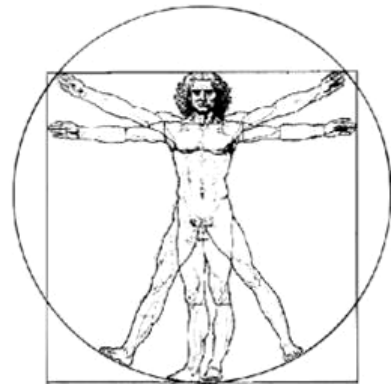


---

## European Capacity Building Initiative (ECBI)

for sustained capacity building in support of the international climate change negotiations



---

# IATAL — AN INTERNATIONAL AIR TRAVEL ADAPTATION LEVY\*

BENITO MÜLLER<sup>1</sup> AND CAMERON HEPBURN<sup>2</sup>

The world has reached a stage where even a rapid stabilisation and significant reduction of global greenhouse gas emissions could no longer prevent significant climate change.

While all countries will experience impacts, the developing world is most vulnerable. Significant financial assistance for adaptation is needed (and would be cost-effective), but current proposals are inadequate.

At the same time, aviation emissions are increasing rapidly and are likely to continue to do so in the absence of major policy changes. Solutions to the challenges of finance for adaptation and reduction of aviation emissions are both urgently required.

This paper highlights political advantages and

moral reasons to link the problems together (and absence of reasons in economic theory not to). Solving both problems by an International Air Travel Adaptation Levy (IATAL) – or an emissions trading scheme with auction revenues hypothecated for adaptation – is ethically, economically and politically attractive.

### *The Problem of Adequate Adaptation Funding*

There are, at present, no accurate estimates on how much it will cost to adapt to climate change, whether for developing or developed countries. However, it is possible to give a reasonable indication at least on the order of magnitude. Based on some recent World Bank estimates and the figures provided in the LDCs' National Adaptation



A Question of Responsibility and Solidarity

---

**Multilateral Donor Funding**

| <i>Status in Spring 2006</i>       | <i>Total</i>    | <i>Pledged</i> | <i>Collected</i> |
|------------------------------------|-----------------|----------------|------------------|
| LDC Fund                           | \$68.3m         | \$34.3m        | \$34m            |
| Special Climate Change Fund        | \$56.5m         | \$56.5m        |                  |
| Adaptation Fund Donations          | \$5.0m          | \$5.0m         |                  |
| GEF Special Priority on Adaptation | \$50.0m         |                | \$50m            |
| <b>Total Donor Funding</b>         | <b>\$179.8m</b> | <b>\$95.8m</b> | <b>\$84m</b>     |

**International Private Sector Funding***Projected*

|  |                               |
|--|-------------------------------|
| Adaptation Fund CDM levy                         | \$160–950m (total until 2012) |
| International Air Travel Adaptation Levy (IATAL) | \$4,000-10,000m per annum     |

Programme of Action (NAPAs), it can be concluded that the cost of adaptation in the developing world will be in the *tens of billions of Euros annually*.

Current multilateral donor funding is woefully inadequate to meet a demand of anything close to this order of magnitude (see Table). Moreover, judging from the fate of the 0.7% of GDP ‘Monterrey commitment’, it is clear that it would be politically close to impossible for industrialised countries to try and raise this sort of (additional) money to cover these costs through domestic taxation: the priority of spending any tax money will almost always be domestic (education, health, etc.), no matter how strong the moral case for spending on foreign (adaptation) costs might be.<sup>4</sup> The lesson thus has to be that, in order to help developing countries cope with the expected adaptation cost and to comply with the moral obligations of the principle of ‘common but differentiated responsibilities and respective capabilities’, money has to be collected from the responsible/capable *individuals* directly, i.e. *outside domestic tax systems*.

Individuals, as independent moral agents, can and have shown to be willing to give money to be spent on helping others hurt by their actions, something which governments, as guardians of their nation’s welfare, find very difficult to do. What is needed are revenues with a genuinely *international* character. The proposed IATAL is one way in which such international revenues could be raised equitably.

**Addressing the problem of aviation emissions**

Not only would an IATAL improve consistency in climate policy by ensuring that the aviation sector faces the carbon prices that are already imposed on

other sectors (a precondition for economic efficiency), but it would contribute to reducing aviation emissions in two ways.

- ✦ The levy might help stimulate innovation in the air transportation sector, generating new abatement technologies.
- ✦ Where price elasticity is high – as in the short-haul leisure market – price increases would reduce the demand for air travel and hence reduce emissions.

