

Mitigating international air transport emissions through a global measure: Time for some lateral thinking

*Thu, 6 Feb 2014 – The ICAO Assembly last October reached what was hailed as a “historic agreement” on market-based measures (MBMs) to fill the ‘wedge gap’ between the continuing growth of CO2 emissions from international air transport and their mitigation from technological and operational improvements and the use of alternative fuels. This accord was essentially a decision for ICAO to develop a global MBM scheme for consideration by the next Assembly in 2016 and intended implementation from 2020. However, the relevant climate change resolution couched this in terms that offer several loopholes, with continuing fundamental differences on both the goal of carbon-neutral growth from 2020 and guiding principles. The resolution was also subject to numerous ‘reservations’, a provision whereby individual States indicate they will not commit to a clause or clauses. **Chris Lyle** takes a ‘big picture’ look at the agreement in the context of the geopolitical influences at work, and suggests ways of resolving key differences as well as a modified approach to the global ambition.*

ICAO received a mandate for the reduction of GHG emissions from international aviation through the UNFCCC’s Kyoto Protocol of 1997. After a painfully long process of analysis and policy evaluation, in 2010 the Assembly, representing the 191 Member States of the UN agency, finally requested the governing Council to develop a framework for MBMs for consideration by last year’s Assembly. That Assembly has effectively kicked an agreement on MBMs into touch for at least a further three years, until after the anticipated adoption of a legally-binding comprehensive agreement on climate change mitigation by the UNFCCC in 2015.

The current ICAO resolution ([A38-18, pp 90-100](#)) on climate change is fragile. For example, the goal of carbon-neutral growth from 2020 (CNG 2020), which was agreed in qualified form at the previous Assembly and was adopted by IATA and broader industry without qualification last year, is now hidebound by let-outs, including that “emissions may increase due to the expected growth in international air traffic until lower emitting technologies and fuels and other mitigating measures are developed and deployed”. The Assembly also agreed that goals on fuel efficiency improvement would not attribute specific obligations to individual States but that each State may voluntarily contribute to the global goals according to its circumstances. Given in any event that ICAO resolutions have no definitive binding nature and that ICAO has no enforcement authority, the global goals may be perceived as somewhat tenuous.

At the 2013 ICAO Assembly, developing countries, led by the BRIC States, made it manifestly clear they are now in control of the emissions mitigation agenda. Developing countries are concerned about climate change, many of them particularly so because they are likely to be taking the brunt of the negative economic impact, but they believe the main burden of mitigation should be taken by the developed countries, which generated the historic bulk of today’s man-made greenhouse gas emissions (GHGs) when growing their economies. Many developing countries are opposed to MBMs, in principle, in application to themselves, or because they believe MBMs are unnecessary, the latter belief also being espoused by the United States.

The Assembly resolution includes compromise text to “grant exemptions for application of MBMs on routes to and from developing States whose share of international civil aviation activities is below the threshold of 1% of total revenue ton kilometres of international civil aviation activities, until the global scheme is implemented.” This would exempt all routes to and from developing countries with the exception of China, the Republic of Korea, United Arab Emirates, Singapore, Thailand, Qatar and India.

The doubts raised by examining the agreement itself are amplified when the reservations are taken into account. Despite the compromise, there are many reservations on the exemptions clause. Also Australia, Canada, Japan, New Zealand, the Republic of Korea, the United States and the 42 European States do not accept application of the UNFCCC principle of Common But Differentiated Responsibilities (CBDR) in the ICAO context, notably as regards MBMs. The BRICs and five other countries declare that the goal of CNG2020, even in the qualified form, is too ambitious, while the European States believe it is not ambitious enough.

Beyond the aviation silo

The continued ‘sector silo’ approach to the process of developing mitigation measures for aviation emissions is a fundamental concern. While the Kyoto Protocol gave a mandate to ICAO because of the difficulties of handling

transborder mobility of aviation and the technical and operational expertise of the Organization, this has led to a very narrow focus and a defensive approach, effectively protecting the aviation industry. ICAO has also not done itself or the process any favours in the last few years by a lack of transparency, mostly working behind closed doors and excluding substantive dialogue with its main actuators – tourism, trade and finance – or with increasingly concerned and active NGOs.

