

Carbon Border Adjustment Mechanism: Between Climate Target and Climate Justice

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Abstract

The Carbon Border Adjustment Mechanism (CBAM) is a new climate policy instrument adopted by the European Union, meant to reduce industrial carbon emissions and protect against carbon leakage. Through this mechanism, imported goods into the EU will be subjected to an equivalent carbon cost up to the standards imposed on domestic producers. Therefore, in one aspect, CBAM becomes an instrumental policy for net zero emission targets and green economy transformation; but on the other hand, it has been criticized as a unilateral measure that may also discriminate against developing countries. Hence, this paper discusses CBAM under international trade law and environmental law perspectives while assessing its consistency with climate justice and just transition principles. The findings suggest that while CBAM may be normatively justified as part of the climate mitigation effort, practically speaking it risks exacerbating global inequality if not accompanied by mechanisms for compensation, technology transfer, and recognition of the principle of common but differentiated responsibilities (CBDR) in the existing, less inclusive multilateralism. A more inclusive multilateralism is missing from ensuring that global climate policies are not only technically effective but also socially just.

Keywords: International trade, climate justice, climate change, EU policy, international environmental law.

Introduction

Climate change has emerged as one of the most pressing environmental, economic, and political issues of the 21st century. Its impacts include rising global average temperatures, sea level rise, increased frequency of hydrometeorological disasters, and significant socio-economic losses across regions.² In response to these challenges, various countries and major economic blocs have designed ambitious policies to reduce greenhouse gas (GHG) emissions. One policy that has attracted significant global attention is the Carbon Border Adjustment Mechanism (CBAM), introduced by the European Union (EU) as part of its European Green Deal strategy.³

CBAM is a carbon pricing instrument applied to imported goods originating from countries that do not have climate policies as stringent as those of the EU. Its main goal is to prevent *carbon leakage* – the relocation of carbon-intensive industries to countries with laxer emissions regulations – which could undermine global emission reduction efforts.⁴ In other words, CBAM is intended to level the carbon price between EU domestic products and imported goods, thereby providing an incentive for producers outside the EU to adopt low-emission production standards.⁵

This mechanism entered its transitional phase in October 2023 and will be fully implemented by 2026. Initially, CBAM covers carbon-intensive sectors such as steel, cement, fertilizers, aluminium, and electricity.⁶ Importers are required to report the carbon

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² IPCC. (2022). *Climate change 2022: Impacts, adaptation, and vulnerability*. Cambridge University Press

³ European Commission. (2021). *European Green Deal*. <https://ec.europa.eu>

⁴ Mehling, M., Van Asselt, H., Das, K., Droegge, 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.2019.22>

⁵ European Commission. (2021). *Carbon Border Adjustment Mechanism*. <https://ec.europa.eu>

⁶ European Commission. (2023). *CBAM transitional phase starts*. <https://taxation-customs.ec.europa.eu>

emissions embedded in their products and, eventually, purchase CBAM certificates whose value corresponds to the carbon price in the *EU Emissions Trading System (ETS)*.⁷ The policy is expected to contribute to the EU's target of achieving net-zero emissions by 2050.⁸

However, despite its environmental goals, CBAM raises debates concerning *climate justice*. The principle of climate justice emphasizes that the responsibility to address climate change should be proportional to each country's historical contribution to emissions and its economic capacity.⁹ Developing countries—historically contributing less to emissions than developed nations—often have limited resources to adapt and transition to low-carbon economies.¹⁰ The implementation of CBAM may increase the economic burden on exporters in the Global South, as they must either comply with EU carbon standards or pay the carbon adjustment costs at the border.¹¹

Criticism of CBAM also comes from the perspective of international trade. Some argue that this policy could function as a form of disguised protectionism, potentially conflicting with *World Trade Organization (WTO)* principles, especially the principles of non-discrimination and equal treatment for imported products.¹² Although the EU maintains that CBAM is designed to align with WTO rules, its application still generates political and economic tensions between developed and developing countries.¹³

From the perspective of climate justice, a key question arises: does CBAM truly contribute to reducing global emissions, or does it merely shift the burden of climate transition onto developing countries? In this sense, the debate surrounding CBAM reflects the broader dilemma between achieving *climate targets* and fulfilling the principles of *climate justice* under common but differentiated responsibilities and respective capabilities (CBDR-RC) principle.¹⁴

Furthermore, the effectiveness of CBAM in encouraging clean energy transitions in developing countries greatly depends on complementary policy support, such as technology transfer, climate finance, and capacity building.¹⁵ Without such support, CBAM risks exacerbating the gap between developed and developing countries in climate mitigation efforts.¹⁶

Therefore, a study on CBAM needs to examine both sides of the equation: first, the extent to which this mechanism is effective in reducing global emissions in line with climate targets; and second, how the policy can be designed and implemented to align with

⁷ WTO. (2022). *Trade and environment review*. World Trade Organization Publications

⁸ European Parliament. (2022). *Fit for 55 package*. <https://www.europarl.europa.eu>

⁹ Roberts, J. T., & Parks, B. C. (2007). *A climate of injustice: Global inequality, North-South politics, and climate policy*. MIT Press

¹⁰ Okonjo-Iweala, N. (2022). *Trade and climate change: Towards a sustainable future*. World Trade Organization Publications

¹¹ Cosbey, A., Droege, S., Fischer, C., & Munnings, C. (2019). Developing guidance for implementing border carbon adjustments: Lessons, cautions, and research needs. *Review of Environmental Economics and Policy*, 13(1), 3–22. <https://doi.org/10.1093/leep/rey020>

¹² Bacchus, J. (2021). *The CBAM and WTO rules*. Centre for International Governance Innovation

¹³ WTO. (2023). *World trade report 2023*. World Trade Organization Publications

¹⁴ Keohane, R. O., & Victor, D. G. (2016). Cooperation and discord in global climate policy. *Nature Climate Change*, 6(6), 570–575. <https://doi.org/10.1038/nclimate2937>

¹⁵ UNFCCC. (2021). *Climate finance 2021*. United Nations Framework Convention on Climate Change

¹⁶ Atteridge, A., & Dzebo, A. (2015). Climate policy and development: Can climate finance deliver on the Paris Agreement? *Climate Policy*, 15(6), 652–672. <https://doi.org/10.1080/14693062.2015.1029823>

climate justice principles. Such research is crucial to ensure that the pursuit of net-zero emissions does not come at the expense of equity and international solidarity, and to promote an inclusive and sustainable energy transition worldwide.¹⁷

CBAM: Purpose And Policy Rationale

The introduction of CBAM reflects the EU's recognition of a fundamental policy dilemma: ambitious climate targets cannot be sustained without measures to protect both the integrity of domestic decarbonization policies and the competitiveness of EU industries. CBAM therefore serves a dual purpose: it addresses the risk of carbon leakage while also incentivizing global climate action.

