2024), the role of technology in DFP verification (Assunção et al., 2023; Gallemore et al., 2022; Haq et al., 2024; Md Jelas et al., 2024; Reading et al., 2024), social-ecological conflicts in DFP implementation (Grajales & Toukpo, 2025; Hapsari, 2018), the role of consumers and businesses in promoting DFP (Berning & Sotirov, 2023; Giam et al., 2016; Hargita et al., 2020; Reis et al., 2021), and the impact of DFP policies on companies and producing countries (Berning & Sotirov, 2023; Cesar De Oliveira et al., 2024).

The EUDR policy is contentious in that the due diligence principle demands compliance from producing countries not to sell raw materials derived from deforestation (Cesar De Oliveira et al., 2024; Cosimo et al., 2024; Köthke et al., 2023). Meanwhile, some researchers argue that this mechanism shifts the administrative burden to producing countries (especially the Global South), which may not have sufficient technical capacity and data infrastructure (Köthke et al., 2023; Kumeh & Ramcilovic-Suominen, 2023; Rochmyaningsih, 2024). Another debate on EUDR policy is as a tool to promote sustainable production practices globally (Berning & Sotirov, 2024; Cesar De Oliveira et al., 2024; Ostfeld & Reiner, 2024). However, some researchers have called the EUDR a form of green unilateralism or eco-imperialism, as it was created without adequate consultation with key producing countries

such as Indonesia, Malaysia, Brazil, and African countries (Fuchs et al., 2020; Kumeh & Ramcilovic-Suominen, 2023; Vela Almeida et al., 2023). In the framework of multilevel governance, this is considered to ignore the principle of polycentric governance, which is coordination across levels and across actors that are equal to each other (Kumeh & Ramcilovic-Suominen, 2023). Some researchers also consider EUDR as a technical barrier to trade (Reis et al., 2021; Vasconcelos et al., 2024). However, the EU argues that this regulation is legitimate because it aims to protect the environment, which is a legal exception in the General Agreement on Tariffs and Trade (GATT) (Leonelli, 2023; Rochmyaningsih, 2024; Tosun, 2023).

Studies on deforestation-free products (DFP) have developed various theoretical approaches ranging from Life Cycle Assessment (LCA) and supply chain management to institutional theory, with a primary focus on certification effectiveness and the impact of EU regulations, although the application of institutional theory particularly in the context of producing countries such as Indonesia and Malaysia still needs further development. Theories and concepts that have commonly been explored in DFP include using Life Cycle Assessment (LCA) to evaluate environmental impacts and support zero deforestation (Bajdur et al., 2024; Sahoo et al., 2019). Then there is the Supply Chain Management & Traceability concept used to assess certification systems with a focus on traceability aspects that ensure deforestation-free supply chains (Hinkes & Peter, 2020; Kaulen et al., 2023). There is also research using the Advocacy Coalition framework to analyze the EU Regulation on deforestation-free products (Berning & Sotirov, 2023). Some researchers realize that DFP is still limited to using institutional theory (Bruton et al., 2010; Mammadova et al., 2022). Research using institutional theory still needs to be expanded because it is still relatively small, especially on the impact of EUDR on palm oil-producing countries. Institutional theory is used to analyze how formal institutions use coercive isomorphism, namely in the form of deforestation free product rules issued by the European Union which have multi-level effects such as institutional changes in Indonesia and Malaysia (e.g. policy reform, certification, supervision) which result in penalties and impacts for farmers and palm oil producers in the two countries.

The purpose of this article is to discuss the impact, resistance, challenges, and implementation of the policy. This research is expected to contribute theoretically to extending the use of institutionalism theory in the deforestation-free product phenomenon. Another contribution is to expand institutionalism theory that has multi-level impacts that affect power dynamics, coordination, and legitimacy between actors at various levels: international, regional (EU), national (producer countries), and local (farmers, businesses, etc.). Empirically, this research contributes to describing the responses of developing countries such as Malaysia and Indonesia to the policy. The practical contribution of this research is a comprehensive mapping of rejection arguments, impacts, and challenges of EUDR implementation to be used by the government as a reference for mitigating negative impacts. This research provides a theoretical contribution by expanding the application of institutionalism theory, particularly the concept of coercive isomorphism and multi-level governance analysis, to analyze the impact of EUDR's deforestation-free products (DFP) policy on power dynamics, coordination, and legitimacy at various levels (international, regional, national, and local). Empirically, this study fills a gap in the literature by presenting comprehensive evidence on responses, resistance, and implementation challenges in major producing countries such as Malaysia and Indonesia, while analyzing the complex interactions between business, government, and farmer actors. From a practical perspective, this study provides a systematic mapping of resistance arguments and implementation

