



Global Climate Policy Project
at Harvard and MIT

Flagship
Report

Building a Climate Coalition: Aligning Carbon Pricing, Trade, and Development

Executive Summary



Building a Climate Coalition: Aligning Carbon Pricing, Trade, and Development

Flagship Report of the Global Climate Policy Project (GCPP) Working Group on Climate Coalitions

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September 2025

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About the Project

The Global Climate Policy Project (GCPP) is a joint initiative between Harvard and MIT dedicated to identifying and advancing innovations in global climate policies and institutions. Existing frameworks, including the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement, have established an important foundation for climate action but are not sufficient to manage the risks of a changing climate. With financial support from the Salata Institute for Climate and Sustainability, Weatherhead Research Cluster on Global Climate Policy, and MIT Climate Project, GCPP puts forward ideas and policy proposals that complement the UNFCCC and address critical gaps in trade, finance, security, and other areas.

By convening leading academics, policymakers, industry experts, and members of civil society, GCPP drives research-backed policy proposals that can shape the global dialogue and accelerate urgent climate action.

Members of the GCPP Working Group on Climate Coalitions

This flagship report reflects the deliberations of the GCPP Working Group on Climate Coalitions—a diverse group of experts from both developed and developing countries, including many of the world’s major emitters. Members brought expertise from government, international financial institutions, the private sector, academia, and civil society. Over a six-month period leading up to COP30, the group met regularly and engaged with policymakers, industry representatives, and thought leaders around the world. The goal was to help governments and stakeholders envision a climate coalition centered on carbon pricing while also addressing broader objectives, including equity, development, and trade.

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All members of the Working Group serve in an individual capacity. This report does not necessarily represent the views of the institutions to which they are affiliated. Working Group members participate on a voluntary basis and do not receive financial compensation for their contributions. Members all agree with the broad thrust of the analysis and recommendations presented in the report but should not be taken as agreeing with every aspect of the proposal.

Acknowledgments

Preparation of this report was overseen by Catherine Wolfram, who served as chair of the Global Climate Policy Project (GCPP) Working Group on Climate Coalitions. The project was directed by Arathi Rao and managed by Anna Neumann.

Core authors included Catherine Wolfram, Arathi Rao, Kevin Hsu, Fanming Meng, Anna Neumann, Marilyn Pereboom, and Naomi Shimberg, with trade modeling and analysis led by Pereboom and Shimberg. Ruchee Bhatta provided research assistance. Marika Tatsutani served as editor, while Tony Tran and Kristin Caulfield supported production.

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The content of this report was discussed in the context of an independent council convened by the COP30 President-designate, Ambassador André Corrêa do Lago, to inform on some economic dimensions of COP30, including contributions to the 'Baku to Belém Roadmap to 1.3T', to be presented by the President of COP29 and the President-designate of COP30, and to the COP30 Action Agenda.

The GCPP would like to acknowledge the generous support of the Salata Institute for Climate and Sustainability at Harvard University, the MIT Climate Project, the MIT Center for Energy and Environmental Policy Research, and the Weatherhead Center for International Affairs at Harvard University.

List of Abbreviations

| | |
|-------------------|--|
| AUD | Australian dollar (AU\$) |
| BCA | border carbon adjustment |
| CBAM | carbon border adjustment mechanism |
| CO ₂ e | carbon dioxide equivalent |
| COP | Conference of the Parties (to the UNFCCC) |
| ETS | emissions trading system |
| EUR | euro (€) |
| GBP | Great British pound (£) |
| GHG | greenhouse gas |
| HIC | high-income country |
| IMF | International Monetary Fund |
| IP | intellectual property |
| JV | joint venture |
| LCT | low-carbon technology |
| LIC | low-income country |
| LMIC | lower-middle-income country |
| MDB | multilateral development bank |
| Mt | million metric tons |
| MRV | measurement, reporting, and verification |
| NCQG | new collective quantified goal |
| NDC | Nationally Determined Contribution (under the Paris Agreement) |
| OECD | Organization for Economic Cooperation and Development |
| R&D | research and development |
| SME | small- and medium-sized enterprise |
| UMIC | upper-middle-income country |
| UNFCCC | United Nations Framework Convention on Climate Change |
| USD | US dollar (\$) |
| WTO | World Trade Organization |

Executive Summary:

Roadmap for a Climate Coalition

As the world heads toward COP30¹ in Brazil, the birthplace of the United Nations Framework Convention on Climate Change (UNFCCC), the need for coordinated climate action is more urgent than ever. Despite growing momentum for clean energy investment in many countries, global emissions remain far too high, and climate damages are mounting. Recent developments—including the withdrawal of the United States from the Paris Agreement—have shown that relying on global consensus to implement collective climate goals is not, by itself, enough.²

At the same time, global trade is increasingly intertwined with climate policy. The European Union’s adoption of a carbon border adjustment mechanism (CBAM) has sparked an international debate about how to align trade and climate goals. While the CBAM has galvanized interest in carbon pricing and other emission reduction mechanisms, it has also raised concerns about fairness, particularly with respect to potential burdens on developing countries, as well as administrative complexity. The need for a coherent and trusted carbon accounting framework to underpin such measures is increasingly recognized—without such a framework, fragmented and opaque standards could undermine both climate integrity and global trade.

