

Challenges to the Sustainability of Exports of Indonesian Commodity Products from the European Union's Environmental Perspective

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Abstract

The European Union Deforestation Regulation (EUDR) aims to reduce the consumption of products entering the European Union that are linked to deforestation and forest degradation. This regulation will directly affect the global supply chain of Indonesian exports to European Union countries for palm oil products and indirectly affect importing countries as Indonesia's trading partners supply the European Union market, especially for forestry products. This could happen due to requests from Indonesian trading partners who sell their products to the European Union who apply EUDR rules. The Indonesian government needs to firmly implement supportive policies to facilitate export activities related to forest products. Apart from that, the Indonesian government must also pay attention to the impact of this regulation on Small and Medium Enterprises which will be affected because they are also importers for companies or large traders. stability so these three variables could become study opportunities in the future.

Keywords

EUDR; Deforestation; Supply Chain; Indonesian Trade

INTRODUCTION

In December 2019, the European Union produced the "Green Deal" as guidelines for legislative and non-legislative proposals for Zero Greenhouse Gases by 2050 (Hainsch et al. 2022) and entered into force on June 29, 2023 yet the primary restrictions and requirements won't come into effect until December 30, 2024 (Radosavljevi et al. 2024). With this agreement, the European Union wants to change the paradigm of European development into one that prevents deforestation and forest degradation. For this reason, among the proposals submitted by the European Commission, the European Union Deforestation Regulation (EUDR) aims to reduce the consumption of products that cause forest damage such as oil palm, soya, wood, cocoa, coffee, cattle and rubber (Parliament et al. 2023) for entering the European Union, so that the European Union are unrelated to deforestation and forest degradation (Henn 2021). Europe is one of the top importers of deforestation-related goods, including 50% of the world's coffee and 60% of cocoa (Figure 1).

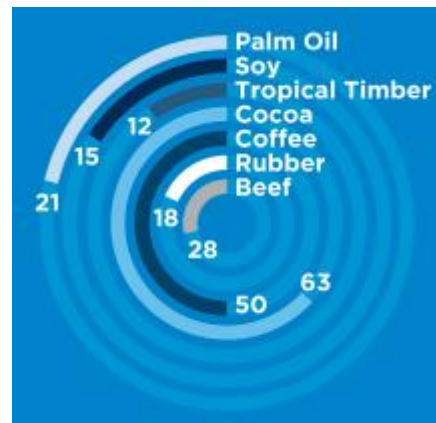


Figure 1. Overview of Europe's Share of Global Imports

Source: The Sustainable Commodity Initiative (IDH) (2020)

This commodity alone accounted for more than 25% of global tree cover loss from 2001 to 2015 (The Sustainable Commodity Initiative (IDH) 2020). There are seven commodities related to deforestation that will be requested by the due diligence system, namely: beef, timber, palm oil, soybeans, cocoa, coffee, and rubber and its derivate (Parliament et al. 2023)

(The Sustainable Commodity Initiative (IDH) 2020) and their derivative products, such as beef, charcoal, printing paper, leather, wood furniture, and chocolate (Medrado et al. 2023). For all these products, by-products, and goods produced with them, the importer will be responsible for certifying that these products were not produced in areas that were deforested after December 31, 2020 (Cesar de Oliveira et al. 2024).

This EUDR regulation will directly affect the global supply chain for Indonesian exports to European Union countries and indirectly affect importing countries as Indonesia's trading partners supply the European Union market. This could be because a demand-driven regulatory approach to forest conservation grows as consumers become more aware of environmental degradation (Garcia and Pauwels 2022). Producing countries must then be able to adapt to higher environmental standards with the enactment of EUDR rules or lose their export markets due to non-compliance with these standards. Even though some commodities are affected by EUDR regulations and the European Union is not the largest importer of these commodities, this regulation will have little impact on the organization of supply chains and logistics in producing countries. (Halleux 2022). Still, Indonesia needs to improve forest management regulations and governance to overcome the problems that will arise as a result of this regulation. This article aims to see what policies must be implemented for the Indonesian government to be able to increase exports to European Union countries in the future after the implementation of the EUDR regulations.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

The Deforestation situation in Indonesia

Many developing nations, like Indonesia, are highly concerned about deforestation and forest damage. Indonesia was the world's top producer of plywood and exporter of raw logs from 1966 until the late 1980s. In the period immediately following the decline in oil prices in 1982, timber was the second largest contribution to Indonesian income after gas and oil (Ministry of Environment and Forestry Republic of Indonesia 2022). The Indonesian government has taken preventive action by

implementing a moratorium on forest management permits. This method was quite successful with the deforestation rate decreasing by 75% from 115 thousand hectares in 2019-2020, which was the lowest since 1990.

