



for a living planet®

December 2008

WWF Global Climate Policy DISCUSSION PAPER

Peter Lockley

WWF UK

Head of Transport Policy

Tel. +44 7770 238 068

plockley@wwf.org.uk

www.panda.org/climate

International Aviation and Shipping Emissions in post-2012 climate policy

Bunker Mentality

Emissions from international aviation and shipping (so-called 'bunker emissions') were omitted from binding emissions reduction targets under the Kyoto Protocol; instead they are reported as 'memo items' in national inventories. Article 2.2 of the Kyoto Protocol urges Annex I parties to 'pursue the limitation or reduction' of GHGs from these sectors working through the International Civil Aviation Organisation (ICAO) and the International Maritime Organisation (IMO).

The combined emissions of the two sectors are now over 1,350 MtCO₂ annually – more than those of the world's fifth biggest emitter, Japan. It is essential that such significant sources of emissions are included in a comprehensive global climate change agreement in Copenhagen – since 1997 emissions have grown considerably, with no mechanism to reduce, offset or compensate for this growth.

It is now clear that IMO and ICAO will be unable to deliver anything by COP 15 in Copenhagen beyond technological and operational proposals to improve efficiency, and that these measures will not be enough to outweigh forecast growth. This is doubly disappointing given the numerous sectoral proposals for tackling aviation and shipping (eg trading schemes) that would not only deliver mitigation objectives, but could raise

substantial revenue towards financing adaptation and low-carbon development in developing countries.

Currently Parties have no incentive to introduce such measures as they have no binding obligations to reduce bunker emissions. If COP 15 simply reiterates the principle that bunker emissions should be tackled at IMO and ICAO, we can expect a further decade of inaction from those bodies.

Both sectors need to be brought into a Copenhagen treaty. Their inclusion is vital in order to control rapidly-growing emissions from international transport, and also offers the opportunity to raise additional funds for climate protection:

- a **Aviation:** WWF recommends that the UNFCCC bring emissions from international aviation within national totals of Annex I parties, and in parallel endorse policies and measures that will reduce emissions in developing countries.
- b **Shipping:** In the case of shipping WWF believes that the shipping sector is particularly well suited to a global approach (which must be designed to respect the principle of CBDR), and that this approach has the potential to raise substantial climate change

funds. But if this cannot be achieved by COP 15 in Copenhagen, then shipping emissions should be brought within national totals of Annex I parties to ensure they are controlled. Tackling the shipping sector in developing countries through some form of sectoral policy approach would then be important to ensure environmental effectiveness, as allocation to countries in the shipping sector is by no means straightforward and could be limited in its reach.

Common but Differentiated Responsibilities

Much of the deadlock over tackling bunker emissions globally has revolved around how to apply the principle of Common but Differentiated Responsibilities and Respective Capabilities (CBDR) to aviation and shipping. Developing country Parties have resisted the notion of a global approach as imposing emissions reduction obligations on non-Annex I parties. Developed country parties, meanwhile, point to the global nature of the two sectors, and the fact that IMO and ICAO have historically developed policies which treat operators of all nationalities equally.

The inclusion of bunker emissions within national totals of Annex I parties would clarify that it is these parties alone who would accept binding reduction obligations for aviation and maritime emissions. As is done with other sectors, these parties would then pursue national or regional policies to limit emissions and comply with the targets, or choose to make deeper reductions in other sectors of their economies to compensate for growth in bunker emissions. Ultimately, however, global policies for these sectors are likely to be the most effective, in particular for the shipping sector.

Sectoral policies for international transport must be uniform in their application to operators of all nationalities, in order to comply with the principles of IMO and ICAO, and to avoid distortion of competition. So for instance, a policy applied only to ships flagged to Annex I Parties or operated by companies registered in Annex I countries would be

ineffective, as ships and ship owners would quickly re-register in the developing world.