In this context, action by a group of countries committed to making progress together is essential. **This report proposes one such approach: the formation of a multilateral climate coalition that brings together countries willing to coordinate on carbon pricing and related policies.** The initial focus would be on carbon-intensive industries, like iron and steel,³ aluminum, cement, and fertilizers, which account for more than 20% of global carbon emissions. Member countries would commit to a carbon price floor—i.e., a minimum carbon price that would apply to all emissions from these target industries within their borders. To ensure that similar carbon-related costs apply, both to firms within member countries and to goods imported from firms in non-member countries, members would apply border carbon adjustments (BCAs) to imports from non-member countries.

At the same time, member countries would provide positive incentives for low- and middle-income countries to join the coalition and increase their climate ambition—for example, through support for low-carbon technologies, climate finance, institutional capacity building, and preferential market access. **Over time, the coalition could expand in both membership and sectoral coverage, yielding commensurately greater emissions and economic benefits.**

A growing number of countries are turning to carbon pricing, laying the foundation for coalition building. Carbon pricing reflects the widely accepted principle that polluters should pay for their emissions, while giving countries the freedom to tailor policies to their domestic contexts. Carbon pricing in 2025 was in place across 50 jurisdictions, covering 28% of global emissions and raising more than USD 100 billion in revenue.⁴ Coverage, including planned programs, is even higher—82%—for emissions from carbon-intensive, heavily traded industries. While most initiatives are concentrated in high-income countries, all large middle-income economies have either adopted or are moving toward carbon pricing.

To help develop the climate coalition proposal, the Global Climate Policy Project⁵ convened a working group of global thought leaders from many of the world’s major emitting countries. This flagship report, the product of their

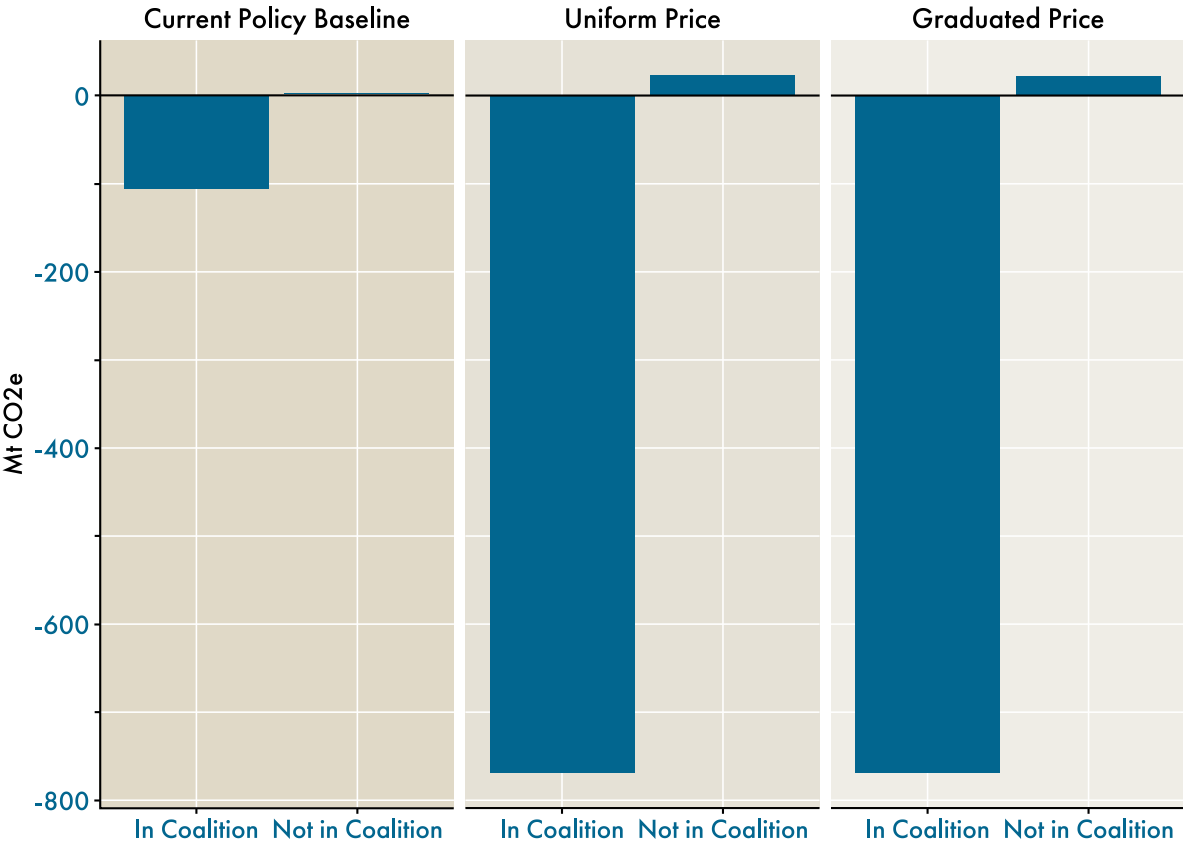
deliberations, marshals new data and modeling to evaluate the potential advantages and trade-offs of forming a coalition. (Box ES1 describes the modeling.) It also presents concrete options and guidelines for coalition design and implementation. The aim is to help governments and other stakeholders identify practical ways in which multilateral coordination around carbon pricing could enable a range of countries—with varied domestic circumstances and capacities—advance widely held goals for climate mitigation, economic development, equity, and trade.

