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GREEN PROTECTIONISM OR GREEN DIPLOMACY: AN ANALYSIS OF INDONESIA'S RESPONSE TO THE IMPLEMENTATION OF THE EU CBAM

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Abstract

The European Union's Carbon Border Adjustment Mechanism (CBAM) is a global climate policy aimed at preventing carbon leakage through the imposition of carbon tariffs on high-emission imports. This policy has generated debate, particularly among developing countries such as Indonesia, where it is often perceived as a form of green protectionism that may reduce the competitiveness of carbon-intensive export sectors. While previous studies have primarily focused on the economic impacts of CBAM, limited attention has been given to Indonesia's strategic response from the perspective of environmental diplomacy. This study aims to analyze Indonesia's response to the implementation of CBAM and assess whether the policy reflects green protectionism or creates opportunities for strengthening green diplomacy. Using a qualitative policy analysis based on thematic content analysis of official documents and relevant literature, this study employs structuralist and liberal perspectives to examine the policy dynamics. The findings indicate that CBAM has an ambivalent character: it reinforces structural inequalities through environmental trade barriers while simultaneously encouraging Indonesia to strengthen emission regulations, promote green industrial transformation, and enhance diplomatic engagement through mechanisms such as IEU-CEPA negotiations. This study contributes to the CBAM literature by demonstrating that the policy functions not only as a trade instrument but also as a catalyst for green diplomacy in developing countries.

Keywords: CBAM, Green Protectionism, Green Diplomacy, Indonesia, European Union.

INTRODUCTION

Climate change mitigation has become a central issue in global governance, prompting states to adopt various policies aimed at reducing greenhouse gas emissions. However, the transition toward a low carbon economy remains uneven, as developed countries generally possess greater financial and technological capacities than developing countries (Rositoh et al., 2024). This asymmetry has generated debates regarding the fairness of

climate-related trade measures, particularly those that may impose additional burdens on developing economies. Within this context, the European Union's Carbon Border Adjustment Mechanism (CBAM) has emerged as one of the most significant climate trade policies in contemporary international relations (Wahyuningtyas, 2024). Within this global energy transition context, the European Union has emerged as a key actor seeking to ensure that industrial transformation does not result in carbon emissions being relocated from one country to another.

For developing countries, however, CBAM raises concerns regarding market access and trade competitiveness. Indonesia is among the countries expected to be significantly affected due to its export dependence on several carbon-intensive sectors, including iron and steel, cement, and fertilizers. Consequently, CBAM is not merely an environmental policy issue for Indonesia, but also a strategic challenge involving trade interests, industrial competitiveness, and international diplomacy (As & Idris, 2024). The primary objective of CBAM is to prevent carbon leakage by ensuring that all goods consumed within the EU whether domestically produced or imported are subject to equivalent carbon costs. In addition, CBAM aims to encourage other countries to pursue decarbonization while ensuring that EU companies are not disadvantaged by competition from firms operating under more lenient carbon regulations. The EU initiated a pilot phase of CBAM in 2023, with full implementation scheduled for 2027–2034 as part of the "Fit for 55" program (Zhang & Sovacool, 2025). Fit for 55 is a comprehensive climate and energy policy package launched by the European Commission in July 2021, aimed at reducing EU greenhouse gas emissions by 55% by 2030 compared to 1990 levels, as a step toward achieving net-zero emissions by 2050. This framework provides the legal foundation for the implementation of CBAM (European Commission, 2023).

However, this policy has sparked protests from developing countries such as Indonesia, which perceive CBAM as a form of EU protectionism that disadvantages countries lacking the capacity to comply with its requirements. This policy potentially threatens the competitiveness of Indonesia's export

markets in carbon-intensive sectors such as steel, cement, and fertilizers. From another perspective, however, CBAM may represent an opportunity for green diplomacy by providing Indonesia with a platform to strengthen its global reputation as a country committed to energy transition and sustainability. Accordingly, this study addresses the following question: To what extent does the implementation of CBAM represent a form of green protectionism, and how does Indonesia respond to the policy through green diplomacy strategies? This article aims to analyze Indonesia's response to the planned implementation of the EU CBAM and to assess whether the policy more accurately represents green protectionism or offers opportunities for strengthening Indonesia's green diplomacy.

