



International Transportation

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Overview

Aviation and shipping are highly globalized services with transnational operations and value chains. This global nature introduces specific challenges for international and national policies, regulations, and standards. These challenges need to be overcome and the alignment of national, regional, and international responses enhanced, as a matter of urgency, to align these sectors with the ambition of the Paris Agreement.

Aviation

The **key challenges** are: (1) it is an energy intensive industry requiring a secure supply of fuel available globally. (2) Low-emission fuels and technologies are not commercially available at a cost-competitive level¹ and there is uncertainty about their scalability. (3) The regulatory framework for new fuels and technologies is not complete/ready.² (4) The current non-binding international policies limit the ability of organizations such as the International Civil Aviation Organization (ICAO) to promote/drive change. (5) The rate of growth in global demand for aviation services remains high³ and demand-side measures have not received sufficient attention.

Key international policies include: 1) the United Nations (UN) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), which seeks to offset increases in the emissions from aviation. CORSIA is unlikely to drive significant emission reductions, due to low quality of offset credits.^{4,5,6} Only high quality, near-permanent greenhouse gas removals should be accepted. 2) The European Union's (EU) Fit for 55 initiative, which includes several proposals for regulating aviation's emissions, such as an energy tax on kerosene, reduced free allowances for airlines within the EU's Emissions Trading System (ETS), and a Sustainable Aviation Fuels (SAF) blending mandate. These European measures are expected to have a positive effect at the regional level with spill-over effects to other regions. 3) At the ICAO General Assembly in 2022, members agreed to a long-

term aspirational goal of net zero aviation by 2050.⁷

Shipping

The **key challenges** are: 1) low-emission fuels and technologies are not commercially available at a cost-competitive level.⁸ 2) There is a lack of availability, supply, and infrastructure to adopt alternative fuels and technologies. 3) The regulatory framework for the use of new fuels and technologies is not complete/ready yet. 4) The variety of potential fuels requires coordination along the value chain for that route/region. 5) Additional investment and financial instruments are needed to transition towards new fuels and technologies. 6) There is an insufficient level of reliable supervision and enforcement of international and national regulations. 7) The rate of growth in global demand for shipping services remains high⁹ and demand-side measures have not received sufficient attention.

Key international policies include: 1) the initial International Maritime Organization's (IMO) Greenhouse Gases (GHG) strategy, which set the goal of reducing the industry's GHG emissions by at least 50% by 2050 compared to 2008. 2) The EU's Fit for 55 initiative which includes several proposals for regulating the emissions from shipping, such as including the industry in the EU ETS, the adoption of the new FuelEU Maritime regulation, and updating the EU's energy taxation directive. 3) Non-binding and voluntary international initiatives were launched in 2021 and include the Call to Action for Shipping Decarbonization, the Declaration on Zero Emission Shipping by 2050, and the Clydebank Declaration for Green Shipping Corridors.

Conclusions

Given the reality that existing policies are unlikely to be sufficient to reach the goals of the Paris Agreement, international cooperation needs to be urgently intensified and developed economies should continue to take the lead. Furthermore, 1) there is a need for ambitious national measures and some councils have

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called for, or are preparing to call for, the inclusion of aviation and shipping in national climate policy objectives. 2) The regulatory framework for new fuels and technologies needs to be urgently enhanced. 3) Policy intervention is needed to upscale and accelerate the adoption of new fuels and technologies.

Approaches

Each council follows different approaches depending on its resources and the country's context. In general terms, the approaches taken by Climate Councils include: 1) direct interaction with policymakers and ministries as well as key stakeholders. 2) Producing reports and briefs that review current and proposed policies. 3) Conducting and publishing studies on key issues. 4) Organizing conferences and workshops. In addition, specific examples include:

- Danish Council on Climate Change: participate in government working groups on greening domestic aviation, as well as producing reports on heavy duty transport and options for regulation directed at aviation and maritime emissions.¹⁰
- Greek Special Scientific Committee on Climate Change: produced a report on climate change in 2011, which helped shape Greek policies and measures. This report is currently being updated.
- Irish Climate Change Advisory Council: proposes carbon budgets for adoption by the government and national legislator.
- United Kingdom's Climate Change Committee: sets the carbon budgets and defines how each sector should reach its targets. Provides a pathway for aviation to reach its targets, including policy areas such as demand management, SAF use, low-emission aircraft, and efficiency measures. It also recommended that the UK Government should include international aviation and shipping emissions in their carbon budgets as early as possible.¹¹ This was adopted by the UK Government in its Sixth Carbon Budget in April 2021.

Ways forward

There appears to be significant willingness to cooperate under the umbrella of ICCN on this topic, while recognizing that each council would remain in control of how they tailor their outputs to their specific national circumstances and political realities. Potential areas of cooperation include:

- Exchange knowledge and best practices, facilitate information exchange and networking among experts and members of the councils.
- Cooperation aimed at enhancing the

capacity of councils to influence positions taken by their respective national governments internationally (ICAO, IMO and UNFCCC) and regionally (such as the European Union).

- Substantive exploration of effective ways to incorporate international aviation and maritime transport emissions into national climate targets and policies.
- Cooperation on the promotion of innovation, infrastructure development and policies related to sustainable aviation fuels, and policies to encourage development of infrastructure to support low emission fuels and aircraft types.
- Cooperation on low and zero-emission fuels for shipping, including upscaling hydrogen production and distribution infrastructure.
- Sharing insights and approaches to prevent backsliding due to global pandemics and geopolitical disturbances, such as the war in Ukraine, and on how best to integrate cross-cutting policy-drivers, such as international trade and food security.

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About ICCN

The International Climate Councils Network (ICCN) was launched in 2021 as a forum for climate councils from around the world to share experiences, discuss common challenges and support one another in their work.

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