DESIGNING AN EFFECTIVE COALITION FOR CLIMATE, ECONOMIC DEVELOPMENT, AND COMPETITIVENESS

This report’s analysis underscores that a well-designed coalition could deliver substantial climate and economic benefits:⁶

- **Far greater emissions impact.** A climate coalition delivers emissions cuts about **seven times** larger than the *Current Policy Baseline*, whether the coalition imposes a *Uniform Price* across all members or a *Graduated Price* tiered by country income groupings. These reductions represent roughly 1.5% of global annual greenhouse gas emissions (2.0% of global carbon dioxide emissions)—equivalent to the total emissions of Canada—and could help establish a strong foundation for expanding to other sectors.

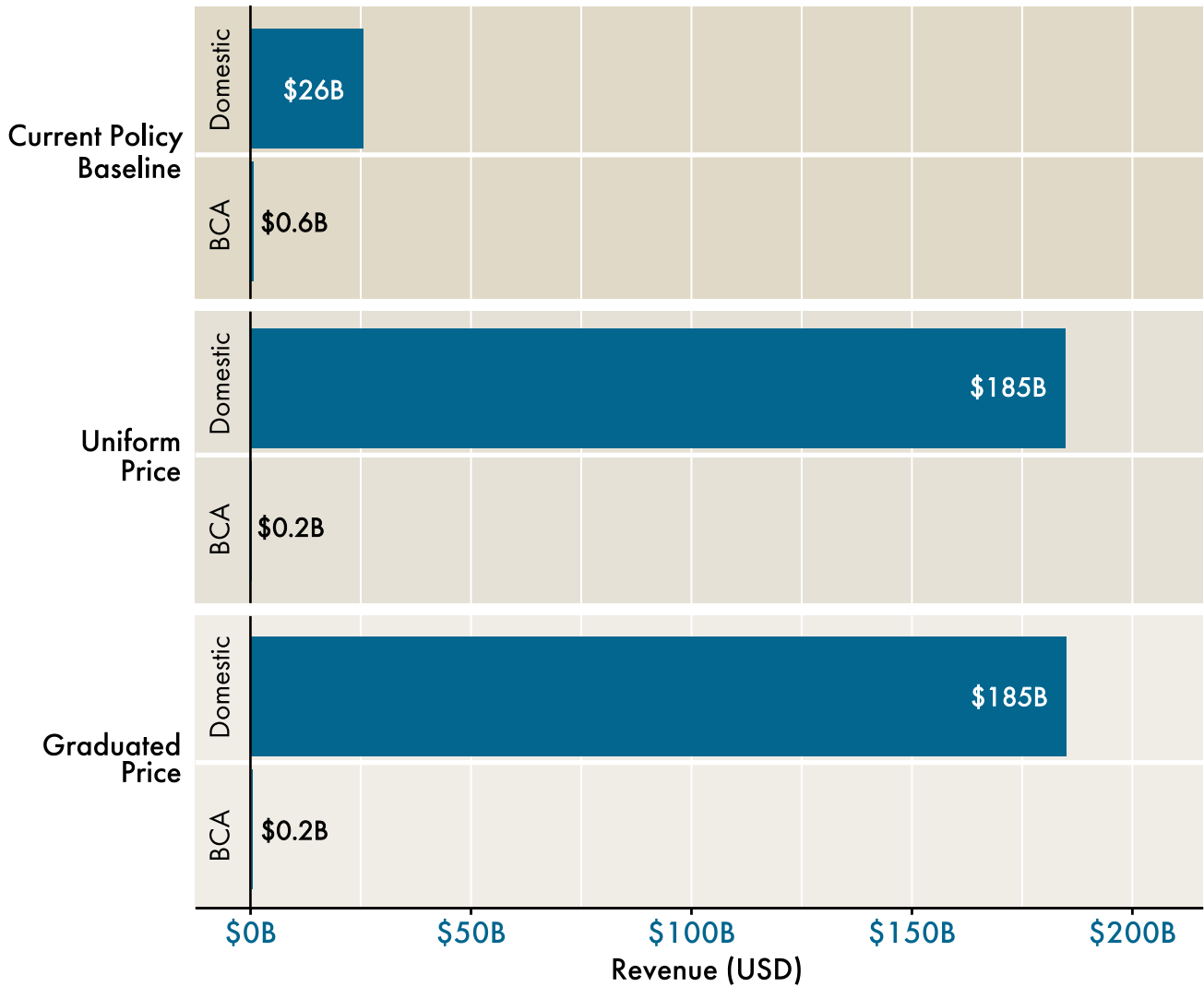
Figure ES1: A climate coalition leads to significantly greater emission reductions than the *Current Policy Baseline*.



