The International Air Passenger Adaptation Levy

Opportunity or risk for Least Developed Countries?

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1. Introduction and background

Several innovative, market-based financing mechanisms for climate action have been proposed in recent years. Few, however, are under the direct championship of developing countries, or address adaptation specifically. The International Air Passenger Adaptation Levy (IAPAL) stands out as the most adaptation-focused innovative financing instrument, with the potential to generate US$ 8-10 billion annually. If most of this amount is made available to developing countries, it will be the largest injection of adaptation funding from all sources combined so far.

Some Least Developed Countries (LDC), however, fear that this boost could come at a cost to them. Essentially, because the levy is proposed for all international air travel, they fear that it could affect tourist arrivals in LDCs whose economies are dependent on tourism. IAPAL could also be regarded as making developing countries pay for adapting to impacts of climate change, which would be contrary to the Principle of Common but Differentiated Responsibility and Respective Capabilities, enshrined in the UN Framework Convention on Climate Change (UNFCCC). These concerns could cause opposition to IAPAL from within developing countries themselves, in addition to the obvious opposition that is expected from the aviation industry, which has its own economic interests.

This policy brief addresses some of the concerns regarding IAPAL based on the experiences of other similar instruments, suggesting ways to balance the concerns of negative impacts with the real need for predictable and additional finance.

2. The need for predictable adaptation finance from innovative sources

The urgent need for LDCs to adapt to climate change is widely recognised. However, the main obstacle is the lack of adequate, accessible, predictable and sustainable finance. The timely availability of adaptation funds is crucial for LDC – an ad hoc approach will be inefficient and ineffective, leading to piecemeal solutions that do not add up to address the medium and long-term impacts of climate change.

By 2050, the costs of adapting to climate change in developing countries could reach US$ 100 billion per year. Despite international pledges, actual disbursements have been low – less than US$ 450 million for adaptation, by September 2011. It is unclear where the US$ 100 billion will come from. Equally worrying for developing countries, financing for adaptation makes up for less than a quarter of the total climate change funds

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4 For a list of the sources currently under consideration, see Haites, E. and Mwape, C. (2011). Sources of Long-Term Climate Change Finance. (Also part of this LDC Paper Series)
7 www.climatefundsupdate.org
disbursed so far. As of September 2011, a total of US$ 2 billion had been disbursed so far from all climate funds, with just 22 per cent (US$ 447 million) going to adaptation. Approved funding for adaptation from all sources is US $956.7 million – below US$ 1 billion, way below the cost of adaptation (see Figure 1). New and additional sources of funding for adaptation are desperately needed.

Figure 1: Climate funding until September 2011 (million US$)

Public finance from developed countries has been slow and insufficient to trickle in, and is mired in confusion over its distribution among the various climate change needs (mainly mitigation, adaptation, technology and capacity building). The amount allocated for adaptation even in the unfulfilled pledges is neither adequate, nor predictable.

The only source of financing for adaptation so far that does not depend entirely on voluntary contributions by developed countries is the Adaptation Fund. The Fund had a total of US$ 224.5 million as of January 2011 – US$ 138.2 million from the two per cent levy on the sale of Certified Emission Reductions; US$ 86 million from voluntary contributions by developed countries, and US$ 0.75 million from investment income.

In the face of the growing global economic crisis and changing donor priorities, it will be increasingly difficult to predict if, and how much, developed countries will contribute to climate adaptation over and above current overseas development assistance (ODA), which is also at risk from the economic crisis. The fulfillment of the US$ 100 billion by 2020 pledge by developed countries under the Copenhagen Accord is exposed to these risks and uncertainties, to the extent that the United Nations Secretary-General’s High-level Advisory Group on Climate Change Financing (AGF) has concluded that “it is challenging but feasible to meet [the Copenhagen Accord] goal.” The AGF also concluded that “[f]unding will need to come from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance”.

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8 www.climatefundsupdate.org
9 www.climatefundsupdate.org
10 www.climatefundsupdate.org
If LDCs are to avoid sinking further into poverty while reducing their vulnerability to climate change, then considerable additional financial and other forms of assistance for adaptation must be made available. Because adaptation is an ongoing and a long-term process, these funds must be predictable and reliable for several years in advance. In order to achieve this goal, new instruments that do not rely on voluntary contributions are needed.

