OPPORTUNITY GREEN

EU pricing of international emissions and climate finance

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Executive Summary

Extending the EU's Emissions Trading System (ETS) to departing international flights will end the era of unregulated long-haul aviation emissions, and alongside maritime ETS will reinvigorate rather than forestall multilateral efforts at ICAO and IMO.

International aviation and shipping together account for 6% of global greenhouse gas (GHG) emissions, yet a decade of multilateral negotiations at the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO) has produced no effective emissions price in either sector. **The ongoing energy crisis triggered by the closure of the Strait of Hormuz has exposed the acute fragility of Europe's dependence on Middle Eastern fuel imports, with jet fuel prices hitting record highs and supply shortfalls threatening European airports by summer 2026.**[1] **Far from arguing for delay, this crisis strengthens the case for structural reform: a fossil-reliant sector wholly exposed to geopolitical volatility is the riskier long-term path.** The upcoming legislative review of the ETS presents a major opportunity to extend the world's largest cap-and-trade scheme to departing flights outside the European Economic Area (extra-EEA). In doing so, the EU would create up to €10bn in annual revenues, rising to €17bn when non-CO_2 effects are considered, while providing a strong positive signal on the energy transition of the aviation sector.

The EU ETS's successful extension to international shipping demonstrates that a robust carbon price can work even in a highly complex global industry and sets a precedent for a similar carbon price in aviation, both within the EU and beyond. A carbon price also creates a sustained incentive to invest in sustainable aviation fuels and demand-side efficiency, two key shifts needed to reduce Europe's exposure to the kind of fossil fuel supply shocks now unfolding in the Persian Gulf. Environmental rules adopted in Brussels have a long history of stimulating regulatory adoption by the EU's global partners, through the so-called 'Brussels effect'. Meanwhile, an explicit provision in the ETS Directive signals that Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) offsetting dues would be deductible from future ETS fees, debunking claims of 'double counting' or double taxation.

[1] Forbes, 'Jet Fuel Shortage In 'Crisis Mode'—More Flight Cuts And Higher Airfares' (2026) online at https://www.forbes.com/sites/suzannerowankelleher/2026/05/07/jet-fuel-shortage-in-crisis-mode/

Extending carbon pricing to these two sectors presents economic, equity and governance advantages and creates new revenue allocation opportunities.

From an economic and equity perspective, revenue-raising from international aviation and shipping emissions is less directly tied to cost-of-living debates around carbon pricing and offers governments broad discretion in their allocation.

In Western Europe, high-income households are six times more likely to take several flights per year than those on the lowest income. The EU ETS's cost-of-living impact on, for example, household utility bills, justifies the domestic recycling of revenues into decarbonising the European energy, transport and buildings sectors. By contrast, Europe's long-haul aviation market includes lucrative transatlantic and Asian routes, which would raise revenues from a higher base of business travellers and premium cabins. Similarly for international shipping, the ETS carbon price can be absorbed by the industries concerned, notably containers and oil and gas tankers, without disrupting international trade or having a noticeable impact on consumer prices.

As the long impasse at ICAO and IMO demonstrates, carbon pricing presents unique international governance challenges. International transport sectors are globally integrated industries with a moveable tax base that countries have struggled to regulate, whether individually or in multilateral fora. Even the EU ETS will at best only cover a small share of total emissions. The EU should consider fresh approaches to influencing global coverage in a "bottom-up" fashion, for example, by extending ETS or MRV-as-a-service (Measurement, Reporting and Verification) or using auctioning revenues to widely share its best practice in the field. With carbon pricing on the rise worldwide and with 80 carbon tax or ETS schemes in operation,[2] a bottom-up approach that allows governments to learn from each other's experience may be a suitable carbon pricing pathway for international transport.

The EU's global partners will step up international climate action to the extent that the Union honours its own climate commitments, including on climate finance.

Climate investments have more than doubled in the last six years, but the vast majority occur in developed economies and China, leaving a persistent gap with the developing world, including Small Island Developing States (SIDS) and Least Developed Countries (LDCs). By signing on to the Paris Agreement a decade ago, rich countries undertook the responsibility of financing climate action in developing economies. A number of challenges are making the scaling-up of climate finance more urgent than ever. Accelerating climate impacts are outpacing preparedness efforts, especially in vulnerable countries of the Global South. In the meantime, development aid budgets, including European ones, are being cut, in an unprecedented simultaneous slashing of Overseas Development Assistance (ODA) by four of the world's largest donors.

[2] World Bank, 'State and Trends of Carbon Pricing 2025', (2025) online at https://www.worldbank.org/en/publication/state-and-trends-of-carbon-pricing

Dedicating a portion of €23bn of international ETS revenues to international climate finance could meet up to 50% of the scaling up the EU is committed to by 2030

The EU and its Member States have signed up to the New Quantified Collective Goal (NQCG), under which developed countries must provide $300bn to developing countries by 2035. This report finds that an expanded International ETS would generate enough revenue to finance up to 50% or more of the roughly €40bn that the EU and Member States must raise over and above current climate finance budgets by 2030. Directing these revenues to climate finance upon implementation in 2028 would bring the EU's share of global climate finance closer to 40% and could help offset declining aid from other donor countries, with wide-ranging benefits for the EU's climate diplomacy. Current ETS revenues are spent by Member States on domestic climate programmes, including public transport, insulating buildings and clean energy. A new source of revenue would allow Member States to protect their green domestic spending while finally implementing the ETS Directive's provisions urging them to scale up climate finance.

Policy Recommendations

It is likely that opponents of the ETS extension will be the loudest voices, but with strategic use of revenues and careful diplomacy, the EU can build a coalition of global supporters. The EU attempted to add international flights to the ETS in 2012, but suspended that legislation until now. The right lesson from the 2012 retreat is not that ambition should be moderated, but that it must be accompanied by stronger and more proactive engagement with third countries. This should include revenue-sharing, capacity-building and the promotion of compatible carbon pricing systems worldwide.

To achieve this, the EU should adopt the following measures:

- **Extend aviation ETS to departing extra-EEA flights**, capturing the 60% of aviation's climate impact currently excluded from the scheme, including the most profitable long-haul routes operated by European, US, Gulf and other carriers. This would generate €10bn in additional annual revenue by 2030.
- **Act on aviation's non-CO2 effects**, building on the reporting requirement introduced in 2025 by using the ETS to incentivise operational adjustments that reduce contrail and other non-CO2 warming impacts, which at least double aviation's total climate footprint.
- **End the shipping ETS exemption for vessels between 400 and 5,000 gross tonnage (GT)**, closing a gap that leaves a significant share of maritime emissions unregulated, and reserve zero-rating for truly sustainable Renewable Fuels of Non-Biological Origin (RFNBOs) and not biofuels.

With respect to their climate finance commitments, the EU and its Member States should:

- Publish multi-year climate finance pledges ahead of COP31 in Ankara, detailing how contributions will scale up towards their New Quantified Collective Goal (NQCG) commitments by 2030.
- Give special attention to adaptation finance, which remains the most severely underfunded component, according to the United Nations Environment Programme's (UNEP) Adaptation Gap report.
- Actively explore new sources of finance, including revenues from international carbon pricing, given that several major donors are cutting aid budgets. This would not only make up the shortfall but would reinforce the EU's leadership role in climate diplomacy.

The almost entirely domestic spending of Member State revenues is already in tension with the rationale behind the ETS Directive's language on revenue spending, with its multiple references to international climate finance. Applying the current regime to the significant new revenues from international transport activities would be inconsistent with the EU's global commitments and ETS legislation. Instead, the EU should consider:

- Introducing a binding requirement in the ETS Directive mandating that **Member States earmark a defined share of international ETS revenues for international climate finance.**
- Establishing a dedicated EU funding mechanism, directly channelling a portion of **international ETS revenues to the UN Adaptation Fund on a predictable, year-on-year basis.**
- Allocating a modest but ring-fenced portion of ETS revenues would strengthen the EU's international **carbon pricing and capacity-building programmes**. This could include 'ETS/MRV as a service' and the expansion of current initiatives, such as EU Climate Dialogues 2, to cover more partner countries and a broader range of technical areas.

1. The EU ETS and International Transport

Background

International aviation and shipping are significant sources of greenhouse gas emissions (GHG), which the European Union (EU) needs to curb in light of its climate neutrality objective. Rising emissions from international bunkers are driven by surging demand for air travel and maritime freight. At the same time, the two sectors continue to benefit from special fiscal treatment, which only amplifies traffic growth. In stark contrast to road transport fuels, the kerosene used in international aviation and heavy fuel oil used in shipping are not subject to national excise taxes. Unlike most other commodities, international aviation and shipping are also not included in VAT taxation. The dampening effect that taxation might have otherwise had is therefore absent, making explicit carbon pricing all the more necessary.

One of the first attempts to introduce carbon pricing for international transport was through the EU's Emissions Trading System (ETS). The EU's flagship cap-and-trade scheme was extended to aviation on 1 January 2012. The initial EU legislation applied to all departing and arriving flights, including long-haul, but concerted backlash from the US and China led Brussels to limit ETS to European short-haul routes in November 2012.[3] The standoff between the EU and its global partners shaped an acquiescent European approach during the development of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), as ETS long-haul (or "extra-EEA") implementation was repeatedly postponed. An entire decade would pass until any international transport emissions entered the ETS with the extension to maritime shipping in 2024.