Note: Emissions changes, given in million metric tons (Mt) carbon dioxide equivalent (CO₂e), are simulated annual reductions generated by the price floor relative to 2023 levels.

- **Significant new revenues.** A climate coalition raises nearly **USD 200 billion annually** for a broad set of countries. Notably, most revenue under the coalition scenarios is generated through domestic carbon pricing, not BCAs.

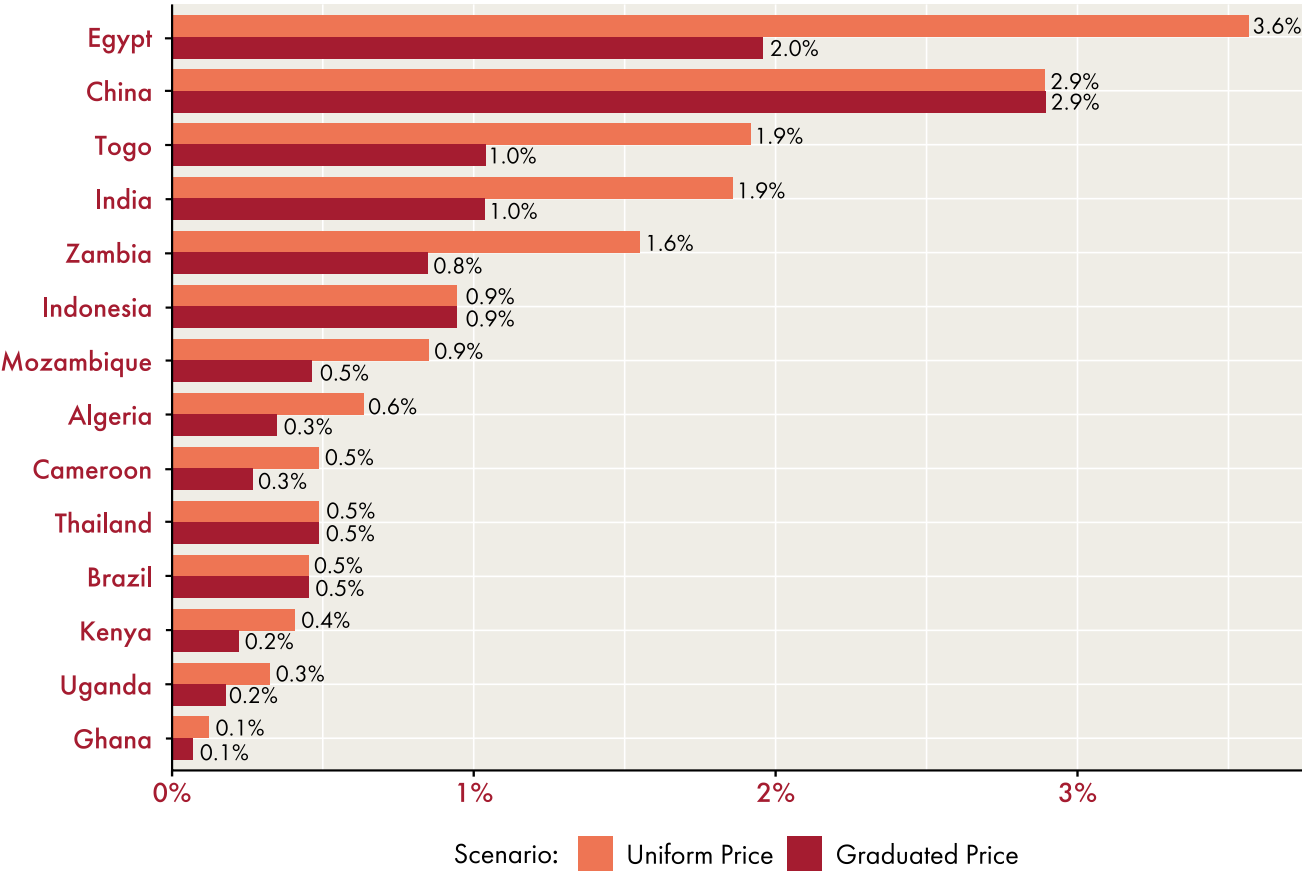
Figure ES2: A climate coalition generates substantial revenues for a broad set of countries.



Notes: Domestic revenue reflects the total domestic tax revenue generated by the price floors. BCA revenue refers to fees paid by importers to coalition countries under the BCA. The figure shows simulated annual effects with 2023 as the reference year.

