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Potential challenges and opportunities of the European Union Deforestation Regulation for New Zealand's forestry sector

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Abstract
In 2023, the European Union (EU) announced its first-ever regulation on deforestation-free products. The European Union Deforestation Regulations (EUDR) aims to mitigate deforestation and forest degradation by regulating products associated with cattle, oil palm, rubber, soya, coffee, cocoa and wood. It mandates rigorous traceability of the related products throughout the supply chain and comprehensive compliance checks at the EU border. The EU is one of New Zealand's (NZ) most significant trading partners in the world. The two parties concluded a Free Trade Agreement to boost bilateral trade further. Although forestry products make up only a small portion of trade between the EU and NZ, they are NZ's third-largest export, significantly contributing to its economic revenue. This highlights the significance of examining the impact of the EUDR on NZ's forestry sector in maintaining continuous and steady economic growth. This paper aims to analyse the potential challenges and opportunities of the EUDR for NZ's forestry sector.

Keywords: deforestation, EUDR, EU–NZ trade, NZ forestry

Introduction

Announced in 2023, the EUDR is the EU's legal framework governing products directly produced or derived from cattle, cocoa, coffee, oil palm, rubber, soya and wood. The EUDR aligns with the EU's key strategic goals, such as the EU Green Deal and the EU Biodiversity Strategy for 2030 and is in synergy with the EU Global Gateway initiative. The EU is one of the world's largest producers and consumers of forestry-related commodities. Through implementing the EUDR, the EU aims to reduce Europeans' production and consumption of products associated with deforestation and forest degradation, reduce carbon emissions, reduce forest loss caused by agricultural land use, and facilitate the establishment of the deforestation-free products supply chain. The scope of products regulated by the EUDR will be reviewed regularly to include commodities produced from biofuels or other natural ecosystems, such as grasslands, peatlands, and wetlands (European Commission, 2024). Its implementation marks a significant milestone for deforestation governance (Weber, 2023).

The EU is one of NZ's most important trading partners in the world. The two parties concluded a Free Trade Agreement (FTA) in 2023, which has been in force since May

2024 (MFAT, 2024). The FTA will largely benefit NZ agriculture, horticultural, fisheries and manufactured products entering the EU market, saving about NZ$110 million in tariff duties (MFAT, 2023). NZ's forestry sector is the country's third-largest source of export revenue, generating about $6 billion a year for NZ's economy and contributing about 1.6% to Gross Domestic Product (MPI, 2024a). The primary export market for NZ's forestry products is China, with South Korea, Japan, and Australia also being significant markets (MPI, 2024). NZ's forestry products export focuses on logs, sawn timber, wood chips, panels, pulp, and paper. NZ timber is often used as a raw material in the production of wood-based products in non-EU countries, which are subsequently exported to the EU (Evison, 2016). The interconnected nature of the timber supply chain and trade suggests that implementing the EUDR will not only impact NZ forestry product operators engaging with the EU market but can potentially affect a broader range of forestry business owners in NZ beyond those directly exporting to the EU. This paper aims to dissect the EUDR framework and analyse the potential implications of the EUDR for the NZ forestry sector. Some recommendations are offered to stakeholders to prepare for the implementation of the EUDR.

The EUDR

The EUDR is the EU's first-of-its-kind regulation on governing deforestation-related products to reduce the EU's contribution to global deforestation and forest degradation. As mentioned earlier, the implementation of the EUDR is a key step in advancing several of the EU's key green transition strategies outlined in the 2019 EU action plan to protect and restore the world's forests, the EU Green Deal, the EU biodiversity strategy for 2030 and the Farm to Fork Strategy. The EUDR was approved by 27 EU member states in 2022 and entered into force in June 2023. The main drivers of implementing the EUDR are to reduce carbon emissions incurred by EU consumption and production of the associated products and tackle deforestation caused by increased agricultural activities (European Commission, 2024). According to Rochmyaningsih (2024), between 1990 and 2008, the EU consumed roughly 1/3 of global farm exports associated with forest loss and was responsible for roughly 10% of worldwide deforestation. Distinguished from the previous regulations stressing tackling illegal logging, such as the European Union Timber Regulation (EUTR) and the Forest Law Enforcement, Government and Trade (FLEGT) Regulation, the EUDR also emphasises regulating products linked to deforestation.