ICAO and IMO: Multilateral Inaction

The EU's regulatory retreat provided ample time to the International Civil Aviation Organization (ICAO) and its maritime counterpart, the International Maritime Organization (IMO), to develop global measures to reduce GHG emissions. Neither has to this day effectively implemented such a measure. Unsurprisingly, aviation and shipping emissions have increased substantially since 2012. Opportunity Green analysis[4] found that had extra-EEA flights been included from 2012, an extra 1.1bn tonnes of CO2 would have been regulated between 2012 and 2023. This is a figure equivalent to Greece's total emissions over the same period.

ICAO States adopted a global measure known as CORSIA in 2016. CORSIA has so far not established a robust carbon price signal and lacks any other mechanism to reduce aviation emissions. As an offsetting scheme, it offers airlines a far more economical means of compliance than "Sustainable Aviation Fuels" (SAF)[5] or investments in

[3] See Opportunity Green, 'Policy Guide to the EU ETS for aviation' (2025), online at https://opportunitygreen.org/aviation/reports/policy-guide-eu-ets-aviation/
[4] Ibid.
[5] We put sustainable in quotation marks as many of these fuels are not truly sustainable.

efficiency.[6] Importantly, the offsetting obligation applies only to a small share of airline emissions above a 2019 baseline, as ICAO States aimed at carbon-neutral *growth*, leaving the bulk of emissions unregulated. Efforts by States within ICAO to strengthen the scheme, or to include any revenue generation to support least developed States, have so far failed. The EU's ETS Directive mandates the European Commission to assess the environmental integrity of CORSIA, as well as the level of participation in the scheme and to publish the report by 1 July 2026.[7]

Efforts to implement global carbon pricing for shipping at the IMO are still ongoing. Existing efficiency measures such as the Energy Efficiency Design Index (EEDI) or the Carbon Intensity Indicator (CII) have proven inadequate, as fuel efficiency has been outpaced by demand growth.[8] The Net-Zero Framework (NZF) agreed in April 2025 would have gradually lowered emissions and included a limited economic penalty mechanism expected to generate $10-15bn annually.[9] However, the October 2025 meeting scheduled to adopt this policy was adjourned, leaving IMO's NZF in limbo. Some countries are currently suggesting that, in order to agree to the NZF in late 2026, its economic element must be stripped out altogether.[10] Other countries are pushing back against this, pointing out the importance of the economic element. Regardless, the NZF's carbon price would not apply to all ship emissions, and the resulting revenues would not be enough to support the full equitable decarbonisation of the sector.[11]

The Steady Advance of International Transport ETS

The last reform of the EU ETS brought a breakthrough for carbon pricing of international bunker fuels. As of 2024, 50% of the EU's international shipping voyages, i.e. extra-EEA, fall under the scope of the EU ETS.[12] Shipping companies reported 90m tonnes of CO2 emissions in 2024, a similar amount to the emissions of Belgium. These include 100% of shipping voyages between EEA ports and 50% of voyages between EEA and non-EEA ports (the "International ETS" part). Thanks to a phase-in period for shipping ETS, shipping companies had to pay for 40% of verified 2024 emissions, and 70% of those of 2025. From 2026 onwards, emissions will be fully priced (i.e. companies will have to surrender

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[6] Laura Roberts, *'CORSIA spot prices continue to slide, all eyes still on supply'* Fastmarkets (4 February 2026). Online at https://www.fastmarkets.com/insights/corsia-spot-prices-continue-to-slide-all-eyes-still-on-supply/ accessed 1 April 2026

[7] Participation must represent at least 70% of international aviation emissions. The provision is from Article 28b of Directive 2003/87/EC of the European Parliament and of the Council (the 'ETS Directive')

[8] UNCTAD, 'Review of Maritime Transport 2023' (2023)

[9] Transport and Environment, 'IMO Net-Zero Framework: Assessing the impact of the IMO's draft Net-Zero Framework' (2025), online at https://uploads.transportenvironment.org/production/files/Impact-of-the-IMOs-draft-Net-Zero-Framework-April-2025.pdf

[10] Tristan Smith and Femke Spiegelenberg, 'Uncertainty at the IMO: three scenarios and their consequences for shipping's transition' (2026) *Global Maritime Forum,* Online at: https://globalmaritimeforum.org/news/scenarios-and-consequences-for-potential-net-zero-framework-outcomes/

[11] Transport and Environment, 'Assessing the Impact of the IMO's Net Zero Framework', (2025), online at: https://uploads.transportenvironment.org/production/files/Impact-of-the-IMOs-draft-Net-Zero-Framework-April-2025.pdf

[12] European Commission, 'Carbon Market Report 2025' (2025) online at https://climate.ec.europa.eu/news-other-reads/news/2025-carbon-market-report-eu-ets-lowers-power-sector-emissions-and-expands-maritime-transport-2025-12-03_en

allowances for 100% of verified emissions). From 2026 onwards, the CO2 equivalents of methane (CH4) and nitrous oxide (N2O) will also generate surrender obligations.

While still limited to an intra-EU scope, the ambition of the EU ETS for aviation has also steadily advanced. This concerns most notably the end of free allowances for the sector. Airlines previously received most of their allowances for free, meaning the effective price for ETS allowances was closer to €20 than the EUA price of €64, even as the free allowance phase-out was beginning in 2024 (Transport & Environment Briefing, March 2026). As of 2026, airlines must purchase their allowances, bringing the cost to industry in line with the carbon price. Airlines reported close to 63m tonnes for the same year, according to the EC's 2025 Carbon Market Report. As the non-EEA part of Aviation ETS remains suspended, these emissions correspond to flights between EEA airports. Unlike maritime ETS, which falls under the general cap alongside power and industry, airline emissions fall under a dedicated cap (hence there are "aviation allowances"), but airlines also have access to general allowances to buy once their emissions exceed designated aviation allowances.

The legality of international ETS is a settled debate

The EU is within its legal rights to regulate the GHG emissions of extra-EEA aviation and shipping. A criticism levelled at the EU in 2012, and one not entirely removed from policy dialogue, despite the definitive legal ruling to the contrary, asserts that only ICAO has the legal power to act. In international aviation, there is a landmark judgment in case C-366/10 (*Air Transport Association of America and others*) that reached the Court of Justice of the EU in 2012. It found that International ETS does not violate the Chicago Convention or the Open Skies Agreement of the EU/US and that the EU is legally entitled to regulate emissions beyond its borders. Given this decision, the submissions of several industry associations in the EU ETS consultation 2025 that continued to cite "legal concerns" about extending the EU ETS should be seen as lobbying efforts rather than substantive claims.[13]

Notably, the Commission's proposal to extend the EU ETS to maritime shipping did not face a similarly sustained attack on its legal basis. A recent review article published in Transport Policy finds that most of the identified legal studies of the last 15 years support that, in principle, the ETS coverage of emissions outside of the EU's territorial waters is compatible with international law.[14] It is noteworthy that industry position papers on Maritime ETS from a critical standpoint cast doubt on its cost-efficiency and effectiveness in emissions reductions rather than the scheme's international legality.[15] The difference perhaps indicates that the aviation sector's concerns regarding the extension of the ETS to international aviation are better understood as evidence of the

[13] European Commission, 'Public Consultation to EU ETS review' (2025), online at https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14549-EU-emissions-trading-system-for-maritime-aviation-and-stationary-installations-and-market-stability-reserve-review_en

[14] Manolis Kotzampasakis, 'Maritime Emissions Trading in the EU: Systematic literature review and policy assessment' *Transport Policy*, Vol. 165, May 2025, https://doi.org/10.1016/j.tranpol.2025.02.014

[15] See for instance Malta International Shipowners Association in European Commission, 'Public Consultation to EU ETS review' (2025)

particularly litigious nature of aviation advocacy rather than as critiques grounded in the substantive merits of the regulation itself.