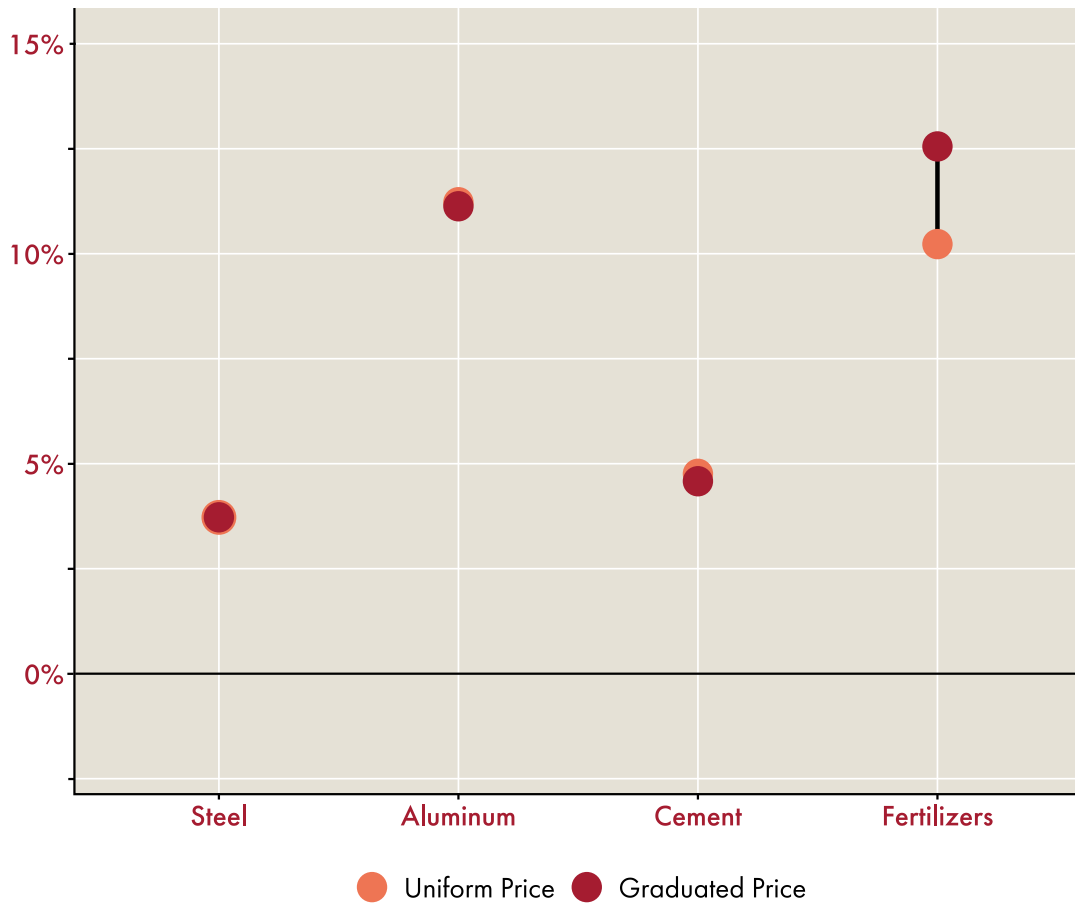
While China accounts for the largest share of overall revenues, many countries see meaningful gains. These revenues could help improve countries' fiscal positions, support social spending and climate investments, and be used to address other development needs.

Figure ES3: Both coalition scenarios generate meaningful revenue as a share of general government revenue.



- **Manageable price impacts.** Carbon pricing leads to a **moderate increase in commodity** prices in target industries in coalition member countries. Steel prices increase by 4%, aluminum prices increase by 11%, cement prices increase by 5%, and fertilizer prices increase by 10% to 13%, all relative to the *Current Policy Baseline*. Further, price increases in primary materials often translate into much smaller price increases for final goods purchased by consumers.

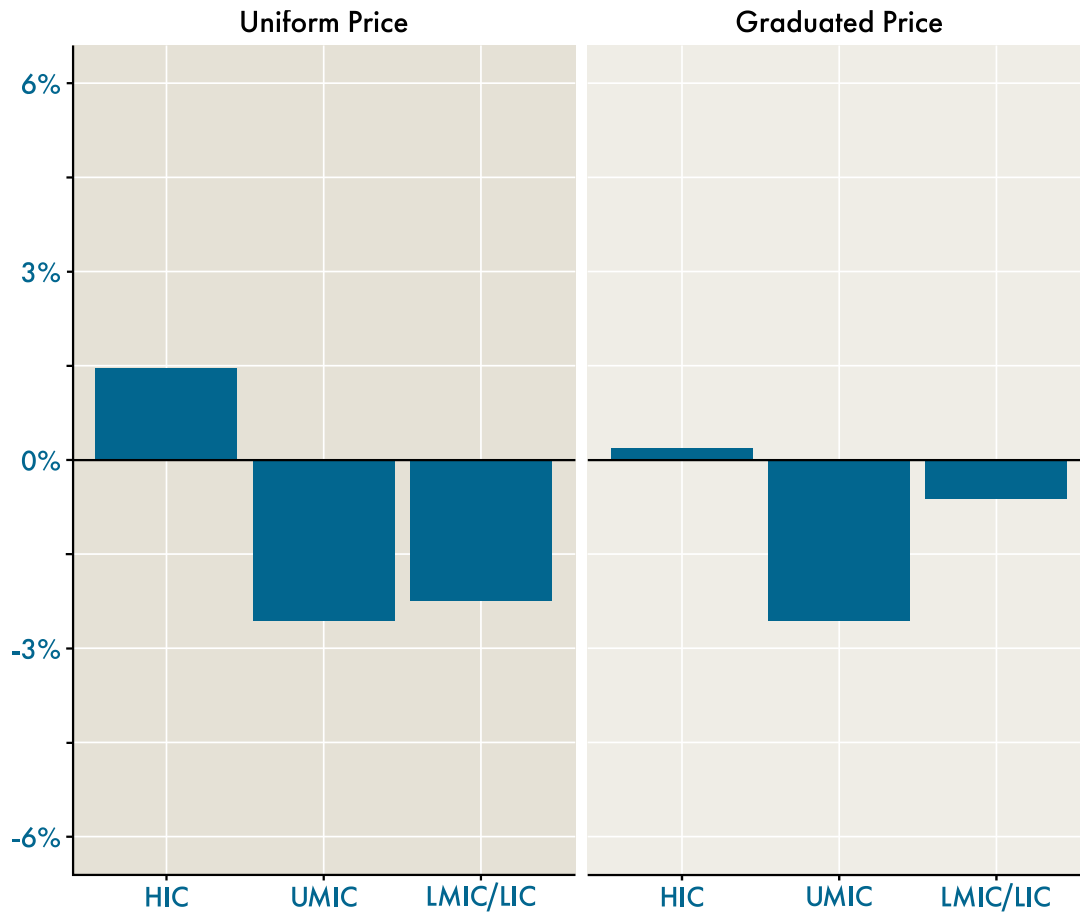
Figure ES4: Coalition members experience moderate changes in prices in target industries relative to the *Current Policy Baseline*.