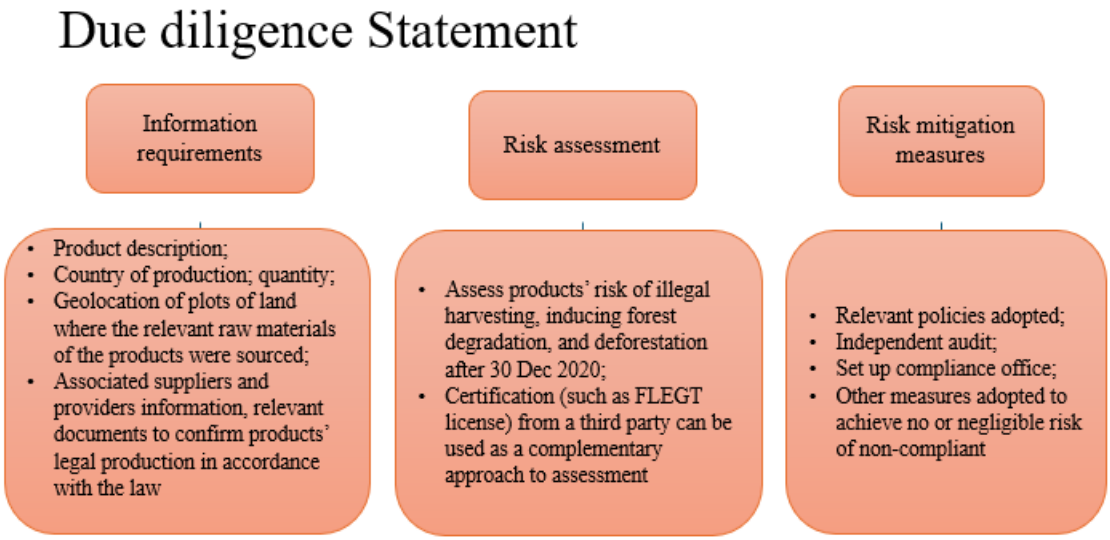
The EUDR has stringent rules requiring traceability of the associated products along the production supply chains, especially ensuring the associated products' linkage to deforestation-free lands. Three fundamental requirements must be met before the relevant products can be traded on the EU market: 1) products must be produced on land that has not been deforested after 31 December 2020; 2) must be legally produced in the country of origin; and 3) must have a due diligence statement (DDS). Regarding timber or wood-derived products, the associated products must be traceable and come from land not subject to deforestation or without inducing forest degradation after the cut-off date of 31 December 2020. The DDS should include comprehensive product information, such as geographic coordinates of the plots of land where the relevant products were sourced, Combined Nomenclature[1] (CN) code, quantity, and country of

[1] The Combined Nomenclature (CN) is the European Union's eight-digit classification system that builds upon the international Harmonised System (HS) by adding further EU-specific subdivisions. It is used to apply the EU's

production, to be verified to ensure compliance with the EUDR (European Commission, 2024).