Research focusing on diplomatic responses, particularly those centered on Indonesia, remains limited. Nevertheless, CBAM has been widely discussed at the global level. Zhang & Sovacool (2025), for example, argue that adaptation to CBAM is influenced by political and economic factors rather than solely by levels of development. CBAM imposes a "triple burden" and creates a pressure–opportunity paradox, simultaneously serving as both a challenge and a catalyst for reform and innovation. Their study highlights significant differences in national adaptation strategies and emphasizes the need for inclusive climate transition policies and South–South cooperation. However, this research primarily adopts a macro-level political economy perspective and focuses on cross-country comparisons among major Global South economies. Similarly, Erixon (2021), in *Europe's Carbon Border Adjustment Mechanism: Time to Go Back to the Drawing Board*, critically examines the design of the EU's CBAM, identifying technical weaknesses as well as geopolitical and economic risks associated with its implementation, and offers recommendations for policy redesign to enhance effectiveness and fairness. Leonard et al. (2025), in their geopolitical analysis of the European Green Deal, examine the EU's strategy for achieving net-zero emissions by 2050, including CBAM's role as an instrument for exporting green standards globally. However, these studies primarily focus on the EU's motives, interests, and external strategies rather than on how partner countries

diplomatically respond to and navigate CBAM. In contrast, Wirdyansyah (2025), in *Carbon Border Adjustment Mechanism (CBAM) and Its Implications for Developing Economies: A Systematic Literature Review*, systematically reviews academic literature on the impacts of CBAM on developing countries and identifies key research gaps. The study's main contributions include: (1) analyzing the distributional implications of CBAM for vulnerable sectors and countries, (2) highlighting the lack of climate justice mechanisms and access to green technologies, and (3) proposing policy recommendations such as CBAM revenue redistribution, technology transfer, and institutional capacity-building. This study contributes to the CBAM literature by offering an analysis of Indonesia's response through the combined perspectives of structuralism and liberalism, thereby providing a more nuanced understanding of CBAM as both a trade-related constraint and a diplomatic opportunity.

Framework for Analysis

The debate surrounding the European Union's Carbon Border Adjustment Mechanism (CBAM) can be understood through two contrasting perspectives: green protectionism and green diplomacy. Green protectionism refers to the use of environmental policies as instruments that indirectly protect domestic industries by imposing additional costs or regulatory burdens on foreign competitors. Although such policies are often justified as climate mitigation measures, critics argue that they may create new trade barriers and reinforce existing inequalities between developed and developing countries. In this context, CBAM has generated significant controversy because it requires imported products to bear carbon costs comparable to those imposed on producers within the European Union(Erixon, 2021).

Conversely, green diplomacy emphasizes the use of environmental issues as a platform for international cooperation, negotiation, and collective action to address global climate challenges. From this perspective, climate-related regulations can encourage policy convergence, technological innovation, and stronger international partnerships. Rather than functioning solely as trade barriers, environmental instruments may also create

opportunities for developing countries to strengthen their participation in global climate governance and accelerate low-carbon development.

To operationalize these concepts, this study develops analytical indicators derived from both perspectives. CBAM is interpreted as a form of green protectionism when empirical evidence demonstrates: (1) the imposition of additional trade costs on developing countries, (2) unequal compliance burdens resulting from disparities in technological and financial capacities, and (3) restrictions on market access caused by environmental standards. In contrast, CBAM is interpreted as an instrument of green diplomacy when empirical evidence indicates: (1) regulatory adaptation toward low-carbon development, (2) strengthened international cooperation on climate governance, (3) technology and knowledge transfer, and (4) enhanced diplomatic engagement between Indonesia and the European Union.

This study further employs structuralist and liberal perspectives to explain Indonesia's response to CBAM. Structuralism argues that international economic relations are characterized by unequal power structures in which developed countries often shape global rules in ways that preserve their economic advantages. From this perspective, CBAM can be viewed as a mechanism that reproduces structural inequalities by transferring decarbonization costs to developing countries with more limited technological and financial resources. Meanwhile, liberalism emphasizes cooperation, interdependence, and the pursuit of mutual gains through international institutions and policy coordination. Within this framework, CBAM may be understood as a catalyst that encourages environmental cooperation, regulatory harmonization, and green industrial transformation.

By combining these perspectives, this study analyzes CBAM as an ambivalent policy instrument that simultaneously contains elements of green protectionism and green diplomacy. The analytical indicators developed above serve as the primary framework for interpreting Indonesia's policy responses and diplomatic strategies toward the implementation of CBAM (Mansbach & Taylor, 2007).

Methodology

This study employs a qualitative descriptive approach using a library research design to analyze Indonesia's response to the European Union's Carbon Border Adjustment Mechanism (CBAM). The study relies on secondary data obtained from official European Union regulations, Indonesian government policy documents, reports published by international organizations, academic journal articles, and official statements related to climate governance, international trade, and CBAM implementation.

The selection of documents was based on three criteria: (1) direct relevance to the implementation of CBAM and its implications for Indonesia, (2) publication by credible institutions such as the European Commission, Indonesian government agencies, international organizations, or peer-reviewed academic journals, and (3) publication within the period of CBAM development and implementation (2021–2025). Documents that did not directly discuss CBAM, Indonesia–EU trade relations, or climate governance were excluded from the analysis.