The 2026 EU ETS review as an opportunity for climate action

As EU policymakers approach pivotal EU ETS reform in 2026, they must decide the future direction of the ETS for international transport. As the climate continues to warm, the EU can take a further step towards its neutrality objective by enhancing and extending the international ETS in aviation and shipping. **The flagship reform in international transport should be to bring departing extra-EEA flights into the scheme** and take a strategic new approach to international revenues, while acting on omissions like non-CO2 aviation effects and smaller ships. In more detail, the following are important reforms:

- **ETS aviation – extend scope to departing flights (extra-EEA) and act on non-CO2:** the current exemption of extra-EEA flights leaves out 60% of the sector's climate impacts. This includes some of the most profitable routes for airlines, like North American (61.7 million passengers)[16] and Western Asian/Gulf (45.1 million passengers) with high proportions of business travellers and premium cabins. Unlike intra-EEA routes, which are mostly operated by European carriers, long-haul aviation ETS would also price the emissions of US, Gulf and other airlines. According to recent analysis, the scope extension would likely generate revenues of €14-16bn annually in 2030.[17][18] The exclusion of non-CO2 emissions is highly problematic for the climate, but the requirement, effective as of 2025, that airlines report on them is positive. As a next step, the EU ETS can be used to spur airlines into action to reduce emissions, at least operationally.[19] Simple adjustments can help reduce non-CO_2 impacts, and ETS can be used to achieve that.[20]
- **End shipping ETS exemption for smaller ships over 400GT:** the shipping ETS experience demonstrated that the EU ETS market can work on a complex multi-sector industry. When it comes to EU ETS Shipping, the surrender obligation should be extended to smaller and ferry vessels (400-5000GT), and to zero-rating for truly sustainable Renewable Fuels of Non-Biological Origin (RFNBOs) and not biofuels. Extending the transshipment provision to further non-EEA ports would be beneficial. Importantly, the bulk of the €10bn that shipping will soon bring in under the ETS should

[16] Eurostat, 'Key figures on European Transport' (2025) Online at https://ec.europa.eu/eurostat/en/web/products-key-figures/w/ks-01-25-057
[17] Transport & Environment, 'Boosting Aviation Decarbonisation through the revision of EU ETS' (2026) online at: https://www.transportenvironment.org/articles/boosting-aviation-decarbonisation-through-the-revision-of-the-eu-ets
[18] Carbon Market Watch, 'International Aviation: will the EU restart the clock?' (2025), online at https://carbonmarketwatch.org/publications/sky-polluters-time-to-chip-in-citizens-time-to-cash-in/
[19] For e.g. see T&E (2026) and Opportunity Green (2025)
[20] James Kershaw, 'Contrail avoidance in the EU: a quick climate win for aviation' (2026), *Opportunity Green*, online at: https://opportunitygreen.org/aviation/briefings/contrail-avoidance-eu-aviation-win/

be considered as part of the re-evaluation of the use of revenues[2122]. The EU should consider using a share of these international revenues towards its climate finance commitments.

- **A tailored approach to International ETS revenues:** An extended ETS covering both extra-EU maritime and aviation voyages would raise approximately €23bn annually in 2030. The magnitude of these revenues calls for a new strategic vision about the expenditure side of International ETS. This is made possible by the equity characteristics of revenue-raising in international aviation and shipping. Revenue-raising in these sectors is less directly tied to cost-of-living debates, as they can more easily be absorbed by the two sectors and can offer governments broad discretion in their allocation. Europe's long-haul aviation market includes **lucrative transatlantic and Asian routes**, which would raise revenues from a higher base of business travellers and premium cabins. These revenues create 'fiscal space' for climate finance and would offer much-needed support for multilateralism. Rather than externalising its climate costs, the EU would be seen as enacting a global climate vision.

Finally, an environmentally effective carbon market for aviation and shipping cannot operate unless the core mechanism of the EU ETS remains ambitious. To ensure the EU's domestic emissions target remains uncompromised, international carbon credits must not be used for compliance. Furthermore, free allocation should be promptly phased out in sectors where a Carbon Border Adjustment Mechanism (CBAM) is introduced[23], and the post-2030 rate of decarbonisation (or "Linear Reduction Factor") must align with the EU's 2040 Climate Target.

Regulating international transport emissions comes with **unique governance issues, requiring effective climate diplomacy**. The right lesson for Brussels to take away from its "Stop the Clock" experience is not that climate ambition should be checked, but that climate diplomacy should be strengthened. Success will be less about adoption in Brussels alone and more about wider international support. As European policymakers move forward with greater ambition, they must pay special attention to supporting least developed countries, and a strategic approach to revenue use does just that.

Getting from the International ETS to global coverage

The International ETS can remain compatible with global measures even as it expands, **through smart policy design and by promoting replicable instruments** that the EU's international partners can use to regulate their share of emissions.

The EU has been a major pillar of multilateralism in climate action and remains, in its latest statements, highly supportive of global cooperation at ICAO and IMO. While EU

[21] Zia Weise, 'Von der Leyen and Merz clash over future of EU's core climate law' (11 February 2026), online at: https://www.politico.eu/article/ursula-von-der-leyen-pushes-back-as-leaders-and-industry-plot-to-weaken-eus-core-climate-law-friedrich-merz/
[22] Transport & Environment, 'Maritime ETS: facts, figures, no myths' (2026) online at: https://www.transportenvironment.org/articles/maritime-ets-facts-figures-no-myths
[23] Complete phase out of free allowances in CBAM sectors is foreseen for 2034

Member States remain fully committed to CORSIA as members of ICAO, they are equally bound by the Paris Agreement and EU law. These legal obligations require the EU (and its Member States) to reduce emissions from international aviation and shipping. It is worth highlighting that neither CORSIA nor the NZF are robust enough to fulfil States' unilateral legal obligations, as recently clarified by Advisory Opinions at the International Court of Justice, the International Tribunal for the Law of the Sea, and the Inter-American Court of Human Rights, in this regard.

Critics of the International ETS have suggested the bloc's carbon market policies are hindering efforts to implement and adopt CORSIA and NZF, respectively. In the case of aviation, the contention is that CORSIA would not be implemented on certain routes, presumably those extra-EEA routes concerned by an extension.[24] Alternatively, there are claims of so-called 'double taxation'. But double taxation, or double counting of emissions, was never the intention of European legislators. The EU ETS Directive itself, as well as the 2022 legislative European Parliament text that would have enacted the extension, enshrines the principle that **airlines will deduct the financial value of CORSIA offsets from ETS dues to avoid double counting emissions**.[25] It is worth noting that the provision does not mention a limitation, so such a deduction could potentially increase all the way to parity with the ETS obligation, if CORSIA's environmental ambition were ever increased substantially. In any case, there is no principle of international law that would forbid double taxation if a jurisdiction opts to take action to raise the overall taxation level to that required for effective climate action.

The same principles apply to shipping and the NZF. As discussions on the NZF had not begun at the IMO during ETS's maritime extension, the ETS Directive carries no explicit provision of how the two may co-exist. However, there is no prima facie reason for the EU to treat the UN's shipping measure differently from that of aviation. More broadly, we can expect the co-existence of an EU rule with an international one to be beneficial. The academic literature suggests that EU regulation has a strengthening effect on international environmental norms, by promoting Emissions Trading Schemes abroad.[26]

Europe's carbon market **can promote global coverage in a "bottom-up" fashion**. As a first mover in carbon pricing, the EU has extensive international influence that it can exercise strategically. The "50%" scope model used in Maritime ETS voyages is such an example, as it allows the partner country on the other end of the voyage to regulate the remaining 50% of emissions. The equivalent model for departing flights should be used for the EU ETS aviation extension. This is a more promising pathway than a decade ago, as carbon taxes and ETSs have since evolved. According to the World Bank's latest assessment, most major economies have implemented or are advancing the adoption of carbon pricing, with countries in Asia playing an increasingly significant role.[27] Currently,

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[24] IATA submission in European Commission, 'Public Consultation to EU ETS review' (2025), online at https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14549-EU-emissions-trading-system-for-maritime-aviation-and-stationary-installations-and-market-stability-reserve-review_en

[25] European Parliament, 'Revision of the EU Emissions Trading System for aviation – adopted text' (8 June 2022), online at https://www.europarl.europa.eu/doceo/document/TA-9-2022-0230_EN.html

[26] For e.g. Anu Bradford, *The Brussels Effect: how the European Union Rules the World*, Oxford Academic Books 2019

[27] World Bank, 'State and Trends of Carbon Pricing 2025', (2025) online at https://www.worldbank.org/en/publication/state-and-trends-of-carbon-pricing

countries with carbon pricing in effect make up almost two-thirds of global GDP. While power and industrial sectors are prioritised, aviation and shipping could be next on the list, for example, in China's ETS. It is likely that opponents of the ETS extension will be the loudest voices, but with strategic use of revenues and careful diplomacy, the EU can build a coalition of global supporters.

Avoiding unintended policy impacts

The price signal from ETS or other carbon prices should ultimately shift economic patterns in production, consumption and investment. Its objective is to make economic development compatible with climate protection, for example, by incentivising the development of energy-efficiency measures and sustainable fuels. While the overall climate protection effect is positive and urgently needed, the EU ETS could potentially create some minimal negative effects that the EU must anticipate and mitigate. Clear communication of these actions will improve understanding of the ETS both within and outside the EU.

One such potential effect is carbon leakage, which happens when a flight or ship voyage uses stops at ports or airports outside the EU ETS's scope to evade ETS dues. This has, in theory, the effect of increasing emissions and reducing ETS revenues. A 2022 CE Delft study[28] examined a number of real-world shipping scenarios and concluded that the risk was limited. Maritime carbon leakage is already subject to effective countermeasures by the EU, which applies the full 100% European scope to Moroccan and Egyptian transshipment ports defined in Commission Implementing Regulation 2023/2297 to disincentivise carbon leakage.[29] Carbon leakage in an extended aviation ETS would present an equally manageable challenge. A comprehensive analysis by Transport & Environment (T&E) published in 2025[30] found the risk to be minimal and confined to specific long-haul routes. Nearby non-EU hubs, notably Istanbul, would only stand to gain a 1-4% cost advantage. An approach based on route-adjusted carbon pricing would adequately address this risk by narrowing the cost advantage.