Risk assessment and mitigation measures are also mandatory to show that products pose negligible or no deforestation and forest degradation risk (see Figure 1). In addition, the EU has developed a country benchmarking system, classifying countries or subnational regions into high, standard, and low-risk categories to assist with compliance verification. The European Parliament's latest announcement regarding the EUDR suggests that a no-risk group of countries will be created to enable less stringent requirements for the associated commodities entering the EU market. This move aims to simplify procedures for those products produced from regions where there is stable or increasing forest area development (European Parliament, 2024). According to the European Commission, only four countries are classified under the high-risk category: Belarus, North Korea, Myanmar, and Russia. 140 countries, including NZ, are categorised as low risk. About 50 countries are classified as standard risk (European Commission, 2025a). Products having no parts or ingredients sourced from unknown, high, or standard-risk countries are eligible for a simplified due diligence procedure. The EUDR came into effect on 29 June 2023, but the primary prohibitions and obligations for medium and large operators and traders will not take effect until 30 December 2025. It applies to micro and small enterprises from 30 June 2026.[2] Penalties are in place as a consequence of non-compliance, which includes confiscation of the non-compliant products, fines of at least 4% of operator's annual turnover in the EU, temporary exclusion from public procurement process or access to funding, the EU market access restrictions for relevant products, as well as potentially ineligible for the simplified due diligence process depending on the level of infringement of the EUDR (European Commission, 2024).

Figure 1: Due diligence statement requirements under the EUDR for market access



Source: European Commission (2024), compiled by the authors

common customs tariff and to compile trade statistics both within the EU and with non-EU countries. (European Commission, 2025).

[2] The United States, Australia and other countries have urged the EU to postpone the implementation of the EUDR to allow sufficient preparation for its implementation in 2025 (Abnett, 2024). In light of the concerns and challenges raised by third countries, the European Parliament has approved to delay the enforcement of the EUDR by an additional twelve months starting from 30 December 2025 for medium & large operators and traders, 30 June 2026 for micro and small enterprises. (European Commission, 2024).

Under the EUDR framework, the EU established various channels to facilitate EUDR implementation. The EU incorporated the Team Europe Initiative (TEI) into the EUDR framework to facilitate engagement with its key partners in establishing deforestation-free supply chains. The EUDR is also in synergy with the Global Gateway initiative, a key initiative to increase the EU's infrastructure and investment in the Global South. The objectives of the TEI on deforestation-free value chains are to construct partnerships with the EU's partners to support third countries' transition to sustainable deforestation-free supply chains. Under this framework, the EU has established coordination platforms and programmes to provide technical and financial support to its key partners in Southeast Asia, Africa and South America to achieve the green transition, particularly those that will potentially be affected by the implementation of the EUDR (European Commission, 2023).

In parallel, the European Commission advocated for strong international cooperation and engagement through a Strategic Engagement Framework announced in October 2024 (ibid, 2023). The key prioritised areas for engagement consist of supporting smallholders along products' supply chains, supporting creating high-standard traceability systems and partner countries' transition to sustainable and deforestation-free production, enhancing policy dialogues with partner countries to inform the EU's deforestation objectives and developing new technologies to facilitate sustainable land use. A range of programmes, such as AL-INVEST VERDE, the EUDR Engagement in Southeast Asia, Sustainable Agriculture for Forest Ecosystems (SAFE) programme, and EU Sustainable Cocoa Initiative, is underway to strengthen collaboration between the EU and its partners in third countries to overcome barriers to complying with the EU sustainable standards (ibid, 2023). These various collaboration channels for achieving EUDR compliance have evolved into diplomatic tools for the EU to support its climate agenda to combat global deforestation and forest degradation.

As the world's largest single market, the EU leverages its regulatory and market power to elevate global sustainability standards to tackle deforestation and forest degradation through EUDR. This unilateral approach has received criticism from the EU's economic partners worldwide. Seventeen Global South countries have expressed dissatisfaction with the regulation (Baffoe, 2023). Governments in Indonesia, Malaysia, and Brazil have raised concerns about the EUDR at the World Trade Organization (WTO), accusing the EU of ignoring the efforts of developing countries to tackle deforestation and forest degradation (Food Ingredients, 2024). China, the EU's second-largest trading partner, has opposed the EUDR and is unwilling to share geolocation data of forestry products, citing national security concerns (GWMI, 2024). Australia, the US and NZ also raised various concerns about compliance with the EUDR for associated products and called for the EU to reconsider the EUDR's implementation (Ross, 2024a; Ross, 2024c). The WTO has also cautioned the EU about the potential disruptions to global markets and supply chains that could result from implementing the EUDR (Ross, 2024b). It remains to be seen whether delayed enforcement of the EUDR would help mitigate its impact on the current global forestry products trade supply chain.