barriers to aid mitigation policy formulation, and offers evidence-based recommendations for governments and businesses in adapting supply chains to new regulatory demands, with an innovative approach that emphasizes the perspective of the Global South in the global sustainability discourse.

METHODS

This research uses a descriptive-analytical approach that elaborates on the dynamics of rejection, impacts, and challenges of implementation with a focus on palm oil-producing countries, namely Indonesia and Malaysia. The chosen approach uses content analysis with the consideration that it can help in understanding the themes and concepts underlying a text from a theoretical perspective (Short, 2019) and critical discourse analysis can interpret data critically by making the analysis complex and generative, for example breaking down power and its influence socially and politically (Bouvier & Machin, 2018). Critical discourse analysis also combines linguistic analysis with social theory, making it a versatile tool for analyzing various forms of communication, including spoken and written texts, images, and multimedia (Joy et al., 2024; Leotti et al., 2022).

In this study, data were collected from various relevant sources, including Google Scholar, Scopus, official government websites, and news portals, spanning the period from 2020 to 2024. The search process was carried out using keywords directly related to the study topic, such as "EUDR compliance," "deforestation-free product resistance," "palm oil EU regulation," "EUDR," "smallholders," "impact," "challenges," and "resistance." To ensure a more specific and relevant search, I used Boolean operators such as "AND" and "OR" to connect these keywords. For example, a search in Google Scholar using keyword combinations such as "EUDR compliance," "deforestation-free product resistance," and "palm oil EU regulation" found articles that discussed all three topics simultaneously. Additionally, a search using the keywords "EUDR" or "smallholders" was conducted to include articles that discussed either of these two topics.

In this research, I employed Critical Discourse Analysis (CDA) to analyze secondary data policy texts, media reports, and narratives from non-governmental organizations related to the European Union's Zero Deforestation Regulation (EUDR), exploring the power dynamics and narratives underlying this policy. CDA was applied to understand how language in EUDR policy documents, such as the use of terms like "zero deforestation" and "sustainability," shapes a narrative of environmental protection that often overlooks the social and economic context of palm oil-producing countries. This analysis also included framing in media reports from outlets such as The Edge Malayasia, The Malaysian Reserve, Malay Mail, Reuters, Bisnis.Com and Mongabay, which portrayed the policy differently, either as a positive step towards sustainability or as a threat to the palm oil sector. Through CDA, I identified how media and policies shape public perceptions and strengthen or weaken narratives about the impacts of the EUDR policy. Furthermore, I also examined narratives constructed by non-governmental organizations such as World Wide Fund for Nature (WWF), European Forest Institute (EFI), and the Indonesian Palm Oil Association (GAPKI), which have differing perspectives on the EUDR policy. WWF and EFI support this policy as a crucial step in reducing deforestation and promoting global sustainability. At the same time, GAPKI criticizes it as a threat to the economies of palm oil-producing countries, focusing on the challenges faced by the sector. Through this analysis, I examine how the discursive strategies employed by these various actors shape perceptions of the EUDR policy and its effects. Overall, the use of CDA in this research helps uncover the power dynamics hidden in policies,

media, and narratives constructed by various institutions, and demonstrates how underlying political and economic interests influence these policies.

Data analysis in this study was conducted by thematically coding the resistance to EUDR by producing countries, both from government actors, business actors, and communities. Data was also categorized on the impact of EUDR politically, economically, socially, and environmentally. Data were also categorized into the challenges in implementing EUDR policies in Indonesia and Malaysia. The findings of this research are then compared with journals, media, and policy documents to validate the data through triangulation. The limitation of this research is that it is limited to using secondary data; it is recommended for future research to conduct field research to be able to capture more complexity from direct sources.