A. Carbon Leakage as a Policy Challenge

Carbon leakage occurs when stringent climate policies in one jurisdiction result in the relocation of carbon-intensive industries to countries with less stringent regulations, thereby undermining both environmental effectiveness and domestic economic competitiveness. For instance, if EU steel producers face high carbon costs while competitors in non-EU countries do not, production could shift abroad, leading to no net reduction in global emissions. CBAM directly seeks to close this gap.

According to Mehling, van Asselt, Das, Droege, and Verkuyl, carbon leakage is both an environmental and economic concern, as it threatens to erode domestic climate ambition while exacerbating global inequality.¹⁸ The EU's climate strategy therefore emphasizes the need to maintain a level playing field while sustaining its climate leadership role.

B. Aligning CBAM with the European Green Deal

CBAM is integral to the EU's European Green Deal, which aims to achieve net-zero greenhouse gas emissions by 2050. By embedding climate considerations into trade policy, the EU seeks to extend its regulatory power beyond its borders, creating what Bradford has called the "Brussels Effect"¹⁹—where EU standards influence global markets due to the EU's economic weight.

This extraterritorial effect is evident in CBAM's design: exporters to the EU must comply with its carbon pricing scheme, regardless of their own domestic regulations. While this reinforces the EU's climate objectives, it also raises tensions with principles of sovereignty and climate justice, particularly for developing countries.

C. Competitiveness and Fairness

Another rationale behind CBAM is the protection of EU industries from unfair competition. Without CBAM, EU producers who face rising costs under the ETS would

¹⁷ Newell, P., & Mulvaney, D. (2013). The political economy of the "just transition." *The Geographical Journal*, 179(2), 132–140. <https://doi.org/10.1111/geoj.12008>

¹⁸ Michael Mehling, Harro van Asselt, Kasturi Das, Susanne Droege, and Cleo Verkuyl, "Designing Border Carbon Adjustments for Enhanced Climate Action," *American Journal of International Law* 113, no. 3 (2019): 433–481.

¹⁹ Anu Bradford, *The Brussels Effect: How the European Union Rules the World* (Oxford: Oxford University Press, 2020)

risk losing market share to foreign competitors. CBAM therefore acts as a safeguard mechanism, ensuring that decarbonization policies do not lead to deindustrialization.

Cosbey argues that CBAM represents a necessary, if imperfect, tool to reconcile competitiveness with climate ambition.²⁰ However, critics contend that CBAM may operate as a form of “green protectionism,” privileging EU industries while shifting costs onto developing countries with fewer resources to adapt.

D. WTO Compatibility and Legal Justification

From a legal standpoint, CBAM must be justified within the framework of the World Trade Organization (WTO). The General Agreement on Tariffs and Trade (GATT) prohibits discriminatory trade measures, but Article XX provides exceptions for measures relating to environmental protection, provided they are not applied arbitrarily or as disguised restrictions on trade.

Nordhaus has suggested that climate clubs and border adjustments could be justified under WTO law if designed transparently and applied universally.²¹ However, critics warn that CBAM may still face disputes at the WTO, especially from countries in the Global South, who may argue that it violates principles of equity and non-discrimination.

Climate Justice And The Problem Of Asymmetry

The European Union’s Carbon Border Adjustment Mechanism (CBAM) is designed as an instrument to reinforce the EU’s climate targets by imposing a carbon cost on imported goods. Its purpose is to maintain competitiveness and prevent carbon leakage, but its consequences extend far beyond Europe’s borders. CBAM introduces a profound asymmetry into the global climate governance regime. While it operates under the logic of efficiency and environmental necessity, it risks undermining the principles of equity and fairness, which are central to the broader discourse of climate justice.

This section critically examines CBAM through the lens of climate justice and identifies the asymmetries that it produces between developed and developing countries. It explores three interrelated dimensions of this asymmetry: (1) historical responsibility and differentiated obligations; (2) structural economic inequality; and (3) institutional capacity and policy space. By analysing these dimensions, the section demonstrates how CBAM reflects not only a technical trade measure but also a deeply political and ethical intervention into global climate governance.

A. Historical Responsibility and Differentiated Obligations

The principle of common but differentiated responsibilities and respective capabilities (CBDR-RC) has been central to international climate law since the 1992 United Nations Framework Convention on Climate Change (UNFCCC). It reflects a recognition that developed countries bear primary responsibility for historical greenhouse gas

²⁰ Aaron Cosbey, “Border Carbon Adjustments and Industrial Competitiveness in a Carbon-Constrained World,” *International Institute for Sustainable Development (IISD)*, Policy Brief, 2021

²¹ William Nordhaus, “Climate Clubs: Overcoming Free-Riding in International Climate Policy,” *American Economic Review* 105, no. 4 (2015): 1339–1370

emissions and thus have greater obligations to mitigate climate change and assist developing countries.

CBAM, however, applies carbon costs uniformly to all exporters to the EU, regardless of their historical responsibility for climate change. This approach undermines CBDR-RC by treating emissions embodied in imports from least developed countries (LDCs) the same as those from highly industrialized economies.

As Rajamani observes, the Paris Agreement delicately balanced universality with differentiation by requiring all parties to submit nationally determined contributions (NDCs), while still acknowledging the different circumstances of developing countries.²² CBAM disrupts this balance by introducing a unilateral measure that disregards contextual differentiation.

For example, a steel exporter in Bangladesh, where per capita emissions remain less than two tons annually, would face the same CBAM requirements as a producer in China, where per capita emissions exceed seven tons, or the United States, where emissions per capita exceed fourteen tons.²³ The failure to acknowledge historical disparities transforms CBAM into an instrument that potentially punishes those least responsible for the problem.

Developing countries, particularly in Africa and South Asia, argue that CBAM amounts to a form of climate injustice, as it shifts the burden of adjustment onto economies that lack both historical responsibility and sufficient resources for rapid decarbonization.²⁴

B. Structural Economic Inequality

Beyond historical responsibility, CBAM also reinforces structural inequalities embedded in the global economy. Many developing countries remain heavily dependent on energy-intensive exports such as cement, steel, and aluminium—the very sectors covered by CBAM. The imposition of a carbon price on these products effectively erodes their comparative advantage, further marginalizing them in global value chains.

