



Comments upon the Consultation Paper on Air Transport and Environment

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INTRODUCTION

This paper consists of three chapters. In the first chapter, T&E gives its general comments to the consultation paper on Air-Transport and Environment. In the second chapter, T&E gives its comments to each of the six action areas. In each area, the comments on the policy options comes first, and then the explanation of the choice for this comment, combined with the comments on the part describing the situation and the assessment. At the end of this paper, in chapter 3, comments have been made on the introduction of the consultation paper.

1) GENERAL COMMENTS

T&E welcomes the open procedure

T&E would like to welcome the Commission's initiative to engage in a more open approach to policy making in the field of air transport and the environment. This could be an example for policy makers at the national level.

There has been misunderstanding in many transport related national ministries on their job description, where actors working on behalf of the general public in the transport ministries were convinced -wrongly, we know now- that they were promoting general interest best by promoting the growth of aviation. Recent years have shown the development of a new insight, where the negative environmental consequences of the unlimited growth has its priority place. The search for an optimal development for the aviation sector, that guarantees an equal contribution of the aviation sector to an ecological sustainable development, has begun. T&E welcomes the fact that environmental organisations have been invited to take their place in this process. The Commission has shown that it is willing to engage in a policy process aimed at reconciling the economic benefits of aviation and the environment.

T&E advocates objective and integration approach

T&E's work covers all modes of transport: road, rail, shipping, aviation, public as well as private, person transport and goods transport. In all these sectors we stimulate an ecologically sustainable development. Environmental targets and goals, policy plans, internalisation of the external costs, abandonment of environmentally counterproductive (hidden) subsidies and optimising of transport flows (rather than maximising them) are all part of the policy development that T&E advocates in all these sectors.

The aviation sector shows a very old-fashioned and counterproductive attitude in the environmental debate. Problem denial, low transparency and even secretive behaviour, putting the responsibility with other sectors (it's them, not us), challenging the mandate of authorities to act on behalf of the general interest, all this brings back memories of 20-25 years ago, when other sectors like (car)manufacturers, agriculture, or the energy producers went through their denial-phase.

The aviation industry is characterised by a high degree of organisation and very low transparency. T&E seeks from the Commission an objective approach. Most data, be it on the economic or the environmental performance of the sector, stems from the industry. It is not necessarily only the suspicious person who would see that these

data might be biased by the interest of the industry. There is a need for the Commission to ensure that objective data is being used for policy making. Ensuring that the industry gives objective, verifiable data and organising counter-expertise, both in the Commission and in the scientific and environmental communities is therefore a challenge that the European Commission faces.

T&E strongly advocates an integration approach in this sector, as specified in the Amsterdam treaty, and reiterated by the Cardiff Council. Not only is there a need for new developments in the area of environmental policy geared towards the aviation sector, there is also an urgent need for an understanding of the environmental consequences of general aviation policies in place today. Liberalisation, national and EU-subsidy policies, (hidden) tax benefits, etc., have their impact on increased environmental impacts of aviation. Understanding the environmental consequences of seeking growth of the aviation sector needs to be enhanced. It is necessary to understand how policy developments both with and external to the transport field will impact the growth of aviation and its impact on the environment.

The urgent need for quick policy action

The precautionary principle should be applied to the developments in the aviation industry making it imperative that policy action is taken now. The characteristics that warrant the application of the precautionary principle are:

- 1) the rapid growth of the aviation sector and its environmental impact,
- 2) the current understanding that technical measures will by far not be sufficient to ensure a sustainable ecological development of the sector and
- 3) the tremendous long times taken for alleviating techniques find their way into the fleet.

These three specific characteristics of the aviation sector, combined with the apparent unwillingness of the sector to take its own responsibility in an sufficient way -going beyond green window dressing- comprise the necessity for the European Commission to come forwards with policy actions. No action now would mean that our generation would benefit then pass the problems of aviation on to our children and grand-children.

T&E is of the opinion that the European Community and thus the Commission should go beyond noticing policy-options in a communication. What is needed is a comprehensive policy-plan (e.g. a white paper) that will result in a change towards an ecologically sustainable development for the aviation sector.

Two additional policy options.

T&E has identified two additional policy option, which were not mentioned in the consultation paper. They can be integrated in the existing actions, or be taken as separate action areas.

The first T&E suggestion for an additional action area is a "**monitoring program**".

