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International Solidarity Levy on Air Travel

The case for a ready-made innovative stream of finance in support of the current international climate negotiations

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Executive Summary

The agreement in Cancun to establish a Green Climate Fund is encouraging, but developing countries, including the hosts of COP 17, South Africa, are already warning that they have no appetite to establish another 'placebo fund' with no money in it. For the Fund to be operationalised in Durban, there have to be credible pledges at least for start-up funding on the table going into COP 17.

At the same time it is clear on the one hand that due to the current fiscal constraints, direct budget contributions will be politically very difficult, and on the other, that it will not be possible to set up the sort of innovative international financing mechanisms that have been suggested in this context – such as permit auctions for the international aviation and maritime sectors, or a financial transaction levy – in time for Durban.

An aviation ticket or passenger tax would generate a new budget line for many developed countries that could be earmarked for climate change (or make budgetary room for direct contributions). Such taxes are quick to set up, and are extremely cheap to administer. The alternative to a more complex process of setting up an international scheme that requires an international agreement is for countries to collect the tax individually.

A number of countries already implement ticket taxes to fund the fight against HIV/Aids. These include LDCs such as Niger; France is the only developed country to do so. This demonstrates that the tax is practical, and has no serious effects on the economy of even a very poor country.

A small number of countries have ticket taxes, but not directed towards climate change (eg UK, Ireland, US). These countries could either ring-fence a proportion of existing taxes, or increase them and ring-fence the additional revenue.

A co-ordinated European initiative would eliminate any risk of distortion between EU Member States; in practice covering the main EU hubs would reduce this risk to negligible. Furthermore, and in the long term, the ticket tax can be aligned with other mechanisms such as the EU ETS.

Ticket taxes can be small enough to have no discernible effect on demand, but still raise useful revenue (as in France). Or, for countries with fast-growing emissions from aviation, they can aim to have a modest effect on demand, as part of an emissions control strategy (as in the UK).

The tax can be phased out in the in the long term if a carbon-pricing mechanism is agreed in ICAO that generates similar revenue for climate initiatives, but this could take years.

1. Background – The need for funding pledges by COP 17 in Durban[3]

The recent UN Climate Conference in Cancun, Mexico adopted a decision to create a Green Climate Fund (GCF), to be designed by a Transitional Committee under the aegis of the UN Framework Convention on Climate Change (UNFCCC). A lot of effort has already been put into ideas on what this new fund is going to be. But very little has been said on how it is going to be funded:

There is no clarity on how to finance the Fund. Developing countries are keenly awaiting announcements by their developed country partners on regular and mandatory contributions to the new Green Fund. The Transitional Committee work cannot finish without some collective assumption on the scale of funding to be routed through the fund – an important design parameter for the Fund.

[3] This section is contributed by Benito Müller and partially based on his ***Time to Roll Up the Sleeves - Even Higher! Longer-term climate finance after Cancun,*** Oxford Energy and Environment Brief, January 2011.

The developed world's reticence to discuss the magnitude of the GCF is simply scandalous. It neither bodes well for a proper institutional edifice of the GCF nor for the rapid progress needed to achieve results by Durban. This conversation cannot be avoided. It must take place now and side by side with the design process to be initiated by the Transitional Committee.[4]

The Cancun Agreements reaffirm that funding may come from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources, and takes note of the report of the High-level Advisory Group on Climate Change Financing (AGF). It is no coincidence that the Agreement has nothing more to say on how the new fund is to be sourced. Identifying sources of funding for the GCF will be the toughest problem in the forthcoming finance negotiations, and it has to be resolved quickly, for it is clear that without some start-up funding package, the GCF will arrive stillborn at Durban. So how could we secure adequate start-up funding by Durban, in the current context of record budget cuts in the developed world?

Over two years ago, the LDC Group put forward a proposal for a levy on international air travel to provide a significant core funding stream for adaptation.[5] Although the LDC proposal envisaged a global, mandatory measure, an alternative option for securing quick start-up funds for the GCF ahead of COP 17 is for country-by-country, opt-in pledges to implement an air ticket levy and channel the proceeds to the GCF.

As discussed below, a number of countries already have such taxes (albeit not to fund adaptation) – they are easy to design, cheap to collect and have minimal impact on a country's economy. Air ticket taxes should be broadened, deepened, and directed towards climate change action.

1. Air ticket taxes are a straightforward way to raise finance

Any national government has the undisputed right to levy a tax on passengers using its airports, without the need for international agreement.[6] In practice the tax liability usually falls on the airline, and is calculated per passenger departing from airports in the territory of the country (transfer and transit passengers, who change planes and wait on the runway respectively, are usually exempted). It can be a flat rate, be varied by distance or class of travel, or be a percentage of the ticket price. Most countries that levy ticket taxes do so on both domestic and international flights – and a country-by-country opt-in tax could do the same (in contrast to an internationally-agreed mechanism such as IAPAL, which would cover only international flights).