RESULT AND DISCUSSIONS

Resistance to EU Deforestation Regulation Policy

The European Union Deforestation Regulation (EUDR) policy has drawn significant resistance from major producing countries, especially Indonesia and Malaysia, which are concerned about the negative impact on the export of land-based commodities as a whole, ranging from upstream to downstream products (Rifin, 2023). The implementation of the EUDR has triggered strong resistance from governments and industry players in Indonesia and Malaysia, the world's two largest palm oil-producing countries.

Table 1. Indonesia and Malaysia's Resistance to the European Union Deforestation-Free Regulation

Type of Resistance	Malaysia	Indonesia
Political Diplomacy	<ol style="list-style-type: none"> Garner support from palm oil-producing countries through ASEAN and the OIC (Organization of Islamic Cooperation). Declare EUDR as a form of trade discrimination in international forums. 	<ol style="list-style-type: none"> Lodged an official objection to the EU through bilateral diplomacy. Formed the Council of Palm Oil Producer Countries (CPOPC) with Malaysia and Colombia to lobby the EU.
Lawsuits	<ol style="list-style-type: none"> Made a formal complaint to the WTO (World Trade Organization) based on violation of fair trade principles. However, it was rejected by the WTO in 2024. 	<ol style="list-style-type: none"> Submit a memorandum of objection to the WTO in 2023, as the EUDR may impact smallholders and palm oil producers.
National Policy	<ol style="list-style-type: none"> Strengthen MSPO (Malaysian Sustainable Palm Oil) certification as an internationally recognized alternative standard. 	<ol style="list-style-type: none"> Revise ISPO (Indonesian Sustainable Palm Oil) to be more stringent and aligned with global standards.
Market Diversification	<ol style="list-style-type: none"> Encourage palm oil exports to non-EU markets such as India, Pakistan, Africa, and the Middle East. 	<ol style="list-style-type: none"> Export palm oil to the Chinese market. Increase cooperation with BRICS countries (Brazil,

Type of Resistance	Malaysia	Indonesia
Public Demonstrations and Rallies	2. Sign Free Trade Agreements (FTAs) with African countries.	Russia, India, China, South Africa) for market expansion.
	1. The indigenous peoples' alliance rejects the stigmatization of palm oil as the cause of deforestation.	3. Expand the use of biodiesel (B35/B40) for domestic consumption.
		1. Mass action by the Indonesian Farmers Alliance (API) in Jakarta and major cities against the EUDR.
		2. Protest in front of the EU Embassy by palm oil farmers.

Source: Authors, 2024.

1. Resistance through Political Diplomacy

Indonesia fought EUDR via multilateral (WTO/CPOPC) and bilateral diplomacy (official letter, Joint Letter of 14 countries), fighting for ISPO/RSPo recognition and rejection of generalization of national commodities (Anggela, 2023b; Prasetiawan, 2023; Ministry of Foreign Affairs, 2023). The Indonesian government's form of resistance is diplomacy, including by the Indonesian Ministry of Trade, which has written to the Ministers of Trade of European countries, and then Indonesia also cooperated in a Joint Letter signed by 14 countries (Anggela, 2023b),, to show balanced data about the commitment of producing countries, especially Malaysia and Indonesia in sustainable development by having certification both Roundtable on Sustainable Palm Oil (RSPO) and Indonesian Sustainable Palm Oil (ISPO), therefore it does not generalize all raw materials from these countries are products that indicate high deforestation, but must be more detailed in sorting (Prasetiawan, 2023). Diplomacy is also carried out in the forum of the World Trade Organization (WTO) and the Council of Palm Oil Producing Countries (CPOPC), and others from various bilateral meetings (Ministry of Foreign Affairs, 2023). This diplomacy effort was carried out to fight for commodities affected by the regulation, with Indonesia also explaining that they had taken their actions to reforest.