Note: Simulated price changes show the difference between prices under a given coalition scenario and the *Current Policy Baseline*, using 2023 as the reference year.

- **Minimal output losses and carbon leakage.** Industrial producers in coalition countries do not substantially reduce output. In fact, modeled production of steel, aluminum, cement, and fertilizers falls by less than 2% for coalition participants. Compared to the *Uniform Price* scenario, more modest output losses in LMICs and LICs under the *Graduated Price* scenario suggest that the graduated price approach may better support economic growth in the poorest countries.

Figure ES5: Producers in member countries see minor output changes.



Note: Simulated output changes show the difference between production under a given coalition scenario and the *Current Policy Baseline*, using 2023 as the reference year.

BEYOND CARBON PRICING: INCENTIVIZING PARTICIPATION THROUGH COMPLEMENTARY POLICIES

As low- and middle-income countries are projected to account for the largest share of global GHG emissions this century, their participation is critical to the coalition's long-term effectiveness. Expanded membership also enhances the coalition's legitimacy, increases its market power, and amplifies network effects—making participation more attractive and ultimately accelerating global climate action.

To help ensure broad participation and enable low- and middle-income countries to raise their climate ambition, the report describes how the coalition's policy framework could include a targeted package of measures to promote the adoption of low-carbon technologies (LCTs), extend climate finance, and strengthen institutional capacity. The coalition should also consider how to integrate offsets into its policy framework.

Joining the climate coalition and agreeing to price industrial carbon emissions and apply BCAs would signal low- and middle-income countries' commitment to meaningful climate action—a commitment that the package of incentive measures is intended to reinforce:

- **Accelerate LCT uptake.** Coalition members could promote adoption of low-carbon technologies by reducing trade barriers on clean technologies, harmonizing technical standards, and promoting joint ventures between firms in member countries.
- **Climate finance and capacity-building.** A portion of the revenues from carbon pricing and border adjustments could be used to mobilize finance in support of efforts by low- and middle-income countries to transition to low-carbon economies and to expand capacity for carbon pricing and green technology adoption. For example, a portion of these revenues could be used to establish a trust fund at a multilateral development bank (MDB) to help finance, on concessional terms, projects in these countries that support investment in decarbonization, mobilize pull finance for hard-to-abate sectors, or provide sectoral or country-specific guarantees to free up additional space for MDB lending.
- **Carbon offsets.** A well-regulated system for recognizing high-integrity carbon offsets could broaden coalition participation, lower compliance costs, channel private investment (especially into low- and middle-income countries), and support forest conservation—provided it includes robust measurement, additionality, and strong governance safeguards.

GOVERNING AND IMPLEMENTING A CLIMATE COALITION

An agile and effective governance structure will be critical for the coalition to align incentives and harmonize trade policies. Early priorities should center on core decisions around carbon pricing—such as the price level, industry/sector coverage (e.g., steel, cement, aluminum, fertilizers), and BCAs for non-members—while establishing practical mechanisms, like mutual recognition of national systems, given institutional diversity across countries. Members will also need to develop approaches to account for the many countries that implement carbon pricing via an emissions trading system (ETS) instead of a carbon tax, as well as the different rules embedded in countries' ETSs. Assuming low- and middle-income countries are among its early members, the coalition's governance structure may be called upon to shape and approve efforts to facilitate technology

diffusion, extend climate finance, and support capacity-building. As the coalition grows, governance could expand to additional sector coverage and accession criteria for new members, supported by clear rules for representation, decision-making, and the roles of a technical secretariat, leadership, and committees.