Timber and wood products trade relations between NZ and the EU

The EU is one of NZ's most important trading partners in the world. The two-way trade volume between the EU and NZ has increased steadily, featuring a rising trade deficit for NZ. The total trade value (including goods and services) between the EU and NZ reached NZ$20.68 billion in 2023. The value of NZ's exports to the EU accounted for NZ$5.76 billion, and its value of imports from the EU stood at NZ$14.92 billion in 2023. NZ mainly exports meat, fruit, beverages, fish and seafood, and dairy products to the EU and imports mechanical machinery, vehicles, and pharmaceuticals from the EU market (Statistics NZ, 2024).

In terms of forestry products, NZ mainly exports sawn or chipped wood, fibreboard, parquet flooring wood, logs, and fuel wood to the EU market. Its forestry products imported from the EU concentrate on wooden casks and barrels, plywood, fibrewood, wooden joinery, and sawn or chipped wood (ibid, 2024). Under the EUDR scope, the following categories of forestry products will be regulated if exporting to the EU market: wood (including products with HS[3] code between 4401 and 4421), furniture, wood pulp, recovered paper or paper board, paper products, books, and newspapers (European Commission, 2024).

The total trade value of these forestry products impacted by the EUDR between NZ and the EU has fluctuated between NZ$300 million and NZ$500 million in the last five years (see Table 1). It contributed to less than a 5% share of total EU-NZ trade. NZ gained a surplus in trading wood (44), wood pulp and recovered paper (47) with the EU but exports a negligible value of paper products (48), books and newspapers (49), and furniture (94) to the EU market. Between 2019 and 2023, NZ had an approximately NZ$200 million trade deficit with the EU in forestry products. Among EU countries, NZ's top trade partners of forestry products are the Netherlands, Spain, Germany, and Belgium.

Table 1. NZ forestry products trade with the EU (Year ended Dec, NZ$ mil)

	2019		2020		2021		2022		2023	
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports
44 Wood	61.26	72.97	60.71	63.9	85.07	98.4	92.57	105.06	68.79	74.13
47 Wood pulp and recovered paper or paper board	0.71	7.28	0.9	6.93	2.1	8.39	1.81	8.95	1.24	6.61
48 Paper products	115.26	0.49	103.74	0.9	115.03	7.55	105.29	36.77	104.03	5.64

[3] The Harmonised Commodity Description and Coding System is generally known as "Harmonised System" or "HS". It is developed by the World Customs Organisation as an international product nomenclature (World Customs Organisation, 2025)

49 Books and newspapers	6.27	0.35	7.58	0.44	5.76	0.44	4.43	0.47	5.26	0.78
94 Furniture	132.64	7.69	117.95	7.79	135.33	12.52	130.75	8.3	131.51	10.5
Total	316.14	88.78	290.88	79.96	343.29	127.3	334.85	159.55	310.83	97.66
Balance	-227.36		-210.92		-215.99		-175.3		-213.17	

Source: Statistics NZ, 2024

The enforcement of the EUDR will directly affect NZ operators' export of wood and wood products to the EU market starting in December 2025. NZ wood is frequently used as a raw material for producing wood-derived products in non-EU countries, which then may be re-exported to the EU. This suggests the EUDR will also indirectly affect more NZ forestry owners and forestry product operators that target other international markets, especially those who are key forestry product trading partners of the EU, such as China. On the other hand, if complying with the EUDR becomes uneconomical, producers of these wood-derived products might divert their exports away from the EU market. Therefore, failure to follow EUDR requirements could not only result in export barriers to the EU but also jeopardise the demand for NZ forestry products in other international markets.