Malaysia rejects EUDR as a form of protectionism in several approaches. This protectionism is done covertly to strengthen the position of smallholders, strengthen diplomacy via a joint task force with the EU, and reject high-risk status by showing sustainability commitments recognized by FAO/World Bank (Strangio, 2023; Pradipta, 2024; The Malaysian Reserve, 2023). The Malaysian Government's resistance to EUDR is evidenced by criticizing this regulation as a form of discrimination for their smallholders (Strangio, 2023). Malaysia stated that there is a possibility that the EUDR is used not purely for environmental purposes but to support their products or as an act of market protectionism (Pradipta, 2024). The Malaysian government urged that the implementation of the European Union's Deforestation Free Regulation (EUDR) be done in a fair and balanced manner (Salim & Hui, 2023). Diplomatically, Malaysia, along with Indonesia, as the world's largest palm oil producer, has reached an agreement with the EU to establish a joint task force. Malaysia also refuses to be classified as a high deforestation risk country as it has a strong commitment to forest conservation and sustainable agriculture, which has been recognized by international organizations such as FAO and the World Bank (The Malaysian Reserve, 2023).

Deforestation policies are considered to ignore economic aspects (Prasetiawan, 2023), with concerns about protectionism requiring WTO consultation (EPRS, 2022). Some critics argue that deforestation-free policies ignore the balance between environmental protection and economic needs, emphasizing the need for a more holistic approach. Prasetiawan, (2023) considers it necessary to exercise caution in adopting this policy, particularly in major exporting countries, given that the palm oil issue is not entirely related to deforestation but also to trade competition. However, one European country, the Czech Senate, emphasized the need for comprehensive consultations with partners within the WTO framework to avoid the proposed regulations being perceived as protectionist (EPRS, 2022).

2. Legal Action

The Malaysian government also resisted through legal action against the WTO. In March 2024, a WTO panel acknowledged that there were shortcomings in the EU's implementation of the policy, particularly in terms of transparency and administrative procedures (More & Blenkinsop, 2024). However, the WTO panel issued a ruling that largely rejected Malaysia's substantive claims and did not require the EU to revoke the policy, but requested that it make adjustments to make it more fair and transparent (More & Blenkinsop, 2024). Although the WTO ruling was not entirely favorable, Malaysia considered it a moral victory and claimed that its allegations of discrimination were well-founded (Latiff, 2024). On the other hand, the Indonesian government has also voiced its concerns about the EUDR in the WTO forum as a form of resistance, highlighting the negative impact of the regulation on small farmers and exporters of key commodities such as palm oil, coffee, and rubber (Ministry of Foreign Affairs, 2023). The Indonesian government considers the EUDR to be discriminatory and burdensome for developing countries. Malaysia's legal efforts through the WTO successfully exposed shortcomings in the implementation of the EUDR in terms of transparency and administrative procedures, although its substantive claims were rejected (More & Blenkinsop, 2024). This outcome is still considered a moral victory that strengthens Malaysia's position on the discriminatory nature of the policy (Latiff, 2024). Meanwhile, Indonesia has actively opposed the EUDR at the WTO forum, emphasizing its discriminatory impact on small farmers and major commodity exporters (Ministry of Foreign Affairs, 2023), reinforcing the argument that this regulation burdens developing countries. The resistance of these two producer countries underscores the need for a more equitable approach in global environmental policy.

3. National Policy Changes

The EUDR policy has triggered institutional transformation at the national level in palm oil-producing countries, as reflected in the refinement of certification schemes in both Malaysia (MSPO 2.0) and Indonesia (the latest ISPO). Malaysia responded by integrating the four key pillars of the EUDR—land legality, labor protection, traceability, and deforestation-free criteria (Bernama, 2025) - while also striving for low-risk status (Jayanandan, 2023). In parallel, Indonesia has adjusted its ISPO through strengthening its geospatial verification and legality systems (European Forest Institute, 2024a), and actively advocated for international recognition of its national certification scheme through joint task force forums (ICCRI, 2024). These policy adaptations demonstrate how EU regulatory pressure creates a domino effect in sustainable plantation governance in producer countries, while also revealing developing countries' strategies for responding to global environmental standards while maintaining national interests.