The innovative instruments considered by the AGF include carbon market based revenues, taxation of international air and maritime transport, and taxes on financial transactions. A common feature of these mechanisms is that they are distinct from conventional ODA funding sources derived from public financing (typically funded from domestic revenue streams, and part of national budgets).  

3. IAPAL as an innovative source

In 2008, the Maldives, on behalf of the LDCs, submitted a proposal to the UNFCCC Conference of Parties (COP) for an International Air Passenger Adaptation Levy (IAPAL), aimed at generating US$ 8-10 billion annually, earmarked for adaptation in developing countries (see Box 1).

IAPAL is a very attractive mechanism for developing countries. However, the mechanism (like any other financial mechanism in consideration) should be scrutinized in detail by LDCs to ensure that it conforms to the values and principles upheld by the group, and included in the UNFCCC. The key principles and concepts raised in this context, and relevant to climate finance, include: appropriateness (taking into account the polluter pays principle); equity – in particular related to the UNFCCC principle of common but differentiated responsibilities and respective capabilities; additonality; predictability; adequacy and accessibility. A brief analysis of each of these in the context of IAPAL follows below.

**Appropriateness**: IAPAL takes the polluter pays principle to the level of the individual, targeting those individuals who directly contribute to climate change through international air travel. It is the only innovative financing instrument currently under discussion that targets individuals directly.

**Equity**: Once again, IAPAL takes the principle of “common but differentiated responsibility and respective capabilities” to an individual level. It can be argued that passengers flying in business or first class should be made responsible for a larger share of the plane’s emissions than economy passengers. It can also be argued that, by and large, passengers who fly business or first class have greater economic capability than economy passengers. Both factors are reflected in the differentiation by travel class in IAPAL.

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11 See Haites, E. and Mwape, C. (2011). *Sources of Long-Term Climate Change Finance.* (Also part of this LDC Paper Series)
It must also be emphasised that IAPAL is first and foremost meant to be a solidarity levy on individuals – that is, a levy through which people who are capable of paying (regardless of their origin, race, or creed) and can compensate those people who are less capable.

**Additionality:** The revenue from IAPAL would be new and additional to the existing resources, and will not displace them. Collected internationally, IAPAL will not be part of country budgets, and cannot therefore be counted especially by developed countries as part of their commitments to climate funds.

**Predictability:** Projections of IAPAL revenues are based on periodic industrial forecasts (for instance, forecasts by the International Air Travel Authority) that provide indications of likely revenues based on international air travel demand now and in the future. Resources mobilized from the IAPAL are also to a large extent reliable as they are based on an industry which is well established, and is not likely to disappear without warning.

**Adequacy:** Even though IAPAL revenues will not cover all the adaptation financing needs of developing countries, in a single year the mechanism could raise about 20 times the total amount of adaptation funds that have been disbursed by all adaptation funds since 2002. Even if it does not hit its best potential of US$ 10 billion annually, it is still better than what has been delivered so far.

**Accessibility:** The IAPAL proposal suggests that revenues would be put into the Adaptation Fund, which is the only mechanism that gives developing countries direct access. Developing countries have a say in the rules of access to this fund, thus the revenues would be accessible, under the conditions that are set by developing countries, together with others.
Box 1: IAPAL basics

The International Air Passenger Adaptation Levy (IAPAL) is a proposed new purchase tax on air tickets, the proceeds of which would be dedicated to investment in adaptation to climate change. However, IAPAL would not mitigate the effects of climate change because it does not aim to reduce flight numbers and therefore aviation’s contribution to climate change.

According to existing economic analyses, IAPAL can deliver significant, predictable and reliable finance targeted specifically on adaptation, if a levy of US$ 6 per international air passenger travelling in economy class, and US$ 62 per passenger travelling in business or first class is introduced. This can raise up to US$ 8-10 billion per year, with minimum administrative costs.

Proposed implementation framework

- The revenue of the levy will go to an appointed climate Fund, which could be either the Kyoto Protocol Adaptation Fund or the Green Climate Fund.

- The level and travel class differentiation of the levy is to be according to the tried and tested formula of the French levy, at present US$ 6 (€4) per economy trip, and US$ 62 (€40) per business/first class trip.

- The levy is to be collected by airlines from their passengers at the point of sale, and transferred by the airline to a dedicated account of the appointed Fund.

- The airlines will be compensated by the appointed Fund for reasonable administrative costs incurred in the course of collection.