Key challenges for the NZ forestry sector

The EUDR framework introduces potential challenges and opportunities for the NZ forestry sector if implemented. As the EUDR's definition of forest, deforestation and forest degradation differ from those outlined in NZ regulations, the implementation of the EUDR may generate confusion for NZ forestry owners, timber product producers, and operators targeting the EU market, which will directly impact their usual business engagement with their EU partners. Van Noordwijk et al. (2025) used the term collateral damage (which refers to unintended but harmful effects beyond target impacts) for a subset of producer countries (particularly the small-scale forest growers). Accordingly, mitigation of such collateral damage is a moral responsibility of those creating policy. NZ business agencies and the wood processing sector perceive the EUDR as a step towards meeting sustainable goals for the industry. However, the industry is anxious about the challenges and ambiguity of the post-EUDR global trade landscape for wood products and the approaches to meet EUDR criteria (Steele, 2024). The following analysis outlines the major challenges for the sector to be EUDR-ready. We believe that ignoring these challenges will cause collateral (unintended) damage to other land use and landowners. On the other hand, being well-prepared for the EUDR means not only can NZ forestry owners and product producers avoid being excluded from the EU market, but it may also create strategic opportunities for NZ to outpace its global competitors, potentially increase market share in the EU, reduce the trade deficit in forestry products, and enhance the forestry sector's competitive advantage in international markets.

Definition discrepancies

The EU and NZ utilise different definitions of forest and deforestation to achieve various regulatory objectives. The EU outlines criteria to assess whether the regulated products are deforestation-free. Three key relevant terms are deforestation, forest, and forest degradation. In NZ, forest means forest land covering at least 1 hectare with trees at least 5 meters high. However, the EUDR defines forest land as spanning more than 0.5 hectares. Under the EUDR, deforestation means converting forests to agricultural use, whether human-induced or not, including those caused by extreme weather. Deforestation is broadly defined in NZ, encompassing land conversion for uses like pasture or housing (Table 2).

Another key term, forest degradation, is undefined in NZ. Moreover, defining forest degradation also involves integrating the definitions of primary forest, naturally regenerating forest and planted forest. These terms are defined under the EUDR but are absent in the NZ context and lack internationally agreed definitions. The EU's definitions of deforestation and forest degradation focus on regulating the conversion of forests to agricultural land use (which includes converting planted forests to agriculture such as pastoral, horticulture and croplands).

Table 2. Definitions of deforestation, forest (land) and forest degradation in the EUDR and NZ regulations

Definition	EUDR	NZ regulations
Deforestation	"The conversion of forest to agricultural use, whether human-induced or not" (Chapter 1, Article 2 (3))	"The land is converted or used for something else. For example, the land is developed for pasture or housing". (MfE, 2024)
Forest (land)	Land >0.5 hectares, tress > 5 meters, canopy covers >10%, excluding land that is primarily for agricultural or urban land use (Chapter 1, Article 2(4))	At least 1 hectare in area; reach at least 5 metres; crown cover of more than 30% in each hectare; be at least (or expected to reach) 30 metres across on average. (MfE, 2024) At least 1 hectare; tree crown cover more than 30% of each hectare; (Climate Change Response Act 2002, Article 4 (1))
Forest degradation	"Structural changes to forest cover, taking the form of the conversion of (a) primary forests or naturally regenerating forests into plantation forests or into other wooded land or (b) primary forests into planted forests". (Chapter 1, Article 2(7))	Undefined

Source: European Commission and NZ Regulations, compiled by the authors

In NZ, deforestation estimation for planted forests between 2021 and 2023 were extrapolated based on deforestation trends observed from 2014 and 2020 (MPI, 2024a). Despite showing a downward trend of deforestation, it suggests that there could be time lags in detecting deforestation in NZ due to periodicity of satellite

monitoring. In particular, the EUDR requires exact dates and verification as part of the DDS to evaluate deforestation risk.