To enhance the credibility and reliability of the findings, source triangulation was conducted by comparing information from regulatory documents, government reports, academic publications, and international trade reports. Data validation was carried out by cross-checking policy statements and empirical findings across multiple sources to identify consistency and reduce potential bias.

Data analysis employed thematic content analysis. The analysis consisted of three stages: data familiarization, thematic coding, and interpretation. First, all documents were reviewed to identify information relevant to the research objectives. Second, the data were coded into thematic categories derived from the analytical framework, namely green protectionism and green diplomacy. Third, the coded data were interpreted using structuralist and liberal perspectives to examine how CBAM influences Indonesia's trade position, environmental governance, and diplomatic responses. This analytical procedure enabled the study to systematically

identify patterns, policy responses, and the dual character of CBAM as both a potential trade barrier and a catalyst for environmental diplomacy.

DISCUSSION

Overview of the Implementation of the Carbon Border Adjustment Mechanism

After the transitional period from 1 October 2023 to 31 December 2025 ends, the Carbon Border Adjustment Mechanism (CBAM) will enter its definitive phase starting on 1 January 2026. In this phase, importers will no longer be required merely to report emission data as during the transitional period, but will also be obligated to purchase CBAM certificates as a form of carbon adjustment for goods exported to the European Union. The price of these certificates will be aligned with the average price of emission allowances under the EU Emissions Trading System (EU ETS).

The implementation of CBAM will be carried out gradually (phase-in) from 2026 to 2033. During this period, the scope of emissions subject to CBAM obligations will continuously expand in line with the gradual elimination of free allocations that have been granted under the EU ETS. By 2034, all emissions embedded in goods covered by CBAM will be fully subject to CBAM certificate requirements, and free allocations under the EU ETS will be completely abolished.

Table 1. Summary of Key Elements During the CBAM Transitional Period

Aspect	Description
Duration	1 October 2023 – 31 December 2025
MRV Rules (Monitoring, Reporting, Verification)	Based on Implementing Regulation (EU) 2023/1773
Reporting of indirect emissions	Mandatory for all goods covered by CBAM
Default values for reporting	- Global values may be used, except for electricity.

embedded emissions	- May be applied to precursors of complex goods contributing up to 20% of the total value of the complex product. - Mandatory for electricity imports and indirect emissions unless specific criteria are met.
Flexibility in MRV rules	- Facility operators may use rules from non-EU carbon pricing or reporting systems until the end of 2024, provided these systems cover the same emission types and offer comparable accuracy. - Importers may also apply estimation methods until 31 July 2024.
Reporting frequency	Quarterly reporting by importers
Verification of reported data	- Not mandatory. - Operators and importers are expected to report as accurately and comprehensively as possible. - If third-party verification is conducted, it must be disclosed in the report.
Submission of CBAM certificates	Not required during the transitional period

Source: European Commission, 2024

Commission Implementing Regulation (EU) 2023/1773 of 17 August 2023 lays down rules for the application of Regulation (EU) 2023/956 of the European Parliament and of the Council regarding reporting obligations for the purposes of the Carbon Border Adjustment Mechanism during the transitional period (European Commission, 2023).

Product Specifications

There are six sectors covered under the Carbon Border Adjustment Mechanism (CBAM): cement, aluminium, fertilizers, iron and steel, hydrogen, and electricity.

Table 2. Product Specifications under the Carbon Border Adjustment Mechanism

Aspect	Description
Main Objective	To establish technical parameters and product characteristics that must be applied by operators outside the European Union for reporting under the CBAM system
Product Scope	Six main CBAM sectors: cement, aluminium, fertilizers, iron and steel, hydrogen, and electricity
Reporting Units (Units of Production)	- Cement: metric tons per product type (clinker, cement) - Aluminium: metric tons of pure aluminium per product (billets, slabs) - Fertilizers: metric tons per product (ammonia, urea, ammonium nitrate) - Iron and steel: metric tons of crude steel or intermediate products (coils, slabs) - Hydrogen: metric tons of pure hydrogen - Electricity: megawatt-hours (MWh)
Mandatory Reporting Parameters	- Quantity of CBAM goods produced and exported - Direct emissions in tons of CO_2e - Indirect emissions from electricity consumption, reported separately - Emission factors and energy sources used
System Boundaries	Define the production process stages that must be included in emission calculations, such as fuel combustion, chemical processes, and electricity consumption
Reporting Format	Data must follow the official templates issued by the European Commission and be reported per installation or production process in the country of origin