- The Board of the appointed Fund will be requested to operationalize the collection mechanism for the levy, if necessary in consultation with the relevant international bodies concerned with the aviation sector.

Key assumptions

- The expected cost of adaptation exceeds the pledged sources of funding available – meaning therefore that new sources of funding are required.

- The global demand for flights is not significantly affected by small price increases, and therefore an additional tax would not dramatically reduce demand. This would avoid a serious negative impact on the industry, and on the amount of revenue available.

- The revenue raised would be high enough to make a significant contribution to global adaptation funds.

Sources


4. Impact Analysis

a) Inclusion of developing country passengers

The UNFCCC principle of common but differentiated responsibilities is usually applied to sovereign states, not individuals. It mostly relates to sharing the burden of taking action to combat climate change, where the burden is usually measured in relation to a country’s GDP. LDCs are least responsible for the problem of climate change, and hence have the least responsibility to address it. This therefore raises the question: to what extent does the introduction of IAPAL impose an unfair economic burden on LDCs?

However, this leaves open the issue of whether the inclusion of developing country passengers in IAPAL has a detrimental effect on developing country economies. It is difficult to answer this question without recourse to economic modelling, and even then the answer is not always as clear and reliable as one might wish.

There is, however, a simple solution to ensure ‘no-net-incidence’ for developing countries: the revenue collected from the levy on ticket sales in developing countries could remain in the country, to be used for domestic adaptation purposes. Only the revenue accruing from ticket sales in developed countries could flow through the chosen multilateral channel. This is an issue for the negotiations.

b) Impacts on tourism in developing countries

Existing economic analyses of the potential impacts of IAPAL on the aviation and tourism industries and on passenger welfare are very clear. When the key economic and practical considerations are taken into account, there are no major demand or distortionary concerns with IAPAL, at least when compared to similar instruments such as the French Solidarity Levy or the UK’s Air Passenger Duty.14

LDCs are concerned about the specific potential impacts that the levy could have on developing countries depending on tourism, and the morality of making passengers from developing countries pay for adaptation. A slight concern about the effectiveness of IAPAL in changing travel behaviour is not an issue for this instrument, as it is not intended to change behaviour but rather to generate adaptation funds from an activity that is directly responsible for climate change. IAPAL is therefore not designed to be a substitute for other mitigation initiatives.

Many Small Island Developing States (SIDS) are particularly vulnerable to the adverse impacts of climate change, and at the same time highly dependent on tourism for economic development and as a major source of employment (see Table 1). The Caribbean, for instance, has the highest dependence on tourism worldwide – the industry contributes 12 per cent to regional GDP, and surpasses 50 per cent GDP in several countries.15

Caribbean country leaders and the local tourism industry are justifiably concerned about upcoming climate change policies for the aviation sector, as they may lead to a decline in air passengers visiting the region. However, a recent study based on economic modelling shows that IAPAL would have an insignificant impact on passengers travelling to the Caribbean. In fact, according to the study, these countries will benefit from the additional funds generated for climate change adaptation by IAPAL (€ 2.0 to 2.15 billion per year).16

The impacts on the number of tourist arrivals to LDCs will be almost nonexistent, since the majority of passengers are taking long distance flights that originate in developed countries, characterized by very low price elasticity.17 For instance, the number of tourists travelling to Africa and South Asia between 1996 and 2006 rose 6 and 6.6 percent per year respectively, regardless of the fact that oil prices significantly rose during the same period.

Table 1: Greatest direct (relative) contribution of travel and tourism to GDP\textsuperscript{18}

<table>
<thead>
<tr>
<th>Country</th>
<th>% of total GDP, 2011</th>
<th>% of total GDP, 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macau</td>
<td>38.8</td>
<td>37.9</td>
</tr>
<tr>
<td>Maldives</td>
<td>30.8</td>
<td>37.9</td>
</tr>
<tr>
<td>Aruba</td>
<td>23.2</td>
<td>21.6</td>
</tr>
<tr>
<td>Seychelles</td>
<td>23.0</td>
<td>23.9</td>
</tr>
<tr>
<td>Anguilla</td>
<td>22.7</td>
<td>23.9</td>
</tr>
<tr>
<td>Bahamas</td>
<td>21.7</td>
<td>22.6</td>
</tr>
</tbody>
</table>

International passenger travel is expected to increase despite increases in costs associated with rising oil prices and other factors.\textsuperscript{19} IAPAL is just one of several factors that will contribute to air travel costs. On its own, it is unlikely to significantly alter travel patterns.