With the variations of definitions, it is imperative for the forestry sector, particularly forestry owners and wood trade operators, to understand the differences, particularly those targeting the EU market. For forestry products trade, there is also the potential risk of importing products from multiple regions inconsistent with EUDR standards. Understanding and aligning with these definitions will be essential for NZ's forestry growers, wood manufacturers, and trade operators to avoid trade barriers and maintain continued access to the EU and international markets.

Data availability, traceability and additional cost may challenge EUDR compliance

The EUDR requires operators to provide the associated products' geographical data linked to deforestation-free lands before the products are placed on the EU market (European Commission, 2024). To support the EUDR implementation, the EU's Joint Research Centre developed the Global Forest Cover 2020 dataset (European Commission, 2023a). This spatial dataset provides information about global forest cover in the year 2020 at a resolution of 10 meters. In contrast, New Zealand's land use system is based on the Land Use and Carbon Analysis Systems (LUCAS), which was established to fulfil its reporting and accounting obligations under the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. To comply with the EUDR, New Zealand's satellite data for land use must align with the EUDR's definition of forests. However, according to Zalles et al. (2024), the EUDR's forest definition may not be compatible with satellite data.

The discrepancy in the definition of forest will greatly affect what counts as forest and deforestation in New Zealand's land use. For example, the land-use category of shrubland with woody biomass comprises manuka (*Leptospermum scoparium*) and kanuka (*Kunzea ericoides*), which can grow above 5 meters in height. Using the Global Forest Cover 2020 based on the FAO forest definition, such land use can be identified as forest, and if the landowners of such land use convert it into dairy or pastoral land, it may be considered deforestation as observed in the study of Villamor et al. (2025), and landowners may risk trading to EU countries. In addition, NZ's landscape features areas of mixed land use, including agroforestry and silvopastoral systems. These types of land uses are not yet classified within the current land use systems and are not included in EUDR, although some may contain at least 10% tree cover (Zomer et al. 2016). Van Noordwijk et al. (2025) noted that the global forest map prepared for EUDR shows that there is an 18% likelihood that a pixel identified as forest in this map may be classified as non-forest in other datasets, all of which are based on the same definition of forest and use similar cut-off data.

Furthermore, the adjustments to current operations to meet EUDR definitions and requirements will potentially increase the operational costs of forestry practices. To date, the technology to precisely detect biomass such as manuka and kanuka, along with trees that are considered agricultural crops, such as apples, pears, and avocados, using remote sensing is not yet fully developed.

Producers may request forest owners downstream of the supply chain to provide geolocation data. For products mixing several relevant raw materials sourced from

multiple lands, geographical data[4] of each land should be collected for verification. Risk assessments and mitigation measures for each land involved must be prepared and communicated along the supply chain to ensure no or negligible deforestation risk is present. For some products, the DDS may be particularly complex to follow. For example, it would be challenging to trace wood fibre back to individual plots of land after the pulping process, posing a higher risk of data collection for paper production to comply with the EUDR criteria (Ross, 2024). The need for detailed record-keeping and reporting to comply with DDS means that a comprehensive information database may need to be established and managed to streamline compliance procedures for stakeholders along the supply chain. This also means it could be challenging for smallholders in the sector to invest in EUDR compliance.

The classification of risk level or benchmarking for each country depends on the criteria set by the regulation. These include the rate of deforestation and forest degradation, the rate of expansion of agricultural land for relevant commodities, as well as production trends of relevant commodities (European Commission, 2021). NZ is classified as low-risk. This suggests that the administrative costs for NZ forestry-products exporters to prepare for the DDS are likely to be lower, especially for locally produced products with no mixed or unknown origins.

Potential global or regional timber products supply chain disruption and market dynamics uncertainty for trade

The implementation of the EUDR will likely impact the EU's trade relations with its key partners as well as global forestry products' trade and supply chains. It could lead to a divided global timber products trade and supply chains, one being EUDR-ready and the other not. The country benchmarking system and countries' readiness for the EUDR will be crucial in determining the extent and the way the global and regional timber trade supply chains will be affected.