According to a UNCTAD study, African economies could face significant export losses under CBAM, especially in industries like cement and fertilizer, where production relies on carbon-intensive processes and where alternative technologies are either unavailable or prohibitively expensive.²⁵

The asymmetry is particularly stark when viewed through the lens of industrial capacity. EU industries have benefitted from decades of state support, advanced technologies, and carbon pricing mechanisms that gradually prepared them for a low-carbon transition. By contrast, many developing countries lack access to climate finance, green technologies, and institutional infrastructure. CBAM thus imposes a “double burden”: it penalizes exporters for carbon intensity while offering little support to facilitate their transition.

²² Lavanya Rajamani, “The 2015 Paris Agreement: Interplay Between Hard, Soft and Non-Obligations,” *Journal of Environmental Law* 28, no. 2 (2016): 337–358

²³ World Bank, *World Development Indicators 2021* (Washington, DC: World Bank, 2021)

²⁴ Chuks Okereke and Heike Schroeder, “Climate Justice and Deliberative Democracy,” in *Climate Justice and Global Environmental Governance*, ed. Chuks Okereke (London: Routledge, 2010), 64–84

²⁵ UNCTAD, *A European Union Carbon Border Adjustment Mechanism: Implications for Developing Countries* (Geneva: United Nations, 2021)

Cosbey and Mavroidis warn that CBAM could entrench patterns of dependency, effectively locking developing countries into subordinate positions within the global trade system.²⁶ Instead of enabling structural transformation, it risks exacerbating the very inequalities that climate justice seeks to redress.

C. Institutional Capacity and Policy Space

Climate justice is also about ensuring that states retain sufficient policy space to pursue sustainable development in ways consistent with their national circumstances. CBAM constrains this policy space by unilaterally imposing EU standards and limiting the flexibility of developing countries to sequence their climate transitions according to domestic priorities.

Developing countries face constraints in administrative and technical capacity. Implementing credible monitoring, reporting, and verification (MRV) systems for emissions embodied in exports is a daunting task for many. Without such systems, their exports will automatically be subject to EU carbon prices, regardless of any domestic climate efforts undertaken.

As Keohane and Victor note, climate governance requires mechanisms that accommodate diversity in domestic capabilities rather than impose rigid uniformity.²⁷ CBAM, however, represents the opposite: a rigid extension of the EU ETS to foreign jurisdictions, thereby reducing the autonomy of developing states.

This creates a broader governance dilemma: while CBAM aims to address a genuine problem (carbon leakage), it does so by externalizing costs to those least able to bear them. From a justice perspective, this amounts to an asymmetric distribution of burdens.

D. CBAM as a Form of Green Unilateralism

Taken together, the above asymmetries position CBAM within a broader critique of green unilateralism—the tendency of powerful economies to impose their environmental standards extraterritorially. While unilateral measures can sometimes drive global progress, they also risk undermining multilateralism and exacerbating North–South divides.

Droege argues that unilateral climate measures, if not accompanied by cooperative mechanisms, can generate resistance rather than compliance, leading to fragmentation in global climate governance.²⁸ In this sense, CBAM risks replicating patterns of coercion that have long plagued trade–environment linkages, where powerful actors dictate terms while weaker actors bear disproportionate costs.

For climate justice advocates, the problem lies not in CBAM’s environmental ambition but in its distributive effects. A just climate regime must account for differences

²⁶ Aaron Cosbey and Petros C. Mavroidis, “Border Carbon Adjustments in the EU: Climate Savior or Climate Suicide?” *World Trade Review* 20, no. 3 (2021): 395–421

²⁷ Robert O. Keohane and David G. Victor, “Cooperation and Discord in Global Climate Policy,” *Nature Climate Change* 6 (2016): 570–575

²⁸ Susanne Droege, “The EU’s Carbon Border Adjustment Mechanism: Challenges and Opportunities,” *German Institute for International and Security Affairs (SWP) Research Paper*, 2021

in responsibility, capacity, and developmental needs. By ignoring these, CBAM risks deepening asymmetries rather than fostering shared solutions.

To illustrate the above analysis, several sectoral and regional examples can be considered:

- **Cement in Africa:** Cement production is one of the most carbon-intensive industries, yet essential for infrastructure and housing in developing countries. Under CBAM, African cement exporters would face significant cost increases, undermine their competitiveness while offer little in the way of transitional support.²⁹
- **Aluminium in the Middle East:** Aluminium production in Gulf countries relies heavily on fossil fuels for electricity generation. CBAM would impose a carbon price on these exports, but without parallel mechanisms for technology transfer, producers would be unable to decarbonize quickly.
- **Fertilizers in South Asia:** Fertilizers are critical for food security, yet fertilizer exports from South Asia are highly carbon intensive. CBAM would make these products more expensive, indirectly affecting food prices in regions already vulnerable to food insecurity.

These examples demonstrate how CBAM's uniform application fails to differentiate between luxury goods and development-critical commodities, raising profound justice concerns.

E. Theoretical Implications for Climate Justice

The asymmetries created by CBAM can also be analysed through theoretical frameworks of justice. Rawlsian theories of justice emphasize fairness in the distribution of burdens and benefits, which CBAM undermines by allocating disproportionate costs to weaker actors.³⁰ Pogge's notion of "structural injustice" further highlights how global institutions can perpetuate inequalities through seemingly neutral policies.³¹

In climate ethics, Henry Shue's principles of subsistence emissions versus luxury emissions are particularly relevant.³² CBAM fails to distinguish between emissions necessary for basic development and those associated with excessive consumption. By pricing all emissions equally, it disregards the moral distinction between survival needs and luxury consumption, thereby contradicting fundamental justice principles.

CBAM represents a sophisticated instrument of climate policy, but it is also emblematic of the tensions between climate ambition and climate justice. Its uniform application disregards historical responsibility, reinforces structural inequalities, and constrains the policy space of developing countries. In doing so, it creates an asymmetry at the heart of global climate governance: developed countries, with their technological and financial advantages, impose adjustment costs on those least responsible for the problem.

²⁹ African Climate Policy Centre, *Impact of the EU Carbon Border Adjustment Mechanism on Africa* (Addis Ababa: UNECA, 2022)

³⁰ John Rawls, *A Theory of Justice* (Cambridge, MA: Harvard University Press, 1971)

³¹ Thomas Pogge, *World Poverty and Human Rights* (Cambridge: Polity Press, 2008)

³² Henry Shue, "Subsistence Emissions and Luxury Emissions," *Law & Policy* 15, no. 1 (1993): 39–59

For CBAM to evolve into a legitimate instrument of global climate governance, it must grapple with these asymmetries. This requires embedding principles of justice and equity into its design, ensuring that it does not merely serve as a tool for protecting EU industries but becomes a mechanism that supports global decarbonization in an inclusive and fair manner.