A wider debate is happening in the International Maritime Organization (IMO) about the potential impact of global carbon pricing on maritime costs and on food security. A UN Commission for Trade and Development (UNCTAD) report for the IMO found that the average freight costs associated with agricultural imports would increase by 2.5% across policy scenarios under consideration in 2024.[31] Whether the cost and availability of food

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[28] J. Faber, L. Leestemaker and R. van den Berg, 'Maritime Shipping and EU ETS: an assessment of the possibilities to evade ETS costs' (2022), online at: https://cedelft.eu/wp-content/uploads/sites/2/2022/03/CE_Delft_210450_Maritime_Shipping_and_ETS_FINAL_v2.pdf

[29] Currently the two ports are East Port Said of Egypt and Tanger Med of Morocco. Included ports are defined in Commission Implementing Regulation (EU) 2023/2297

[30] https://www.transportenvironment.org/articles/carbon-leakage-in-the-aviation-sector-is-it-a-problem-and-if-so-what-can-be-done-to-address-it

[31] International Maritime Organisation, 'Comprehensive impact assessment of the basket of candidate mid-term GHG reduction measures. Task 3: Final Report' (2024), Online at https://www.imo.org/en/ourwork/environment/pages/assessment-of-impacts-on-states.aspx

itself would be impacted depends on various other nation-specific factors, including the availability of land-based imports of foods and domestic production.

The Maritime EU ETS is unlikely to have a noticeable effect on the economies of SIDS and LDCs. Firstly, because its carbon price, considered over the entire year, is lower than the global levy studied in the IMO's 2024 study, and secondly, carbon pricing would only apply to voyages to and from the European Union. It does not cover those from other exporting nations like the USA, Canada, Indonesia, Russia and Ukraine, allowing SIDS and LDCs to opt for a readjustment of trade if the resulting maritime cost increases ever materialised. Modelling by Transport & Environment in 2024 found that, on average, only 7% of seaborne trade to SIDS and LDCs will be regulated under the maritime EU ETS. Only the traffic of a handful of West African countries would experience higher coverage than that, with between 15 and 19% of their total shipping traffic being regulated. The impact will be zero or close to zero on shipping trade to the Asian and Pacific SIDS and LDCs.[32] In addition, the use of revenues from the maritime ETS to support least developed countries can be strategically used to offset any impacts.

In the case of Aviation ETS, **a permanent exemption of flights to LDCs and SIDS precludes any negative effects.** That is guaranteed by the EU ETS Directive: flights to and from 75 SIDS and LDCs were permanently exempted from the provisions of EU ETS as part of the Fit for 55 legislative review through a provision in Article 25a of the Directive.[33] It is unclear whether any real demand effect could be expected even in the absence of such a provision, however. Long-haul destinations like SIDS (e.g. the Maldives, Bahamas, Barbados) from the EU involve costlier tourism packages where the airfare makes up a smaller share of tourists' total holiday cost . Therefore, the demand is likely to be more price-inelastic than on intra-EEA routes. While no studies have looked at this question in relation to extra-EEA flights, a peer-reviewed study of the EU ETS's effect on European tourism (Fageda & Oesingman 2025) found that the policy improved airline efficiency without harming Europe's tourism appeal.[34]

Section 1: Summary and recommendations

International aviation and shipping together account for 6% of global GHG emissions, yet a decade of multilateral negotiations at the ICAO and the IMO have produced no effective carbon price in either sector. CORSIA, adopted in 2016, covers only emissions above a 2019 baseline and relies on offsetting rather than genuine reductions. The IMO's Net Zero Framework, agreed in principle in April 2025, is currently stalled, with its economic element under threat of being stripped out entirely. The cost of this inaction is measurable: had extra-EEA flights been included in the EU ETS from 2012, an additional 1.1bn tonnes of CO2 would have been priced. This is equivalent to Greece's total emissions over the same period.

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[32] Transport & Environment, 'Making Waves: The International Impacts and Opportunities of the EU's carbon market for shipping' (2024), Online at https://www.transportenvironment.org/articles/making-waves-the-international-impacts-and-opportunities-of-the-eus-carbon-market-for-shipping

[33] Directive (EU) 2023/958 of the European Parliament and of the Council of 10 May 2023 amending Directive 2003/87/EC as regards aviation's contribution to the Union's economy-wide emission reduction target and the appropriate implementation of a global market-based measure

[34] X Fageda and K Oesingmann, 'The impact of carbon pricing on tourist destinations' (2025), *Economics of Transportation,* 42, 100414, https://doi.org/10.1016/j.ecotra.2025.100414

The 2026 EU ETS review is a pivotal opportunity to correct this. The EU has already demonstrated that carbon pricing can work in a complex global industry, with the successful extension of ETS to international shipping in 2024. Aviation must follow. The legal basis for doing so is settled, confirmed by the Court of Justice of the EU in 2011, and the precedent set by maritime ETS makes continued inaction on aviation increasingly difficult to justify. Four specific recommendations follow from the analysis in this chapter:

- **Extend aviation ETS to departing extra-EEA flights**, capturing the 60% of aviation's climate impact currently excluded from the scheme, including the most profitable long-haul routes operated by European, US, Gulf and other carriers. This would generate to €10bn in additional annual revenues by 2030.
- **Act on aviation's non-CO2 effects**, building on the reporting requirement introduced in 2025 by using the ETS to incentivise operational adjustments that reduce contrail and other non-CO2 warming impacts, which at least doubles aviation's total climate footprint.
- **End the shipping ETS exemption for vessels between 400 and 5,000 GT**, closing a gap that leaves a significant share of maritime emissions unregulated, and disqualify unsustainable first-generation biofuels from compliance eligibility.
- **Adopt a tailored approach to international ETS revenues**, recognising that the €23bn generated annually by 2030 from extra-EEA aviation and shipping carries different equity characteristics from domestic ETS revenues and warrants a distinct strategic framework. This would be one that supports climate finance, reinforces multilateralism and promotes the bottom-up spread of carbon pricing among the EU's global partners.

On the last point, the EU's approach to international diplomacy matters as much as the instrument’s design. The right lesson from the 2012 retreat is not that ambition should be moderated, but that it must be accompanied by stronger and more proactive engagement with third countries, including through revenue-sharing, capacity-building and the promotion of compatible carbon pricing systems worldwide.

2. International Climate Finance

Context

The legal obligation of developed countries to provide climate mitigation and adaptation finance to developing countries lies at the heart of the Paris Agreement. In its Article 9, States enshrine the principle that developed countries 'shall provide financial resources' to developing countries, giving special consideration to Small Islands Developing States (SIDS) and Least Developed Countries (LDCs) with limited economic capacity or special vulnerability to climate change. Although the Paris agreement and advancements in technology have prompted a surge in climate investments reaching $2tn in 2024, 79% of these investments occur in China, the European Union and North America and are financed through conventional debt and equity.[35] By contrast, access to affordable capital is very limited for most LDCs, which must rely on international public finance for their climate mitigation and adaptation needs. The current levels of international public finance are insufficient, with Sub-Saharan Africa securing less than 10% of its estimated climate finance needs.[36] Another region comprising LDCs is Central Asia, which accounts for 9% of its estimated financing requirements. Adaptation needs are especially pressing and gravely underfunded. The latest Adaptation Gap report from the United Nations Environment Program (UNEP) puts 2023 adaptation spending at $26bn, or 12-14 times less than the actual developing country needs.[37]

Climate finance and Paris NDCs

In 2009, developed countries agreed to collectively raise $100bn for developing countries by 2020 as part of the Copenhagen Accord. The Paris Agreement was signed in 2016, establishing a legal basis for this pre-existing commitment as well as for future commitments necessary to meet the agreement's temperature goal. Within the Paris Agreement, the financial obligation of developed economies is neither abstract nor indiscriminate: the purpose of financing is to provide resources for developing economies, including SIDS and LDCs, to implement the measures contained within their own Nationally Determined Contributions (NDCs). In line with Article 4 of the Paris Agreement, NDCs lay out a country's national climate goals and plans, including emissions reduction plans and adaptation plans.

Most developing country states have NDCs 'conditional' on financial support.[38] However, total finance needs are likely underestimated as only half of the new NDCs in 2025 included explicit financing needs.[39] According to the World Resources Institute (WRI) analysis of NDCs in 2025, 41 developing countries reported specific requirements that

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[35] Climate Policy Initiative, 'Global Landscape of Climate Finance 2025', (2025), online at: https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2025/
[36] Ibid.
[37] United Nations Environment Programme, 'Adaptation Gap Report 2025', (2025), online at: https://wedocs.unep.org/handle/20.500.11822/48798
[38] Claire M. Jordan, 'Paris Agreement: Nationally Determined Contributions Conditional on International Support – In Brief' (2024), *Library of Congress*, online at: https://www.congress.gov/crs-product/R48248#fn6
[39] J Srouji et al., 'Despite Some Progress, Countries' New Climate Plans Largely Fall Short' (12 November 2025), *World Resources Institute*, online at: https://www.wri.org/insights/assessing-2025-ndcs

total $2.8tn. In Figure 1, existing data are combined with estimates by the Climate Policy Initiative (CPI) to provide a comprehensive bottom-up view of financing needs.