There is a need to know the facts. T&E proposes that a “monitoring program” should be put in place. Every (second ?) year a report should be made of the environment impact of the European aviation sector. The report should be produced by an independent body such as the European Environment Agency in Copenhagen. Issues like the contribution to the global environmental problems, to regional and local problems, the amount of European citizens suffering from aviation related noise disturbance, etc. should be described. T&E advocates a pragmatic approach, where the first report might identify more topics that should be subsequently covered. The next reports can then give these data. Information should be contained on the results of existing and new policies (or the lack thereof). The aim of the yearly reports should be that it helps decision makers with a state of the art report on the current situation, and the results of policies, so that they can decide on new policies. Special attention should be given to the quality of the data provided by the industry.

The second policy option is the need to **ban all environmentally counterproductive grants, subsidies and tax-exemptions.**

In a system where on most goods and services VAT has to be paid, it is obvious that a service on which no VAT is being levied, has a lower price. This service will attract an economically sub-optimal high demand. The same holds true for (hidden) subsidies and tax exemptions. T&E welcomed the decision to end the sale on duty-free goods as an environmental beneficial policy measure.¹ T&E ask the Commission to introduce measures that ban all environmental counterproductive grants, subsidies and tax exemptions. This will end the distortion among modes of transport, and bring the development of the aviation sector closer to its optimal level. The overall macro-economic result will be positive especially when the revenues are used by member states to increase the environmental performance of all sectors, or to alleviate the fiscal burden labour places on enterprises.

2) COMMENTS PER ACTION AREA

In the next section T&E gives its comments to each of the six action areas. In each area, the comments on the policy options comes first, and than the explanation of the choice for this comment, combined with the comments on the part describing the situation and the assessment. At the end of this paper, we present our comments on the introduction of the consultation paper.

Action area 1 Binding technical emission standards

Policy options

- The European Community should consider ICAO in first instance as the most appropriate body for setting certification standards in the field of air transport and environment on a global scale. The European Community should actively stimulate member states to pursue a progressive environmental policy in ICAO (especially addressing cruise-phase emissions and global environmental problems) and co-ordinate efforts in

this respect. The European Community recognises however Member State's and its own responsibility towards its citizens. In case of insufficient progress at the ICAO level, the European Community and its member states should accept their responsibility and develop a policy that will drive the sector towards ecological sustainability.

- As a matter of priority the European Community should find ways for a more effective and progressive representation of its interest in an ecologically sustainable development of the aviation sector within ICAO and other relevant UN-bodies. The European Commission should make proposals serving this goal, which should include the establishment of an advisory body, made up of representatives of the ministries of environment, transport, and finance/economics. This body could advise the Commission on effective and efficient policy instruments at the EU and the global level that will ensure an ecologically sustainable development of the aviation sector.
- The Commission should develop an EU wide aviation policy, including time-paths, noise- and emission-reduction targets geared towards achieving an ecological sustainable development of the aviation sector.
- The European Community should actively develop instruments to reduce global and local emissions and actively participate in the forthcoming work programme on more stringent noise policies and rules. Furthermore it will be necessary to develop a clear position on the introduction of these policies at regional (Community) level in order to contribute to an ecological sustainable development of the aviation sector. There must be allowance for some flexibility in order to cater for specific European requirements.
- The Commission should, as a matter of priority, put forwards proposals that guarantee the EU citizens the right to an 8 hour night sleep, and prevents the possibility of unfair and undesired competition between (local) airports at the expense of the neighbours of the airports.
- The European Community should develop genuine European standards and policies in the field where progress required for achieving an ecological sustainable development (including meeting environmental goals) cannot be achieved sufficiently at international level.
- The European Community should study the advantages and disadvantages of complementary standards, in particular in fields where their implementation could help to "trade" the environmental capacity at an individual airport against more stringent European standards (noise). In this study, special attention should be given to the position of "neighbours" around airports suffering from noise, and their ability (content and capacity wise) to "defend" their interest in this "trading" process.

Situation and assessment

T&E agrees with the assessment that ICAO is a very slow moving body. Also, it is unclear yet whether ICAO is the appropriate body for setting environmental goals. It is more appropriate for ICAO to develop policies and measures that aim to achieve environmental objectives set in other fora. We also concur with the other assessments made of ICAO. T&E therefore proposes some changes in the policy measures that reflects

1. the agreement that on world-wide, technical standards, ICAO remains the most appropriate body.
2. The URGENT need for the European Community to go beyond that. Because of the analyses as described in the assessment, but also because in densely populated areas like (most parts of) Europe, stricter rules are needed.