Deforestation-free products in EU Market

The new European Union regulations contain definitions including deforestation, forest, agricultural plantations, "forest degradation", and "deforestation-free". The United Nations Food and Agriculture Organization (FAO) in particular has developed notions that are utilized as much as feasible in this description. One of the main developments of the new regulation is the definition of "deforestation-free," which is based on the requirement that after December 31, 2020, relevant commodities and products, including those used for or contained in relevant products, are produced on land that has not experienced deforestation or forest degradation. In other words, only products produced on land that has not been deforested or degraded after December 31, 2020 (Medrado et al. 2023), will be allowed on the European market or exported from the European Union. This concept includes both illegal and legal deforestation. Indonesian forests that already have Sustainable Forest Management certification based on data released by the Indonesian Forestry Certification Cooperation (IFCC) until 2023 cover an area of 4,263,771.65 ha, with a total area of 125,795,306 Ha (Ministry of Environment and Forestry, 2023). Other certification schemes, Forest Stewardship Council (FSC), enabling Indonesia to reduce forest loss by 568 protected areas between 2000-2010 by implementing logging concessions. This resulted in a loss of -1.5% in timber concessions and a loss of -1.2% 569 in protected forests (Wolff et al. 2023) although these rules are not mandatory.

METHODS

The research methodology used is based on Porter's Diamond theory, which can be used to compare aspects of resources, economy, industry, and regulation in general (Fang et al. 2018). The UAE can use this model to evaluate superior aspects, such as demand conditions, connected and supporting industries, factor

conditions, and firm strategy. The tourism industry's sustainability policy can be formulated through the application of Porter's Diamond theory method (Bouchra and Hassan 2023).

In this paper, this theory is used to identify and analyze the determinants of Indonesia's export opportunities and government support for increasing exports after the implementation of the EUDR based on four things, namely:

- a. Demand conditions
 - Demand for products that comply with the EUDR policy for products that wish to enter the European Union market
- b. Factor conditions
 - The abundance of natural resources from forests in Indonesia that are involved in the Global Supply Chain
 - Extensive planting and agricultural land in Indonesia
- c. Related and supporting industries
 - The need for a Sustainable Forest Management Certificate
 - Community Forest Management
- d. Firm strategy, structure and rivalry
 - Supervise the sustainability of raw materials and products
 - Establish intergovernmental cooperation (G2G)
 - Invest in sustainable product schemes

RESULTS AND DISCUSSION

Analysis of Indonesian Trade to the European Union Market

Indonesia currently is not European Union's main trading partners for overall Export (Table 1), but for partners from deforestation

products, in 2022, Indonesia will be included in the top 5 dominated by palm oil trade (Wolfmayr et al. 2024).

Indonesia is also not the main partner in import activities with countries in the European Union. It could even be said that Indonesia is not a strategic partner for the European Union in international trade activities. This can be seen from Figure 2 that the most significant trade between Indonesia and the European Union is palm oil commodities. This happens because products from Indonesia face challenges when they want to enter the European Union market. These challenges include trade restrictions, local content mandates, and mandatory and additional requirements for testing and certification of products to be marketed to markets with strict regulation (International Trade Administration 2024).

The Influence of the EUDR on Indonesian Trade

Prior to EUDR regulations, Indonesia already had a Timber Legality Verification System (SVLK) in 2009 (Minister of Forestry Regulation No. P38/Menhut-II/2009), which will now change its name to the Legality and Sustainability Verification System in 2021. Although the primary goal of the SVLK legislation was to comply with requests for eco-labeling, it has been demonstrated that these restrictions may also be used to achieve sustainable forest management, enhance the governance of forests, and prevent illicit logging and trading (Ma'ruf 2021). This is consistent with the 2003-initiated European Union-Forest Law Enforcement, Governance and Trade (EU-FLEGT) action plan, which aims to promote legal wood trade and enhance effective forest governance in the fight against illegal logging (Setiahadi et al.