Analysts note a clear trend towards more developing countries providing detailed financial costs of their climate plans as they update their NDCs. Ten countries, including Ecuador, Barbados, Thailand and Tonga, reported finance needs for the first time in 2025, and an additional 11 increased their finance needs relative to their previous NDC. Many countries also break down their overall mitigation goals into conditional and unconditional components. For example, Burkina Faso's latest NDC includes a 30.87% reduction from business-as-usual (BAU) by 2030 (22.37% based on unconditional actions, and 9.82% on conditional actions).[40]

Developed countries have gradually been scaling up their financing, but have nevertheless failed to meet the $100bn target by 2020. This target, according to the OECD, was finally met in 2022[41]. In COP29 in 2024, as per the Paris Agreement, States set a new collective goal, known as the New Quantified Collective Goal (NQCG). The new goal marks a shift from the $100bn goal, which focused exclusively on public financing in the form of loans and grants that come directly out of developed country budgets (e.g. bilateral loans) or from Multilateral Development Banks (MDBs).

The NQCG instead employs a dual-track approach and consists of two distinct quantitative goals: (i) for all actors to scale up $1.3tn climate finance to developing countries by 2035 and (ii) for developed countries to provide $300bn by 2035. Compared to the $100bn goal that it replaces, the $300bn goal is embedded in a more robust framework, as it is linked to the Paris Agreement's Enhanced Transparency Framework (ETF) and subject to biennial progress reports by the United Nations Framework Convention on Climate Change (UNFCCC), and assessments as part of the Global Stocktake (GST) process.[42]

The final amount agreed reflected a negotiated balance between two competing claims: developed countries on the one hand insisting that their aid budgets could not fill the gap left by China and other emerging economies, and developing countries and the expert community on the other, pointing to actual financing needs far beyond $300bn. The funding was agreed at a time when climate aid was surging, and the achievement of the

[40] UNFCCC, 'Contribution Determinee Au Niveau National (CDN3) du Burkina Faso' (2025), online at : https://unfccc.int/sites/default/files/2026-01/BKF-CDN%203.0_BURKINA%20FASO.pdf

[41] Kate Abnett, 'Wealthy countries met global climate finance goal two years late, OECD says' (29 May 2024), *Reuters*, online at: https://www.reuters.com/business/environment/wealthy-countries-met-global-climate-finance-goal-two-years-late-oecd-says-2024-05-29/

[42] OECD, 'Unpacking the USD300bn goal and USD1.3tn scale up call in the NQCG', (30 October 2025), *OECD/IEA Climate Change Expert Group Papers*, online at: https://www.oecd.org/en/publications/unpacking-the-usd-300-billion-goal-and-the-usd-1-3-trillion-scale-up-call-in-the-ncqg_bb53df0c-en.html

$100bn target was met in 2022, with significant increases from the United States and Germany[43], both of which are now drastically cutting their aid budgets.[44]

What are the actual climate finance needs in the developing world?

Beyond legal commitments, international support is urgently needed to help countries meet their climate targets and avoid the worst impacts of climate change. A bottom-up needs analysis by Climate Policy Initiative (2025), a respected voice in the climate finance space, finds significant financing increases are needed.

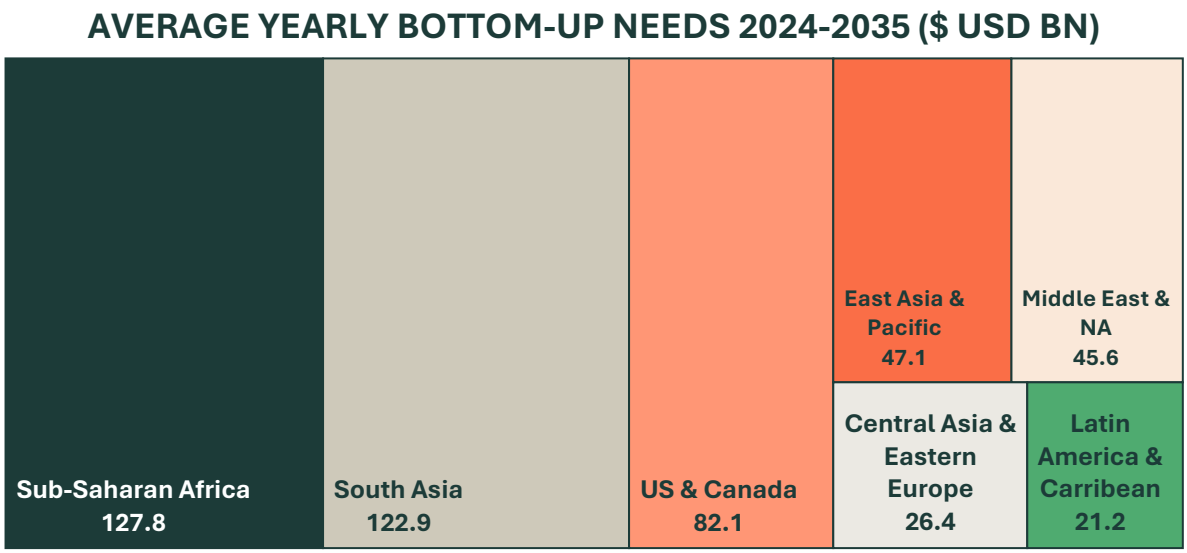

Figure 1: Average yearly bottom-up financing needs 2024-2025 (source – Climate Policy Initiative)

The amounts in Figure 1 are estimated financing needs for the policies that are outlined in countries' Nationally Determined Contributions (NDCs). They should therefore be seen as a minimum baseline. The financing needs for Paris 1.5°C-aligned mitigation would be considerably higher, likely in the trillions.

The European Union and international climate finance

The European Union and its Member States are the world's leading climate donors, contributing €31.7bn in climate finance in 2024.[45] They collectively provided approximately one-third of total developed country finance over the 2013-2022 period.

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[43] Josh Gabbatiss, 'Analysis: Seven Charts showing how the $100bn climate finance goal was met', (14 November 2025), *Carbon Brief*, online at: https://www.carbonbrief.org/analysis-seven-charts-showing-how-the-100bn-climate-finance-goal-was-met/

[44] German Climate Finance, '2025 and 2026 aid cuts likely to push Germany's climate finance pledge out of reach', (22 October 2025), online at: https://www.germanclimatefinance.de/2025/10/22/aid-cuts-german-2025-climate-finance-pledge-likely-out-of-reach/

[45] Council of the EU, 'Council Publishes 2024 international climate finance figures' (27 October 2025), online at: https://www.consilium.europa.eu/en/press/press-releases/2025/10/27/council-publishes-2024-international-climate-finance-figures/

The three main contributors within the European space are Germany, France and the European Union budget, all of whom report contributions annually in the weeks preceding the COP Meeting. The European Union budget includes allocations by EU institutions such as the European Commission (EC) and the European Investment Bank (EIB). As of 2021, international climate finance was integrated into the Union's overall budget, known as the Multiannual Financial Framework (MFF). As a result of the reform, the EU's various funds were all brought under the Neighbourhood, Development and International Cooperation Instrument (NDICI).

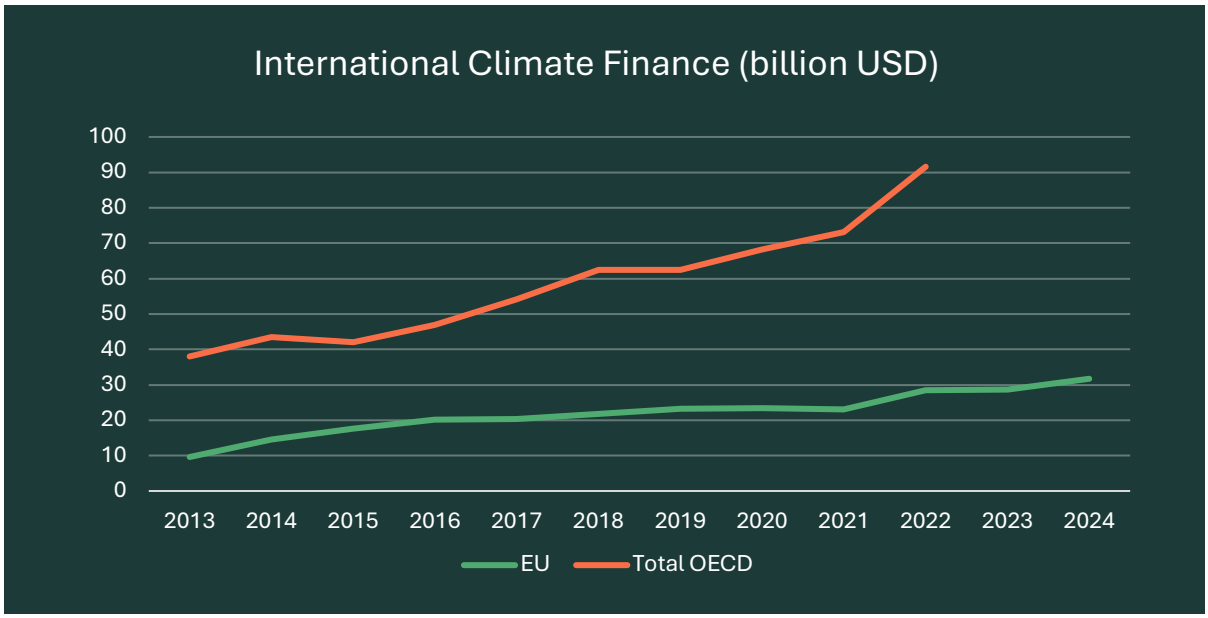

Figure 2: International Climate Finance by EU and total OECD (sources – The European Commission and the Organisation for Economic Co-operation and Development)

Europe's international climate finance has increased over time to meet countries' international commitments and to satisfy growing public awareness of the need to support climate action beyond Europe's borders. There was incremental growth in 2016-2021, averaging annual increases of 2.7%. 2022 was a record year for international climate finance. European allocations remained stagnant in 2023 and then resumed an upward trajectory in 2024. Early data in 2025 and 2026 suggest major aid cuts in most developed donor countries, including the United States[46] [47], Germany[48], the United Kingdom[49] and France[50].

