

BRIEFING:

AVIATION AND CLIMATE CHANGE

The clear and present danger of climate change means we cannot burn our way to prosperity. We already rely too heavily on fossil fuels. We need to find a new, sustainable path to the future we want. We need a clean industrial revolution.

(Ban Ki Moon)



Climate change is happening. Global average temperatures have already increased by 0.8°C above preindustrial levels. Current trends imply a warming of 2.9-5.2°C by the end of the century, which, even at the low end of the range, will cause great impacts on the planet and threaten many areas of human life, including health, food security, economic growth, societal change, and drinking water. 2015 is a key year for global efforts to combat climate change and keep warming under 2°C, the warming limit agreed in the UN Framework Convention on Climate Change negotiations¹.

Aviation currently accounts for 5% of global warming and is the most carbon intensive and fastest growing transport mode. Its current CO₂ emissions are approximately equal to those of Germany, are predicted to grow by up to 270% between 2010 and 2050. This is fundamentally incompatible with a remaining global budget of 1000 gigatonnes of carbon dioxide that can be emitted into the atmosphere². Exceeding this budget would increase the risk of severe, pervasive and in some cases irreversible climate change impacts.

In 1997, The UNFCCC requested ICAO to pursue measures to limit or reduce greenhouse gas emissions, but it wasn't until 2013 that ICAO, reacting to action by the EU, agreed to begin developing a market-based measure. However the approach remains deeply inadequate, seeking only to limit emissions growth five years out, rather than seeking ways to reduce emissions. Five years into work on a CO₂ standard for new aircraft will, on present indications, produce no environmental benefit for a generation.

Aviation emissions must be addressed through rigorous technical and operational measures complemented by market-based mechanisms. The tax-free status of fuel used for international aviation, a relic from the 1940s, is inflating demand for fossil fuel and flies in the face of efforts to decarbonize the global economy. The VAT exemption similarly works at cross purposes ICAO, the UNFCCC, G20 and individual governments all have key and complementary responsibilities. The EU as a whole must lead multilaterally and by addressing European emissions. Some proposals for stronger action by the EU and its Member States are given below.

Adequate emissions reduction goals beyond 2020

ICAO's goal of stabilizing aviation emissions at 2020 levels through offsetting will still see traffic and emissions growing unconstrained beyond that date. At a minimum,

ICAO should set emissions reduction carbon budgets for the sector for 2030 and 2050, commensurate with a global carbon budget consistent with the <2°C goal.

The EU must press ICAO to agree ambitious, legally binding, emissions reduction goals for 2030 and 2050 for the aviation sector, consistent with making a fair contribution to limiting global warming to well below 2°C.

A clear role for aviation in the UNFCCC Paris climate agreement

Nations are being asked to make ambitious CO₂ reduction commitments in the lead up to the UN Framework Convention on Climate Change (UNFCCC) COP 21 in Paris in December this year. Aviation represents a fast growing source of emissions that must also be addressed. All sectors must make a fair contribution to the global effort to prevent the worst impacts

of climate change. This requires a global sectoral emissions reduction target for aviation consistent with the 2°C target, so that this sector can be counted as an aid to the solution, and not a drag on global efforts. Experience shows that on environmental matters, ICAO will only act when pressed by outside actors such as the EU and UNFCCC.

In February, EU negotiators inserted language into the UNFCCC negotiating text to include both international aviation and shipping emissions in the Paris Agreement and see action by 2016. The EU should now ensure that this language is preserved and strengthened in the final agreement, in line with the 2°C goal.

An effective efficiency standard for aviation

Improving aircraft design and operational efficiency is key to reducing fuel requirements. ICAO's independent fuel burn experts identified significant improvements in aircraft fuel efficiency which can be achieved through moderate regulatory pressure but ICAO's work to deliver such a result has been undermined by industry and by government experts unprepared to act. EU representatives continue to

fail to press firmly enough for an environmentally meaningful outcome. The European Aviation Safety Agency's (EASA) central role in technical analysis has inexplicably been curbed.

Global fleet fuel efficiency is currently improving by about 1.1% per year, well short of the 2% aspirational fuel efficiency

goal ICAO has established for international aviation. Current stringencies being considered will hardly have an impact on new aircraft types for another generation and industry pressure is preventing a decision to regulate in-production aircraft. There is still just time to reverse this situation but it

requires firm European resolve and determination. Adopting ambitious fuel economy standards for transport – including aviation – is, after all, central to the achievement of the Commission’s Energy Union objectives.

The EU approach needs to be firm and proactive in ICAO to get agreement to set and enforce stronger fuel efficiency standards that will also cover in-production aircraft.

Decarbonising the aviation sector

Fuel demand from the international aviation sector is expected to grow from 187MT in 2006 to 461MT in 2036 (ICAO estimates). This will greatly undermine efforts, endorsed by the G20, to decarbonise the global economy. The fuel-tax exemption is inflating demand and cancelling efficiency gains from the sector. Both the IMF and World Bank have described international aviation as undertaxed and identified it as an appropriate source of revenue for the

Green Climate Fund.

The aviation fuel tax exemption acts as a subsidy undermining economic incentives to reduce emissions from the sector through for example purchasing more fuel efficient aircraft. It also prevents the use of tax policy to help close the price gap between kerosene and sustainable alternative fuels, which is one of the few ways to make sustainable alternative fuels viable.