Even without differentiation according to nationality of operator, the principle of CBDR could be respected in one of two broad ways:

- by limiting the scope of the scheme geographically – for all instance to all ships/planes on routes to/from Annex I countries
- by using the revenues from global policies for climate change mitigation and adaptation in the developing world ('compensation differentiation'). Costs will fall more on the developed than the developing world (which has approximately two-thirds of the activity in each sector), but all money raised would be spent in the developing world. It is also possible to combine uniform policies with exemptions, to minimise adverse impacts on Small Island Developing States and Least Developed Countries.

Below we discuss for each sector how emissions could be allocated to Annex I Parties – which should be done under the AWG-KP, and some of the options for sectoral policies, which should be included in the Chairs' summary of proposals under the LCA for further elaboration in 2009.

Aviation

International aviation emissions are over 500 MtCO₂ – more than France, Brazil, Indonesia or Australia – and have grown by around 50 % since 1997. It is straightforward to include these emissions in national totals of Annex I parties since measurement according to bunker fuel sales (as set out in detail in existing IPCC guidelines for reporting 'memo items') is in fact the most sensible method.

A global emissions trading scheme for aviation is endorsed by the EU, on the model of its own regional trading scheme which comes into operation from 2012. Some other Annex I Parties support a global scheme as well, although in certain cases this support is best understood as rhetorical opposition to the development of a regional scheme by the EU rather than enthusiasm for global action. This is certainly the prevailing attitude at ICAO where there has been no substantive discussion of a global trading scheme.

The idea of a global trading scheme should be pursued, but with an emphasis on the possibility to raise revenue towards financing adaptation and low-carbon development in developing countries. Currently there is debate over whether auctioning revenues from the EU scheme could be directed towards climate change activity, but given the opposition to earmarking revenue in many EU Member States it is doubtful whether substantial international funding will be raised in this way.

As with the proposed EU scheme, where flights on routes flown less frequently than twice a week are exempted, some form of *de minimis* threshold may be required to reduce impacts on the most vulnerable Parties, such as Small Island Developing States.

For illustration, auctioning permits to cover all 500 million tonnes of CO₂ emitted from international aviation at a price of \$30 would raise \$15 billion towards financing climate protection.

Another possibility which merits further discussion is the International Air Passenger Adaptation Levy, versions of which have been supported by Tuvalu, Bangladesh, India and others. This straightforward mechanism, a levy on every international air passenger ticket, would be a predictable source of revenue for adaptation. It applies the principle of CBDR at the level of the individual: it is globally wealthy individuals who undertake international air travel, and is further differentiated according to the class of travel, to reflect capacity to pay.

For illustration, a levy of \$6 on an economy class ticket and \$60 on a business or first-class flight would raise \$8-10 billion annually.

Shipping

International shipping emissions are around 850 MtCO₂ – roughly equal to Germany and larger than Canada or the UK – and have grown by around 50 % since 1997.

Inclusion of shipping emissions within national totals is less straightforward than for aviation. Allocation to Annex I Parties could be done on the basis of emissions from ships sailing to ports in each Party's territory, on the principle that the importer generates the demand and therefore bears responsibility for transport-related emissions. An alternative way to establish a Party's emissions would be by share of cargo imported. However, the first allocation option in particular would risk a relatively high share of leakage. A scheme that includes national Annex I totals does not cover all emissions of the sector (and the proportion will fall if there is substantial carbon leakage). To be effective, it would thus have to be accompanied by sectoral policies and measures to reduce emissions in developing countries.

Given these complexities, a global approach to the sector is the most attractive mitigation option. As shown by WWF studies, a global scheme could be designed in such a way as to respect CBDR through redistribution of the revenues it raises (although to date many developing country Parties have been unwilling to accept this 'compensation' interpretation of the principle of CBDR).

Several global trading, levy and hybrid levy/trading schemes for the shipping sector have been in development at IMO. It is thus disappointing that differences of opinion between Annex I and non-Annex I parties over the scope of their application have not been resolved (and cannot now be resolved before COP 15, given IMO procedures).

WWF has commissioned independent research into this topic and will continue to explore with Parties how the principle of Common But Differentiated Responsibilities and Respective Capabilities can best be respected in this sector, and how adverse impacts on the most vulnerable developing country Parties can be eliminated. For further details on shipping schemes and their impacts, please see a separate WWF background paper on shipping.