According to data published by the UK revenue and customs authorities, Air Passenger Duty is the cheapest of all UK taxes to collect. At 0.04 pence per pound collected, it is more than twice as cheap as the next most efficient tax, and over 27 times cheaper than the average pound of UK tax revenue.[7]

The use of revenues raised in this way is entirely in the gift of the Government in question. A handful of countries already have such taxes, and fewer still use the revenue for international public good initiatives. However, in the majority of developed countries, aviation remains untaxed (apart from

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4 Farrukh Iqbal Khan, *The* ***Green Climate Fund: What needs to be done for Durban (COP 17)***, Oxford Energy and Environment Brief, February 2011

5 For more on the LDC International Air Passenger Adaptation Levy (IAPAL), see, for example, Benito Müller, ***IAPAL - Thirteen Questions and Answers***, ecbi Policy Brief April 2009.

6 Legal issues would only arise if a government attempted to discriminate according to the nationality of the passenger or the airline.

7 *Meeting Our Challenges – Departmental Annual Performance Report 2009.* HM Revenue and Customs 2009 (http://www.hmrc.gov.uk/about/autumn-report-2009.pdf) see table 1 on page 32.

fees levied purely within the industry such as airport charges – sometimes misleadingly represented as 'taxes').

2. Existing Air Passenger Taxes & their Use

The table and discussion below gives selected examples of air ticket taxes that are already in place.

Unitaid. As well as France, a number of developing countries already implement an air ticket levy in order to raise funds for UNITAID: Chile, Madagascar, Mauritius, Niger and the Republic of Korea. Norway contributes a proportion of revenue from an aviation fuel tax to UNITAID.[8]

Benin, Burkina Faso, Côte d'Ivoire, Democratic Republic of Congo, Jordan and Mali have also committed to implement a levy.[9] Promotion of the levy is one of the missions of the Leading Group on Innovative Financing, which has 63 member countries[10].

Table 1: Aviation taxes and their use in selected developed countries – indicative figures.

	Domestic Economy Class, US$	***Domestic Premium Class, US$***	***International Economy Class, US$***	***International Premium Class, US$***	***Total raised, US$ m***	***Use***
France	1.4	14	5.6	56	**160**	UNITAID
UK	20	40	98-123	196-280	**3'000**	Govt revenue
Germany	11	11	35-63	35-63	**1'400**	Govt revenue
USA	7.5% of fare	7.5% of fare	14.50	14.50	**16'000***	Aviation infrastructure, security etc

Notes:

1. Figures for Unitaid countries are for 2009 and taken from Unitaid (2009), converted at 1€ = $1.40
2. Figures for UK are Germany are projections for 2011, sourced from the respective governments.
3. Figures for the USA are for 2005 and the total is the aggregate of all federal aviation taxes, not just those listed. See further Cairns et al (2006), *Predict and Decide: Aviation, climate change and UK policy*, Cairns and Newsom, Environmental Change Institute (2006) http://tinyurl.com/69ftdrh, Annex C

* = Includes other taxes than the ones listed in Table.

Aviation Infrastructure. In the United States, a number of federal and state taxes are levied on aviation (both tickets and fuel). According to the Air Transport Association of America, federal taxes alone amounted to $16 billion in 2005. The proceeds are used for improvements in aviation infrastructure, and to pay for measures related to security, immigration, quarantine etc.

Given the size of the US aviation sector (around a fifth of all global aviation activity is US domestic flights), it would need only a small increase in the rates of taxation to yield useful revenue for adaptation. For illustration, a 5% increase in all taxes would generate $800 million, but would add only 70 cents to the price of an international air fare.

Government Revenue. The UK and Ireland have levied ticket taxes for several years. Germany and Austria recently announced air ticket taxes that came into effect in 2011. The Netherlands imposed such a tax in 2008, but revoked it in 2009, citing loss of passengers, mainly from Amsterdam Schipol

[8] UNITAID purchases medicines to combat HIV/Aids, malaria and tuberculosis in the developing world.

[9] *Unitaid (2009)*

[10] See list at http://www.leadinggroup.org/article48.html

to Frankfurt airport. However, this trend coincided with a sharp Europe-wide reduction in passenger numbers due to the economic crisis.

EU ETS. Although ETS is not a tax, European Member States will benefit from the auctioning of a proportion of aviation emissions permits when the sector enters the EU ETS in 2012. The European Commission has just published the details of aviation's cap, of which 15% will be auctioned. At current permit prices of €16, this auction would raise a little over €500 million (US $700 million) for Member State governments. [11]

The Directive incorporating aviation into the EU ETS acknowledges that Member States have the right to determine what use to make of auctioning revenues. Nevertheless, it lists purposes for which the revenues *should* be used, including 'to adapt to the impacts of climate change in the EU and third countries', 'to fund research and development for mitigation and adaptation' and 'to avoid deforestation and facilitate adaptation in developing countries'.[12]

To date no EU Member States has announced plans to spend these revenues on any of the purposes listed in the Directive.