Verification	Third-party verification is not mandatory but is recommended to enhance data credibility
Final Output	Specific Embedded Emissions (SEE), defined as the amount of CO_2e emissions per unit of product (e.g., per ton), which serves as the basis for CBAM reporting

Source: European Commission, 2024

The Product Specification section in the CBAM implementation guidelines outlines the technical requirements that must be met by operators outside the European Union when reporting emissions data for goods exported to the EU. CBAM covers six main sectors cement, aluminium, fertilizers, iron and steel, hydrogen, and electricity with reporting units varying according to product type, such as metric tons or megawatt-hours. Operators are required to report production volumes, direct and indirect emissions (from electricity consumption), as well as energy sources and emission factors used. Emission calculations must encompass all relevant stages of the production process and be prepared using the official templates provided by the European Commission. Although third-party verification is not mandatory, it is encouraged to improve data accuracy. The final output is the Specific Embedded Emissions (SEE), representing total CO_2-equivalent emissions per unit of product, which forms the basis for reporting under the CBAM system.

Although the CBAM policy is officially implemented to prevent carbon leakage—namely, the relocation of emissions from countries with strict regulations to those with more lenient ones many developing countries perceive this policy as a form of green protectionism, including Indonesia. This perception arises because several of Indonesia's key export commodities, such as steel, cement, and fertilizers, risk losing competitiveness due to the additional carbon costs imposed in the European Union market. Empirical evidence substantiates this concern. Perdana and Sambodo (2023) estimate that CBAM implementation would increase Indonesia's iron and steel export costs by approximately 3–7%, depending on the prevailing EU ETS carbon price, which averaged EUR 63 per tonne CO_2 in 2023. Given that Indonesia's

steel sector recorded exports of approximately EUR 1.3 billion to the EU in 2023 (European Commission, 2025), this cost burden translates to a potential additional compliance cost of EUR 39–91 million annually a significant disadvantage relative to producers in countries with existing carbon pricing equivalence. Furthermore, the World Bank (2023) estimates that Indonesia's manufacturing sector emits approximately 2.1 tonnes of CO_2 per thousand USD of value added, compared to the EU average of 0.4 tonnes, reflecting a structural emissions intensity gap that renders CBAM compliance disproportionately costly for Indonesian exporters. This quantitative disparity reinforces the characterization of CBAM as a green protectionist mechanism insofar as it systematically disadvantages producers in economies where industrial decarbonization has lagged due to limited technological and financial resources (Cosbey et al., 2019; Mehling et al., 2019).

Table 3. Trade Flows by HS Section, 2021–2024

HS Sections	**Imports (million EUR)**				**Exports (million EUR)**			
	2021	2022	2023	2024	2021	2022	2023	2024
Total	5,681	24,148	18,410	17,525	7,963	9,146	11,313	9,790
Mineral products	695	2,383	2,433	1,527	33	73	50	35
Products of chemical or allied industries	2,318	3,429	2,160	2,351	1,934	1,579	1,549	1,537
Plastics, rubber, and articles thereof	1,196	1,311	871	872	367	467	419	446
Articles of stone, glass, and ceramic	86	101	73	68	51	69	86	87
Base metals and articles thereof	1,386	1,983	1,144	1,345	371	776	803	625

Source: European Commission, 2025

The data above represent the European Union's imports from Indonesia and the EU's exports to Indonesia, grouped by HS Sections (Harmonized System classifications of traded goods) from 2021 to 2024 across several sectors regulated under CBAM. These figures demonstrate that commodities targeted by CBAM account for a substantial and strategically important share of Indonesia's total exports to the EU. Sectors covered by CBAM, such as iron and steel (base metals and articles thereof) and fertilizers (products of the chemical or allied industries), represent carbon-intensive export sectors for Indonesia. As these sectors are required to purchase CBAM certificates for exports to the EU, Indonesian products may become more expensive than domestically produced EU goods or products from trading partners that already operate comparable carbon pricing systems. As a result of higher costs, Indonesian products such as steel, cement, and fertilizers risk losing competitiveness in the EU export market.

Empirical Assessment of CBAM's Impact on Indonesia

To move beyond a descriptive account of CBAM and substantiate the green protectionism argument with empirical evidence, this section presents four interrelated indicators: Indonesia's export market share to the EU, the disparity between Indonesia's domestic carbon price and the EU ETS benchmark, projected CBAM cost burdens on the iron and steel sector, and the current state of Indonesia's Monitoring, Reporting, and Verification (MRV) system. Taken together, these indicators clarify the magnitude of CBAM's structural pressure on Indonesia and the extent to which green diplomacy can realistically offset it.