With the implementation of the EUDR, the EU countries are likely to shift their timber product trading partners from high-risk to countries posing a negligible risk to deforestation and forest degradation (European Commission, 2021). The EU anticipates reducing the volume of imports of relevant commodities originating from high-risk countries. This means the EU importers may prioritise sourcing products or raw materials from low-risk regions or transiting to using substitutes, such as replacing wooden furniture with alternatives (European Commission, 2021).

If the EU reduces importing wood products from high-risk regions, these affected countries may need to find alternative markets for their timber products, potentially leading to dumping unsustainable products in non-EU regions, including NZ. In addition, to avoid the burden of complying with EUDR requirements, some may choose to enhance trade with countries having loose deforestation regulations, such as China. For instance, Indonesia and Ghana's timber production sectors are considering redirecting their exports from Europe to Asia and Africa (Bougas et al, 2021). This means the Chinese market may become more competitive for wood product suppliers, especially if non-EUDR-ready countries potentially shift their attention to China. No substantial evidence suggests that China will soon converge its deforestation

[4] Geographical data can include remotely sensed data such as aerial photos, satellite images, and field photos with geotags and timestamps (European Commission, 2024).

regulation with the EU, although the Chinese government prefers a green supply chain of forest-related commodities (Vasconcelos et al, 2024). The potential changes in trade routes brought about by the EUDR implementation could significantly disrupt the existing timber trade supply chains. It could further alter trade flows, create new trade patterns, and result in wood price fluctuations and increased competition in some markets. The uncertainty may affect the demand and price of NZ logs and wood-derived products in international markets, posing challenges for NZ forestry business owners.

Opportunities for the NZ forestry sector

Despite potentially disrupting existing global timber trade dynamics, the enforcement of the EUDR can be an opportunity for the NZ forestry sector. NZ is labelled as a low-risk country (European Commission, 2025a)). Most of the NZ deforestation occurred before the EUDR cut-off date of December 2020, and NZ's forestry products supply chain is internationally recognised for its integrity (Frykberg, 2022). This indicates that NZ timber and wood products sourced from local or low-risk countries will likely gain a competitive advantage in the global market due to being eligible for a simplified DDS for the EU market.

NZ has a significant opportunity to play a key role in complying with the EUDR. The country relies heavily on trade and foreign investment. In addition, the EUDR is just the first of several pieces of legislation addressing deforestation by imposing sustainable practices and traceability measures. Countries worldwide increasingly enforce or propose mandatory policies, such as climate-related disclosures (Chapman Tripp, 2024). Other countries are also discussing laws to promote green production and supply chain transparency to combat deforestation, such as the UK Provisions on Forest Risk Commodities and the proposed Fostering Overseas Rule of Law and Environmentally Sound Trade (FOREST) Act in the US (Chapman Tripp, 2024). Key stakeholders, including wood processing companies, timber producers, and policymakers, can further develop strategies or mechanisms of flexibility and adaptability to meet the growing global demands for reporting climate risk, greenhouse gas emissions, and broader environmental, social, and governance (ESG) capabilities (Cezar & Carvalho, 2017; Elliott & Schlaepfer, 2002). Driven by market and consumer demand, following sustainable production and practices is likely to become the norm in the near future (Chapman Tripp, 2024). The forestry sector can enhance sustainable timber production, strengthen product supply chain traceability, seize the chance to strategically boost demand for NZ forestry products to increase market share in the EU, decrease the forestry products trade deficit with the EU and gain a stronger reputation and competitive advantage in the global market.