3. Economic Issues

Fair taxation.
Kerosene used for international flights is exempt from taxation, by virtue of a large number of bi-lateral Air Service Agreements that implement the 1944 Chicago Convention on Civil Aviation. In the EU, additionally, aviation enjoys favourable zero-rating for VAT. Ending the fuel tax and VAT tax breaks is certainly desirable, but would require consensus among the 27 Member States, whereas any country can take a unilateral decision to impose a ticket tax.

In fact, ticket taxes would need to be increased substantially before they fully compensated for the fuel tax and VAT tax breaks. The UK Treasury has valued these exemptions for flights from UK at £10 billion (€11.6 billion). In other words there is considerable headroom, even in the country with the highest aviation taxes in Europe, to increase the rate of taxation before the sector reaches fiscal equity with motoring.

Distortion of competition
It has been argued that differential taxes will cause passengers to fly from countries with the lowest taxes, distorting competition between airlines (who have established bases at particular airports) and reducing the revenue base. For direct flights, this contention is only arguable in mainland north-west Europe, where there is a dense cluster of hub airports, such that passengers could feasibly access several by surface transport. Even then, a differential of, say, €10 would quickly be eliminated if the passenger had to travel further by car or public transport to access a more distant airport.

The simplest way to eliminate any such effect, of course, would be an agreement to levy similar rates of tax amongst the governments concerned. Belgium, Luxembourg and the Netherlands could levy a tax at a similar rate to Germany; Denmark and Sweden (and possibly Norway) would also benefit from such an arrangement.

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[11] EUA spot price at 10.03.11. For details of the EU ETS cap, http://europa.eu/rapid/pressReleasesAction.do?reference=IP/11/259&type=HTML

[12] Directive 2008/101/EC of the European Parliament and of the Council, Recital (21).

There would be no such effect in Australia or Japan; in the US only conceivably for a few passengers with easy access to Toronto or Vancouver. Again this effect (tiny in the context of overall US aviation) could be eliminated by an agreement with Canada to levy a similar tax.

Transfer passengers could be exempted (as with UK APD) to avoid any effect on choice of connecting airport.

Effects on demand:

Most likely, ticket taxes at the level suggested would have little material impact on overall demand. Price elasticities for air travel are thought to be low, with estimates clustered around -1 (slightly lower for long-haul business, slightly higher for short-haul leisure)[13]. This means that a 1% increase in the price of air travel leads to a 1% reduction – and note that any reduction would be on a one-off basis, against a background of a steady annual increase in air travel. Systematic data on average airfares is not publicly available, making calculations of demand effects difficult.

Generally, however, demand is thought to be more income than price elastic, ie passengers' available income than to changes in the airfare itself. This is borne out by the close correlation between per capita GDP and frequency of air travel across countries[14], or by the way demand for air travel has tracked GDP growth in recent decades[15]. It is also borne out anecdotally in countries that have implemented levies:. in the first month of the German ticket tax, for which data are available, Lufthansa passenger numbers have increased against the same month last year by 11.7%[16]

Even in the UK, which uses taxes as part of a wider strategy to help limit emissions and levies of over $100 on long-haul economy tickets, demand for air travel has remained stubbornly strong, once corrected for the economic downturn.

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[13] The range of estimates from the academic literature are presented at http://www.fin.gc.ca/consultresp/airtravel/airtravstdy_1-eng.asp

[14] http://graphs.posterous.com/propensity-for-airline-travel-vs-gdp-per-capi

[15] http://www.boeing.com/commercial/cmo/images/cmo_methodology_chart3_lrg.gif

[16] http://de.news.yahoo.com/17/20110209/tbs-gute-zahlen-waermen-deutsche-tourist-cc081a3_1.html

4. Country-by-Country revenue potential

A total of around $12 billion could be raised if the 23 developed countries listed in the table below[17] implemented ticket levies at the rate of the French solidarity levy ($1.40 domestic economy, $14 domestic premium, $5.60 international economy, $56 international premium). Revenue figures have been rounded to the nearest million and totals may therefore show minor rounding errors. It is assumed that 10% of all passengers pay the premium rate.[18] No account is taken of the interplay with existing aviation taxes; the solidarity levy is assumed to be new and additional.