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[46] White House, 'Putting America First in International Environmental Agreements' (20 January 2025), *Presidential Actions*, online at: https://www.whitehouse.gov/presidential-actions/2025/01/putting-america-first-in-international-environmental-agreements/

[47] Josh Gabbatiss, 'Analysis: nearly a tenth of global climate finance threatened by Trump aid cuts', (10 March 2025), *Carbon Brief*, online at: https://www.carbonbrief.org/analysis-nearly-a-tenth-of-global-climate-finance-threatened-by-trump-aid-cuts/

[48] German Climate Finance (2025)

[49] Fiona Harvey, 'UK slashes climate aid programmes for developing countries' (2 March 2026), *The Guardian*, online at: https://www.theguardian.com/environment/2026/mar/02/uk-slashes-climate-aid-developing-countries

[50] Bahar Makooi, 'France's global aid programmes at risk from unprecedented budget cuts', (24 July 2025), *France 24*, online at: https://www.france24.com/en/france/20250724-france-global-aid-programmes-at-risk-from-unprecedented-budget-cuts-bayrou

The European Commission and EU Member States lay out their latest positions respectively in a Joint Communication on EU global climate and energy vision[51] and Council Conclusions of 21 April 2026.[52] The latest EU policy statements contain strong defences of multilateralism, the Paris Agreement, and reaffirm a commitment to the NQCG. However, what they lack is any new financial pledges to back up the unequivocal political commitment.

Looking ahead: EU climate finance in 2030 and 2035

The pace at which the European Union (EU) will increase its international contributions between now and 2030, and out to 2035 is currently uncertain. In the run-up to COP31 in Ankara, developed countries are expected to come forward with pledges to scale-up their contributions and collectively meet the $300bn NQCG. The $1.3tn goal and associated 'Baku to Belem Roadmap' are of vital importance to climate finance. A future Global Solidarity Levy on international transport could be considered an innovative source of finance and counted towards this broader goal. However, the connection of the EU ETS to the public finance of the EU's Member States should prompt us to count any related climate finance contributions towards the NQCG's $300bn public finance target.

The EU and its Member States will likewise need to scale up their contributions to meet the NQCG commitments. Following the methodology established by Collenbrander et al. (2022) and the Overseas Development Institute (ODI), presents three potential scale-up pathways. These fair-share calculations are based on 2024 data from the World Bank (Population, GNI/capita) and Our World in Data (historical GHG emissions):

- **Fixed EU share**: how EU contributions must increase if the goal is met in 2035 with all Annex II countries maintaining 2022 relative shares and constant (linear) growth. The EU and its Member States would contribute:
  - $71.7bn in 2030, doubling the current budget by 2029
  - $105bn in 2035

- **Fair share**: the EU contributes its normative fair share of the total that meets the commitment in 2035 and the intermediate point in 2030. In practice, this model yields results comparable to the Steady Share pathway:
  - $72.9bn in 2030, doubling the current budget by 2029
  - $107.18bn in 2035

[51] European Commission, 'EU global climate and energy vision: securing Europe's competitive role in world markets and accelerating the clean transition', 2025, online at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52025JC0025

[52] Council of the European Union, 'Council conclusions on EU energy and climate diplomacy', 2026, Brussels, online at: https://data.consilium.europa.eu/doc/document/ST-8417-2026-INIT/en/pdf

- **Higher EU share**: the EU contributes a higher than its current fair share, more closely aligned with historical contributions of the early 2010s (40%):
    - $72bn in 2030, doubling the current budget a year earlier, in 2028
    - $120bn in 2035

These projections underscore the levelling up of ambition needed from the EU to reach its NQCG commitment. This is true irrespective of whether the EU's share is defined using fixed, fair or higher-share methodologies. We assume this levelling up to happen gradually between 2024 and 2035, which means the EU would need to add between $6.6 and $8bn annually (fixed and higher shares). The EU scaled up its contribution to the $100bn target in a gradual and roughly constant way, so in the absence of new detailed multi-year plans, it is reasonable to assume donors will increase contributions gradually towards the new goal. Making the argument for a 20% increase to a Member State's climate aid budget will be tall order for climate ministers in 2026. However, while the initial increases will be politically complicated, the annual increases quickly decline to 10-11% a year by 2030, when the fixed annual increase becomes a smaller share of current budgets.

Section 2: Summary and recommendations

International climate finance is at a critical juncture. Accelerating climate impacts are driving up mitigation and adaptation needs in the world's most vulnerable countries, yet the political environment in major donor nations is moving in the opposite direction, with the United States, Germany, the United Kingdom and France all cutting development aid budgets simultaneously. The EU stands as the world's largest climate donor at €31.7bn in 2024, but this will not be enough. Under the New Quantified Collective Goal (NQCG) agreed at COP29, developed countries must collectively provide $300bn annually to developing countries by 2035. **This report finds that meeting the EU's fair share of this commitment would require roughly doubling current contributions to €71-73bn by 2030, which is an increase of approximately €40bn over current budgets.**

The EU and its Member States have responded to this challenge with strong political statements in defence of multilateralism and the Paris Agreement, most recently in the Joint Communication on the EU global climate and energy vision and the Council Conclusions of April 2026. What is missing are concrete multi-year financial pledges to back up those commitments. Climate ministers in EU Member States face a difficult political environment, but the annual scaling-up required is manageable if started now and phased in gradually. Three recommendations follow from this analysis:

- The EU and its Member States should publish multi-year climate finance pledges ahead of COP31 in Ankara, detailing how contributions will scale up to meet NQCG commitments by 2030 and 2035.

- Special attention should be given to adaptation finance, which remains the most severely underfunded component, running at 12-14 times below actual developing country needs according to UNEP's latest Adaptation Gap Report.
- Given that several major donors are cutting aid budgets, the EU should actively explore new sources of finance, notably including revenues from international carbon pricing. This would not only make up the shortfall but would reinforce the EU’s leadership role in climate diplomacy

3. ETS Revenues in International Climate Finance

What are ETS revenues?

The total emissions that companies across ETS sectors, including industry, energy, heat, shipping and aviation, are permitted to release in any given year are set by the ETS cap. The cap equals the total number of allowances issued for that period, with each allowance representing one tonne of CO2-equivalent emissions. The cap declines by 4.3% every year, so GHG emissions across ETS sectors must decrease over time. Within the total cap, many allowances are provided to the industry through free allocation without generating revenues.[53] The remaining allowances, up to 57% in the period leading up to 2030, are released by Member States through auctions that generate useful revenue. These revenues cannot be directly attributed to individual ETS sectors, as most allowances are general in nature and are meant to be traded across companies and sectors.

In 2025, ETS auctioning revenues were €43bn, with €24bn going to Member States' budgets. The most recent year with detailed data, however, is 2024, with an auctioning total of €38.8bn. These revenues were disbursed via four main allocation categories, one managed directly by EU Member States, and three by the European Union:

- €24.4bn went to Member States[54]. As of the 2023 review of the EU ETS Directive 2003/87 EC, Member States must spend the entirety of revenues on climate action and the energy transition.
- €5.6bn to the EU's Resilience and Recovery Facility, to contribute financing to Repower EU – the 2023 EU action plan on energy efficiency, gas infrastructure and renewables.
- €6.3bn to the EU's Modernisation Fund, which was set up to support energy efficiency measures in 13 lower-income EU Member States.
- €2.3bn to the EU's Innovation Fund, the funding programme for innovative low-carbon technologies.[55]

The EU Funds listed above are designed to support the EU's own energy transition and cannot be used for international climate finance purposes. Although non-EU companies can participate in projects, the solutions themselves need to be deployed in EEA countries.[56]

[53] The recent introduction of CBAM in these industries will begin generating revenues but is not tied to international aviation or shipping.
[54] 0.3 billion went to Iceland, Liechtenstein, Norway and Northern Ireland. For a country-by-country breakdown, see European Commission, 'Carbon Market Report 2025' technical supplement
[55] Art 10a(8)
[56] European Commission, '2025 knowledge sharing report of the Innovation Fund', (2025) Publications office of the European Union, https://data.europa.eu/doi/10.2926/9356836

What might International ETS revenues be in 2030?

Analysis conducted for this report shows that the expansion of ETS to extra-EEA flights adds €10bn of new auctioning revenues in 2030, rising to €17bn when non-CO2 effects are considered. The total revenues from the "International ETS" in 2030, including auctioning revenues from the allowances for extra-EEA aviation (i.e. departing flights), extra-EEA maritime shipping, including the GHG pollutants methane and nitrous oxide due to enter maritime ETS from 2026, come up to €23bn in 2030, rising to €30bn when aviation's non-CO2 effects are considered. European lawmakers have not clarified whether the non-CO2 effects of aviation will be regulated in 2030, and therefore, revenues are presented below with and without aviation's non-CO2 effects. The extension of the International ETS would bring in a significant influx of revenues. Unless the EU charts a new strategic approach to these revenues, they fall under the de facto allocation implied by the scheme's historic rules.

