

A Sensible Fact-Based Debate with Michael O'Leary

By Frank J. Convery, Chairperson, Comhar Sustainable Development Council

In his latest monthly commentary on sustainability issues, Professor Frank J. Convery, Chairperson of Comhar Sustainable Development Council, responds to views recently expressed by Michael O'Leary, Chief Executive of Ryanair, on the topic of sustainable transport.

A case can be made that Michael O'Leary, the Chief Executive of Ryanair, is the most successful and impressive Irish business executive of his generation. It is important, therefore, to take his views seriously. In a recent letter to The Irish Times on climate change¹, he made a number of points, and concluded by asking that a 'sensible, fact-based debate' be encouraged. This article is a response to his admonition.

An important point to note in any discussion on air travel in Europe is the decision by the European Union to include aviation in the European Union Emissions Trading Scheme (EU ETS) from 2012². This trading scheme already sets caps on the volume of emissions of carbon dioxide (CO₂) – which is the main greenhouse gas – from electricity and other power producers, and heavy industry (refineries, steel, pulp and paper, glass and ceramics, cement); installations are allowed to buy allowances from others in the scheme if they are short (exceed their allocation) and to sell if they have more than they need. These transactions result in a price per tonne of CO₂. This incentive operates 24 hours a day, 365 days a year. It also provides an immediate pay-off to inventors who develop new ways of reducing emissions at a cost below the allowance price. The aviation cap will be set at 97 per cent of their average 2004-2006 emissions in 2012, reducing to 95 per cent in 2013. Airlines will receive 85 per cent of allowances for free in 2012, but this may be reduced from 2013.

I address some of Mr. O'Leary's key points, which are in italics, with my response below.

The European Environment Agency confirms that aviation accounts for less than two per cent of Europe's CO₂ emissions.

According to the European Environment Agency, in 2005, emissions from all flights leaving the EU amounted to 142 million tonnes of CO₂, compared with total greenhouse gas emissions of 4,980 million tonnes of CO₂ equivalent, or 2.85 per cent of the total emissions³. The agency also points out that: 'This figure does not include indirect warming effects, such as those from NO_x emissions, contrails and cirrus cloud effects. The overall impact is therefore higher. The Intergovernmental Panel on Climate Change (IPCC) has estimated that aviation's total impact is about two to four times higher than the effect of its past CO₂ emissions alone. Recent EU research results indicate that this ratio may be somewhat smaller (around two times)'. So, according to the EEA, the overall impact of emissions from aviation in Europe is at least equivalent to 5.7 per cent of emissions and probably more.

No industry has improved its technology usage or reduced its emissions per customer as much as the airlines industry in the past decade... With oil now at \$140 a barrel, airlines are doing everything they can to reduce oil usage.

¹ 'Climate change and cheap flying' The Irish Times, 12th July 2008, p.15

² See:

<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/1114&format=HTML&aged=0&language=EN&guiLanguage=en> for details.

³ See p. 26 in: 'Climate for a transport change TERM 2007: indicators tracking transport and environment in the European Union'. EEA Report No 1/2008 Available at http://reports.eea.europa.eu/eea_report_2008_1/en/EEA_report_1_2008_TERM.PDF

There has been steady improvement. The most efficient jets use 3.5 litres of fuel per 100km, which is about 60 per cent less than their 1970 equivalents. This is due to improvements in airframe and engine efficiency, and these will continue with the next generation. The problem from a global warming perspective is that the rate of growth in travel is much greater than the rate of reduction in emissions, so total emissions from aviation are rising rapidly. According to the EEA, emissions are expected to double by 2020 under business as usual.

We are the only form of mass transport within Europe which pays for all its own infrastructure (runways, airports, air traffic control, aircraft, etc.) at a time when Europe's ferries, trains, buses and roads continue to be massively subsidised by taxpayers.

No current user of mass transit of any mode pays for 'all its own infrastructure'. Air travellers in Europe do not refund the US taxpayers who paid for the military airport infrastructure now converted to civilian use, while train and ferry users do not pay for the stations and track infrastructure and port facilities respectively provided by their Victorian antecedents. We are all free riders on the sacrifices of our ancestors. As regards maintenance of this infrastructure and new additions thereto, the situation is more complex. It is likely that some airlines at some airports do not pay the full cost of maintaining, operating and expanding the facility, while at other airports they do. The same applies to the other modes. Who pays for what, by mode, and how the payment schemes can be re-designed to encourage economy and environment is an analysis that badly needs doing. In Comhar SDC, we have made a start as regards road use; there is a strong case for abolishing all VRT and annual road taxes, and replacing these with a road-pricing scheme, where the charge varies by degree of road congestion and environmental performance of the vehicle⁴.

The biggest lie at the heart of all of this eco-babble is that higher taxes will somehow save the planet. This is simply untrue. Higher taxes simply means greater government revenue, waste and misspending... Higher taxation won't reduce people's propensity to travel.

The effect of the trading scheme will be that airlines will have to factor in the cost of using the atmosphere per tonne of CO₂ emitted, for each flight, just as they now factor in the costs of depreciation, fuel, staff, airport charges and the like. This will have a number of effects: it will stimulate research on carbon-reducing fuels, planes and engines. This was the main theme at this year's Farnborough International Air Show, where it was clear that there are no inexpensive or easy solutions. Billions of euros will have to be spent on research and development, and the reduction of emissions and the associated cash savings will be part of the reward for those who succeed. Boeing is working with four airlines on alternative fuels, including biofuel derived from algae; General Electric and Pratt Whitney are investing in research and development of engines that would dramatically reduce CO₂ emissions⁵.