Country	*Domestic Pax (m)*	*Domestic Revenue (US$m)*	*International Pax (m)*	*International Revenue (US$m)*	*Total Revenue (US$m)*
Australia [(1)]	49.6	132	11.4	121	**253**
Austria [(2)]	0.7	2	17.8	189	**191**
Belgium	-		17.9	190	**190**
Canada [(3)]	34	90	20.4	217	**307**
Denmark	1	3	16.1	171	**174**
Finland	1.2	35	9.9	105	**109**
France	13	35	70.1	746	**780**
Germany	12	32	107	1138	**1170**
Greece	3.4	9	23.8	253	**262**
Ireland	0.6	2	24.5	261	**262**
Italy	14.2	38	69	734	**772**
Japan [(4)]	91	242	21	223	**466**
Netherlands	-		36.7	390	**390**
New Zealand [(5)]	7.3	19	4.3	46	**65**
Norway [(6)]	11.3	30	7.6	81	**111**
Portugal	1.5	4	19	202	**206**
Spain	17.8	47	101.2	1077	**1124**
Sweden	3	8	17	181	**189**
Switzerland [(7)]	0.6	2	15.8	168	170
United Kingdom	11.5	31	143.8	1530	**1561**
United States [(8)]	618.1	1644	151.5	1612	**3256**
Total	**892**	**2372**	**906**	**9638**	**12010**

Sources: see end notes[i]

[17] Annex I countries, excluding Economies in Transition and Turkey (due to their circumstances), and Iceland, Luxembourg and Malta due to low aviation activity or lack of data.

[18] Based on data from IATA's premium traffic monitor: http://www.iata.org/whatwedo/Documents/economics/Premium-Monitor-Dec10.pdf

5. Conclusion

The air ticket tax could be one of the most reliable potential sources of finance for the Green Climate Fund in the short term, and could be made operational without the need for drawn-out negotiations. There are precedents for the application of air ticket taxes in both developed and developing countries, and although several individual countries operate them for their own domestic revenue purposes, there are clear examples, in both developed and developing countries of ticket taxes that have been hypothecated for international public good initiatives – in this case the purchase of medicines for HIV/AIDS,.

Where ticket taxes have been applied, no major distortions or decline in business has been experienced as a result of the tax. Negotiations are underway at the International Civial Aviation Organisation to develop a market-based instrument for aviation, with potential to generate revenues for climate initiatives, but it may take several years to put into this operation and generate revenues for climate change adaptation. Thus a ticket tax represents a fast-start, low-impact revenue generating system which could, if desired, be replaced by mitigation oriented mechanisms as they develop. What is critical is to get to Durban with a realistic, credible and predictable option which is capable of delivering climate finance annually for the next 5-10 years.

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(1) [i] Avline 2008-9, Australian Department of Infrastructure, Transport, Regional Development and Local Government. http://www.bitre.gov.au/Info.aspx?ResourceId=761&NodeId=92. (NB international statistics represent journeys to and from Australia and have been divided by 2)

(2) For all EU countries, data is for 2009 and is taken from http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Overview_of_EU27_air_passenger_transport_by_Member_States_in_2009_-_passengers_carried_%28in_1000%29.PNG&filetimestamp=20110214143654. (NB Except for intra-EU flights, numbers represent arrivals and departures and have been divided by 2.)

(3) Statistics Canada, data for 2009. http://www.statcan.gc.ca/pub/51-203-x/51-203-x2009000-eng.pdf

(4) Japanese Ministry of the Interior and Communications, Statistics Bureau. http://www.stat.go.jp/english/data/handbook/c09cont.htm. Figure for international passengers in 2009 is aggregated from tourism statistics provided and may include some arrivals by ship. However, data correlates well with a 2004 survey specific to air transport: http://www.stat.go.jp/english/index/official/209.htm#8

(5) Data aggregated for Auckland (2010), Christchurch (2010) and Wellington (2008) airports only, see http://www.aucklandairport.co.nz/Corporate/NewsAndMedia/Publications/~/media/Files/Corporate/Monthly_Traffic_Reports/2011/MTU_Month%2006_Dec%202010.ashx, http://www.christchurchairport.co.nz/content/388/i.%20Passenger%20Numbers.pdf, and http://www.wellingtonairport.co.nz/html/business/statistics.php

(6) Avinor (Norwegian airport operator) Data is for scheduled and charter passengers in 2010 and taken from http://www.avinor.no/tridionimages/2010%20Passasjerer_tcm181-126648.xls. Data given represents arrivals and departures and has been divided by 2.

(7) Data aggregated for Geneva and Zurich airports in 2009, see http://www.gva.ch/en/Portaldata/1/Resources/fichiers/Institutionnels/Statistiques/2009_stat-gva.pdf and http://www.zurich-airport.com/Portaldata/2/Resources/documents_unternehmen/investorrelations/Zahlen_und_Fakten_2009_en.pdf

(8) United States Bureau of Transportation Statistics. Data for 2009. http://www.bts.gov/press_releases/2010/bts015_10/html/bts015_10.html#table_01