Action area 2 Economic instruments

Policy options (economic instruments)

- As a matter of utmost priority, the Commission should, based on the - forthcoming- study on kerosene-tax, on the feasibility study “A European Environmental Aviation Charge” and other relevant studies, make the appropriate proposals to introduce -in a mix with other policy tools- economic instruments (e.g. en-route emission charge or kerosene-tax) in the EU that will ensure an ecological sustainable development of the aviation sector.
- The Commissions should actively stimulate member states to introduce an LTO-related emission charge, based on “the polluter pays” principle and the internalisation of external (environmental) costs.
- In parallel, efforts should continue to reach consensus at ICAO-level on the introduction on a global level of economic instruments (taxes/charges/trading systems) targeting the environmental impact of aviation (including greenhouse gas emissions)
- The Commission will initiate and stimulate policy related research in the field of economic instruments such as trading emission rights, as described in action area 5.

Situation and assessment

T&E agrees with most of the observations of the Commission.

Several remarks:

Concerning VAT: Although T&E agrees that VAT is a general consumption tax for revenue raising purposes and it is not a particularly effective instrument for pursuing non fiscal goals, it can be very useful to steer developments in a more general way². The fact that aviation does not pay VAT gives aviation an advantage over other modes that is undesirable, especially -but not exclusively- from an environmental point of view. Tax exemptions (VAT or excise duties) DO HAVE SERIOUS environmental consequences.

T&E would like to draw the Commissions attention closer to the study "A European Environmental Aviation Charge" which looked at several policy option for introducing an environmental aviation charge as a cost effective instrument to reduce emissions. It identifies an en-route emission charge as a practical, effective and juridically uncomplicated alternative for a kerosene tax. T&E therefore requests the Commission to introduce such a charge in the near future. It does not have the juridical complications that a kerosene tax has³. The trends indicate a need for urgent policy action⁴. Also, it can be levied on all carriers, including those from third countries, and it will not cause economic distortions stemming from an unilateral European approach⁵.

The abolition of the exemption of kerosene taxation⁶ -or the introduction of an equivalent en-route emission charge- WILL give incentives for using more fuel efficient engines and aeroplanes. The study "A European Environmental Aviation Charge" shows that a kerosene tax of 0,20\$/litre (the minimum excise duty on diesel is 0,29 \$/l) would reduce air-pollution by around 30 % in the long run, compared with current growth trends to 2025.

The biggest impact of the introduction of a tax, or a charge, will be on the technical and operational improvements ! Only a small part of the reaction to the tax/charge will be in reduced growth. Fewer passengers and less freight are only economically efficient in so far that the associated costs are lower than the marginal costs of other types of abatement (technical and operational measures). In other words: reduced growth in air traffic only occurs in as far as it offers a cost-effective contribution to less pollution.⁷

Specific emission charges have many advantages. A system for all carriers where the LTO-cycle emissions gets charged via nationally levied airport-charges combined with a European charge system (e.g. en-route charges) for cruise emissions would cover all emissions. T&E advocates a pragmatic approach to the question of how to calculate emissions. This would mean a swift introduction of a European Charging system which incorporates as the first phase in which the charge is based on the use of existing data and estimates and in a second phase a fine-tuning of the calculating system. This will speed up the introduction of the charge dramatically, without unnecessary disadvantages, as the existing data and calculations are state of the art. Any system can be improved upon, but T&E is of the opinion that the need for a rapid introduction of a European Environmental Aviation Charge outweighs the need for a further meticulous fine-tuned calculating system.