Transparency and a strong measurement, reporting, and verification (MRV) system will be essential for effective coalition implementation. MRV will verify that members uphold their carbon pricing commitments and ensure accurate border adjustments on imports from non-members with differing climate policies. To balance integrity and practicality, non-members would provide detailed product-level data for BCA calculations, while members would submit periodic aggregate sector-level reports to an independent body—streamlining requirements for members while holding non-members to stricter reporting standards.

FROM FRAMEWORK TO ACTION: WHY NOW AND WHAT NEXT?

As the world heads to Brazil for COP30, uncertainty—both about global trade and international relationships generally, and about the future of the international climate policy regime specifically—is running high. In that context, fresh approaches, like the formation of a climate coalition, offer an opportunity to reset the conversation and focus on shared solutions.

Translating the climate coalition proposal into reality will require coordinated action from multiple stakeholders, including governments—likely led by finance and trade ministries in potential coalition countries—as well as international organizations and forums, researchers and civil society, and the private sector. High-profile support from current and future COP presidencies could be instrumental in creating the political space for constructive engagement and enabling a diverse group of countries to participate, both as potential coalition members and in deciding key design and implementation details.

Discussions among these stakeholders, including informal dialogue between like-minded countries, should begin now, in the window before the EU CBAM begins taking effect in 2026. The alternative is a fragmented patchwork of BCAs and compliance standards that complicates trade relations, increases administrative burdens for affected firms, risks undermining the integrity of individual countries' policies, and foregoes the greater climate benefits that could be achieved by a more coordinated and cooperative approach.

By advancing practical and equitable solutions, the climate coalition approach offers a promising path forward for those countries that are ready to lead. International trade, properly harnessed, can accelerate the global deployment of clean technologies, channel climate finance to where it is needed most, and create economic incentives for countries to strengthen their climate policies. The coalition approach recognizes these realities, building on existing momentum while creating practical pathways for countries to work together on climate action, even in an era of geopolitical uncertainty. This report lays out a flexible, evidence-based framework for a climate coalition rooted in effectiveness and fairness. Now, the task is to translate this framework into action.

Box ES1: Modeling a Climate Coalition

The report's analysis assumes that carbon pricing in a climate coalition initially applies to four emissions-intensive industries: steel, aluminum, cement, and fertilizers. Because these industries alone account for more than 20% of global carbon emissions, coordinating on emissions pricing—whether pricing is implemented through carbon taxes or by an emissions trading system (ETS)—could deliver substantial greenhouse gas reductions and send a strong market signal for investment in low-carbon technologies, especially if indirect emissions from electricity use are included. The coalition could consider expanding to additional industries and sectors as it matures.

To assess the impacts of a climate coalition on climate and economic outcomes, the report models two scenarios that vary the level of domestic carbon pricing and accompanying BCAs adopted by coalition members alongside a current policy baseline scenario:⁷

- *Uniform Price Climate Coalition.* In this scenario, coalition members adopt a single carbon price floor, which the report models at USD 50 per ton (\$50/t) of carbon dioxide emissions for illustration purposes.
- *Graduated Price Climate Coalition.* This scenario assumes three different carbon pricing tiers for (1) lower-middle-income and low-income countries (LMIC/LIC), (2) upper-middle-income countries (UMIC), and (3) high-income countries (HIC).⁸ For purposes of illustration, the analysis assumes the price tiers are \$25/t, \$50/t, and \$75/t for LMICs/LICs, UMICs, and HICs, respectively, though these tiers and groupings would need to be deliberated and agreed upon by coalition members.
- *Current Policy Baseline.* This scenario reflects one possible trajectory of international climate policy, with the EU ETS and full EU CBAM implementation. To simplify modeling, it assumes that all countries outside the European Union, United Kingdom, and European Free Trade Association either do not implement planned carbon pricing scenarios or retain high levels of free allowances, even though many countries are undertaking important policy changes at present (including Australia, Brazil, Canada, China, India, and Indonesia). Because several countries are implementing frameworks to gradually reduce free allowances and strengthen carbon prices, the *Current Policy Baseline* may underestimate the current trajectory of emissions reductions.

While this report models the *Uniform Price Coalition* and *Graduated Price Coalition* as two distinct scenarios, in practice, they are not mutually exclusive. For example, if the coalition adopts a graduated price, it could consider embedding clear sunset provisions that gradually raise lower-tier prices so countries “graduate” into a single uniform price as their incomes grow and their capacity to decarbonize expands.

The climate coalition scenarios include large emitters with existing industrial carbon pricing mechanisms or the legal or regulatory approval to impose them in the near future. The coalition scenarios also include a bloc of African countries that produce and export large amounts of relatively clean products from the target industries, suggesting they would be poised to benefit from a climate coalition.⁹ Table ES1 summarizes assumptions about coalition membership in the two coalition scenarios and the *Current Policy Baseline* scenario.