4. Market Diversification

Market Diversification Another form of resistance is the shift of markets from producer countries to non-EU and United Kingdom markets, such as China, which is the second largest importer of raw materials. There is a tendency for market shifts to occur when the EU imposes market barriers through regulations, namely a shift in supply to non-EU countries, the largest of which is China. Indonesia has redirected part of its palm oil exports from the EU to Asian countries such as China and India. Data shows that exports to Europe decreased by 37%, while exports to China and India increased by 20% to 30% (Alias, 2024). The EU and the United Kingdom are attempting to address this by aligning EUDR policies with China to anticipate market shifts toward China by producer countries. However, China is unlikely to change its regulations in the near term (Vasconcelos et al., 2024). Several factors make it difficult for China to implement regulations to stop deforestation, including economic benefits and a lack of political will (Lang & Chan, 2006). Additionally, Indonesia is expanding the use of biodiesel (B35/B40) to reduce domestic palm oil stockpiles (Adi, 2024). Meanwhile, the Malaysian government has shifted its market to India, Pakistan, Bangladesh, and Afghanistan, which account for 96% of total palm oil exports (MPOC, 2023). Malaysia is also actively establishing and strengthening trade relations with countries outside the European Union, including through free trade agreements and bilateral cooperation aimed at opening new markets for Malaysian export commodities affected by the EUDR.

5. Protests and Demonstrations by the Indonesian and Malaysian People

The EUDR policy issued by the European Union has also been rejected by communities in Indonesia and Malaysia, including through protests and demonstrations. Several palm oil farmers in Indonesia, who are members of a palm oil farmers' association, held a demonstration in front of the European Union Embassy in Jakarta as a form of rejection of the EUDR, which is considered burdensome and potentially harmful to small farmers (Anggela, 2023a). Meanwhile, representatives of indigenous communities and environmental organizations in Malaysia have also carried out symbolic and diplomatic protests at the international level outside the meeting room of the EU-Indonesia-Malaysia Joint Task Force on the EUDR in Brussels (Tilianaki, 2024). However, in addition to protests and demonstrations, some people agree with and support the EUDR policy, as they feel that the government authorities are still not strict enough in implementing deforestation-free policies (Human Rights Watch, 2024). Indonesian-Malaysian communities have rejected the EUDR through farmer protests and symbolic actions (Anggela, 2023a; Tilianaki, 2024), despite support from groups that view the government as insufficiently firm in addressing deforestation (HRW, 2024), reflecting the polarization of responses to this global environmental policy.

The Impact of EUDR on Producing Countries

EUDR policies threaten the economies of commodity-producing countries by restricting market access and disrupting domestic stability. The main challenge is the potential negative impact on the economy, especially for countries that are highly dependent on industries linked to deforestation, such as agriculture and forestry. Deforestation-free policies can restrict their access to international markets and disrupt domestic economic stability. Here are some of the impacts observed in commodity-producing countries.

1. Regulatory Impact

The EUDR policy has forced Indonesia and Malaysia to make structural adjustments in their domestic regulatory systems, particularly through reforming sustainability certification

schemes (ISPO and MSPO) and strengthening traceability systems. While these adaptations technically improve sustainability standards—such as the integration of geolocation verification, fulfillment of deforestation-free criteria, and supply chain transparency changes impose uneven economic and operational burdens (Anggela, 2023a; Tilianaki, 2024). First, harmonizing national standards with the EUDR potentially ignores the local context, where the capacity of smallholders and medium-sized enterprises often lags in meeting complex technical requirements. Second, the due diligence system required by the EUDR requires large investments in technology and infrastructure, which only large corporations can afford—thereby risking marginalizing small-scale producers. On the other hand, this regulatory change also opens up opportunities for both countries to strengthen their trade diplomacy position, especially by advocating for ISPO/MSPO recognition in international forums. However, without financial support and technology transfer from the European Union, efforts to fulfill the EUDR could widen inequality in the palm oil industry, instead of promoting inclusive sustainability. The main criticism is that EUDR does not fully consider the developmental equity aspect, where producing countries are forced to bear the transition costs, while the European Union, as the main market, does not provide proportional compensation.