Action area 3 Environmental provisions in the regulatory framework

Policy Options (Regulatory measures)

- The Commission should, by means of establishing interpretative guidelines and the initialisation of an explanative process which brings together experts from the ministries of environment and transport from all member states, clarify the meaning of existing rules in the Community regulatory framework targeting the environmental impact of air transport. In this context, the application scope of article 8 and 9 of council regulation 2408/92 and its interrelationship with Council Regulation 95/93 will have to be explained.
- The Commission will need to carry out a preliminary Strategic Environmental Impact assessment describing the environmental consequences of existing policies and plans both at European Community-level (e.g. liberalisation, non-existence of taxes and V.A.T. which causes sub-optimal competition distortion towards other modes, subsidies for the aviation sector, -e.g. research etc.) and on the aggregated level of the combined member states (national support policies, expansion plans for airports, etc.).
- Based on the result the Commission will - as required by the Amsterdam Treaty and the Cardiff Council- make appropriate proposals to ensure the integration of environmental considerations in -the formulation of- these policies and plans.
- The Commission should present proposals for developing further the environmental provisions of the regulatory framework in order to allow, under community guidance, for effective interventions.

Situation and assessment

T&E believes that it would be very beneficial for the purpose of policy making to have more understanding of the interrelationship between several national and European policy strands. Therefore we advise the Commission to carry out a preliminary Strategic Environmental Impact assessment describing the environmental consequences of existing policies and plans both on European Community-level (e.g. liberalisation, non-existence of taxes and V.A.T. which causes sub-optimal competition distortion towards other modes, subsidies for the aviation sector, -e.g. research etc.) and on the aggregated level of the combined member states (national support policies, expansion plans for airports, etc.).

Based on the result the Commission should make the appropriate proposals to ensure the integration of environmental considerations in -the formulation of- these policies.

Action area 4 Community Framework for local environmental measures*policy options (local environmental measures)*

- The Commission should establish a common noise measurement index, a methodology for noise calculation, guidance on what should be a suitable target, and envisage such a harmonised basis (common bench marking), a voluntary target-setting system and creation of a regular exchange of views and experience.
- In doing this, the Commission should ensure that specific elements are included, such as population density around airports, specific characteristics of aviation noise disturbance (subjective perception by the human ear, peak noise disturbance (-vs. continued background exposure), special provisions for recreation- and protected areas etc.)
- As a matter of priority, the Commission should put forwards proposals that guarantee the EU citizens the right to an 8 hour night sleep, and prevents the possibility of unfair and undesired competition between (local) airports at the expense of necessary sleep of the European citizens that are the neighbours of the airports.
- The Commissions should study the advantages and disadvantages of the establishment of common rules for proper consultation on operational rules targeting the environmental impact, the criteria to be used and the framework for the negotiation of agreements between operators, airports and airport neighbours on the terms and duration of operational restrictions. Such a study should answer the question of whether a framework could foresee the possibility to negotiate voluntary agreements going beyond binding minimum rules as a counterpart for easing operating restrictions and/or for agreement on infrastructure extension as well as minimum requirements for land-use planning to be implemented by the competent authorities. Special attention will be paid to the position of the neighbours of airports.

- The European Community should add the existence of proper land-use rules to the list of eligibility criteria for support from Community financial instruments (including EIB loans) for the extension (construction) of airports

Situation and assessment

T&E strongly disagrees with the Commission when it claims that " Any Community framework, however, could not primarily aim at establishing a uniform approach to operating restrictions such as night-flight curfews across the Community."

Given the existing situation where millions of European citizens suffer from disturbances of their natural sleeping rhythm and the accompanying health problems, and the fact that local authorities are in a "prisoners dilemma"⁸, there is a need and an obligation for European Community involvement, under the subsidiarity principle. The only (!) policy level which can prevent local authorities being forced to compete with night-flights among each other, at the expense of the health and sanity of their citizens, is the European Community -level. This is a clear situation where policy making can best take place at the European Community level ! Therefore we urge the Commission to introduce a European Community framework, which gives all European Community citizens an 8-hour night -sleep. The framework can take into account the different situations in different airports.

The establishment of a common noise measurement index can be useful.

Any system will have to take into account;

- the position of the population which is particularly sensitive to noise,
- the subjective quality of noise perception,
- the specificity of aviation related noise characteristics(e.g. peak-values vs. background values)
- the need to identify rules regarding specific areas (e.g. sanctuaries with breeding birds or recreation areas, where the frequency of the disturbance is much more important than the loudness of the related noise, a separate norm should perhaps be developed for these areas)
- etc.

On the establishment of common rules for proper consultation , T&E advocates that you conduct a thorough study into the advantages and disadvantages of such a framework. The study should especially answer the question of whether the citizens concerned can be expected to build up a satisfying negotiation position (both capacity-wise as well as content-wise) sufficient to defend their interest in this negotiating process. For the time being, T&E has its doubts on the equality between the negotiating parties and expresses its reservations against this proposal.