Box ES1: Modeling a Climate Coalition (continued)

Table ES1: Overview of coalition scenarios

| | Current Policy Baseline | Uniform Price | Graduated Price |
|--------------------|---|---|-----------------|
| Country membership | European Union, United Kingdom, Iceland, Norway, Switzerland, Liechtenstein | Algeria, Australia, Brazil, Cameroon, Canada, China, Egypt, European Union, Ghana, Iceland, India, Indonesia, Kenya, Liechtenstein, Mozambique, Norway, Switzerland, Thailand, Togo, United Kingdom, Uganda, Zambia | |

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The full report can also be found at:
<https://salatainstitute.harvard.edu/building-a-climate-coalition-gcpp-flagship-report/>

Executive Summary Endnotes

- 1 COP30 is shorthand for the 30th major meeting or “Conference of Parties” to the United Nations Framework Convention on Climate Change (UNFCCC). First adopted in 1992 and entering into force two years later, 198 countries have ratified the UNFCCC.
- 2 UNFCCC, *Outcome of the first global stocktake. Decision 1/CMA.5* (FCCC/PA/CMA/2023/16/Add.1), (December 13, 2023), <https://unfccc.int/documents/636608>.
- 3 The coalition proposal covers four industries: iron and steel, aluminum, cement, and fertilizers. Throughout the report, “steel” is used to denote “iron and steel.”
- 4 World Bank, *State and Trends of Carbon Pricing 2025* (2025), <https://hdl.handle.net/10986/43277>.
- 5 The Global Climate Policy Project is a joint initiative of Harvard University and the Massachusetts Institute of Technology that is dedicated to identifying and advancing innovation in global climate policies and institutions. See: <https://salatainstitute.harvard.edu/research-initiatives/the-global-climate-policy-project/>.
- 6 Sources for production and emissions data by industry are as follows: Manufacturing and Industrial Processes sector – Iron & Steel Manufacturing Emissions, Climate TRACE Emissions Inventory dataset, TransitionZero, accessed December 11, 2024, <https://climatetrace.org>; Aluminium Smelters Asset Cost Service, proprietary dataset, Wood Mackenzie; Secondary Aluminum Production, proprietary dataset, World Bureau of Metal Statistics (WBMS) from LSEG Data and Analytics; Manufacturing and Industrial Processes sector – Cement Manufacturing Emissions, Climate TRACE Emissions Inventory dataset, TransitionZero, accessed December 11, 2024, <https://climatetrace.org>; Manufacturing and Industrial Processes sector – Chemicals, and Pulp and Paper Emissions, Climate TRACE Emissions Inventory dataset, TransitionZero, accessed December 11, 2024, <https://climatetrace.org>. We use ammonia production as a proxy for fertilizer production, since it accounts for the vast majority of emissions associated with nitrogenous fertilizers. Our focus on nitrogenous fertilizers follows the EU CBAM, which includes only nitrogen-based fertilizers, and reflects the higher emissions intensity of manufacturing nitrogenous fertilizers relative to potassium or phosphorous-based fertilizers. Sources for Figure ES3 are as follows: 2024 General Government Revenue (National Currency), World Economic Outlook database, IMF, last updated April 2025, <https://www.imf.org/en/Publications/WEO/>; 2024 Official Exchange Rate (LCU per US\$, Period Average), World Development Indicators, World Bank, 2025, <https://data.worldbank.org/indicator/PA.NUS.FCRF>; Ghana Monthly Exchange Rate Indicators, Exchange Rates, Bank of Ghana, 2025, <https://www.bog.gov.gh/economic-data/exchange-rate>.
- 7 While the report employs two trade models, except for Figure ES3, the results of only one model—*Model without Trade Frictions*—are presented in the Executive Summary for simplicity. This *Model without Trade Frictions* assumes that goods are *perfect substitutes* across countries; for instance, a consumer values a ton of aluminum from the United States the same as a ton from China, regardless of where the consumer is located, all else equal. This assumption is a reasonable simplification for basic, relatively homogeneous materials such as steel, aluminum, cement, and fertilizers. Figure ES3 presents the results of the *Model with Trade Frictions*, which calculates carbon pricing revenue at the country level.
- 8 The graduated carbon price floor levels and income-based country groups used in our modeling follow Ian W.H. Parry, Simon Black, and James Roaf, *Proposal for an International Carbon Price Floor Among Large Emitters*, International Monetary Fund Staff Climate Notes (2021), <https://www.imf.org/en/Publications/staff-climate-notes/Issues/2021/06/15/Proposal-for-an-International-Carbon-Price-Floor-Among-Large-Emitters-460468>. For the *Graduated Price* scenario in this analysis, the HIC group includes Australia, Canada, the European Union (plus the EU ETS-linked countries: Iceland, Norway, Switzerland, and Liechtenstein), and the United Kingdom. The UMIC group includes Brazil, China, Indonesia, and Thailand. The LMIC/LIC group includes Algeria, Cameroon, Egypt, Ghana, India, Kenya, Mozambique, Togo, Uganda, and Zambia.
- 9 For this analysis, a country was included in the bloc if it exports 40% or more of its production in at least one of the target industries outside of Africa and produces with an emissions intensity equal to or lower than the global average.



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