Table 1. EU 28's Top 5 Export Partners from 2021 to 2023

Exporter	Imported values (million USD) in 2021	Imported values (million USD) in 2022	Imported values (million USD) in 2023
Germany	907.760,088	911.214.975	913.214.975
China	701.395.730	815.912.960	720.511.236
United States of America	371.644.366	510.823.564	502.134.530
Netherlands	434.879.084	460.321.695	442.588.622
France	346.899.439	374.667.116	385.044.620

Sources: International Trade Center (2024) (processed data)

2020). EU-FLEGT resulted in two significant rules, the EU Timber Regulation (EUTR) and the FLEGT Regulation, to counter illegal logging and related trade (Susilawati and Kanowski 2022). The Voluntary Partnership Agreement (VPA), which entered into force in 2005 with the intention of controlling the entry of timber into the EU from nations that signed bilateral VPAs, is one of the key elements of FLEGT (Verhaeghe 2021) and this regulation will also be applied to micro and small businesses in 2025 (Wolfmayr et al. 2024). For Indonesia, the 2013 agreement on the Indonesia-EU VPA cooperation framework made SVLK a requirement for all forestry managers, processors, and dealers along (Setiahadi et al. 2020).

Despite Indonesia already having instruments compliant with the EUDR, it takes time to put them into practice, particularly when it comes to laws governing interactions with small farmers, such as in the context of palm oil cultivation, where small farmers hold about 40% of all plantations (Berning and Sotirov 2024). Various efforts have been made to help small farmers, including expanding the implementation of social forestry and agrarian reform to prevent the high prevalence of illegality in land management. This is necessary because small farmers are actually better at managing forests than large plantations. For example, in Central Kalimantan, it was revealed that small farmers play a relatively small role in carrying out illegal expansion into state forest areas compared to large plantation companies (Astuti et al. 2022). Not to mention that there are limitations in the conceptualization of custom contained in state laws which result in the threat of poverty with 'incompatible' ethnic identities or where local ownership cannot be included in restrictive legal formulations, thus making recognition of land hard to do (Dhiaulhaq and McCarthy 2020).

To prevent negative multiplicative effects from this policy, especially the disproportionate burden and costs for farmers and SMEs in developing countries (Oegroseno 2023), The EU has attempted to take the initiative in overcoming aspects of deforestation and poor land and forest governance by implementing the Forest and Ecosystem Risk Commodities (FERC) strategic cooperation framework. The aim is to harmonize EUDR regulations so that they have maximum impact on partner countries and do not harm small and medium-sized businesses (Partiti 2020). . EU regulation can

be seen as imposing environmental standards on its trading partners, thereby impacting how producer countries regulate their commodities (Garcia and Pauwels 2022), although especially for Indonesia, this regulation is a form of protective action because especially palm oil products from Indonesia can affect the trade in vegetable oils produced in Europe (Kinseng et al. 2023).

Using Social Forest Management to Reduce EUDR Influence

Results in community forest management in Indonesia have yet to be positive, and investment and specific guidance are needed to ensure that objectives will be met (Meijaard et al. 2021). Furthermore, significant funding is needed to sustain policies and practices, create the necessary management conditions, and make sure communities get sufficient benefits from their forests. Giving people land rights but not giving them the sufficient resources to turn those rights into better social, economic, and environmental well-being can result in overall losses for those communities or those who are most marginalized among those communities. There are many different risks to watch out for in Indonesia when managing community forests. The current policy objective of 12.7 million ha in Indonesia may only be accomplished with much larger investments. In conversations with representatives of local forest management institutions, the lack of funding for their time and participation was repeatedly brought up (Meijaard et al. 2021).

Training, capacity building, and planning are necessary for the successful implementation of any new community forestry program. The acknowledgment of ownership rights and the delegation of management of forest authority to local governments may not be sufficient to fulfill all environmental and socioeconomic objectives. This is also true in Ecuador when a counterfactual analysis demonstrates that land titling has had no discernible effect on reducing deforestation (Luna et al. 2020). Similar worries that formal ownership of land would encourage land speculation, worsen inequality, and turn forests into agricultural land were voiced in Indonesia (Meijaard et al. 2021). Small-scale agriculture, rather than massive plantations, is now a major driver of deforestation in some areas of Indonesia, which calls for caution and more research. Deforestation in forests that are protected by watersheds and protected by protected areas

might compromise Indonesia's environmental and biodiversity obligations worldwide and have a negative socioeconomic impact.