Action area 5 Research and development

Policy options (Research and development)

- Research should continue to determine further the actual impact of aircraft emissions on the environment, to further underpin the urgent needed prioritised aviation emission targets, and the Community initiatives at the global and EU-level.
- The Commission will widen the criteria for research to include policy research in the area of aviation and the environment and will take initiatives for studies in this area. As a matter of priority, the Commission will undertake a policy research to support the introduction of economic instruments (en-route emission charge, kerosene-tax etc.) in the EU by 2000.
- The establishment of the feasibility of technological development to reduce emissions to achieve the prioritised global targets should continue, and contribute to Community initiatives to establish specific emission targets at the ICAO or regional level.
- Shorter-term research projects should be pursued to minimise current environmental impact. Results should be used to support Community and/or local policies.

Situation and assessment

Although T&E agrees that Research and Development should continue to determine the actual impact of aircraft emissions, we underline the need for action under the precautionary principle. Also we reiterate the need for European Community wide action, based on the European Community 's own responsibility towards its citizens.

We advocate the widening of research programs to policy oriented research, which should assist policy makers in their work. The European Commission should actively initiate and support this type of research. Research might include a scheme for the implementation of a European Environmental aviation charge by 2000, a scheme for tradable noise emission permits, a European emission calculation standard, a preliminary strategic environmental impact assessment, the criteria for a full Strategic Environmental impact assessment, etc.

Action area 6 Voluntary environmental agreements and other market-oriented instruments

Policy options (Environmental Agreements)

- While voluntary agreements should not take the place of other enforceable policy instruments, the Commission should, in close co-operation with the industry and the environmental organisations concerned, examine options to promote and facilitate the establishment of voluntary environmental agreements targeting a self-commitment of the air transport industry in relation to the achievement of key objectives. This endeavour should not delay the development of other policy measures.
- The Commission should establish a policy, via guideline or regulation, to ensure better information to consumers on the environmental performance of alternative (air)travel options. These policy measures might include the obligation for air-lines to make their environmental performance

transparent and accessible for the general public, the establishment of a “green” label (or a black star-rating) scheme, obligatory pre-sale (in the travel agency) and ticket information on the environmental performance of the chosen flight.

Situation and assessment

The Commissions notes that "In a number of other industry sectors the conclusion of environmental agreements in conformity with the criteria set out in the communication COM(96)561 has proven to be a successful alternative to prescriptive standards reconciling the need for flexibility within the industry with tangible improvements of the overall environmental performance."

However, T&E would like to caution the Commission, for several reasons:

1. There is conflicting evidence on the results of environmental agreements; The results of environmental agreements are heavily debated, and are generally quite poor (with some exceptions notably in the Netherlands which is a special situation). For example a European Environment Agency Report on environmental agreements⁹ concluded that *“in most cases it was not possible to make a quantitative assessment of the environmental effectiveness of the agreements due to the lack of reliable monitoring data and consistent monitoring”*. In a report Commissioned by the German Federal Ministry of Economics the Zentrum für Europäische Wirtschaftsforschung (ZEW) described the (then) Government’s preference for LTAs as *“counterproductive”* and *“unlikely to produce results that go beyond what industry would have done in any case”*.¹⁰
2. Secondly, the development of a long term agreement requires a degree of environmental commitment and awareness. As we have concluded in our introduction, it has been T&E observation -which has been confirmed over and over again, over the last years- that the aviation industry clearly does not fulfil this prerequisite .
3. Based on the reviews to-date a clear picture of what needs to be built into any agreement has emerged. The following criteria are taken from a paper by the Centre For European Policy Studies¹¹, but are common to much of the literature;
 - Enforcement of targets for example by fines and/or fall-back policy instruments.
 - Transparency
 - Involvement of legislature e.g. European Parliament
 - Quantified and staged goals
 - Compatibility with other instruments - i.e. LTAs should be used as part of a ‘package’
 - Avoid distortions to the market
 - Monitoring with independent verification

T&E is of the opinion that the Commission should be very careful in engaging in this instrument, at this moment in time, with this sector.

T&E would like to point out that early involvement of all interested parties, including environmental organisations would be beneficial, were the Commission to engage in this policy path.