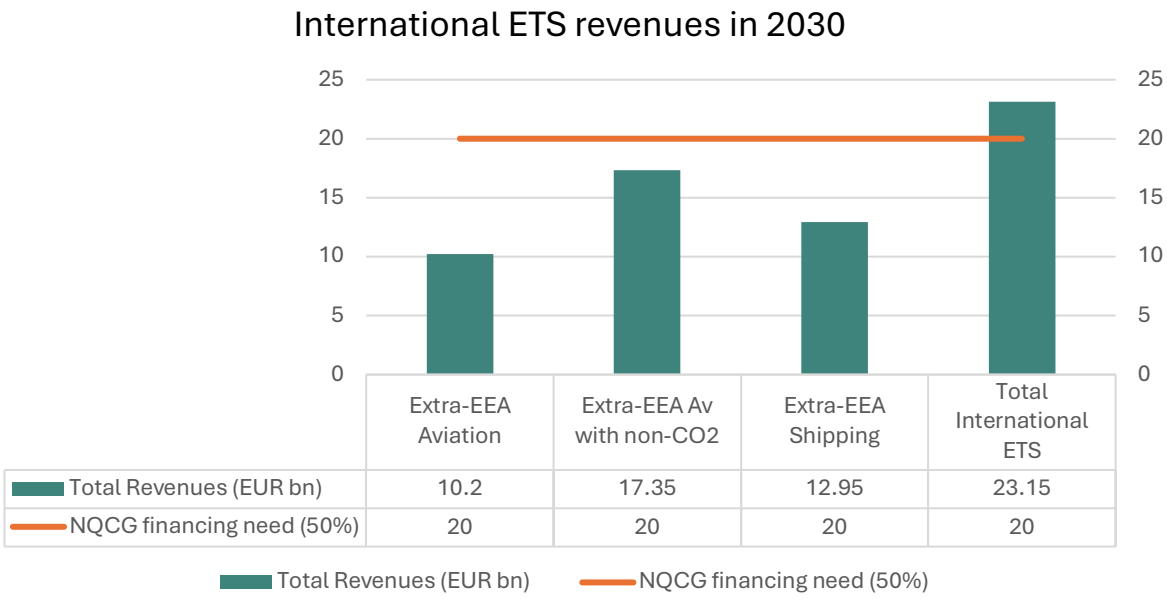

Figure 3: International ETS revenues in 2030, with and without non-CO2 effects of aviation

How Member States currently use their ETS revenues

For most of ETS's history, decisions on how to spend ETS revenues were left at the discretion of national capitals. The 2023 review of the ETS Directive 2003/87 brought an end to that by requiring that Member States allocate auction revenues to climate action-related budget lines. It also requires them to report back to the Commission detailing how the equivalent amounts were used. Hence, public data on 2024 spending is now available, providing a snapshot of the major policy areas that Member States focus these funds on.

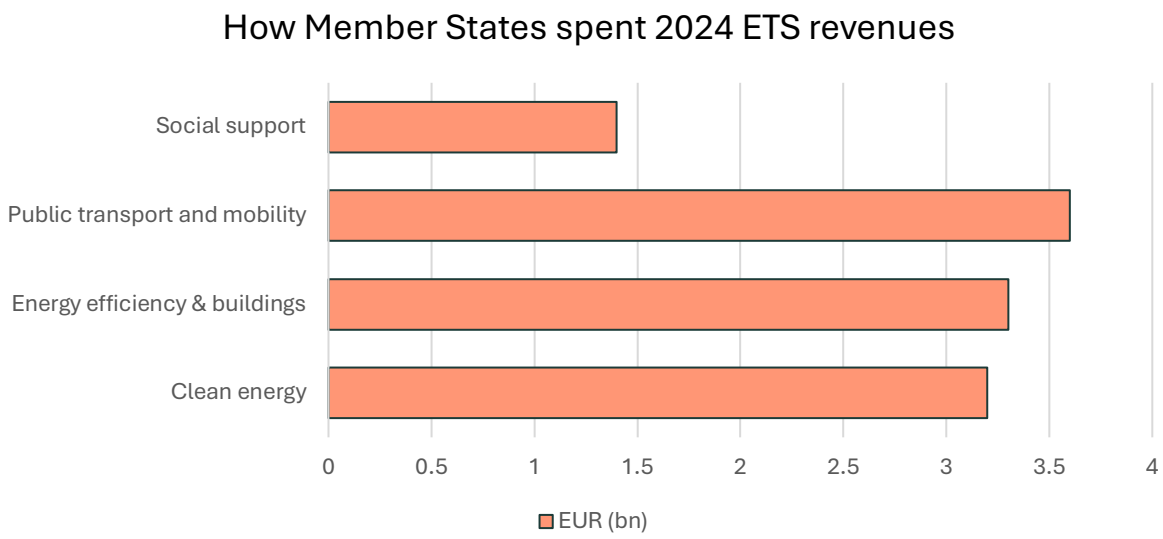

Figure 4: Main categories of Member State ETS revenue spending in 2024 (source: European Commission)

As shown in Figure 4**,** Member States concentrate spending on key pillars of the energy transition, including renewables, grid and storage, procuring electric vehicles and sustainable heating and cooling. The full data can be accessed on the European Environment Agency (EEA) website.[57] An assessment of it is also published annually by the EEA. As domestically focused spending categories, these are not international in nature and therefore would be less appropriate for promoting the EU's international climate diplomacy goals.[58]

What does the ETS Directive say about revenue use?

The ETS Directive sets out all the budget programme areas that Member States can use their auction revenues on in Article 10(3), which is partially reproduced in Figure 5 below. The individual items are embedded in a guiding principle that ties the monetary revenues of this Directive to the need to scale up international climate finance in vulnerable third countries. The provision uses strong legal language while stopping short of being mandatory:

> "When determining the use of revenues generated from the auctioning of the allowances, Member States shall take into account the need to continue scaling up international climate finance in vulnerable third countries". Article 10(3), Directive 2003/87

[57] European Environment Agency 'Member States use of revenues from the auctioning of EU ETS allowances' (21 January 2026), Data Hub, online at: https://www.eea.europa.eu/en/datahub/datahubitem-view/d702153d-e2d0-4a0b-a2e1-06ed3a43d07c?activeAccordion=1097578

[58] European Environment Agency, 'Use of auctioning revenues generated under the EU ETS' (17 December 2025), online at: https://www.eea.europa.eu/en/analysis/indicators/use-of-auctioning-revenues-generated

In addition to the statement of principle, the legislators provide Member States the opportunity to contribute to climate finance through several of the 10(3) options, across which climate-vulnerable developing countries receive multiple references. The legislation's Article 1 (Subject Matter) also frames the measure in terms of the EU's climate-neutrality objective as well as the Paris Agreement, the legal basis for the EU's climate finance obligations.

ARTICLE 10(3): Permitted Uses of ETS Revenues

- Developing renewable energy, electric grids and energy efficiency measures.
- Avoiding deforestation and protecting ecosystems, increasing biodiversity afforestation, including in developing countries that have ratified the Paris Agreement.
- Facilitating adaptation to climate change in developing countries that have ratified the Paris Agreement.
- Forestry and soil sequestration.
- Climate-friendly passenger and freight rail transport and bus services.
- Measures to decarbonise the maritime sector and airports.
- District heating systems and insultation, efficient and renewable heating and cooling systems, building renovation.
- Providing financial support to address social aspects in lower- and middle-income households.
- Financing climate actions in vulnerable third countries, including the adaptation to the impacts of climate change.

Figure 5: Indicative uses of ETS revenues according to the ETS Directive's Article 10(3)

The almost entirely domestic spending of Member State revenues is already in tension with the rationale behind the ETS Directive's Article 10, with its multiple references to international climate finance. Applying the current spending regime to the significant new revenues from international transport activities would be inconsistent with the EU's global commitments and carbon market legislation.

Allocating EU ETS revenues to climate finance

The ETS Directive permits, and even encourages, EU Member States to directly allocate their revenues to international climate finance, but it stops short of mandating it. During the upcoming ETS review, EU legislators can introduce a binding provision in Directive 2003/87 that would marshal International ETS revenues towards meeting the EU's NQCG obligations and supporting SIDS and LDCs. This could be achieved by:

- Introducing a requirement on Member States to earmark a share of their revenues for international climate finance through a selection of permissible Art 10(3) uses. This option would preserve Member State control of funding decisions, projects and

recipient countries, on a year-by-year basis, though it would not necessarily generate a predictable funding stream for developing country recipients, or:

- Establishing a dedicated EU funding mechanism that directly donates a portion of ETS revenues to a UN fund, such as the UN Adaptation Fund. The Adaptation Fund's multi-annual resource mobilisation strategy[59] highlights the uncertainty of voluntary contributions and ad hoc government funding as weaknesses and points to the need for a year-on-year source of finance; EU Member States recently stressed their commitment to the goal to triple adaptation financing by 2035.[60]

To protect the current Member State programmes financed by ETS, while meeting Europe's international commitments, any requirement on Member States' spending could be defined to apply to a specific share of allowances corresponding to the adjusted cap(s) after the full inclusion of international transport ("International ETS").