5. Lessons from similar instruments

Several European countries already have an air passenger tax in place – including France, the UK, Ireland, Denmark, Malta, Germany and Austria (see Table 2).\textsuperscript{20} The experiences of earlier initiatives provide useful learning for IAPAL, especially with respect to their impacts on tourist arrivals in developing countries.

The French Solidarity Levy is the closest to what is being proposed under the IAPAL – it is implemented internationally, targets individuals, and raises funds for a global cause. The size of the levy is also similar to that proposed for IAPAL.

The levy was put in place in 2006, and targets passengers from all nationalities using domestic and international flights taking off from French territory. The amount varies according to flight distance and travel class. For routes within the European region, economy class passengers pay a levy of €1, while business and first class passengers pay €10. For international routes, they pay €4 and €40 respectively.

Funds raised from the levy are transferred to UNITAID, an international drug purchase facility established in 2006 by Brazil, France, Chile, Norway and the UK. UNITAID promotes measures to combat pandemic diseases in developing countries, such as malaria and tuberculosis, as well as long-term access to anti-retroviral drugs for treating HIV/AIDS patients.\textsuperscript{21} It was initially estimated that an additional amount of €200 million


could be collected to finance development projects. So far, 11 countries (Cameroun, Chile, Congo, France, Madagascar, Mali, Mauritius, Niger, Republic of Korea, Norway and the UK) have implemented the solidarity levy, all of which account for 70 per cent of UNITAID’s annual financial resources of €180 million.

### Table 2: Airline levies in Europe

<table>
<thead>
<tr>
<th>Country</th>
<th>Levy amount (US$ equivalent)</th>
<th>Revenue use</th>
<th>Status</th>
<th>Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>19-135 for economy class, depending distance 38-271 for premium, depending distance</td>
<td>Domestic</td>
<td>Operational</td>
<td>None</td>
</tr>
<tr>
<td>France</td>
<td>6 for economy 62 for premium class</td>
<td>Poor countries</td>
<td>Operational</td>
<td>None</td>
</tr>
<tr>
<td>Germany</td>
<td>10-61, depending on flight distance</td>
<td>Domestic</td>
<td>Operational</td>
<td>Opposition from aviation industry</td>
</tr>
<tr>
<td>Ireland</td>
<td>4</td>
<td>Domestic</td>
<td>Operational</td>
<td>None</td>
</tr>
<tr>
<td>Malta</td>
<td>16</td>
<td>Domestic</td>
<td>Stopped</td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
<td>Not available</td>
<td>Domestic</td>
<td>Stopped</td>
<td>Competition from Swedish airports</td>
</tr>
<tr>
<td>Netherlands</td>
<td>15 European flights 61 Long haul flights</td>
<td>Domestic</td>
<td>Stopped</td>
<td>Competition from neighboring countries</td>
</tr>
<tr>
<td>Sweden</td>
<td>Not available</td>
<td>Domestic</td>
<td>Under consideration</td>
<td>No information</td>
</tr>
<tr>
<td>Belgium</td>
<td>Not available</td>
<td>No information</td>
<td>Under consideration</td>
<td>No information</td>
</tr>
</tbody>
</table>

According to a report by the French Ministry of Foreign Affairs, the levy is easy to implement, fair, has minor economic consequences, and ensures predictable and stable generation of funds. Passenger arrivals in developing countries have not significantly declined since the introduction of the levy primarily due to its low amount, compared to

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overall holiday expenditures. For instance, air passenger arrival figures in Malta have remained stable even after its air ticket levy was doubled to €46 in 2004.24

The main challenge to the French Solidarity Levy has been its inability to achieve its target. For the year 2009, the anticipated revenue was not achieved by the French Solidarity levy, leaving a deficit of €40 million. This could be because not all countries are collecting the levy. Other countries in Europe that have applied flight levies have faced the following challenges:

- Problems of passengers moving to airports in neighboring countries, as the levy is not comprehensively applied on an international scale but only in single countries. This is mostly because the levy is applied selectively and, in a region like the European Union, passengers can easily use nearby airports in neighboring countries that do not apply the levy.25 This would not be the case with a universal levy, applied in all countries.

- The German Aviation Tax has faced more public resistance than the French Solidarity Levy. This could be because of the charitable purpose of the French levy – in comparison to the German Aviation Tax, which is solely applied to alleviate the deficit in the national budget.26

- Economic impacts on developing countries have not been observed as a result of the various levies, and no concerns have been raised by developing countries.