2. Social Economic Impact

The EUDR threatens the Indonesian-Malaysian economy (85 percent of global palm oil supply) with a significant drop in exports, as well as risks disrupting the EU processing industry. Indonesia and Malaysia, through private companies, state-owned companies, and smallholders, supply 85 percent of global palm oil, which contributes significantly to the economy (Purnomo et al., 2020). However, the implementation of the EUDR policy will have an impact, especially on producing countries economically, one of which is a decrease in exports. Based on data from the European Union Agricultural Prospects 2023-2035, the use of palm oil as a biofuel feedstock in the European Union will drop from 21 percent in 2020-2022 to only four percent in 2035 (European Commission. Directorate General for Agriculture and Rural Development., 2023). The implementation of the EUDR policy in the Indonesian market will only take effect in January 2025, but Indonesia's CPO exports to the European Union have already decreased, namely in 2021 amounting to 4.63 million tons, 2022 fell to only 4.1 tons, then fell again in 2023, namely only 3.7 tons (Tribun, 2024). The EUDR policy is not only detrimental to producing countries, but also to the European Union itself, especially for companies that process the raw materials into advanced products, for example where the European Union imports chocolate beans (HS 1801) from Africa and Latin America (including Indonesia) to produce cocoa paste (HS 1803), butter (HS 1804), cocoa powder (HS 1805), or chocolate in food (HS 1806) (Rifin, 2023). Thus, the economic impact of the EUDR policy can significantly reduce Indonesia-Malaysia palm oil exports while threatening the EU processing industry, a lose-lose situation (2021-2023 data). Therefore, a collaborative producer-consumer approach is needed to create a more equitable and economically feasible sustainability scheme (Fajri, 2015).

The social impacts of EUDR policies on vulnerable groups in producer countries such as small farmers, indigenous peoples and local communities (Zhunusova et al., 2022). This impact is related to a decrease in people's income and economic welfare. The EUDR policy will affect the palm oil industry in Indonesia, which in 2024 absorbed 16.5 million jobs, and Malaysia, where 4 million people who depend on this sector are threatened with layoffs (Codingest, 2025; Köthke et al., 2023; Ostfeld & Reiner, 2024). It may also marginalise

smallholders who cannot access land geolocation tracking, strict legality documentation and high certification costs (Köthke et al., 2023).

3. Environmental Impact

The EUDR may have positive environmental impacts in Indonesia and Malaysia in terms of reducing deforestation and protecting biodiversity. The regulation encourages the adoption of ISPO and MSPO environmental certification schemes, including those established by the Roundtable on Sustainable Palm Oil (RSPO), to improve the sustainability of production (Ostfeld & Reiner, 2024). EUDR can reduce deforestation and ecosystem degradation, thereby protecting tropical forests and supporting deforestation-free initiatives, which are critical for environmental sustainability in both countries (Ostfeld & Reiner, 2024). EUDR can be a catalyst for environmental protection in Indonesia and Malaysia by encouraging sustainable production practices and reducing deforestation, although its effectiveness depends on consistent implementation and technical support for small-scale producers. To maximize the positive environmental impact of EUDR in Indonesia and Malaysia, inclusive multilateral collaboration is required. The EU needs to provide a package of technical assistance and specialized funding for small producers to meet certification standards, as well as establish a joint monitoring system with local governments based on geospatial technology. On the national side, the governments of Indonesia and Malaysia should intensify independent smallholder training programs on sustainable practices, supported by the development of an integrated digital platform for land legality verification and real-time deforestation monitoring. Meanwhile, industry players and NGOs are expected to form consortiums to implement business-environment partnership schemes that synergize commodity production with ecosystem restoration initiatives. This approach is expected to create an equitable ecological transformation without leaving small-scale producers behind.

Table 2. Impact of Deforestation Free Product Policy on the Economy, Society, and Environment in Indonesia and Malaysia