Expanding the EU's international capacity-building efforts

Policy decisions made in the upcoming ETS review can also help generate useful carbon revenues for developing countries beyond the EU's jurisdiction.

One way to achieve this is by making the EU ETS's administrative set-up work for the EU's global partners through one of two targeted mechanisms. In **'MRV as a service'**, the EU would make the detailed Monitoring, Reporting and Verification (MRV) information regarding covered emissions available to a government partner to enable them to base a carbon pricing system on top of it. Through **'ETS as a service'**, the EU would require allowances to be surrendered corresponding to all eligible emissions between the two countries, reimbursing the ETS revenues due to the partner government.[61] Since SIDS and LDCs are exempt from the aviation ETS's scope and account for a very limited share of maritime traffic with the EU, this approach is unlikely to generate significant revenues for them.

The EU could strengthen its **promotion of compliance with ETSs** on international aviation and shipping across the world. Section 1 highlights carbon pricing advances globally and the potential of increasing emissions coverage in international aviation and shipping in a "bottom-up" way. The EU is actively supporting COP30's Open Coalition on Compliance Carbon Markets. It is also proactively sharing its 20 years of experience with its Emissions Trading Scheme, for example, through a €30m project EU Climate Dialogues 2 programme (EUCDs2, 2025-2029). Through EUCDs2, useful knowledge transfer has taken place between Brussels and Brazil, Colombia, Chile and Kazakhstan.[62]

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[59] UN Adaptation Fund, 'Resource Mobilization Strategy 2022-2025' (2022), online at: https://www.adaptation-fund.org/document/resource-mobilization-strategy-2022-2025-2/

[60] Council of the European Union, 'COP30: Council sets EU position for the climate conference in Belém' (2025), online at https://www.consilium.europa.eu/en/press/press-releases/2025/10/21/cop30-council-sets-eu-position-for-the-climate-conference-in-belem/

[61] This would be 50% of international journeys in shipping and 100% of emissions of arriving extra-EEA flights in aviation

[62] The programme targets in total 26 major emitters and economies: Argentina, Australia, Brazil, Canada, Chile, China, Colombia, Egypt, India, Indonesia, Japan, Kazakhstan, Kenya, Republic of Korea, Mexico, Morocco, Nigeria, Saudi Arabia, Senegal, South Africa, Thailand, Türkiye, Ukraine, United Arab Emirates, United States, and Vietnam

Additional resources for the EU's climate diplomacy could help expand existing knowledge-sharing and administrative capacity efforts on:

- Monitoring, Reporting, Verification and Accreditation (MRVA)
- Cap-setting and free allocation
- Revenue use and just transition frameworks
- Auctioning procedures and the role of the primary and secondary market
- ETS registry operation and compliance enforcement
- Creating and operating the Carbon Border Adjustment Mechanism (CBAM)

An additional revenue-use category could be added to Article 10(3) that specifically targets the institutional capacity-building effort in the EU's international partners, to promote projects funded by the EU and/or its Member States that advance cap-and-trade ETS schemes internationally.

Following the amendment of the European Climate Law in March 2026[63], international carbon credits may also assume a more prominent role in the EU's climate diplomacy. Up to 5% of the 2040 target can be filled by carbon credits, although not necessarily for ETS compliance. Article 10(3) does not explicitly mention carbon credits. Nevertheless, Member States' spending on eligible categories such as deforestation projects could generate credits under Article 6 of the Paris Agreement. To avoid well-documented integrity issues with international carbon credits[64], EU lawmakers could opt to exclude credit-generating projects from ETS revenue spending.

Section 3: Summary and recommendations

Extending the EU's carbon market to fully cover international aviation and shipping would generate up to €23bn in annual auctioning revenues by 2030, rising to €30bn when aviation's non-CO2 effects are included. These are not marginal additions to existing ETS income, but an entirely new revenue stream generated specifically by international transport activity. Long-haul aviation revenues in particular derive from lucrative transatlantic and Asian routes, drawing disproportionately from business travellers and premium cabins. International shipping costs can similarly be absorbed by the industries concerned without a material impact on consumer prices or developing country trade. These characteristics give policymakers unusually broad discretion over how the revenues are spent.

The current default allocation which channels most auctioning revenues to Member State budgets for domestic climate programmes was designed for a different context.

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[63] https://www.consilium.europa.eu/en/press/press-releases/2026/03/05/2040-climate-target-council-gives-final-green-light/

[64] J. Romm, S. Lezak and A. Alshamsi, 'Are Carbon Offsets Fixable?' (2025), Annual Review of Environment and Resources, Volume 50: 649-680, https://doi.org/10.1146/annurev-environ-112823-064813

Applying the same domestic spending regime to revenues generated by international transport activity would be a missed opportunity and, given the ETS Directive's own language urging Member States to scale up international climate finance, arguably inconsistent with legislative intent. The 2026 ETS review is the right moment to establish a new and binding framework for international ETS revenues. Three effective interventions include:

- Mandating revenue earmarking: Introduce a binding requirement in the ETS Directive for **Member States to earmark a defined share of international ETS revenues for international climate finance.** Based on the adjusted cap in Section 1, this could close up to 50% of the EU's current €40bn NQCG financing gap by 2030.
- Establishing a dedicated EU funding mechanism: Channel a portion of **international ETS revenues to the UN Adaptation Fund on a predictable, year-on-year basis.** This would address the Adaptation Fund's reliance on ad hoc voluntary contributions and fulfil Member States' recent commitment to triple adaptation financing by 2035.
- Ring-fencing support for capacity-building: Allocate ETS revenues to the EU's international **carbon pricing programmes**. This could include 'ETS as a service' and 'MRV as a service', and expand current initiatives, such as EU Climate Dialogues 2, to cover more partner countries and a broader range of technical areas.

Together, these measures would transform the International ETS from a revenue-raising instrument into a cornerstone of the EU's climate diplomacy, which generates the finance, builds the partnerships and demonstrates the political will that multilateral climate action urgently needs.

Appendix 1

Revenues in 2030 from the auctioning of ETS allowances for international (i.e., extra-EEA) aviation and shipping were estimated for EU Member States, with and without the non-CO_2 effects of aviation.

Aviation

To establish future emissions, an international aviation emissions forecast was used from official EU Member State GHG projections for 2030 through the European Environment Agency (EEA)'s website. Extra-EEA emissions in 2030 are found by applying the 2023 extra-EEA share of total international aviation emissions for the EU27.

Due to uncertainty about the future regulation of aviation's non-CO2 effects, two future policy scenarios are presented. The scenario with non-CO2 regulation uses a multiplier from David Lee et al. (2021)[65] that is widely used in the literature. As not all allowances used by aviation operators will be obtained at auction, the emissions are corrected using a weighted average of 2023's relative shares of aviation allowances and general allowances.[66] We can use this to find an overall share of allowances used by aviation that will be auctioned in 2030:

Some additional simplifying assumptions:

- EUAAs and EUA have the same price in 2030 = 126 EUR/ton.[67]
- Assume no demand effect by the EU ETS on aviation traffic/emissions and no Art 28b CORSIA deductions.

Shipping

In shipping, the extra-EEA part of emissions are derived from EU MRV data. In 2024, total maritime emissions under the MRV system were **148.7 Mt CO_2** (EC Climate Action Progress Report 2025). Of these, **89.8 Mt CO_2** were covered under the ETS. That means that 2024 extra-EEA are roughly **117.8 Mt** and 2024 intra-EEA **30.9 Mt.** So intra-EEA voyages account for roughly **21% of total MRV-reported emissions**, while extra-EEA voyages account for 79%.

For the 2030 projection, following EU Member State projections in EEA database assume roughly zero growth in international shipping emissions from 2024 to 2030 and therefore: 117.8 Mt in 2030. Accounting for the integration of CH_4 and N_20 by adding 2,375,680

[65] David Lee et al. 'The Contribution of Aviation to Anthropogenic climate forcing for 2000 to 2018', *Atmospheric Environment*, Vol 244, 1 Jan 2021, https://doi.org/10.1016/j.atmosenv.2020.117834
[66] EU registry data from Carbon 4 for Carbon Market Watch
[67] https://gmk.center/en/infographic/carbon-price-in-the-eu-ets-to-hit-e126-t-by-2030/

allowances following the official Carbon Market Report 2025, 2030 emissions become 120.18 Mt.[68]

As shipping draws all its allowances from a general cap, in 2026, we can assume 57% of allowances generate auctioning revenues. In 2030, free allocation across CBAM sectors will be reduced, leading to an increase in auctioning. The reduction in free allocation is assumed to be 50%.

Some additional assumptions:

- No additional measures adopted at the IMO that influence GHG emissions.
- No demand effect from the EU ETS on maritime traffic.

[68] European Commission, 'Report from the Commission to the European Parliament and the Council on the functioning of the carbon market in 2024' (2025), online at https://climate.ec.europa.eu/document/download/ddc1b1de-652b-49ed-8f15-d9fa8badd39f_en?filename=com_2025_735_en.pdf

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This paper was written by Panos Spiliotis on behalf of Opportunity Green. Any omissions or errors are the fault of the authors alone.

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