6. Future options

IAPAL is an example of an innovative instrument for raising adaptation funding that is new and additional to traditional flows of bilateral funding for adaptation. Given its nature, the revenue will not be subject to the problems of bilateral replenishment, and it will be predictable, given the stability of the airline sector.

Understandably, however, many poor and vulnerable countries that rely heavily on air passengers in their development aspirations are worried about the impact of the proposed aviation levy on their economic development. However, the potential benefits of IAPAL for countries reliant on tourism are likely to outweigh the costs of slightly reduced tourist numbers. International passenger forecasts show that the most important international destinations in terms of volume are developed countries (see Table 3). This means that the highest contributions to IAPAL would be from passengers travelling to developed countries, rather than to LDCs. Moreover, the levy is unlikely to impact airline businesses, as it will be borne by passengers directly, and as the cost of collection is reimbursed to the airlines.

The application of the levy in several countries has not led to recorded impacts in developing countries. Several developed countries like Germany and the UK already have similar levies in place for international passengers irrespective of their destinations, and are benefitting domestically. The only difference is that the IAPAL revenues are intended for a global cause, in countries that are affected by climate change.

Similar mechanisms, to address global causes, have been implemented successfully – some with the participation of LDCs. The French Solidarity Levy in particular, has had minimum implementation challenges, and has successfully delivered significant funds that have benefited those in need.

If international passengers from LDCs with the ability to pay are willing to show solidarity with those who are most vulnerable to climate change within their own countries, LDCs could show that they are part of the adaptation solution. If developed countries do not pay for all adaptation costs (and this is a strong possibility given the flow of adaptation funds so far), there will still be an adaptation finance shortfall. Unless this is delivered through innovative mechanisms such as IAPAL, LDCs will by default still pay for adaptation, with the burden falling mostly on the most vulnerable.

The progression of IAPAL in the negotiations is entirely in the hands of the LDCs, as it benefits them most. Opposition is to be expected, especially from the developed country aviation industry. The following options and possible fallouts are available for LDCs:

**Option 1**: Discard IAPAL (and potentially similar innovative financing mechanisms because they ask LDCs to pay for adaptation – no perceived losses to LDCs, and no net gain from potential sources of finance).

**Option 2**: Adopt IAPAL as it is and maximize on revenues (LDCs gain vast funding injection, but potential (perceived) losses to some countries (magnitude not proven).

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**Option 3:** Modify IAPAL, so the levy is collected only in developed countries and the LDCs do not pay (net loss to LDCs, and possible loss of some implementation momentum and control).

**Option 4:** Modify IAPAL so that the levy collected in LDCs is used in the country of collection, while the levy collected in developed countries is put into an international adaptation fund accessed by LDCs (net gain to LDCs, but need to ensure revenue collected in LDCs goes to adaptation).

If the LDCs choose to support IAPAL, they have an opening in the submission by the G77 and China for a *Financial Mechanism for Meeting Financial Commitments under the Convention.* Although the proposal does not mention specific revenue-raising instruments, it does specify a number of requirements for funding to be counted towards UNFCCC Article 4.3 commitments: “The main source of funding will be through the implementation of commitments under Article 4.3. The funding will be new and additional financial resources, which is over and above ODA.”

In any case, it is important that a decision by the LDCs is based on credible analysis, with good reasons for taking it forward or dropping it, as it could set a very important precedent for other innovative financing mechanisms. It is proposed that the deliberations on this mechanism be informed by short and long term research.

Short term research could focus on the willingness of international passengers travelling to and from developing countries to pay, similar to a study done at Schiphol Airport in 2007; achieving clarity on the legal status of international solidarity levies, and how they differ from airport taxes; and on ways of balancing the negative effects of IAPAL on developing countries.

Longer-term research could focus on a quantification of the extent to which developing countries will end up paying for climate change through mechanisms such as IAPAL; and LDC-focussed innovative funding options and their implications on LDC welfare.

The research process will need to be supported by facilitated discussions among LDCs to find the best way to implement IAPAL and similar mechanisms. These discussions will enable LDCs to be at the forefront of adaptation financing rather than simply being recipients, as is the case at the moment.

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28 FCCC/AWGLCA/2008/MISC.2/Add.1; pp.35ff