

Fast-growing airlines from developing countries should not have to shoulder an unfair share of the GMBM burden, says China

20 July 2015 – Agreed at its 38th Assembly in October 2013, the work on developing a global market-based measure (GMBM) to address civil aviation's growing carbon footprint has now passed the midpoint in ICAO's traditional three-year cycle, and the UN agency has little more than a year to come up with a proposal to put before the next Assembly. So far, an advisory group (EAG) made up of 19 members from ICAO's governing Council set up to oversee the GMBM has met 11 times and a technical task force (GMTF) has begun its recommendations in key areas such as MRV and emission units criteria. Huang Yue provides a perspective from China on how the process is progressing and its own proposals on how fast-growing airlines from mainly developing countries could be accommodated under the GMBM in order they are not unfairly penalised.

At the 38th Assembly of ICAO, unilateral measures to address the matter of climate change and international aviation emissions were denounced. Instead, it was decided to establish a multilateral framework to tackle this issue, namely to establish a Global Market Based Measure (GMBM) from 2016 and to implement it from 2020 to reach a goal of Carbon Neutral Growth (CNG2020).

Two working mechanisms were subsequently set up under ICAO to fulfill the given mission. One is the so-called Environmental Advisory Group (EAG) of the ICAO Council, consisting of 19 Member States, which is mainly responsible for evaluating different options of a GMBM. The EAG has held 11 meetings so far since its establishment at the beginning of 2014. Another group known as the Global Market Based Measure Technical Task Force (GMTF), under ICAO's Committee on Aviation Environmental Protection (CAEP), is focusing on developing the Monitoring, Reporting and Verification (MRV) system and emission unit criteria for the GMBM, and is more technically oriented compared to the EAG.

In order to reach the CNG2020 goal, the baseline for determining quantities to be offset is computed by using an average of three years of emissions from 2018 to 2020 in order to account for any exceptional variation that may be caused by individual operators in a specific year. The purpose is to set a cap for the growth of international civil aviation. Several options of the GMBM have been put on the agenda for the EAG to consider.

At the outset, the ICAO Secretariat came up with a 'Strawman' proposal that put forward for consideration a carbon offsetting mechanism that is based on a calculation of 50% individual airline growth and 50% collective industry growth after 2020 to determine each participant's offsetting obligation. Under this method, those airlines with a fast growth rate would shoulder the overwhelming majority of emission reduction responsibilities, compared to those matured airlines with less or no growth demand.

Aware of the possible detrimental consequences that might be brought about by the Strawman to fast-growing carriers, particularly to those in the developing countries, China and five other States (India,

Russia, Egypt, Libya and Saudi Arabia) have jointly submitted a working paper to the EAG. Its intention is to revise the basic calculation proposed by the Strawman. The core part of China's proposal is to determine each operator's offsetting amount after 2020 based on the proportion of its own accumulative emissions in a certain period to the global accumulative emissions in the same period. The proposed period for accumulation is 1992-2020, the start being the year when 190 States concluded the United Nations Framework Convention on Climate Change. Under the Accumulative Emission Proportion (AEP) approach, those who emitted more in the past will shoulder more offsetting responsibilities, and provide fast growers with more space to develop in the future.

This method takes into account differing guiding principles set out in ICAO's [A38-18 Resolution](#), including the principle of CBDR, the principle of equal and fair opportunity and, above all, would ensure administrative simplicity and minimise market distortion. As our jointly submitted working paper argues, it builds a bridge and provides a solution that could address each Member State's different concerns across what has previously been perceived as a divide.

A third option, the Route Based approach has been proposed by Brazil and Argentina, which has the underlying rationale of guaranteeing the same treatment of all airlines operating on the same route, while offering a phase-in period or setting different co-efficient factors for certain routes (i.e. routes between developed and developing countries) so as to reflect a 'differentiation' principle.

All three options are currently under survey and study, particularly but not exclusively focusing on their administrative simplicity and social and economic impact on different types of airlines. Preliminary results have shown that under the Strawman approach, the fast and mid growth airlines will shoulder more offsetting responsibilities than the legacy carriers. Meanwhile, the AEP approach burdens those legacy carriers with heavier offsetting responsibilities, thus providing those carriers with growth demand greater opportunity to develop after 2020. With regard to the Route Based approach, formulating the categorisation of the routes as well as the distribution method are still under analysis.

According to its terms of reference, the major mission of the GMTF is to:

1. Recommend requirements and procedures for monitoring, reporting and verification of global CO₂ emissions from international civil aviation; and
2. Assess and then recommend eligibility criteria for emission units and/or eligibility criteria for carbon credit programmes and MBMs whose emission units could be eligible for compliance use under a global MBM.

Alternative aviation fuels remains one of the most topical subjects under discussion in the MRV group. In particular, the whole life-cycle monitoring of biofuels has been scrutinised, with some experts questioning the monitoring boundary of biofuels and how the ownership rights of the emission reductions generated by biofuels at different stages should be clarified. They also claim this is crucial to avoid double claiming.

Compared to MRV, the discussion of emission unit criteria has witnessed more debate, especially in the sense of how to address the environmental integrity of carbon credits on the market in a fit and proper way. The preliminary proposed criteria recommends that carbon units must represent additionality, the programmes that would generate the units should have a realistic and credible baseline, and these units

must be quantified, monitored, reported and verified.

Age of offsets has also been proposed as one of the criteria to guarantee environmental integrity. Some advocate that for offset credits, only those generated after 2020 can be purchased by the industry to meet the CNG2020 goal. Others insist that as long as the carbon credits represent permanent and real reduction, this should not be applied as one of the restrictions.

A current report of ICAO shows that under the assumption of a carbon price of \$45 per tonne during the whole compliance period of the GMBM from 2020 to 2035, the cost of the scheme to the aviation industry is likely to amount to \$23.9 billion. However, aviation is an industry with poor margins and, according to airline statistics, in the year of 2010, which was a most financially successful year for the industry, the global profit was merely \$17.3 billion. The enforcement of the GMBM would therefore bring about a huge economic burden for the aviation industry. This should be fully considered and evaluated during the GMBM design process.

Regarding the enforcement mechanism, no format has the absolute compulsory legal binding force within the realm of ICAO. For instance, a reservation can be made to a multilateral convention or the ICAO resolution. As to ICAO standard and recommend practices (SARPs), a State can file and submit its differentiation if there are any, pursuant to Article 38 of Chicago Convention. Hence, it should be noted that the political will of States plays a key role in GMBM implementation and a lack of it is highly unlikely to lead to a successful agreement.

The submission of the AEP approach demonstrates China's constructive role and its strong desire to safeguard the interests of the fast-growing airlines from developing countries. We believe they should not be unfairly penalised because of their growth demand after 2020. We constantly emphasise that 'differentiation' should be incorporated into the GMBM in order to protect their right to develop after this date.

China has participated in the process of establishing the GMBM since the very beginning and has appreciated the contribution of the ICAO Secretariat and other stakeholders. During the months ahead, we will expect more intensive negotiations and further research into different GMBM options. China looks forward to working closely with others in jointly developing a GMBM that is in compliance with the principles listed in the Annex to ICAO's A38-18 Resolution.

The author, Huang Yue, is Assistant Researcher at the China Academy of Civil Aviation Science and Technology, part of the Civil Aviation Administration of China (CAAC), and she is a member of China's delegation in the ICAO GMBM process.