The EU should press for an Assembly Resolution to end ICAO’s opposition to taxing fuel. Europe’s Air Service Agreements need to be renegotiated so that Europe can introduce fuel taxation on intra-EU flights.

A global market-based mechanism for aviation

The EU has ‘stopped the clock’ twice now on its aviation emissions trading scheme (ETS), pending ICAO completing work on a Global Market-Based Mechanism (GMBM). The EU has leverage in the process, as European legislation requires that should ICAO fail to produce an outcome as environmentally effective as the ETS, then the original ETS scheme will return in full force in 2017.

Agreement at ICAO’s 2016 Assembly on a GMBM, especially one with any environmental integrity, is uncertain, and there is every danger of a weak compromise or a decision to give the process more time. In any case, ICAO’s planned GMBM will only offset emissions, rather than drive in-sector emissions reductions so to have any environmental integrity, ICAO should agree at its 206 Assembly that the GMBM must, at a minimum:

1. Ensure that any reduction exemptions granted on the grounds of differentiation must be compensated for elsewhere in the system, so that there is no overall weakening of overall ambition. All states should in principle be included in the MBM and there should be an early review clause.
2. Establish robust processes to ensure that the use of offsets is limited to those with a proven high degree of environmental integrity and overall sustainability. At a minimum, such offsets must be additional, based on a realistic and credible baseline, quantified, monitored,

reported, and verified, and have a clear and transparent chain of custody. They must represent permanent emissions reductions and exclude credits from the forestry sector, safeguard against potential increase in emissions elsewhere, be only counted once towards a mitigation obligation and be consistent with existing national and international obligations, including the obligation to protect human rights. ICAO must have a clear governance process to ensure this outcome.

3. Europe needs to find a way in any provisions on regional differentiation to accommodate developed regions – Europe and North America in particular – being able to apply more stringent provisions on their departing flights just as developing countries might well apply less stringent requirements. Such a move would enable the application of emissions trading to EU departing flights.
4. Require transparency and uniformity in the development and implementation of the scheme, to ensure environmental integrity and adequate enforcement. The current behind closed doors approach involving a select group of states is incompatible with this aim and presents a clear risk of failure once again at the next ICAO Assembly.
5. Without such minimum provisions there can be few grounds for Europe concluding that ICAO has satisfied the stop the clock conditions.

EU's representatives in the ICAO process must become proactive and champion these requirements. Both transport and climate ministries from your country need to state very clearly at the ICAO GMBM Dialogue in Madrid (April 27/28) that these are high priority European concerns. Even at this late stage Europe should open the meeting to the public who have a right to know whether meaningful progress is being made while the clock is stopped. Secrecy will undermine the process.

Tackling emissions growth in Europe

Both extra and intra-EU aviation is forecast due to grow by over 80% by 2030, almost twice as fast as its potentially zero-carbon alternative, rail. Such an increase will greatly undermine the 2030 climate objectives of a 40% domestic

emissions reduction. There is a clear need to adopt further measures at a European level to arrest this emissions growth and reduce transport's dependence on fossil fuels.

1. There is an 'ambition gap' between what ICAO will achieve and the EU's target of a 40% domestic emissions reduction by 2030. The EU must act to close this gap including by tightening the aviation EU ETS and addressing those emissions not covered by any GMBM ICAO agrees. This can be done by expanding the ETS in 2017 to cover once again extra EU flights. This could be on a 50-50 basis and relate to emissions below the 2020 baseline. The reducing cap must be brought into line with other sectors and free allowances cut back.
2. Aviation's tax breaks - exemption from fuel duty and no VAT on air tickets – are unique, artificially fuel demand and amount to a 40bn euro annual loss to state treasuries. They are a clear distortion of Europe's transport market, run directly counter to agreed Union objectives to remove fossil fuel subsidies, a negate the ETS and other measures to reduce emissions. Their removal would also be consistent with European Semester recommendations to shift away from taxes on labour.
3. Subsidies to regional airports should be strictly policed and only be approved where there is a clear need and a viable commercial future. Operating aid to airlines has no place in EU policy except where PSAs have been agreed.
4. Refocus state aid in the railway sector to promote cross border rail services – and not just high speed rail – and above all condition such aid on national rail companies establishing workable intra EU commercial operating agreements. Require the rail sector to establish pan European booking and ticketing systems which for example aviation established 30 years ago. Increase and improve national and international rail infrastructure that runs on renewable electricity. This will help to reduce reliance on aviation and have greatly positive impacts on emissions reductions, protecting Europe from dangerous climate impacts. Ensure a level playing field between air and rail on fuel taxation and VAT.

Aviation emissions need to be curbed and then to decline, in line with the 2°C warming limit and the need to minimize the risk of dangerous climate impacts. The measures detailed above can help to do this and also contribute to a more efficient and effective transport system for Europe.

However they require all Member States to act together and with a sense of urgency. Further delay will only result in greater dependence on imported energy and will make the 2°C objective harder to achieve.

1. *Although the 50 Least Developed Countries and 39 members of AOSIS support a 1.5°C limit, reflecting their vulnerability to climate impacts*
2. *UNEP, 2014 "Emissions Gap Report 2014"*

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