First, in terms of market share, Indonesia's position within EU trade remains marginal: Indonesia is the EU's 30th-largest trading partner and its 24th-largest import source, accounting for less than one percent of the EU's total external trade by value (European Commission, 2025). This asymmetry indicates that, while CBAM-exposed commodities are economically significant for Indonesia, Indonesia is not a strategically indispensable partner for the EU, which constrains Indonesia's bargaining leverage in seeking exemptions

or transitional flexibility and reinforces the structuralist reading of CBAM as a rule imposed by a dominant trading bloc on a peripheral exporter.

Second, the gap between Indonesia's domestic carbon price and the EU ETS benchmark illustrates the scale of the compliance burden Indonesian exporters face. Indonesia's carbon tax, mandated under Law No. 7 of 2021, was set at a floor price of approximately IDR 30,000 (around USD 2) per tonne of CO_2e, while the national emissions trading system (NEK) has recorded average transacted prices below USD 5 per tonne, and trading volumes have remained thin since its 2023 launch. In contrast, the EU ETS allowance price fluctuated between EUR 60 and EUR 80 per tonne of CO_2 in 2025, more than ten times higher than Indonesia's effective domestic carbon price. Because CBAM certificate obligations are calculated as the difference between the carbon price already paid in the country of origin and the EU ETS price, this wide disparity means Indonesian exporters receive little to no offset for domestic carbon payments and must bear close to the full EU carbon price on embedded emissions.

Third, this carbon price disparity translates into concrete cost projections for Indonesia's iron and steel sector, one of the country's primary CBAM-exposed industries. Modelling of CBAM's definitive phase indicates that once free allocations under the EU ETS are fully phased out by 2034 and carbon certificate prices rise accordingly, the CBAM import charge could reach approximately 20 to 30 percent of the steel price for exporters relying on carbon-intensive blast furnace–basic oxygen furnace production methods, a category that includes the majority of Indonesian steel producers (Global Efficiency Intelligence, 2023). This projected burden is consistent with, and substantially exceeds, earlier transitional-phase estimates of a 3–7 percent increase in Indonesia's steel export costs (Perdana & Sambodo, 2023), underscoring that the most severe financial impact of CBAM on Indonesia's carbon-intensive exports still lies ahead as the mechanism moves from its transitional to its definitive phase.

Fourth, Indonesia's capacity to mitigate this burden through credible self-reporting is constrained by the limited maturity of its domestic MRV

system. Indonesia's national MRV framework, established under Presidential Regulation No. 110/2025 and Ministry of Environment and Forestry Regulation No. 21/2022, currently operates fully only in the power generation sub-sector, while MRV implementation in the cement and fertilizer sectors remains at the pilot stage and comparable arrangements for iron and steel are still under development (International Carbon Action Partnership, 2025). This institutional gap is consequential under CBAM's definitive phase, which restricts the use of default emission values from 2026 onward: exporters unable to produce independently verified emissions data risk being assessed against the EU's default benchmarks, which are typically less favourable than installation-specific figures and would further inflate the effective CBAM charge.

Collectively, these four indicators provide empirical grounding for the structuralist interpretation of CBAM advanced in this study: a marginal market position limits Indonesia's negotiating leverage, a wide carbon price gap leaves Indonesian exporters exposed to near-full EU carbon costs, projected cost increases of 20–30 percent threaten the long-term competitiveness of the steel sector, and an underdeveloped MRV system constrains Indonesia's ability to defend its actual emissions performance. At the same time, these same indicators identify the precise levers through which green diplomacy could alter this trajectory: accelerating domestic carbon pricing toward EU-comparable levels, extending MRV infrastructure to CBAM-covered sectors, and using diplomatic channels such as IEU-CEPA to negotiate equivalency recognition would directly narrow the empirical gaps identified above, transforming green diplomacy from a normative aspiration into a measurable policy pathway.

Table 4. Matching Argumentative Indicators with Empirical Evidence of CBAM–Indonesia

Argumentative Indicator/Claim	Empirical Evidence	Source	Data Type	Strength of Support
CBAM threatens Indonesia's aggregate export competitiveness	Indonesia's share of CBAM-covered product exports to the EU is <1% of total EU imports (2017–2021); cement exports fell to near zero	Suryani et al. (2025), ScienceDirect (Cleaner Engineering and Technology)	Quantitative (ITC Trade Map)	Weak–Moderate
Indonesia's carbon-intensive sectors (steel, cement, fertilizer) face long-term structural risk	The CBAM import cost burden is projected to reach 20–30% of steel selling prices by 2034 for countries without an equivalent carbon price	Global Efficiency Intelligence (2025)	Quantitative (carbon price scenario model)	Strong
Structural disparity in carbon prices between Indonesia and the EU	Indonesia's carbon price is approximately IDR 67,000/ton CO_2e (2025) versus the EU ETS at	IEEFA (2025); ICAP/European Commission DG ECFIN (2025)	Quantitative (market price)	Strong