Impact Category	Indonesia	Malaysia
Regulation	<ol style="list-style-type: none">Changes to ISPO (Indonesian Sustainable Palm Oil) regulations to meet global standards.Review and adjust domestic regulations related to sustainability and product tracking.	<ol style="list-style-type: none">Changes to MSPO (Malaysian Sustainable Palm Oil) regulations in response.Review and adjust domestic regulations related to sustainability and product tracking.
Economy	<ol style="list-style-type: none">High compliance costs for small farmers.Potential loss of EU markets.	<ol style="list-style-type: none">MSPO certification costs are a burden on small farmers.Decline in exports to the EU.
Social	<ol style="list-style-type: none">Marginalization of small farmers who are unable to meet EUDR standards.16 million workers depend on the palm oil industry.Potential job losses.	<ol style="list-style-type: none">Marginalization of small farmers who are unable to meet EUDR standards.Most of 4,5 million workers in Malaysia's palm oil sector are vulnerable to the impact.Threat of poverty in rural areas.
Environment	<ol style="list-style-type: none">Reduction in deforestation due to market pressure.	<ol style="list-style-type: none">Ecosystem restoration.Reduction in deforestation due to market pressures.

Impact Category	Indonesia	Malaysia
	2. Risk of “hidden deforestation” in non-EU regions.	
	3. Increase in sustainable agricultural practices.	

Source: Authors, 2024.

The EUDR Implementation Challenges and Recommendation for Producing Countries

EUDR implementation has many challenges, such as tracking and transparency systems, high certification costs, local and global standards discrepancies, implementation time pressure, and economic and environmental dilemmas.

1. Tracking System and Transparency

EUDR implementation in Indonesia and Malaysia faces complex challenges, particularly in commodity traceability systems, high certification costs, local-global standards misalignment, and implementation time pressure. Limited traceability technology in national certification schemes (ISPO/MSPO) is a major obstacle in meeting EUDR geolocation requirements, while smallholders struggle to meet stringent standards due to limited resources (Gilbert, 2024; Rochmyaningsih, 2024). To overcome these challenges,: (1) investment in GPS and blockchain-based digital tracking technology to improve supply chain transparency; (2) special subsidy and assistance schemes for smallholders in the certification process; (3) harmonization of ISPO/MSPO standards with EUDR criteria through policy revision; and (4) establishment of a tripartite (public-private-NGO) collaboration forum to accelerate policy adaptation. These measures should be supported by technical assistance and funding from the EU to ensure an inclusive approach that does not leave small-scale producers behind.

2. Land Legality

Land legality is an important prerequisite in the ISPO scheme. Smallholder oil palm plantations are located within nationally designated forest areas, including conservation and protected areas. In some cases, indigenous or traditional communities are engaged in activities on land that they have historically occupied, despite not having legal rights to the land (European Forest Institute, 2024b). Despite having proof of legal land ownership, smallholders may face problems stemming from multiple permits and conflicts with government spatial planning. Land legality is a critical challenge in ISPO implementation, especially for smallholders and indigenous communities who often cultivate land within state forest areas without certainty of legal rights, despite having proof of traditional ownership. Conflicts between de facto community ownership and the legal status of land based on national spatial planning create complexities in fulfilling EUDR criteria.

To address land legality challenges in ISPO and EUDR implementation, a comprehensive approach involving various stakeholders is needed. *First*, the government needs to accelerate agrarian reform by prioritizing the resolution of tenurial conflicts, including recognition of indigenous peoples' rights and certification of smallholder land through schemes such as the Social Forestry Program. *Second*, harmonization of spatial policies with the reality of land use by local communities must be done to reduce discrepancies between legal status and practices on the ground. Third, geospatial technology-based legal and technical assistance needs to be strengthened to help smallholders verify their land legality accurately and affordably. *Finally*, multi-stakeholder collaboration between government, NGOs, academia,

and the private sector is needed to mediate land conflicts and ensure compliance with sustainability standards without compromising the rights of local communities. These steps will not only support EUDR implementation but also strengthen national certification systems such as ISPO.