Between Climate Target And Climate Justice: A Legal And Ethical Dilemma

The European Union's Carbon Border Adjustment Mechanism (CBAM) presents itself as a tool for advancing climate ambition while safeguarding the integrity of the EU's internal carbon pricing system. By placing a price on carbon embedded in imports, the EU aims to prevent "carbon leakage," thereby ensuring that domestic emission reductions are not offset by increased production abroad.³³ In principle, such a measure could support the overarching goals of the Paris Agreement and help accelerate the global transition toward low-carbon economies.

Yet CBAM also exemplifies one of the most pressing dilemmas in global climate governance: the tension between achieving climate targets and ensuring climate justice. On the one hand, climate targets demand urgent, ambitious, and sometimes uncompromising measures to reduce emissions. On the other hand, climate justice requires attention to fairness, equity, and differentiated responsibilities, especially between developed and developing countries. This section explores CBAM through this legal and ethical dilemma.

A. Climate Targets and Their Legal Foundations

International climate law has evolved to embed quantified targets as a means of driving collective ambition. The Paris Agreement of 2015 establishes a goal of limiting global warming to well below 2°C above pre-industrial levels, and preferably to 1.5°C.³⁴ This target is not legally binding in a strict sense, but it provides the normative framework within which states formulate and update their nationally determined contributions (NDCs).

The EU has consistently positioned itself as a leader in pursuing climate targets. Through the European Green Deal, the EU pledged to achieve climate neutrality by 2050, supported by intermediate milestones such as a 55% emissions reduction by 2030.³⁵ CBAM is explicitly linked to these targets: it ensures that EU industries subject to the Emissions Trading System (ETS) are not disadvantaged relative to foreign competitors, thereby sustaining political and economic support for the EU's ambitious climate agenda.

From a legal standpoint, the EU frames CBAM as compatible with its obligations under the World Trade Organization (WTO) and consistent with the Paris Agreement's call for enhanced ambition.³⁶ However, this raises critical questions: Does the pursuit of climate

³³ European Commission, *Carbon Border Adjustment Mechanism: Questions and Answers* (Brussels: European Commission, 2021)

³⁴ United Nations Framework Convention on Climate Change (UNFCCC), *The Paris Agreement* (New York: UN, 2015)

³⁵ European Commission, *The European Green Deal* (Brussels: European Commission, 2019)

³⁶ James Bacchus, "The Content of a WTO Climate Waiver," *CIGI Papers* no. 162 (2018)

targets justify measures that impose disproportionate burdens on developing countries? Or does such unilateralism undermine the cooperative spirit of the Paris Agreement?

B. Climate Justice: Equity, Fairness, and Responsibility

Climate justice is not merely a political slogan, but an evolving normative framework grounded in principles of equity, human rights, and responsibility. It recognizes that climate change is not only an environmental issue but also a question of distributive and procedural fairness.³⁷

The 1992 UNFCCC enshrined the principle of common but differentiated responsibilities and respective capabilities (CBDR-RC), acknowledging that developed countries bear primary responsibility for historical emissions and must take the lead in mitigation.³⁸ This principle remains central to demands by developing countries, who argue that any fair climate regime must reflect differentiated obligations.

Yet CBAM disregards CBDR-RC by applying a uniform carbon price to imports, regardless of historical responsibility or developmental needs.³⁹ This creates a justice dilemma: while the mechanism supports the EU's climate targets, it undermines the principle that those most responsible should bear the greatest burden.

Moreover, climate justice extends beyond distributive concerns to encompass recognitional justice (acknowledging the voices and experiences of marginalized groups) and procedural justice (ensuring inclusive decision-making).⁴⁰ CBAM, being designed unilaterally within the EU, offers little space for developing countries to influence its design.

C. Legal Tensions: WTO Law and Climate Objectives

The legal dilemma of CBAM also plays out in the interaction between trade law and climate law. The WTO is built on the principles of non-discrimination, particularly Most Favoured Nation (MFN) and National Treatment. A measure such as CBAM could be challenged as violating these principles, since it imposes additional costs on imports not faced by domestic producers.⁴¹

The EU argues that CBAM is justified under Article XX of the General Agreement on Tariffs and Trade (GATT), which allows exceptions for measures "necessary to protect human, animal or plant life or health" and those "relating to the conservation of exhaustible natural resources."⁴² However, WTO jurisprudence requires such measures to avoid

³⁷ Stephen M. Gardiner, *A Perfect Moral Storm: The Ethical Tragedy of Climate Change* (Oxford: Oxford University Press, 2011)

³⁸ UNFCCC, *United Nations Framework Convention on Climate Change* (New York: UN, 1992)

³⁹ Lavanya Rajamani, "Differentiation in the Emerging Climate Regime," *Theoretical Inquiries in Law* 14, no. 1 (2013): 151–171.

⁴⁰ Karin Bäckstrand and Eva Lövbrand, "Climate Governance Beyond 2012: Competing Discourses of Green Governmentality, Ecological Modernization and Civic Environmentalism," in *The Social Construction of Climate Change*, ed. Mary Pettenger (London: Routledge, 2007), 123–147.

⁴¹ Joost Pauwelyn, "Carbon Leakage Measures and Border Tax Adjustments under WTO Law," in *Research Handbook on Environment, Health and the WTO*, eds. Geert Van Calster and Denise Prévost (Cheltenham: Edward Elgar, 2013), 448–506.

⁴² General Agreement on Tariffs and Trade (GATT), 1994, Art. XX.

“arbitrary or unjustifiable discrimination” and not constitute “a disguised restriction on international trade.”⁴³

The problem is that CBAM’s uniform application may be perceived as arbitrary when applied to developing countries that lack comparable resources to decarbonize. This raises the risk that CBAM, while legal in a narrow sense, may nonetheless be inconsistent with the broader equity-oriented principles of international climate law.

D. Ethical Tensions: Utilitarianism vs. Deontological Justice

The ethical dilemma underlying CBAM can be analysed through competing moral frameworks.

A utilitarian perspective emphasizes maximizing overall global welfare by reducing emissions wherever possible. From this viewpoint, CBAM is justified if it prevents carbon leakage and incentivizes exporters to adopt cleaner technologies.⁴⁴ The climate benefits, in this logic, outweigh distributive concerns.

A deontological perspective, by contrast, emphasizes fairness and duties irrespective of outcomes. From this angle, CBAM is unjust because it imposes burdens on those least responsible for climate change, violating the principle of fairness even if it produces aggregate benefits.⁴⁵

The ethical challenge is that climate governance requires both ambition (to meet climate targets) and fairness (to ensure justice). A purely utilitarian approach risks perpetuating structural inequalities, while a purely deontological approach risks insufficient action on climate change. The dilemma lies in balancing these imperatives.