	roughly EUR 60–80/ton CO_2e (more than 15 times higher)			
Indonesia's MRV system is not yet equivalent to EU standards	The new national MRV system currently covers only the electricity sector; pilot MRV programs for cement and fertilizer are still underway and not yet fully mandatory	ICAP (2026); Presidential Regulation 110/2025	Qualitative/regulatory	Moderate
Green diplomacy can shift developing countries' bargaining position	The EU–India agreement produced a parity clause, a EUR 500 million transition fund, and a consultation mechanism	Lowy Institute (2026)	Qualitative (precedent case study)	Moderate (not automatically applicable to Indonesia)
Large developing countries hold collective bargaining power through multilateral coalitions	The BASIC coalition (Brazil, South Africa, India, China) formally raised	Tandfonline – EU Climate Diplomacy (2026); BASIC Statement	Qualitative (policy document/diplomatic position)	document/diplomatic position)Moderate (Indonesia is not yet part of this bloc)

	objections to CBAM at the UNFCCC as a bloc	(cited in Lo, 2021)		
Accelerating the domestic ETS/carbon tax will reduce the CBAM certificate burden	IDXCarbon transaction volume remains very small (~7.85 million tons, USD 5.15 million in 2024); prices remain far below the USD 50–100/ton needed for 2030 targets	Reccessary (2025); IEEFA (2025)	Quantitative (market transaction data)	Weak (domestic capacity is not yet sufficient for this claim)

Source: compiled by the author, 2026

The relationship between the analytical indicators developed in the theoretical framework and the empirical evidence identified throughout the analysis. The mapping demonstrates that indicators associated with structural inequalities, particularly carbon price disparities and projected CBAM compliance costs, are supported by strong empirical evidence. In contrast, indicators related to the effectiveness of green diplomacy and domestic carbon market readiness remain supported by moderate or limited evidence. This finding suggests that the structuralist interpretation of CBAM is empirically stronger at present, whereas the liberal argument concerning green diplomacy depends on further institutional development and successful diplomatic outcomes.

Indonesia's ongoing negotiations for the Indonesia–European Union Comprehensive Economic Partnership Agreement (IEU-CEPA), which have been underway for nine years, reflect the country's increasing efforts to align its trade and environmental policy frameworks. The concrete mechanism

through which IEU-CEPA negotiations alter Indonesia's bargaining position vis-à-vis CBAM operates through three interrelated pathways. First, the negotiations provide a formal diplomatic channel for Indonesia to advocate for CBAM equivalency recognition, whereby Indonesia's domestic carbon pricing instruments including the planned Emissions Trading System (ETS) and carbon tax under Law No. 7 of 2021 would be recognized as equivalent to EU ETS compliance, thereby exempting Indonesian exporters from purchasing CBAM certificates (Mehling et al., 2019). Second, Indonesia has leveraged the IEU-CEPA framework to negotiate provisions for capacity-building support and technology transfer in clean industrial production, effectively transforming a potential trade barrier into a vehicle for green industrial upgrading. Third, the linkage between IEU-CEPA and CBAM compliance creates a credible commitment device: by embedding carbon governance reforms within a legally binding trade agreement, Indonesia signals policy credibility to both EU partners and international investors, thereby attracting green finance inflows that further reduce the domestic cost of decarbonization (Cosbey et al., 2019).

This sequence from external pressure, to diplomatic engagement, to domestic policy reform and investment attraction constitutes the concrete mechanism through which green diplomacy translates CBAM pressure into improved bargaining outcomes for Indonesia.Former Minister of Finance Sri Mulyani stated that the carbon tax forms part of Indonesia's medium- to long-term strategy to steer the national economy toward a low-emission development pathway. She noted that this policy has been legally established through Law No. 7 of 2021 on the Harmonization of Tax Regulations (CNN Indonesia, 2024). Meanwhile, Minister of Industry Agus Gumiwang Kartasasmita emphasized that green industrial transformation is aligned with President Prabowo Subianto's development vision as articulated in the Asta Cita. He argued that the agenda of green industrialization should not be positioned in opposition to economic growth objectives. According to him, the transition toward green industry should be viewed not merely as an additional cost, but as a strategic investment that requires active state involvement and

support. He further explained that green industrial transformation is consistent with Asta Cita Point 2, which focuses on strengthening national self-reliance through the development of food, energy, water, creative economy, green economy, and blue economy sectors. Additionally, this agenda supports Asta Cita Point 3, which aims to expand quality employment opportunities, as the development of green industries has the potential to generate a significant number of green jobs in Indonesia.