Recommendations for the NZ forestry sector

The EU's latest update on the EUDR suggests that the Union is determined to implement the regulation in 2025. The approved additional one-year delay is expected to bring more operators in the world on board to allow for smooth implementation of the EUDR without compromising the green objectives of the law (European Parliament, 2024). The fact that NZ relies heavily on trade and the NZ forestry products trade contributes significantly to national economic development means that the NZ forestry sector is highly susceptible to global timber trade dynamics (Wang &

Radics, 2021). To ensure continued access to the EU single market and prevent the potential loss of revenue, NZ forestry growers and business operators must be familiar with EU standards before exporting products to the EU and be well-prepared for the EUDR implementation in 2025.

"*Producers in countries the fastest to adapt will benefit the most*" (European Commission, 2021, p266). Forestry owners and producers should stay informed about the criteria within the EUDR and take proactive steps to ensure compliance and reduce risks of forestry product trade. Stakeholders along the product supply chain can collaborate closely with their upstream and downstream partners to prepare for the EUDR. For NZ forestry product exporters targeting European markets, it is crucial to establish early communication and clarification with their EU importers to obtain the necessary information and documents for EUDR due diligence compliance.

What is essential to being EUDR-ready is the transparent traceability of forestry products to their origin. Forestry companies can maintain detailed records of all forestry activities, utilising technologies to enhance products' traceability. Blockchain technology is a digital database that stores data and shares transparent information with business partners. The data stored in the blockchain are irreversible, which enables security and durability for tracing each business transaction along the supply chain for verification (Stopfer et al., 2024). Using blockchain technology in the forestry sector can enhance forestry management regarding timber traceability, sustainability, and transparency, as well as create efficient timber product supply chains (Harfouche & Nakhle, 2023). As the EUDR emphasises regulating forest loss and degradation caused by agricultural land use, replanting forests on the lands lost due to extreme weather like cyclones and wildfires will still be in accordance with the EUDR standards. However, the simplification of the concept of forest and deforestation needs to be reconciled with the realities on the ground (Van Noordwijk et al., 2025; Villamor et al., 2025).

Given that the EUDR requires the operators to keep all documentation related to due diligence for at least five years, establishing a monitoring and reporting system for NZ wood products could benefit the forestry owners and products operators to store relevant documentation and reduce the associated administrative cost. There is insufficient monitoring and official reporting in NZ regarding the purposes of harvesting activities contributing to forest degradation. Establishing a monitoring system for harvesting activities could directly address the challenges posed by the EUDR by enhancing transparency and legitimacy of wood production and demonstrating legal and sustainable practices and facilitate geolocation traceability. This includes ensuring that existing policies (such as offsetting for deforestation under the NZ Emission Trading Schemes) are accounted for in the reporting and monitoring system to avoid misinterpreting as deforestation.

It would benefit all relevant stakeholders to maintain regular dialogues, exchange information, invest in and explore suitable mechanisms to facilitate NZ's EUDR compliance preparation and gradually establish a deforestation-free supply chain. Furthermore, New Zealand can apply the insights gained from achieving EUDR compliance in the wood sector to improve policies in other sectors, such as beef, to support the associated products' EUDR compliance for exporting to the EU market.

Conclusion

The enforcement of the EUDR will have far-reaching implications for promoting sustainable practices and the role of plantation forests in global forestry industries. It may generate ripple effects across the global forestry products trade and supply chain, impacting NZ forestry products trade. Its implementation will directly affect NZ timber products exports to the EU market and other international markets where NZ timber is sourced for further manufacturing to re-export to the EU market. In particular, NZ's forestry and wood processing sector is highly susceptible to international market dynamics, Chinese market demand, and international politics. Moreover, the regulation's definition of forest, deforestation and forest degradation differs from those defined in NZ's forestry-related legislation. These discrepancies can also present potential risks for plantation forest growers, owners, and forestry product exporters in NZ, potentially leading to exclusion from the EU market. Being well-prepared for the EUDR would allow the sector to better navigate uncertainties, reduce the risk of losing trade opportunities, create growth potential for NZ's plantation forest growers and owners, and gain a competitive edge in international markets.

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