E. North–South Divide and the Politics of Unilateralism

CBAM exemplifies the broader North–South divide in climate politics. Developed countries emphasize urgent mitigation to meet climate targets, while developing countries stress equity and development priorities.⁴⁶ Unilateral measures such as CBAM aggravate this divide by projecting Northern standards onto Southern economies.

Scholars have described this phenomenon as green protectionism, where climate policies double as instruments to protect domestic industries.⁴⁷ Even if CBAM’s motives are mixed, its distributive effects reinforce perceptions of injustice, leading to resistance from developing countries.

The politics of unilateralism is particularly troubling given that the Paris Agreement was designed to encourage cooperation through nationally determined contributions. By introducing unilateral border measures, CBAM risks fragmenting the cooperative spirit of the climate regime.⁴⁸

⁴³ WTO Appellate Body, *US—Shrimp* (1998)

⁴⁴ Peter Singer, *One World: The Ethics of Globalization* (New Haven: Yale University Press, 2002)

⁴⁵ John Rawls, *Justice as Fairness: A Restatement* (Cambridge, MA: Harvard University Press, 2001)

⁴⁶ Navroz K. Dubash, “The Politics of Climate Change in India: Narratives of Equity and Co-Benefits,” *Wiley Interdisciplinary Reviews: Climate Change* 3, no. 3 (2012): 191–201.

⁴⁷ Thomas Cottier, Olga Nartova, and Sadeq Z. Bigdeli, eds., *International Trade Regulation and the Mitigation of Climate Change* (Cambridge: Cambridge University Press, 2009)

⁴⁸ Robert Falkner, “The Paris Agreement and the New Logic of International Climate Politics,” *International Affairs* 92, no. 5 (2016): 1107–1125.

F. Pathways Toward Reconciling Climate Targets and Climate Justice

The Carbon Border Adjustment Mechanism (CBAM) represents a decisive step by the European Union (EU) to align trade policy with climate ambition. Yet, as examined in the preceding section, the current design raises substantial concerns about fairness, legitimacy, and developmental asymmetry. A fairer CBAM must not only preserve the integrity of the EU's climate objectives but also contribute to strengthening global climate cooperation in line with the Paris Agreement's commitment to equity and common but differentiated responsibilities (CBDR).⁴⁹ This requires moving beyond a narrow focus on leakage prevention and competitiveness, toward a design that acknowledges global economic disparities, fosters trust between North and South, and integrates CBAM within broader multilateral climate finance frameworks.

This section explores several possible pathways toward reconciliation: (1) enhancing fairness in the design and implementation of CBAM, (2) leveraging multilateral frameworks for climate and trade coherence, (3) promoting financial and technological support for developing countries, (4) integrating principles of climate justice into trade governance, and (5) advancing institutional reforms to balance ambition with equity. Each pathway reflects the tension between environmental effectiveness and social fairness, aiming to provide a comprehensive legal and ethical framework to realign climate governance with principles of justice.

1. Fairness in the Design and Implementation of CBAM

The first pathway involves embedding fairness into the legal architecture of CBAM itself. While the EU justifies CBAM primarily as a climate instrument to prevent carbon leakage, its distributive consequences must be carefully addressed. A fairer CBAM would require:

- Differentiation between developed and developing states, in line with the principle of *common but differentiated responsibilities (CBDR)* under the UNFCCC and the Paris Agreement.⁵⁰ Without differentiation, CBAM risks violating the spirit, if not the letter, of international climate law.
- Gradual phasing-in for least developed countries (LDCs) and lower-middle-income countries, allowing them time to adapt their production structures and avoid sudden economic dislocation.⁵¹
- Revenue recycling mechanisms, whereby CBAM revenues are redirected to support decarbonization efforts in affected developing countries rather than retained solely by the EU budget.⁵² Such mechanisms would enhance the legitimacy of CBAM and mitigate perceptions of green protectionism.

⁴⁹ Paris Agreement, December 12, 2015, T.I.A.S. No. 16-1104, art. 2(2).

⁵⁰ United Nations Framework Convention on Climate Change (UNFCCC), May 9, 1992, 1771 U.N.T.S. 107.

⁵¹ Cosby, Aaron, et al. *Developing Guidance for Implementing Border Carbon Adjustments: Lessons, Cautions, and Research Needs*. Winnipeg: International Institute for Sustainable Development (IISD), 2012, 14.

⁵² Mehling, Michael, Harro van Asselt, Kasturi Das, Susanne Droege, and Cleo Verkuyl. "Designing Border Carbon Adjustments for Enhanced Climate Action." *American Journal of International Law* 113, no. 3 (2019): 433–481.

From a legal standpoint, incorporating differentiation and revenue-sharing can reduce the risk of WTO disputes. While CBAM must comply with the principle of non-discrimination under GATT Articles I and III, reliance on Article XX(b) (environmental exceptions) could be strengthened if the measure is demonstrably equitable.⁵³ Equity-oriented design features thus not only promote justice but also bolster legal defensibility.

2. Leveraging Multilateral Frameworks for Trade–Climate Coherence

The second pathway emphasizes multilateralism to reconcile climate ambition with justice. The unilateral nature of CBAM risks deepening geopolitical fragmentation but embedding it within multilateral frameworks can reduce inequities.

One avenue is the WTO’s Committee on Trade and Environment (CTE), which could serve as a forum for transparency, dialogue, and dispute avoidance concerning carbon-related trade measures.⁵⁴ Although the WTO lacks a strong mandate on climate change, its role in fostering legal predictability remains critical.

Another promising framework is the Paris Agreement, particularly Article 6, which allows for cooperative approaches and international carbon markets.⁵⁵ CBAM revenues could be aligned with Article 6 mechanisms to support global mitigation efforts. In this way, CBAM would transition from a unilateral defensive tool to a contributor to global cooperation.

Additionally, plurilateral initiatives—such as the Trade and Environmental Sustainability Structured Discussions (TESSD) at the WTO or the Agreement on Climate Change, Trade and Sustainability (ACCTS) spearheaded by New Zealand—could provide platforms for aligning carbon pricing with principles of fairness.⁵⁶ These initiatives, while not universal, may create “coalitions of the willing” that eventually shape broader global norms.

By embedding CBAM within cooperative frameworks, the EU can mitigate accusations of unilateralism and green protectionism, thereby fostering reconciliation between climate targets and justice.