*Ceteris paribus*, higher taxes should —according to Ramsey’s (1927) ‘inverse elasticity rule’— be imposed on goods with inelastic demand, so an IATAL should be applied as *revenue raising* instrument where, as in long-haul business travel, the price elasticity is low. In short, the proposed IATAL would reduce emissions, where demand is price elastic, and raise revenue for adaptation where demand is not elastic.

The distributional impacts of an IATAL would be progressive, for two reasons. First, air travel is disproportionately consumed by the wealthier segments of society – particularly in the case of the long-haul business travel which would be the primary target for revenue raising purposes. Second, the revenue raised would benefit the most vulnerable, who are often also the poorest.

**Raising Revenues or Reducing Emissions or Both?**

In its wider sense, this question is obviously rhetorical: given the current state of affairs, there is no doubt that we have to both raise revenues to help developing countries to adapt, and to reduce aviation emissions. However, it is not immediately obvious

that we should aim to achieve both objectives with a single instrument.

Could we raise adaptation finance and reduce the aviation emissions with the same instrument? As mentioned earlier, there are good moral and pragmatic reasons why achieving both tasks simultaneously might be easier than achieving them separately. The IATAL is designed with this in mind when levied as a function of (per capita) flight emissions and ticket price. And both could also be achieved with a (global) aviation emission trading scheme with permit auctioning and revenue hypothecation for adaptation.

The main difference between IATAL and the proposed aviation emissions trading schemes is that IATAL could also be designed as a pure revenue raising instrument without a (significant) impact on emissions. This would, for example, be the case if it were set as percentage of the (long-haul business) ticket price, similar to the existing French ‘solidarity contribution’ on air passengers to raise revenue for HIV/AIDS. While we believe that a design based purely around revenue raising would be inferior to an IATAL directed at both objectives, there may be political reasons why one might (initially) have to settle for this second-best option.

### *Politics*

The political will among European decision makers to address aviation emissions appears to be at a high, as evidenced by proposals from both the European Commission and the European Parliament to address the problem at the European level by way of cap and trade schemes. These efforts, while extremely valuable, would not be optimal. For one, a global agreement on aviation emissions would be preferable to a (series of piecemeal) regional agreement(s), and it may even be easier to achieve because it would

automatically address the thorny competitiveness (‘level-playing field’) issues.

The main obstacle to ‘globalising’ either of the proposed European trading schemes is the strong rejection by most developing countries on any mandatory mitigation burdens (‘new commitments’) rooted in the principle of differentiated responsibilities as operationalised in terms of countries per capita emissions. While this sentiment may be not as strong in the context of sectoral caps, it would still be a considerable obstacle to introducing a global aviation cap and trade regime. Indeed, it might even extend to objections—in our opinion unjustified—to an emission related IATAL imposing a cost on individuals in proportion to their individual responsibilities.

While an emission related IATAL would have a good chance of overcoming these objections—given that revenues raised would be for developing countries—it could easily be adapted to accommodate directly both the current EU aviation emissions trading lock-in and the developing country rejection of anything resembling a ‘new commitment’. All that needs to be done is to design it as pure (adaptation) revenue raising *solidarity contribution*, based on the UNFCCC principle of ‘respective capability.’

As such it would not be aimed at reducing aviation emissions and thus would not be in competition with emissions trading as abatement instrument, and—assuming a very modest average level of €5 per ticket—would still manage to raise €10 billion annually, which would at least be in the same order of magnitude as the expected costs for adaptation in developing countries.

### *Notes*

\* This note is based on Benito Müller and Cameron Hepburn, *IATAL — an outline proposal for an International Air Travel Adaptation Levy*, EV36, Oxford: Oxford Institute for Energy Studies, October 2006, available at [www.OxfordEnergy.org](http://www.OxfordEnergy.org).

<sup>1</sup> Senior Research Fellow at the Oxford Institute of Energy Studies and Director of Oxford Climate Policy. [benito.mueller@philosophy.oxford.ac.uk](mailto:benito.mueller@philosophy.oxford.ac.uk) (corresponding author)

<sup>2</sup> James Martin Fellow in Climate Policy at the Environmental Change Institute of the University of Oxford.

<sup>4</sup> Representative governments are, by their very nature, disposed to give priority to the (fiscal) demands of the people they represent. This is why a supra-national regime is essential to redress cross-boundary inequities. However, the fact that such inequities need to be addressed is not ‘just’ a moral imperative, it is in all nations’ (enlightened) self-interest, in the same way in which it is in the citizen’s self-interest to be subject to a domestic legal system.

---

for more information go to  
[www.EuroCapacity.org](http://www.EuroCapacity.org)