T&E welcomes all initiatives of the Commissions to ensure the possibilities for travellers to make their own, well informed choice !

3) COMMENTS ON THE INTRODUCTION OF THE CONSULTATION PAPER.

Aviation probably is the primary mode for the intercontinental passenger travel, but probably not for intercontinental good transport, nor for international transport of passengers and goods. Every sector has direct, indirect and induced job creation. T&E has no knowledge of any independent scientific study (not based upon the data from, done by or paid by the aviation industry) on the performance of the aviation industry in this respect. There is a very large grey area where indirect and induced job-creation of one sector overlaps with an other sector. If we were to take the aggregated claims of the different sectors serious, that would not only mean that there would be no unemployment in the EU anymore, but also there would be millions and millions of vacancies on top of that!

T&E would like to urge the Commission to put forward a policy paper that has a more policy stimulating result than a communication. As noted before, there is an urgent need for action, and this should be reflected by the policy paper of the Commission, e.g. by the publication of a white paper, with policy targets and time-frames.

With respect to the Commissions invitation to reflect upon the Commissions initial assessment of the effectiveness of existing policy measures, T&E expected from the Commission, in a policy paper on transport and the environment, a much more elaborated analyses and background on the extent and the nature of the environmental impact of the aviation sector, now and in the future. It is imperative that policy-makers realise that e.g. also the special claims by aviation (through infrastructure and through noise-intrusion) are a problem. The way in which NO_x and water vapour might contribute to global warming; the fact that each kilo CO₂ emitted is accompanied by these substances, so that the total Radiative Forcing Index is 2,7. In other words, aircraft induced climate change is 2,7 times greater than expected from emissions of CO₂ alone.

The fact that -even with the daring assumption that the technical improvements will continue to be introduced in the fleet as they have been- the emissions are expected to triple by 2015, as compared to 1990. Etcetera, etcetera..

The analyses in the Commissions recent communication on transport and CO₂ are in this respect insufficient to say the least.

T&E expects from the Commission that this kind of state-of-the-art insights, e.g. as they are being discussed in the IPCC, will feature in the policy paper on air-transport and the environment.

The present regulatory system is not at all (!!) capable of reconciling air-transport and the environment. The Commission initiative for stricter NO_x engine would have resulted in a reduction of NO_x emissions by 2015 of 2% of the growth. That growth is estimated to be 300%. A new policy-mix is needed!

Like energy, all transport (including air-transport) can and should be considered a cost. A cost for producers and consumers in order to get the product from producer to consumer. Therefore, like we strive in energy for energy-reduction, we should strive in transport for transport-prevention. The same level of GDP, with less transport. Optimising the level of transport in our economy, not maximizing it, that should be the goal.

Although the Commission does not seek advice in relation to the question how to ensure an appropriate cross-sectoral balance of contributions to an improvement of the global (and local) environmental impact of different economic and social activities, this is an important issue for T&E, as we have stated in the introduction. It is sufficient to state here that we expect an adequate contribution of all sectors, including the aviation sector.

4) EPILOGUE

T&E was happy to provide these comments, and hopes that they can contribute to a balanced and energetic development of European environmental policy for the aviation sector. We wish the Commission wisdom and success in the next steps of this process, and look forward to the opportunity to discuss these comments with the Commission in the next months.

Footnotes and further reading

¹ Ending Duty-Free sales: benefiting the economy and the environment, The view of the European Federation for Transport and Environment (T&E), Public Hearing on Duty-free sales in the EU at the European Parliament, Brussels, 29 October 1997.

² An example of positive use of the VAT-"instrument" is a scheme that would favour biological farming. One can imagine that the same amount of revenues could be generated with a scheme that has a flat rate for all farming, or a scheme with a little lower VAT-percentage for organic farming, and a bit higher VAT rate for standard farming. The result in revenue would be the same, but in the differentiated system V.A.T. would have a double dividend; next to revenue-raising, it would also steer developments in a favorable way. In order to maintain a stable income, the VAT-schemes of course would have to be revised, e.g. every 5 years.

For more information on EFFICIENCY EFFECTS OF CHANGES IN TAXES AND DUTIES can be found in "Policies for a better environment and high employment", an English summary of the Norwegian Green Tax Commission, Oslo, Norway, 1996, pages 62 -

³ A European Environmental aviation charge, feasibility study , Bleijenberg and de Wit, Centre for Energy Conservation and Environmental Technology, Delft, 1998. See Annex D, Legal issues.