3. Promoting Financial and Technological Support for Developing Countries

A third pathway lies in supporting the structural transformation of developing economies through financial, technical, and technological means. Climate justice requires not only avoiding harm but also enabling participation in the global low-carbon economy.

- Climate finance: Redirecting CBAM revenues to fund renewable energy projects, energy efficiency, and decarbonization infrastructure in developing countries would operationalize equity.⁵⁷ This would resonate with the commitment of

⁵³ Van den Bossche, Peter, and Werner Zdouc. *The Law and Policy of the World Trade Organization*. 5th ed. Cambridge: Cambridge University Press, 2021, 572.

⁵⁴ Charnovitz, Steve. “The WTO’s Environmental Progress.” *Journal of International Economic Law* 10, no. 3 (2007): 685–706.

⁵⁵ Paris Agreement, Dec. 12, 2015, T.I.A.S. No. 16-1104.

⁵⁶ Monteiro, José-Antonio, and Roberta Piermartini. *A Practical Guide to Trade Policy Analysis*. Geneva: WTO and UNCTAD, 2011.

⁵⁷ UNCTAD. *World Investment Report 2023: Investing in Sustainable Energy for All*. New York: United Nations, 2023, 94.

developed countries under the UNFCCC to mobilize \$100 billion annually in climate finance, a pledge that remains under fulfilled.⁵⁸

- Technology transfer: Access to clean technologies is essential for developing states to decarbonize competitively. Legal frameworks such as the TRIPS Agreement could be flexibly interpreted or reformed to facilitate compulsory licensing and diffusion of green technologies.⁵⁹
- Capacity building: Beyond finance and technology, legal and institutional capacity building is vital. Support for emissions measurement, verification, and reporting systems would help developing states comply with CBAM requirements and integrate more smoothly into global carbon pricing regimes.⁶⁰

By linking CBAM with tangible support for developing countries, the EU can shift the mechanism from being a punitive measure to a catalyst for just global decarbonization.

4. Integrating Principles of Climate Justice into Trade Governance

A deeper reconciliation pathway involves normative integration—embedding principles of climate justice directly into the governance of international trade. This requires reconceptualizing trade rules not merely as neutral economic instruments but as part of the broader framework of global justice.

The principle of CBDR provides a normative anchor. While WTO law is formally blind to development status in applying non-discrimination rules, special and differential treatment (SDT) provisions could be revitalized to recognize differential capabilities in responding to climate measures.⁶¹

Moreover, human rights frameworks provide an additional legal basis. The right to development, recognized under the UN Declaration on the Right to Development (1986), and the right to a healthy environment, increasingly acknowledged in international jurisprudence, can be interpreted as requiring trade-related climate measures to respect distributive equity.⁶²

Integrating climate justice into trade governance may also require developing new hybrid institutions, such as a WTO-UNFCCC joint panel to assess the legitimacy of climate-related trade measures. Such mechanisms could balance trade integrity with climate imperatives while ensuring justice considerations are not sidelined.

5. Advancing Institutional Reforms: Toward Just Global Governance

The final pathway involves systemic institutional reforms at the intersection of trade and climate regimes. Without structural change, ad hoc measures like CBAM will continue to exacerbate tensions. Possible reforms include:

⁵⁸ OECD. *Climate Finance Provided and Mobilised by Developed Countries in 2016–2020*. Paris: OECD Publishing, 2022.

⁵⁹ Abbott, Frederick, and Jerome Reichman. “The Doha Round’s Public Health Legacy: Strategies for the Production and Diffusion of Patented Medicines under the Amended TRIPS Provisions.” *Journal of International Economic Law* 10, no. 4 (2007): 921–987.

⁶⁰ UNFCCC, *Capacity-building under the Convention*. FCCC/SBI/2019/4.

⁶¹ Pauwelyn, Joost. “The End of Differential Treatment for Developing Countries? Lessons from the Trade and Climate Change Regime.” *Review of European, Comparative & International Environmental Law* 22, no. 1 (2013): 29–41.

⁶² Knox, John. “The Human Right to a Healthy Environment.” *Virginia Journal of International Law* 55, no. 3 (2015): 493–534.

- Restoring and reforming WTO dispute settlement, ensuring that environmental and justice considerations are explicitly recognized in adjudication.⁶³ This could involve adopting interpretative guidelines clarifying the role of sustainable development in WTO jurisprudence.
- Establishing a global carbon pricing framework, coordinated under the G20 or IMF, to reduce unilateralism and create a level playing field.⁶⁴ Such a framework would integrate climate targets with redistributive mechanisms, ensuring that revenues are shared equitably.
- Strengthening UNFCCC–WTO cooperation, possibly through formalized liaison bodies or integrated working groups, to prevent conflicts of law and enhance coherence.
- Embedding climate justice in international investment law, ensuring that investment treaties and investor–state dispute settlement mechanisms do not hinder decarbonization policies or equity-based climate measures.⁶⁵

Institutional reform is the most ambitious but also the most sustainable pathway toward reconciling climate ambition with justice.

Reconciling climate targets and climate justice is neither an abstract moral dilemma nor a purely technical challenge. It is a legal and institutional imperative. The CBAM highlights the dangers of pursuing climate ambition in isolation from justice considerations: unilateral measures risk undermining global solidarity, fragmenting legal regimes, and exacerbating inequalities.

The pathways explored—fairer design, multilateral embedding, financial and technological support, normative integration, and institutional reform—provide complementary strategies for bridging the gap. None alone is sufficient, but together they chart a roadmap toward a more just and effective climate–trade nexus.

Ultimately, climate targets cannot be sustainably achieved without justice, and justice cannot be realized without meaningful progress toward climate targets. The reconciliation of the two must therefore form the foundation of the next phase of global economic and environmental governance.

WTO Legality Of The Carbon Border Adjustment Mechanism

The legitimacy of the Carbon Border Adjustment Mechanism (CBAM) cannot be assessed solely from the perspective of EU climate objectives. Since the EU is a member of the World Trade Organization (WTO), CBAM must be justified under the framework of WTO rules, which are designed to prevent discriminatory and protectionist practices. The challenge lies in reconciling CBAM with core trade law principles such as non-discrimination (the most-favoured-nation principle and national treatment), while also relying on the environmental exceptions of GATT Article XX. This section explores the

⁶³ Petersmann, Ernst-Ulrich. “Multilevel Governance of Interdependent Public Goods: The WTO, the EU, and the Paris Climate Agreement.” *Journal of International Economic Law* 21, no. 3 (2018): 581–607.

⁶⁴ Nordhaus, William. “Climate Clubs: Overcoming Free-Riding in International Climate Policy.” *American Economic Review* 105, no. 4 (2015): 1339–1370.