Provision of Economic Incentives in Forest Management

Weak community ownership of the forest, living close to the forest, poor forest management due to lack of education, use of firewood, livelihood activities, population growth, length of stay, distance, and household size were found to be contributing factors influencing deforestation in several poor and developing countries (Ullah, Wu, and Khan 2023). The high dependence of local communities on forests and socio-economic factors can affect forest quality due to forest resource degradation being used to accommodate population growth.

Providing incentives can be used as an instrument for motivating economic actors to implement forest conservation. By starting with a value chain approach and including actors other than purchasers (whose willingness to purchase products that prevent deforestation creates incentives for prevented deforestation production), incentives are offered for avoided deforestation production (Tristán, Ivanova, and Quintero 2022), and can also target government, businesses, and individuals (Garcia and Pauwels 2022). If adequately controlled and enforced, economic incentives can be an essential tool for reducing deforestation, as they are perhaps the most effective way to turn overexploitation into the sustainable use of living resources (Ullah et al. 2023). These incentives will allow companies, smallholders, and producing areas to receive adequate support in transitioning to deforestation-free supply chains.

Recommended Measures to Reduce the Effects of the EUDR on Indonesian Exports

There are eight recommendations that must be acted upon urgently preventing deforestation, enhance environmentally friendly output and empower farmers. Recommended Actions to reduce the effects of the EUDR on Indonesian Exports are:

1. Conduct rules for required reporting and due diligence

Operators and non-SME traders will be held liable for exporting or placing related goods on the EU market. They must comply with the

rules for required reporting and due diligence guidelines to help businesses that want to export (and use raw materials) large quantities of commodities to promote transparency in efforts to prevent shifts in export markets due to obligations requiring importing companies to assess deforestation risks in their supply chains. Measures should be based on the experience of the French Precautionary Act (Berning and Sotirov 2023). It is one aspect of its national plan to fight deforestation from outside the country. The three steps of due diligence under the EUDR are as follows:

- a. Collection of information, data and documents (Article 9)
- b. Risk assessment measures (Article 10)
- c. Risk mitigation measures (Article 11).

For relevant products that are part of or manufactured of related commodities to which a due diligence declaration has already been filed, SME operators are excluded from the need to perform due diligence. In such circumstances, SME operators are required to provide the due diligence statement's reference number upon request to the appropriate authorities. The SME operators are required to perform due diligence for relevant product portions which have not been the subject of such diligence. SME traders are only permitted to provide acceptable goods on the EU market if they maintain a record of the relevant product information, such as supplier details and the reference numbers of the due diligence statements linked to the products.

2. Improve the value chain's transparency and traceability.

Importers, civil society, and EU governments can evaluate if a commodity or product has a deforestation risk in their supply chain through traceability and transparency across the value chain (Hinkes and Peter 2020). Operators are required to gather information, documentation, and data, such as geolocation coordinates, amount, and country of production, to demonstrate that the product is produced legally and without causing deforestation. This will help current attempts for transparency and traceability across industries and commodities.

3. Imposing Consequences for non-compliance

Start implementing due diligence regulations related to forest and environmental sustainability for commodities that are at risk of damaging forests and the environment. By implementing a ban on placing products of

unknown origin in local markets on the basis of national law, it is hoped that it can increase awareness in protecting the environment in addition to preparing ourselves for EUDR regulations

CONCLUSIONS

With the issuance of the EUDR regulations, even though statistically there is no impact on Indonesian export commodities to the European Union, this must be taken into account because in the future the impact will be felt by exporters who do business with countries that partner with countries in the European Union. Furthermore, these regulations can have a direct or indirect impact on global supply chains. Therefore, the government must firmly implement supportive policies to facilitate export activities related to forest products. The government must implement mandatory sustainable procurement standards not only for palm oil but also for all commodities that apply EUDR rules. This rule must also begin to be applied to domestic products to increase awareness in using products that do not damage the environment. In the future, further research needs to be carried out regarding the use of cooperation with non-EU European trading partners who can be Indonesia's strategic partners in the future in increasing exports of Indonesian forest products. Currently, Indonesia has trade agreements with several European countries in the Indonesia-EFTA FTA (Indonesia-European Free Trade Association Free Trade Agreement) scheme with member countries Liechtenstein, Iceland, Norway and Switzerland, while the FTA with the European Union is still in the discussion process.

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