In response to CBAM, Indonesia has undertaken several strategic measures, including the preparation of carbon-related regulations, the strengthening of green product standards, and the facilitation of industrial actors through Free Trade Agreement (FTA) Centers to ensure that national products remain competitive in the EU market. On the other hand, Minister of Trade Budi Santoso has emphasized that various non-tariff trade barriers imposed by the European Union on Indonesia's leading products are often framed within narratives of environmental protection and sustainable development. According to him, policies such as the European Union Deforestation Regulation (EUDR) and the Carbon Border Adjustment Mechanism (CBAM) have narrowed Indonesia's market access by imposing additional requirements that are difficult for domestic business actors to meet (CNN Indonesia, 2025).

From a structuralist perspective, this situation reflects structural inequalities between developed and developing countries. European states, through environmental instruments such as CBAM, are able to maintain their economic dominance by imposing additional costs on products from developing countries that lack low-emission technological capacity. In this sense, CBAM functions not only as an environmental instrument but also as a political–economic mechanism that perpetuates structural dependency.

At the same time, CBAM may also be viewed as a global regulatory mechanism that encourages Indonesia to pursue lower-carbon environmental governance. From a liberal perspective, CBAM has the potential to strengthen Indonesia's economic interdependence through green innovation and investment in low-carbon industries. In this regard, CBAM should not be

regarded solely as a threat, but rather as an opportunity for Indonesia to modernize its industrial sector through strategic partnerships.

Based on the author's analysis, several priority measures should be immediately pursued by Indonesia in response to the implementation of CBAM. First, Indonesia needs to strengthen its green diplomacy in a more structured manner in order to negotiate transitional flexibility and to encourage the European Union to provide technological support and financial assistance for developing countries. Such negotiations are crucial given CBAM's potential to deepen structural inequalities between developed and developing economies. Second, accelerating the implementation of national carbon pricing mechanisms—through an emissions trading system (ETS) and a carbon tax is a critical step to reduce the burden of CBAM certificates and to maintain the competitiveness of Indonesia's exports. In addition, strengthening the Monitoring, Reporting, and Verification (MRV) system in alignment with EU standards is necessary to ensure transparency and credibility in reporting industrial emissions.

Finally, the author recommends that the government introduce a comprehensive set of incentives to support industries in undertaking a green transition, including access to financing, tax incentives, and technical assistance. Through these measures, Indonesia can not only mitigate the impacts of EU green protectionism but also leverage CBAM as a strategic momentum to strengthen green diplomacy and accelerate industrial transformation toward a low-carbon economy.

CONCLUSION

The European Union's Carbon Border Adjustment Mechanism (CBAM) demonstrates the increasing intersection between climate governance and international trade. For Indonesia, the policy generates dual implications. On the one hand, CBAM functions as a form of green protectionism by imposing additional compliance costs on carbon-intensive exports and potentially reinforcing structural inequalities between developed and developing countries. On the other hand, CBAM creates incentives for regulatory adaptation, industrial decarbonization, and stronger engagement in

international environmental diplomacy. These findings indicate that CBAM should not be understood solely as a trade barrier, but rather as an ambivalent policy instrument that simultaneously constrains and enables developing countries within the evolving global climate regime.

This study contributes to the CBAM literature by demonstrating that Indonesia's response cannot be adequately explained through a single perspective. By integrating structuralist and liberal approaches, the study shows that CBAM operates both as a mechanism that reproduces asymmetrical economic relations and as a catalyst for diplomatic engagement and policy reform. This analytical perspective offers a more nuanced understanding of how developing countries navigate emerging climate-related trade regulations.

From a policy perspective, Indonesia should strengthen domestic carbon governance through the acceleration of carbon pricing mechanisms, improvement of monitoring, reporting, and verification (MRV) systems, and support for industrial decarbonization. At the international level, Indonesia should utilize diplomatic platforms, including IEU-CEPA negotiations, to advocate for a more equitable climate transition that incorporates technology transfer, financial assistance, and differentiated responsibilities for developing countries.

Future studies may expand this research by examining the sectoral impacts of CBAM on specific Indonesian industries, conducting comparative analyses with other developing countries, or incorporating quantitative assessments of trade and emission impacts to further evaluate the effectiveness and distributive consequences of CBAM.

REFERENCES

As, A. M. F., & Idris, I. N. (2024). Energy protectionism: Tren meningkatnya kebijakan proteksionisme energi di Uni Eropa. *Jurnal Hubungan Internasional*, 3(1), 1–15.