⁴ European aviation emissions, trends and attainable reductions, Background study, Dings, Dijkstra and de Wit, Centre for Energy Conservation and Environmental Technology, Delft, 1997.

⁵ Potential economic distortions of a European environmental aviation charge, Background study, Wit and Bleijenberg, Centre for Energy Conservation and Environmental Technology, Delft, 1997

⁶ Relevant in this respect is the fact that the investigators could not convince the commissioning steering committee of the performance of the AERO-model, which is also to be used by the kerosene study team. The operators of the AERO model could not explain the results, and some results seemed implausible. See annex F "RESULTS AND USE OF THE AERO-MODEL FOR THIS STUDY" of "A European Environmental Aviation Charge". (p. 179-189)

⁷ A European Environmental aviation charge, feasibility study , Bleijenberg and de Wit, Centre for Energy Conservation and Environmental Technology, Delft, 1998. See e.g. p. 144

⁸ Prisoner dilemma: The name for a situation where individual optimal choices lead to an overall sub-optimal situation, after the example of two prisoners who individually can improve their individual situation a bit by making a plea bargain, but if they would be able to talk together, they would be able to find a more optimal situation for both of them by denying everything, and thus both being set free by lack of evidence.

⁹ Environmental Agreements, European Environmental Agency, Copenhagen, 1997

¹⁰ Voluntary Agreements in Environmental Protection - Experiences in Germany and Future Perspectives, Zentrum für Europäische Wirtschaftsforschung, March 1997

¹¹10. CEPs Commentary, EU Climate Change Policy on the Road to Kyoto and Beyond, Center for European Policy Studies, October 1997.

About this paper

This paper is in response to a consultation paper on air transport and environment published by the European Commission. It reviews all aspects of the environmental impact the aviation sector has currently, how trends suggest this will increase and approaches that can mitigate against this increase. The paper is structured in three separate chapters. The first gives T&Es general comments on the paper, the second reviews each of the six action areas identified by the Commission and the third comments on the introduction of the consultation paper.

About T&E

The European Federation for Transport and Environment (T&E) is Europe's primary non-governmental organisation campaigning on a Europe-wide level for an environmentally responsible approach to transport. The Federation was founded in 1989 as a European umbrella for organisations working in this field. At present T&E has 32 member organisations covering 19 countries. The members are mostly national organisations, including public transport users' groups, environmental organisations and the European environmental transport associations ('Verkehrsclubs'). These organisations in all have several million individual members. Several transnational organisations are associated members.

T&E closely monitors developments in European transport policy and submits responses on all major papers and proposals from the European Commission. T&E frequently publishes reports on important issues in the field of transport and the environment, and also carries out research projects.

The list of T&E publications in the annex provides a picture of recent T&E activities.

T&E member organisations

Aksjon Naermiljo og Traffikk (Norway)
Associació per la Promoció del Transport Públic (Spain)
Asociación Ecologista de Defensa de la Naturaleza (Spain)
Cesky a Slovenský Dopravní Klub (Czech and Slovak Republics)
Danmarks Naturfredningsforening (Denmark)
Environmental Transport Association (UK)
Estonian Green Movement (Estonia)
Fédération Nationale des Associations d'Usagers de Transports (France)
Gröna Bilister (Sweden)
Groupement des Usagers des Transports Intercommunaux Bruxellois (Belgium)
Komitee Milieu en Mobiliteit (Belgium)
Liikenneliitto (Finland)
Magyar Közlekedési Klub (Hungary)
Norges Naturvernforbund (Norway)
Polish Ecological Club (Poland)

Pro Bahn (Germany)
Pro Bahn Schweiz (Switzerland)
Quercus (Portugal)
Society for Nature Protection and Eco-development (Greece)
Romanian Traffic Club (Romania)
Stichting Natuur en Milieu (Netherlands)
Svenska Naturskyddsföreningen (Sweden)
Transport 2000 (United Kingdom)
Verkehrsclub Deutschland (Germany)
Verkehrsclub Österreich (Austria)
Verkehrsclub der Schweiz (VCS/ATE/ATA) (Switzerland)

Associate members

Alp-Initiative
Birdlife International
Community of European Railways
European Cyclists' Federation
International Union for Public Transport
Worldwide Fund for Nature