Aviation has major multiplier effects in terms of economic and social benefits and it is in the context of that broad spectrum that the impact of climate change mitigation measures should be taken. This may be to aviation's benefit. For example, [as noted recently](#) by the Secretary General of the World Tourism Organization (UNWTO), whereas air transport taken in isolation is presently unsustainable from an environmental perspective, with a global share of CO2 emissions to gross domestic product (GDP) ratio of 2:1, if we consider the carbon and GDP impact of the full travel and tourism value chain, including the air transport cluster, then the share of emissions to GDP ratio is closer to 1:1.

UNWTO highlights the importance of alleviating the impacts that MBMs might have on tourism destinations – notably long-haul developing and particularly least-developed and island countries – where tourism relies critically on air transport and the livelihoods of the people are dependent on tourism. It therefore calls for an assessment of mitigation measures in the context of the broad tourism spectrum, rather than for air transport in isolation.

Resolving application of CBDR

The need for some form of MBM as a fundamental part of an emissions mitigation package has by now been well demonstrated ([see GreenAir Commentary](#)), but raises the issue of CBDR. The CBDR guiding principle is certainly inappropriate in ICAO as regards safety and security, where ICAO Standards are developed and implemented on the basis of equal application worldwide. But CBDR in respect of economics is a different matter entirely. Indeed ICAO has long recognised that special consideration be given to developing countries on economic matters, a position maintained – without accompanying reservations – at the recent Assembly in the A38-14 resolution on air transport policies.

Here again there is a need to look beyond the silo. While developing States justifiably claim that developed States should make a particularly substantial contribution to emissions mitigation, the developing countries also need to contribute. Countries' contributions to climate change are most strongly determined by their emissions over the last two decades, and cumulative historical anthropogenic CO2 emissions from developing countries will very shortly reach those of developed countries. And this recent evolution is on the basis of new technology, with vastly lower emissions output per economic unit than in the earlier days of industrialisation.

The perceived conflict in the uniform application provisions of the Chicago Convention and the UNFCCC principle of CBDR has been widely discussed within and beyond ICAO. But as this contributor has argued for several years, the ICAO equal application principle and the UNFCCC's CBDR can be reconciled through transitional implementation of MBMs on a route or route group basis.

Encouragingly, the route concept has now found its way into ICAO Assembly resolution A38-18, even if under a designation of the 1% *de minimis* clause. That 1% concept is not only solely aviation determined, it is also somewhat arbitrary ([see GreenAir Commentary](#)). Some form of economic impact criteria needs to be incorporated in the MBM evolutionary process. Three sets of indicative criteria come immediately to mind for determining special treatment in terms of exemption or phase-in on a route basis, irrespective of carrier:

- least developed, landlocked and small island developing States, a concept which catches the tourism concern mentioned above, is rational in terms of the importance of aviation to the economies concerned, and has pre-existing classification in the UN;
- the formula for establishing individual State contributions to the funding of ICAO, which combines components of national income (75%) and air transport (25%, with a weighting of 75% for international), again a pre-existing definition; and
- a globalised version of the European Commission's present position that "flights between the EEA and least developed countries, low-income countries, and lower-middle income countries which benefit from the EU's

Generalised System of Preferences and have a share of less than 1% in international aviation activity be fully exempted from the EU ETS.” The 1% is clearly moot here!

Such criteria could be adopted without *per se* mention of the provocative terms CBDR or *de minimis*.

Towards a more realistic governance model

The silo and CBDR concerns could be overcome by ICAO, firstly through a more transparent and open process, including outreach to a broad range of industry partners and NGOs; and also route-based application of MBM exemptions and phase-in, with criteria including economic factors. But the challenge of achieving a single, meaningful global agreement on MBMs appears insurmountable – the differences in the political and economic forces at work are simply too great.

ICAO has in fact never managed to reach a multilateral aviation agreement on economic issues since the Chicago Conference in 1944, despite several subsequent attempts, which led to the bilateral – and later some regional – regulatory process for air services that remains extant today. ICAO has long recognised that States are sovereign and will move at their own individual pace according to circumstances, and that its role on economic policy matters is to provide analysis and guidance, not to prescribe.

The experience of the World Trade Organization (WTO) with the ‘Doha round’ of trade negotiations provides a lesson not to be too ambitious in aiming at a global agreement on mitigation of air transport emissions, and also suggests a way forward. The ‘Doha round’ effort to bring down tariffs and other trade barriers was initiated in 2001 and, despite intensive negotiations, came close to collapse several times. In the meantime, governments were moving forward with major trade deals, both bilaterally and multilaterally, both within regions and between regions, and including both developed and developing countries. Against the reality of such developments, last year WTO moderated its goal – essentially from ‘all or nothing’ to ‘whatever common ground can be found’ – and a breakthrough came last December when the WTO agreed a more modest but nevertheless substantive deal, covering mostly ‘trade facilitation’.