A second effect will be to give a commercial advantage to the most carbon-efficient airlines. Like most people, when planning a flight I scan the options and choose the cheapest, unless there is a strong reason to do otherwise. So airlines that can shave their prices even by a couple of euros relative to the competition will gain advantage, and the environment will also benefit, as travellers automatically favour the most carbon efficient. An example will illustrate the point. Let's take a Dublin / Brussels round-trip, departing Monday, 28th July 2008, returning Tuesday, 29th July⁶.

⁴ See Comhar Sustainable Development Council recommendations on the Sustainable Travel and Transport Action Plan, May 2008. Available at: <http://www.comharsdc.ie/publications/index.aspx?Type=1>

⁵ See: 'Saving fuel and cutting emissions sells planes' by Micheline Maynard, Herald Tribune, 17th July 2008, pp. 1 and 14.

⁶ Data from: <http://www.skyscanner.net/> at 15:00 on 24th July 2008

Using Atmosfair's carbon calculator, it is estimated that emissions on a round-trip Dublin / Brussels for one person would produce emissions of 0.46 tonnes of CO₂⁷. The current price of a tonne of CO₂ in EU ETS is €24.85⁸, so paying for this allowance for this round trip will cost €11.43 or €5.70 each trip.

Table 1: Ticket and Carbon Allowance Costs, Dublin / Brussels / Dublin, July 2008

Flights Dublin / Brussels 28 th July 2008 (departure time and airline)	Ticket Cost (€)	CO ₂ allowance cost (€)	Allowance cost as % of fare	Difference between cheapest and next cheapest (€)
				83.08-75.80 = 7.28
06:50 Aer Lingus	113.99	5.7	5.0	
08:00 Ryanair	75.80	5.7	7.5	
16:00 Ryanair	83.08	5.7	6.7	
18:00 Aer Lingus	147.99	5.7	3.9	
Flights Brussels / Dublin 29th July (departure time and airline)				
				50.45-46.18 = 4.27
10:10 Aer Lingus	116.18	5.7	4.9	
19:00 Ryanair	50.46	5.7	11.3	
21:10 Aer Lingus	46.18	5.7	12.3	

The addition to total ticket costs ranges from 3.9 to 12.3 per cent (Table 1 column 4). This will have some effect on total willingness to travel, but the effects will be modest, at least in the short-run. However, when comparing the difference between fares (Column 5), it could be a significant influence on relative costs, and therefore on who gets the business. If Ryanair is more carbon-efficient than Aer Lingus, or vice versa, this will create a cost spread which could be very influential.

Thirdly, if airlines find it too expensive to reduce emissions, they can buy in the market-place, which in effect means paying others to reduce for them, presumably at a lower cost than they can do it themselves, just as utilities and others in the scheme already do today.

Irish citizens and visitors are now going to be penalised by the mindless bureaucrats of Brussels, encouraged by these eco-loonies, whose predictions about global warming are the modern equivalent of those doom mongers who used to run around cities in the middle ages preaching that the end of the world was nigh.

There is a long tradition, going back to the Middle Ages, of people in power and authority disparaging science that threatened the *status quo*; Galileo comes to mind. The pattern is consistent: first the evidence and findings are ignored, then disparaged; the motives of the researchers are impugned and counter research is commissioned; then the findings are accepted, but procrastination as regards action is characteristic, and finally effective action follows⁹. And the quality of a civilisation – and its prospects – can be judged by the extent, speed and effectiveness with which it responds to peer-reviewed science.

⁷ See: <https://www.atmosfair.de/index.php?id=30&L=3&start=Dublin+&ziel=Brussels&submit.x=7&submit.y=10>

⁸ See www.pointcarbon.com

⁹The story in this regard to tobacco smoking is well documented. For 14 environmental case studies showing this pattern, see: *Late Lessons from Early Warnings: the precautionary principle 1896-2000*, edited by Poul Harremoës and David Gee, European Environment Agency, 2001. Available at: http://reports.eea.europa.eu/environmental_issue_report_2001_22/en

As regards climate change, it has taken decades of sifting the evidence for a robust consensus to emerge, the key conclusion being that 'most of the observed increase in global average temperature since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations'¹⁰.

Note the 'very likely'. It is indeed (barely) conceivable that human action is not the cause of global warming, but we need to act on what is most likely the case. The fundamental challenge we face is the fact that we in the West have created a stock of greenhouse gases in the atmosphere which has almost used up its capacity to store such gases without potentially catastrophic results. To give some headroom to the people of Asia and Africa to avail of whatever little capacity is left, we in the more developed world need to stabilise and then reduce our emissions quickly and substantially. The bureaucrats have designed a system that allows and facilitates this transition, which faces everyone with the same cost at the margin of the additional pressure they are putting on the global system. This system is fair – the polluter pays in proportion to emissions – flexible and economically-efficient – those who can reduce at relatively low cost do most – encourages innovation, and mobilises the market to make the transition to a low-carbon society. They are far from being 'mindless'.

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About Comhar Sustainable Development Council

Comhar, Ireland's Sustainable Development Council, was established by government in 1999 to advance the national agenda for sustainable development, to evaluate progress, to assist in devising suitable mechanisms and advising on their implementation, and to contribute to the development of a national consensus in these regards. Its membership comprises representatives from various sectors, including the public, economic, environmental, social, agricultural, and academic sectors. It has an independent chairperson, Professor Frank J. Convery. Professor Convery is Heritage Trust Professor of Environmental Policy at UCD. Further information on Comhar is available at www.comharsdc.ie.

¹⁰ See: Page 10 of IPCC, 2007: Summary for Policymakers. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Avery, M.Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.