3. High Certification Costs

One of the challenges of implementing the EUDR policy is the high cost of certification. EUDR regulations impose strict due diligence requirements on agricultural commodities, which can lead to high compliance costs for producers (Gilbert, 2024). ISPO certification in Indonesia is estimated to cost IDR 115 million (EUR 6500) for processes such as establishing smallholder groups, mapping farmland, and developing SOPs (Wibowo et al., 2023). However, certification also costs IDR 5 million per ISPO participating smallholder, which is the total cost of training, mentoring, and initial certification (Hamidi et al., 2024). The high cost of ISPO certification is a major challenge for EUDR implementation, especially for smallholders. These costs include farmer group formation, land mapping, training, and SOP development, potentially creating economic exclusion for small-scale producers (Hamidi et al., 2024; Wibowo et al., 2023). Strict due diligence requirements further compound the compliance burden (Gilbert, 2024). To reduce the cost burden, a collaborative approach through: (1) group certification schemes by sharing resources among smallholders; (2) financial incentives from the government in the form of subsidies or soft loans; (3) utilization of digital technologies (such as satellite mapping) to reduce land verification costs; and (4) adoption of Voluntary Sustainability Standards (VSS) as a more affordable alternative to risk assessment (Cosimo et al., 2024; Gilbert, 2024). These measures should be supported by intensive mentoring programs to ensure the inclusiveness of the transition towards sustainable practices.

4. Implementation Time Pressure

The EUDR's tight implementation deadline (January 2025) poses significant challenges for Indonesia and Malaysia in restructuring plantation governance, especially regarding deforestation tracking systems and adjustments to national regulations. A short transition period risks producer unpreparedness and high compliance costs, which could reduce the effectiveness of the policy (Gilbert, 2024; Ostfeld & Reiner, 2024; Rochmyaningsih, 2024). To overcome the time pressure, it is necessary to: (1) negotiate with the EU to extend the transition period for small-scale producers; (2) accelerate the development of supporting infrastructure (such as digital land verification systems) through technical cooperation and funding; and (3) develop a phased implementation roadmap that prioritizes critical sectors. Triangular collaboration between the government, industry players, and NGOs must be intensified to ensure timely policy adjustments without compromising the interests of smallholders (Gilbert, 2024; Rochmyaningsih, 2024).

5. Environmental vs Economic Issues

Implementation of EUDR creates a fundamental dilemma between environmental compliance and economic growth, particularly for countries dependent on land-based commodities such as Indonesia, Malaysia, and Brazil (Cesar De Oliveira et al., 2024; Gilbert, 2024; Köthke et al., 2023). High compliance costs could potentially hamper regional economic development, while pressure to comply with deforestation rules could destabilize the agricultural sector (Cesar De Oliveira et al., 2024; Gilbert, 2024; Köthke et al., 2023). Balancing these two interests requires a sustainable transition approach that includes: (1)

economic incentives from the EU for producers that comply with the EUDR, such as price preferences or market access; (2) special funding schemes to help smallholders transition to sustainable practices; and (3) strengthened national policies that combine environmental targets with local economic protection. Collaboration between governments, industry players, and international institutions is also essential to ensure that EUDR implementation does not come at the expense of community livelihoods (Gilbert, 2024; Köthke et al., 2023).

CONCLUSIONS

The findings are that institutions, through EUDR regulations, can influence the environment with an environmental political economy perspective. As done by the EU in the Free Deforestation policy which uses environmental considerations in economic and political policy making. The actions of the European Union itself as a political institution, by applying these regulations, maximize its political power, where the impact is that producer countries that still do not comply with these regulations will be threatened with not being able to enter the European market, which will directly affect economic resources. This research also shows that formal regulations issued by Institutions such as the EUDR policy can have multi-level impacts in the form of resistance, impacts and challenges for producer countries that affect the dynamics of power, coordination and legitimacy between actors at various levels of international, regional (EU), national (producer countries) and local (farmers, businesses, etc.). The contribution of this research theoretically expands the use of institutionalism theory in the phenomenon of deforestation-free products, where EU regulations can force their implementation in palm oil-producing countries. Another theoretical contribution expands institutionalism theory, which can capture the impact of regulations in a multi-level manner. Empirically, this research also contributes to describing the response in the form of resistance from developing countries such as Malaysia and Indonesia in the EUDR policy. The practical contribution of this research is a comprehensive mapping of rejection arguments, impacts, and challenges of EUDR implementation to be used by the government as a reference for mitigating negative impacts. This research has limitations on the use of secondary and tertiary data from media and document analysis. Future research suggestions for researchers are to conduct further research that is more specific by conducting field studies and direct interviews with farmers and palm oil business actors affected by this EUDR policy so that they can portray it directly. Other research is also expected to portray political and bureaucratic resistance in Indonesia in the implementation of this EUDR policy.

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