The WTO took 12 years – on a much larger, more complex, and financially much greater economic issue than aviation MBMs – before practicality set in. Sixteen years and counting after Kyoto, might it be better for ICAO not to chase the shadow of the increasingly elusive goal of a global agreement but lower its sights to providing its own facilitation framework?

This would be aimed at enabling the ‘ready and willing’ to pursue their legitimate goals to mitigate climate change in a way which does not infringe on the sovereignty of other States, while providing incentives for other States to join as and when they wish. National and bilateral provisions, along with regional regimes such as that of the EU, backed as they are by legal force, ultimately hold more promise of definitive action on aviation emissions, even if initially limited in geographic scope.

A basis for this approach would be to allow national, bilateral and regional MBM schemes, including specified coverage of operations by ‘foreign’ carriers, to go ahead on the basis of prescribed principles; with a plurilateral approach to extended geographical coverage of such schemes, including incentives for participation.

The principles might include the following:

- acceptance of application of the MBM concerned to the first destination of all departing flights from a State, including both territorial and ‘high seas’ airspace (use only of the former would risk ‘high seas’ never being covered, and the legality of the departing flight concept has already been effectively accepted through the form of the UK Air Passenger Duty);
- earmarking of revenues to GHG mitigation activities yielding measurable, reportable and verifiable mitigation results (here in marked contrast to the APD);
- special treatment regarding phase-in on the basis of globally agreed route-based criteria;
- exemption for routes and markets where the contribution from very low levels of aviation activity would be below the administrative cost of participation;
- no discrimination between carriers;

- non-duplication of levies (for example as a result of application by more than one authority or through different regimes such as taxation and emissions trading);
- open access to carbon markets, whether national, regional or global;
- open access to participation in the agreement by third parties (the plurilateral approach); and
- effective, transparent and public monitoring, reporting and verification at national and global levels.

The type of MBM need not be specified in the principles, although emissions trading and offset with revenues would probably lend themselves well to this sort of framework.

States would of course be free to negotiate bilateral, regional or EU-type ‘horizontal’ agreements, consistent with the above principles. One incentive for additional States joining would be preferential access to the mitigation offsets and other revenues, preferably on the basis of the UNFCCC’s Clean Development Mechanism. As illustrated by [a study](#) prepared last year for the climate policy organisation Climate Strategies by researchers from several universities, led by Cambridge, instead of harming the economies of developing countries, carbon offsets and taxes on aviation would have a minimal or even a positive economic impact if implemented wisely.

A downside of this approach would of course be that different provisions might apply in different, even neighbouring, travel markets, but the provision of open access to carbon markets should assure cost comparability and the approach should be no less workable than the existing bilateral regulatory network for air transport services. Indeed the provisions might be included as part of the bilateral modalities and ICAO might develop a prototype template for this, as it has done in so many other areas.

An important part of the process would be to separate out the mitigation monitoring, reporting and verification between the technical and operational impacts (including alternative fuels) and MBMs. Thus the MBM wedge gap would be continuously identifiable.

Some perspective

Issues of CBDR/MBMs, transparency, openness and outreach beyond the aviation silo are all resolvable. But at the outset of this next round of analysis and debate, there needs to be an acceptance that there are far too many differing policies among the 190-plus governments around the world to achieve a global ‘solution’, whether through multilateral or bloc-to-bloc arrangements. What is needed right now is some conceptual thinking and unfettered debate to break the mould of this fundamental precept before ingrained mind-set puts the process back in the box.

As one contribution to such a debate, the framework above reflects reality and is by no means unworkable. Various other economic sectors are already and increasingly covered by differing carbon pricing regimes in place around the world and which relate to each other without an overarching global accord. As with the approach of WTO, the bilateral and regional agreements would be expected to coalesce gradually through the plurilateral concept.

The focus should be on developing principles and providing guidance on how these schemes may readily link up with – and not duplicate – each other, rather than aiming for the impossible dream of a global scheme. Absent such a framework, we might well see IATA’s worst nightmare of a patchwork of inconsistent, duplicative and anticompetitive national and regional schemes.

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