⁶⁵ Titi, Catharine. *The Right to Regulate in International Investment Law*. Baden-Baden: Nomos, 2014.

legal dimensions of CBAM under WTO law, situating the debate in both doctrinal and practical terms, and highlighting the likely contestations by developing countries.

A. CBAM and the WTO Legal Framework

The WTO legal order is primarily built around the General Agreement on Tariffs and Trade (GATT) 1994, which establishes disciplines to ensure that international trade remains free from protectionist distortions. The most relevant obligations for CBAM are:

1. Most-favoured-Nation Treatment (MFN) under GATT Article I, requiring equal treatment of all WTO members.
2. National Treatment under GATT Article III, requiring imported products to be treated no less favourably than “like” domestic products.
3. Prohibition of Quantitative Restrictions under GATT Article XI.

Because CBAM imposes a carbon cost on imports, it is *prima facie* subject to scrutiny under these provisions. If CBAM is found inconsistent, the EU must rely on the Article XX exceptions, particularly paragraphs (b) (“measures necessary to protect human, animal or plant life or health”) and (g) (“measures relating to the conservation of exhaustible natural resources”).

B. The Principle of Non-Discrimination and CBAM

1. MFN Concerns

Under Article I:1 GATT, WTO members must accord “any advantage, favour, privilege or immunity” granted to one trading partner “immediately and unconditionally” to all others. CBAM raises MFN concerns because its implementation may treat imports differently depending on the exporting country’s domestic climate policies.

For example, CBAM requires importers to surrender certificates corresponding to the embedded carbon content of their goods. However, exporters from countries with comparable carbon pricing mechanisms may receive credits or exemptions, while others without such schemes bear the full cost. This *de facto* differentiation risks being characterized as a violation of MFN treatment.

In *Canada–Autos*, the WTO panel clarified that formally origin-neutral measures can still violate MFN obligations if they operate to favour some trading partners over others.⁶⁶ Thus, unless applied uniformly across all WTO members, CBAM risks being seen as discriminatory.

2. National Treatment

Article III:4 of GATT requires imported products to be accorded treatment “no less favourable” than like domestic products in respect of laws, regulations, and requirements. CBAM attempts to mirror the EU ETS, applying the same carbon price to imports as domestic production faces. This design is intended to align with national treatment obligations.

Yet challenges remain. First, imported goods may not be considered “like” domestic goods if their production processes differ. WTO jurisprudence, such as *EC–Asbestos*, has

⁶⁶ WTO Panel Report, *Canada—Certain Measures Affecting the Automotive Industry*, WT/DS139/R, WT/DS142/R (2000).

recognized that health and environmental risks may differentiate products.⁶⁷ Still, determining “likeness” on the basis of carbon intensity remains legally unsettled.

Second, critics argue that EU producers benefit from free allowances under the ETS during CBAM’s transition phase, while imports do not.⁶⁸ This asymmetry may be viewed as a violation of national treatment because foreign producers are disadvantaged relative to domestic competitors.

3. Quantitative Restrictions

Article XI:1 of GATT prohibits prohibitions or restrictions on imports other than duties, taxes, or charges. CBAM does not formally impose quotas, but its compliance obligations (e.g., carbon certificates) may be argued to function as a de facto quantitative restriction. The EU would need to demonstrate that CBAM operates as a charge consistent with Article III:2 rather than a disguised import restriction.

C. CBAM and the Environmental Exceptions in GATT Article XX

Because CBAM risks violating MFN or national treatment, its legal defense depends on GATT Article XX.

1. Paragraph (b): Protecting Human, Animal, or Plant Life or Health

Climate change presents significant risks to human health and ecosystems. CBAM could be defended as a measure “necessary” to protect life or health. WTO jurisprudence in *Brazil–Retreaded Tyres* held that measures addressing health risks from waste tires were justifiable under Article XX(b).⁶⁹ By analogy, the EU could argue that CBAM addresses transboundary health and environmental harms from climate change.

The challenge lies in the “necessity test,” which requires showing that no reasonably available, less trade-restrictive alternatives exist. Developing countries may argue that financial support mechanisms, technology transfer, or cooperative agreements would be less restrictive alternatives to CBAM.

2. Paragraph (g): Conservation of Exhaustible Natural Resources

Article XX(g) allows measures “relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.” WTO case law, particularly *US–Gasoline* and *US–Shrimp*, has recognized clean air and living species as “exhaustible natural resources.”⁷⁰ Greenhouse gas emissions fall comfortably within this scope.

The EU could thus argue that CBAM is consistent with Article XX(g), as it applies both to domestic producers (through the ETS) and to imports. However, the design must demonstrate that it is not applied in a discriminatory manner.

3. The Chapeau of Article XX

⁶⁷ WTO Appellate Body Report, *European Communities—Asbestos*, WT/DS135/AB/R (2001).

⁶⁸ Susanne Droege, “How to Make the EU Carbon Border Adjustment Mechanism (CBAM) Work for Developing Countries,” *SWP Comment* 38 (2021).

⁶⁹ WTO Appellate Body Report, *Brazil—Measures Affecting Imports of Retreaded Tyres*, WT/DS332/AB/R (2007).

⁷⁰ WTO Appellate Body Report, *United States—Gasoline*, WT/DS2/AB/R (1996); *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (1998).

Even if CBAM qualifies under paragraphs (b) or (g), it must still satisfy the chapeau of Article XX, which prohibits measures that constitute “arbitrary or unjustifiable discrimination” or “disguised restrictions on international trade.”

The US-Shrimp case is particularly instructive: the Appellate Body struck down a U.S. environmental measure because it was applied in a coercive and inflexible manner that discriminated against certain WTO members.⁷¹ Similarly, if CBAM is seen as coercive—by forcing developing countries to adopt EU-style carbon pricing without sufficient flexibility—it may fail the chapeau test.

D. CBAM as Disguised Protectionism

One of the central critiques of CBAM is that it may operate less as a climate tool and more as a form of “green protectionism.” Scholars like Pauwelyn argue that CBAM risks serving EU industrial interests under the guise of climate ambition.⁷² The persistence of free allowances for EU industries, coupled with the exclusion of certain sectors, may reinforce this perception.

Developing countries in the WTO have voiced concerns that CBAM will functionally restrict their exports, particularly of carbon-intensive goods like steel, cement, and fertilizers. For these states, CBAM represents a unilateral measure that disregards principles of common but differentiated responsibilities (CBDR) recognized under international climate law.

E. Likely Disputes and Political Ramifications

It is highly likely that CBAM will be challenged at the WTO. Countries such as India, China, and South Africa have already signalled opposition.⁷³ A potential dispute would test the boundaries of WTO jurisprudence in reconciling environmental protection with trade liberalization.