Cosbey, A., Droege, S., Fischer, C., & Munnings, C. (2019). Developing guidance for implementing border carbon adjustments: Lessons, cautions, and research needs from the literature. Review of Environmental Economics and Policy, 13(1), 3–22. https://doi.org/10.1093/reep/rey020

CNN Indonesia. (2024, January 24). Dalih pemerintah tunda penerapan pajak karbon yang disinggung Cak Imin. https://www.cnnindonesia.com/ekonomi/20240124135235-532-1053766/dalih-pemerintah-tunda-penerapan-pajak-karbon-yang-disinggung-cak-imin

CNN Indonesia. (2025, June 23). Mendag ungkap Uni Eropa pakai isu lingkungan hambat perdagangan RI. https://www.cnnindonesia.com/ekonomi/20250623123342-92-1242844/mendag-ungkap-uni-eropa-pakai-isu-lingkungan-hambat-perdagangan-ri

European Commission. (2023). Commission Implementing Regulation (EU) 2023/1773 of 17 August 2023 laying down the rules for the application of Regulation (EU) 2023/956 establishing a Carbon Border Adjustment Mechanism (Text with EEA relevance). *Official Journal of the European Union*, L228, 94–195. https://eur-lex.europa.eu/eli/reg_impl/2023/1773/oj/eng

European Commission. (2024). Guidance document on CBAM implementation for importers of goods into the EU. Directorate-General for Taxation and Customs Union. https://taxation-customs.ec.europa.eu/carbon-border-adjustment-mechanism_en

European Commission. (2025). EU trade relations with Indonesia. Directorate-General for Trade. https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/indonesia_en

Erixon, F. (2021). Europe's Carbon Border Adjustment Mechanism: Time to go back to the drawing board (Policy Brief No. 14). European Centre for International Political Economy.

Global Efficiency Intelligence. (2023). The impact of the EU CBAM on global steel trade. Global Efficiency Intelligence.

International Carbon Action Partnership (ICAP). (2026). Indonesian Economic Value of Carbon (Nilai Ekonomi Karbon) trading scheme.

Institute for Energy Economics and Financial Analysis (IEEFA). (2025). Two years after launch, Indonesia's carbon market struggles to find momentum.

International Carbon Action Partnership. (2025). Indonesian Economic Value of Carbon (Nilai Ekonomi Karbon) Trading Scheme. ICAP ETS Detailed Information.

Leonard, M., Pisani-Ferry, J., Shapiro, J., Tagliapietra, S., & Wolff, G. (2025). The geopolitics of the European Green Deal. European Council on Foreign Relations.

Lowy Institute. (2026). Climate diplomacy has moved beyond the days of a single grand bargain.

Mansbach, R. W., & Taylor, K. L. (2007). Introduction to international relations: Theories and approaches. Routledge.

Mehling, M. A., van Asselt, H., Das, K., Droege, S., & Verkuijl, C. (2019). Designing border carbon adjustments for enhanced climate action. American Journal of International Law, 113(3), 433–481. https://doi.org/10.1017/ajil.2019.18

Perdana, A., & Sambodo, M. T. (2023). Carbon border adjustment mechanism and its impact on Indonesia's exports to the European Union. Bulletin of Indonesian Economic Studies, 59(3), 285–310. https://doi.org/10.1080/00074918.2023.2198745

Rositoh, I., Fazriyah, Y. N., Oktafiani, F., & Yuliaty, F. (2024). Kebijakan perubahan iklim dan teknologi energi untuk mencapai netral karbon. *Jurnal Manajemen dan Bisnis*, X(X), 153–159.

Suryani, D., et al. (2025). Readiness of the European trading countries toward carbon border adjustment mechanism: Evidence from Indonesia. Cleaner Engineering and Technology. https://doi.org/10.1016/j.clet.2025.100967

the Global South across carbon borders (2025). Review of International Political Locating Economy / Tandfonline. https://doi.org/10.1080/03085147.2025.2571327

Wahyuningtyas, N. (2024). Komitmen iklim serta ketimpangan global dalam transisi energi dan kebijakan iklim tahun 2020–2024. *Jurnal Hubungan Internasional*, X(X), 1–10.

Wirdyansyah, D. M. (2025). Carbon Border Adjustment Mechanism (CBAM) and its implications for developing economies: A systematic literature review. *Journal of International Studies*, 8(2), 162–176.

World Bank. (2023). World Development Indicators: CO2 emissions (kg per 2015 USD of GDP). World Bank Open Data. https://data.worldbank.org/indicator/EN.ATM.CO2E.PP.GD

Zhang, W., & Sovacool, B. K. (2025). The triple burden effect and pressure–opportunity paradox of net-zero transitions: Exploring the political economy of CBAM implementation in the Global South. *Energy Strategy Reviews*, 62, 101913. https://doi.org/10.1016/j.esr.2025.101913