If upheld, CBAM could set a precedent for other jurisdictions to adopt similar mechanisms, embedding climate policy into trade law. If struck down, it could create tensions between the WTO and global climate governance, fuelling arguments for reform of the multilateral trading system.

F. Developing Countries' Perspective

For developing countries, CBAM raises both legal and ethical concerns. WTO rules are designed to ensure equal treatment, but climate justice principles demand differentiated obligations. The tension between trade law and climate justice manifests acutely in CBAM's unilateral imposition of carbon costs.

Developing states may argue that CBAM violates their right to development under international law and undermines the equity provisions of the Paris Agreement. They may

⁷¹ Ibid. *US—Shrimp*.

⁷² Joost Pauwelyn, “Carbon Leakage Measures and Border Tax Adjustments under WTO Law,” in *Research Handbook on Environment, Health and the WTO*, ed. Geert van Calster and Denise Prévost (Cheltenham: Edward Elgar, 2013), 448–478.

⁷³ United Nations Conference on Trade and Development (UNCTAD), *A European Union Carbon Border Adjustment Mechanism: Implications for Developing Countries* (Geneva: UNCTAD, 2021).

also contend that CBAM imposes extraterritorial regulation, contrary to the spirit of WTO law.

G. Reconciling CBAM with WTO Law

For CBAM to survive WTO scrutiny, several design features will be critical:

1. Transparency in calculating embedded carbon and applying exemptions.
2. Non-discrimination, ensuring uniform application across all WTO members.
3. Flexibility, accommodating alternative climate measures in exporting countries.
4. Support mechanisms for developing countries, such as revenue recycling or technology transfer, to mitigate equity concerns.

Ultimately, CBAM's WTO legality will hinge not only on technical compliance with GATT but also on whether it is perceived as a legitimate climate measure rather than disguised protectionism.

Conclusion

The Carbon Border Adjustment Mechanism (CBAM) sits at the complex intersection of climate change governance, international trade law, and development policy. Designed by the European Union as a tool to prevent carbon leakage and reinforce its domestic climate efforts, CBAM represents a novel attempt to align global trade flows with decarbonization objectives. Yet, as the analysis across this study has shown, the measure raises profound questions of equity, legality, and legitimacy that transcend the European context.

From the perspective of climate justice, CBAM embodies both promise and peril. On one hand, it incentivizes trading partners to decarbonize their industrial sectors by ensuring that goods entering the EU internal market face comparable carbon costs to domestically produced goods. This design element seeks to create a level playing field while strengthening the credibility of the EU's European Green Deal. On the other hand, CBAM risks functioning as a form of "green protectionism" if it disproportionately burdens developing countries whose exports are heavily carbon-intensive and whose capacity to invest in clean technologies remains constrained. The measure thus sharpens the tension between the principle of common but differentiated responsibilities (CBDR) enshrined in the Paris Agreement and the principle of non-discrimination at the heart of the WTO.

The WTO legality of CBAM, while not yet tested in formal dispute settlement, is far from secure. As examined in Section V, CBAM may conflict with core GATT obligations, particularly the Most-favoured-Nation principle and National Treatment. Although the EU can invoke environmental exceptions under Article XX(b) and (g), its ability to meet the chapeau's non-discrimination requirement will depend on the flexibility and fairness of CBAM's implementation. The precedents of US-Shrimp and Brazil-Tyres suggest that the WTO Appellate Body is willing to recognize environmental justifications, but only where measures are applied in a transparent, non-arbitrary, and cooperative manner. CBAM's credibility before the WTO, therefore, rests on avoiding unilateral coercion and instead embedding mechanisms for international dialogue and support for vulnerable states.

Equally important is the development dimension. Many developing and least-developed countries (LDCs) perceive CBAM as a unilateral instrument that externalizes the EU's climate costs while undermining their right to development. For economies dependent on carbon-intensive exports, CBAM could restrict access to the EU market without providing compensatory financial or technological support. Such asymmetry risks entrenching structural inequalities in the global economy, undermining the very multilateral cooperation needed to combat climate change. If CBAM revenues are not recycled toward supporting developing countries' decarbonization, the policy may be seen less as an environmental measure and more as a fiscal instrument reinforcing EU industrial competitiveness.

This tension underscores the broader challenge of reconciling trade governance with climate governance. The WTO, traditionally focused on liberalization and market access, has struggled to integrate environmental and equity considerations. Meanwhile, the Paris Agreement, while recognizing equity and CDR, lacks effective enforcement mechanisms. CBAM is emblematic of this institutional fragmentation: it attempts to use trade instruments to achieve climate goals, but in doing so risks undermining principles of fairness in both regimes.

Looking forward, the legitimacy and effectiveness of CBAM will depend on several key reforms and design choices:

1. **Transparency and Methodology** – Clear, standardized rules for calculating embedded carbon must be accessible to all trading partners, particularly developing countries lacking technical capacity. Without transparency, CBAM risks arbitrariness.
2. **Revenue Recycling** – Allocating CBAM revenues to climate finance for developing countries, or to the Green Climate Fund, would signal that the mechanism is not simply a protectionist tax but part of a global climate solidarity effort.
3. **Differentiation and Flexibility** – Recognizing equivalent climate policies in exporting countries (e.g., carbon pricing, regulatory standards) would mitigate discrimination claims. Similarly, phased implementation or exemptions for least-developed countries could align CBAM more closely with climate justice.
4. **Multilateral Dialogue** – Embedding CBAM within a broader framework of cooperation under the WTO Committee on Trade and Environment, or even establishing a new plurilateral "climate club," could reduce perceptions of unilateralism and increase legitimacy.

Ultimately, CBAM reflects a deeper transformation in the relationship between trade and sustainability. If designed and implemented inclusively, it could serve as a catalyst for decarbonizing global value chains and incentivizing climate ambition worldwide. If implemented narrowly, however, it risks deepening North–South divides, sparking trade disputes, and weakening the already fragile multilateral system.

The conclusion is thus paradoxical: CBAM is both a necessary and dangerous tool. Necessary, because the urgency of the climate crisis demands bold measures to reduce carbon leakage and accelerate global decarbonization. Dangerous, because unilateral trade measures risk undermining the trust, equity, and cooperation that are indispensable for collective climate action. Bridging this divide requires situating CBAM not as an isolated

EU policy, but as part of a reformed global legal framework where trade and climate are harmonized, and where fairness is given equal weight to ambition. Only then can CBAM contribute not only to European climate goals, but also to the broader pursuit of climate justice for all nations.

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